Rack & Panel

Rectangular ▪ Miniature ▪ Subminiature ▪ Environmental ▪ Removable Contacts

Table Of Contents

Series	Description	Page
MRAC	Miniature Rectangular Connectors With Removable Contacts	2 – 10
XAC	External Miniature Rectangular Connectors With Removable Contacts	11 – 20
TMRAC	Heavy Duty, Industrial and Commercial, Miniature Rectangular Rack and Panel Connectors With Removable Contacts	21 – 22
TXAC	Heavy Duty, Industrial and Commercial, External Miniature Rectangular Rack and Panel Connector With Removable Contacts	23 – 24
MRA	Miniature Rectangular / #16 Contacts / .062" Dia. / 13 Amps	25 – 33
MRE	Miniature Rectangular / #20 Contacts / .040" Dia. / 7.5 Amps	34 – 43
XMRA and XMRE	External Miniature Rectangular / #16 Contacts / .062" Dia. / 13 Amps #20 Contacts / .040" Dia. / 7.5 Amps	44 – 53
SLE, SME and SRE	Sub Miniature / High Density Rectangular / .025" Dia. / 3 Amps .030" Dia. / 5 Amps ▪ .040" Dia. / 7.5 Amps	54 – 57
SREC	Sub Miniature Rectangular Connector With Removable Contacts	58 – 60
42	Panel Mount Miniature / 22 AWG / .030" Dia. / 5 Amps	61 – 64
SRM	Sub Miniature Rectangular / #20 Contacts / .040" Dia. / 7.5 Amps	65 – 70
PM1	High Voltage, Single Contact / #20 Contacts / .040" Dia. / 7.5 Amps	71
PM6	High Voltage Miniature / #20 Contacts / .040" Dia. / 7.5 Amps	72
SM	Sub Miniature / #20 Contacts / 3 and 7.5 Amps	73 – 74
M	High Voltage Miniature / #20 Contacts / .040" Dia. / 7.5 Amps	75 – 78
JF	Miniature Side Mount / #20 Contacts / .040" Dia. / 7.5 Amps	79 – 81
JFA	Miniature Side Mount / #16 Contacts / .062" Dia. / 13 Amps	82
100	Removable Contacts	83 – 91
107	Tools and Accessories	92 – 93

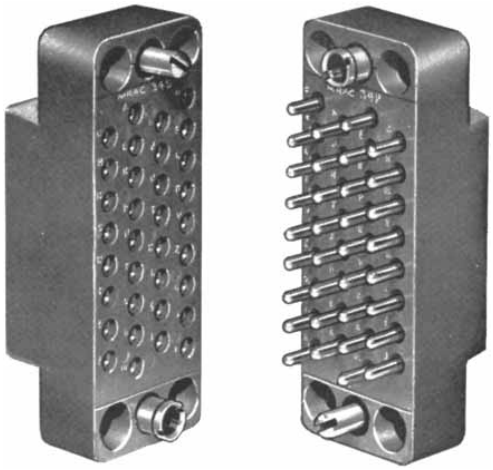
Contact a Winchester Interconnect sales representative for your V.35 Rack & Panel Data Communications Connectors

While the information in this publication is believed to be accurate and reliable, all data presented is subject to change without notice. Winchester Interconnect disclaims responsibility for any damages resulting from application or any incompleteness or inaccuracies in the information presented. Consult factory for specific information on the latest design specifications.

MRAC Series

Miniature Rectangular, Removable Contacts

- Closed Entry Removable Socket and Pin Contacts.
- Connector Inserts with 9 to 104 Contacts.
- Quick Crimp ... Snap in Place!
- To remove ... insert removal tool — "Push Out" Contact!



The MRAC Series is an important extension of the MRA line featuring a variety of crimp and solder removable contact styles. Except for body thickness, they are similar and interchangeable with the MRA Series.

Removable contacts offer a substantial savings of time, labor and a great flexibility in the choice of circuitry. The contact is easily removed with the hand tool depicted and then placed by hand or with a simple insertion tool

Specifications

Current Rating: Up to 13 amps

No. of Contacts: 9, 14, 18, 20, 26, 34, 41, 42, 50, 66, 75, 104

Contacts: Must be ordered separately. Select from crimp, solder, dip solder, shielded or Wire-Wrap termination contacts. See 100 Series contact section.

Contact Identificaiton: Standard contact identification is alphabetical except for MRAC66 and 75 which have numerical identification. To order numerical identification on MRAC 34, 50 or 104, specify MNAC**P or S.

Electrical Data: Meets high potential performance of MIL-C-28748. The dielectric withstanding voltage is one minute electrification at 2000 VAC (sea level).

Dielectric: MRAC Series: Standard glass filled diallyl phthalate, per MIL-M-14, SDG-F, color gray.

Qualification: Military Versions are QPL'd to M28748/3 and M28748/4.

Polarization: Gold plated guides provide positive polarization. Polarized nickel-plated brass and/or passivated stainless steel with anodized aluminum knobs available.

Hoods: Anodized aluminum. May be applied to either plug or receptacle. Both top and side opening hoods available.

Military Cross Reference

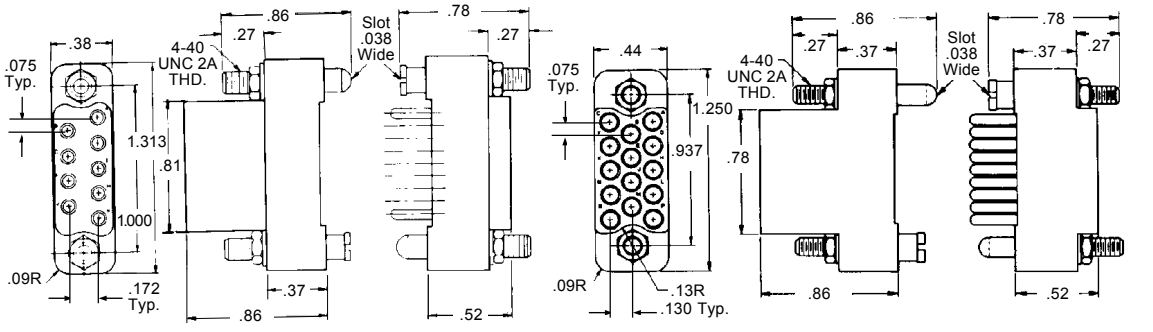
CATALOG NO.		CATALOG NO.	
MRAC 9P	MS 14007-1	MRAC 42P	MS 18180-1
MRAC 9S	MS 14006-1	MRAC 42S	MS 18181-1
MRAC 14P	MS 18174-1	MRAC 50P	MS 18182-1
MRAC 14S	MS 18175-1	MRAC 50S	MS 18183-1
MRAC 20P	MS 18176-1	MRAC 66P	MS 18184-1
MRAC 20S	MS 18177-1	MRAC 66S	MS 18185-1
MRAC 26P	MS 14008-1	MRAC 75P	MS 18187-1
MRAC 26S	MS 14005-1	MRAC 75S	MS 18188-1
MRAC MS34P	MS 18178-1	MRAC 104P	MS 18189-1
MRAC MS34S	MS 18179-1	MRAC 104S	MS 18190-1

Miniature Rectangular, Removable Contacts

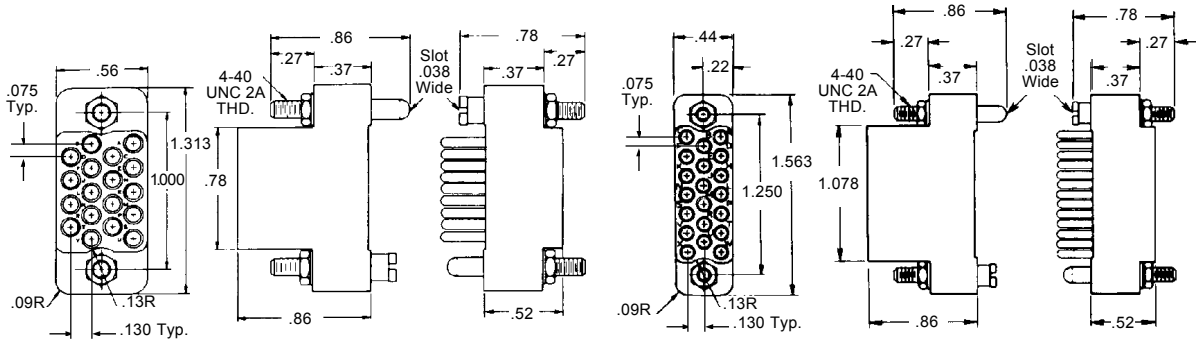
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

Drawings and corresponding part numbers show G type guide sockets. It is recommended that guides be used wherever possible for positive polarization and for protection of contacts except for the MRAC 104 where the jackscrew locking device is recommended.



MRAC 9S-G | MRAC 9P-G | MRAC 14S-G | MRAC 14P-G



MRAC 18S-G | MRAC 18P-G | MRAC 20S-G | MRAC 20P-G

Physical Data

Plug Code No.	Recepticle Code No.	No. of Contacts	Wt. in Ozs. w/o Contacts		Plug Code No.	Recepticle Code No.	No. of Contacts	Wt. in Ozs. w/o Contacts	
			Plug	Rec.				Plug	Rec.
MRAC9P	MRAC9S	9	.15	.17	MRAC41	MRAC41S	41	.5	.7
MRAC14P	MRAC14S	14	.17	.2	MRAC42P	MRAC42S	42	.5	.7
MRAC18P	MRAC18S	18	.17	.2	MRAC50P	MRAC50S	50	.6	.85
MRAC20P	MRAC20S	20	.17	.25	MRAC66P	MRAC66S	66	.7	1.05
MRAC26P	MRAC26S	26	.42	.67	MRAC75P	MRAC75S	75	.9	1.3
MRAC34P	MRAC34S	34	.42	.67	MRAC104P	MRAC104S	104	1.2	1.78

Guide Sockets

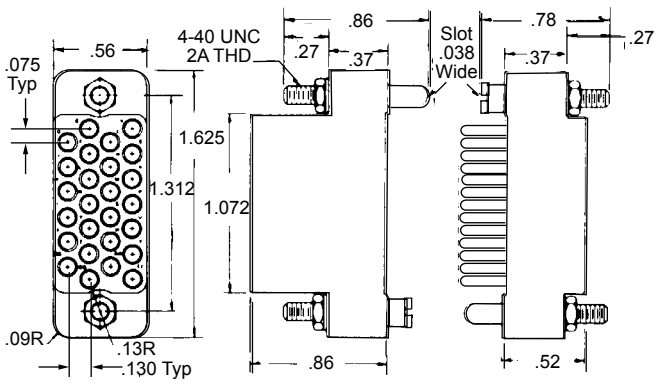
How To Order: *To obtain "K" or "N" guides in place of the standard "G" type, substitute the desired socket style code letter ("K" or "N") for "G" in both the Plug and Receptacle Code Numbers.*

Guide Socket Code Letter	Actual Size Photo	
G*	For General Use Phosphor Bronze	Standard Guide Pin mates with all types Brass
K	For High Electrical Conductivity Beryllium Copper	
N*	For Extra Mechanical Strength Brass	

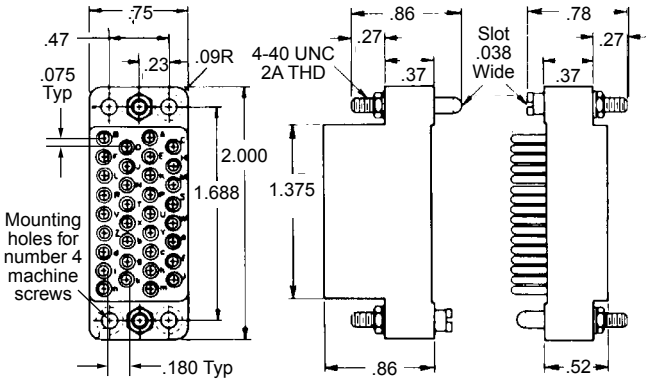
**For passivated stainless steel add SS suffix*

Outline

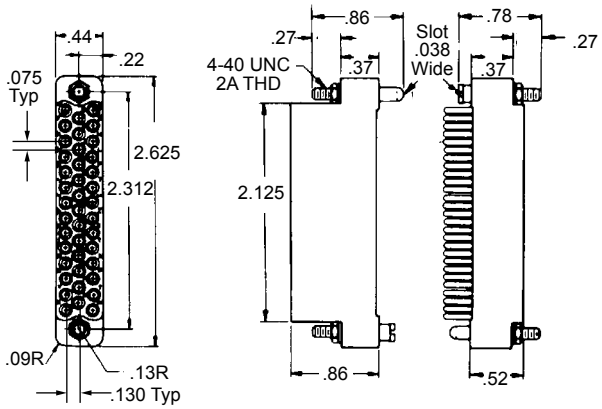
Dimensions are for reference only and are subject to change. Outline drawings on request.



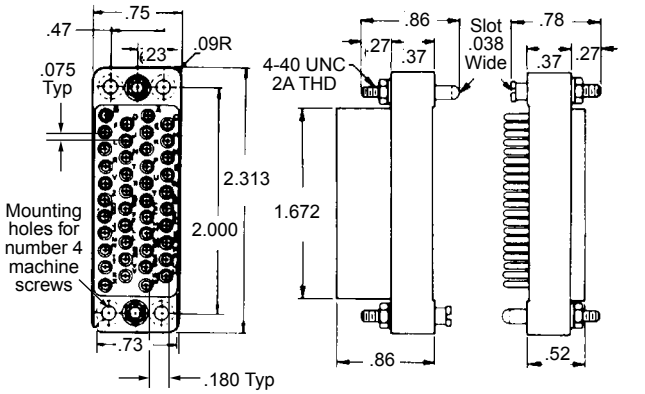
MRAC 26S-G **MRAC 26P-G**



MRAC 34S-G **MRAC 34P-G**



MRAC 41S-G **MRAC 41P-G**



MRAC 42S-G **MRAC 42P-G**

Drawings and corresponding part numbers show G type guide sockets except for the MRAC104P and S which show JT hardware.

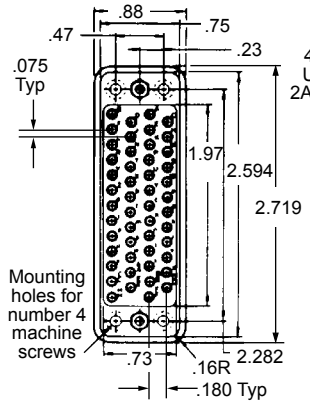
Mounting Note: Connectors MRAC 26, MRAC 20 and smaller, use guides for mounting in a hood or on a panel. Connectors MRAC 34, MRAC 42, MRAC 50, MRAC 66, and MRAC 75 use four #4 machine screws, in addition to guides, for mounting in a hood or on a panel. Guides are not recommended for use with MRAC 104. MRAC 104 uses four #6 machine screws for mounting.

**For numerical contact identification instead of alphabetical, order MNAC._____P or S available in sizes 34, 50 and 104. Example MNAC 34P. MRAC 66 and 75 have numerical contact identification as standard.*

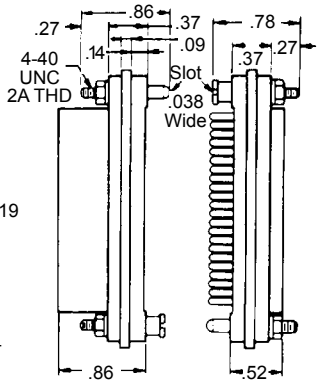
Miniature Rectangular, Removable Contacts

Outline

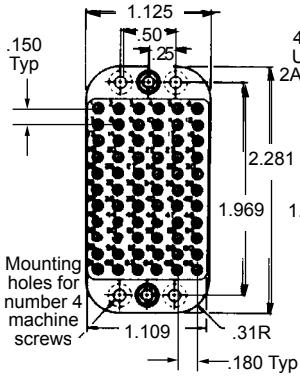
Dimensions are for reference only and are subject to change. Outline drawings on request.



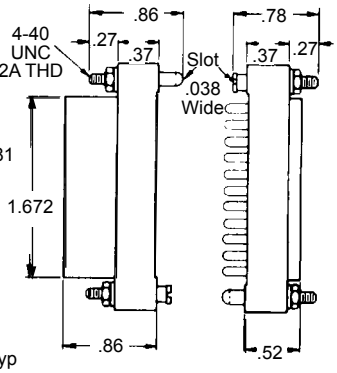
MRAC 50S-G



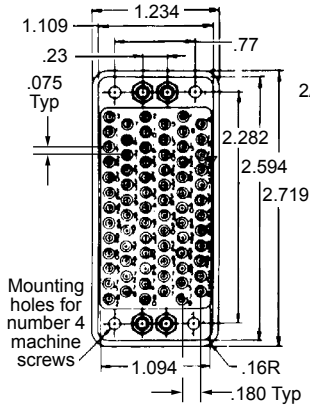
MRAC 50P-G



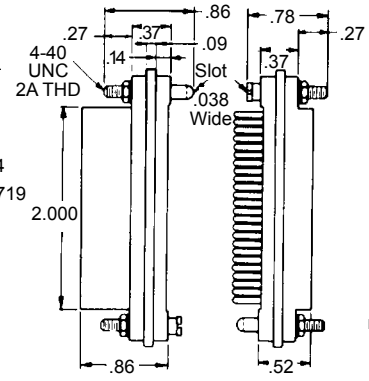
MRAC 66S-G



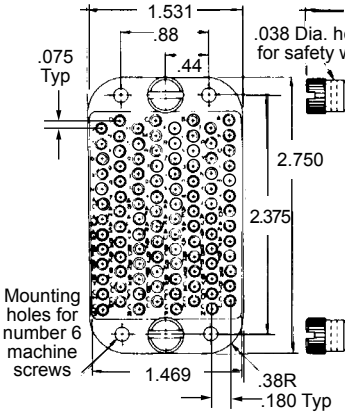
MRAC 66P-G



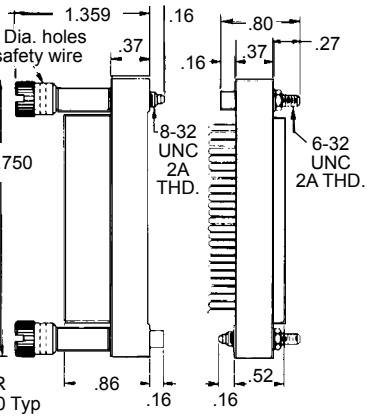
MRAC 75S-G



MRAC 75P-G



MRAC 104S-JT *



MRAC 104P-J

Drawings and corresponding part numbers show G type guide sockets except for the MRAC104P and S which show JT hardware.

Mounting Note: Connectors MRAC 26, MRAC 20 and smaller, use guides for mounting in a hood or on a panel. Connectors MRAC 34, MRAC 42, MRAC 50, MRAC 66, and MRAC 75 use four #4 machine screws, in addition to guides, for mounting in a hood or on a panel. Guides are not recommended for use with MRAC 104. MRAC 104 uses four #6 machine screws for mounting.

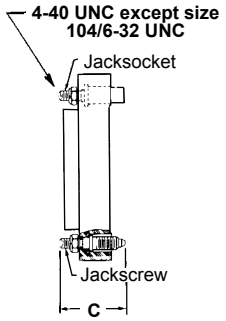
**For numerical contact identification instead of alphabetical, order MNAC._____P or S available in sizes 34, 50 and 104. Example MNAC 34P. MRAC 66 and 75 have numerical contact identification as standard.*

Jackscrews & Jacksockets

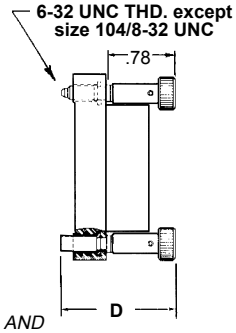
Polarized jackscrews give the ease and assurance of threaded positive coupling. The actuating side consists of two turnable screws, one male and one female, each with knurled and slotted knobs. On the mating half are the two fixed screws required to complete the locking action. When mated, the jackscrews may be locked with a safety wire through the hole in the self-locking pin (in the jackscrew shaft).

Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

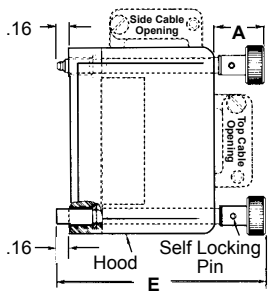


Connector with fixed Jackscrews
Code designation: J



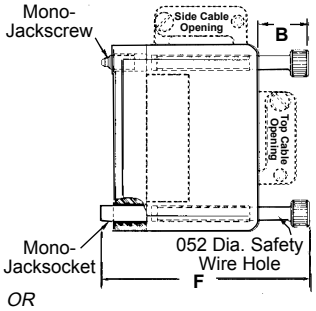
AND

Mating connector half with turnable Jackscrews-with-Knobs.
Code designation: JT



OR

Mating connector half with Hood and turnable Long Jackscrews-with-Knobs. Code designation: JTC H, JTC H1



OR

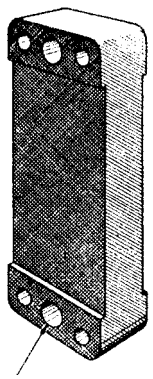
Mating connector half with Hood and turnable Monojacks.
Code designation: JTDH, JTDH1

Dimensions

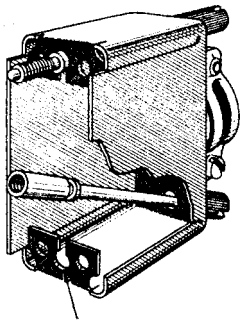
Connector Size	Dimension A					Dimension B				C	D	Dimension E					Dimension F			
	H	H1	H8	H9	H13	H	H1	H8	H9			H	H1	H8	H9	H13	H	H1	H8	H9
MRAC 9	–	.59	–	–	.59	–	–	–	–	.80	1.31	–	2.41	–	–	2.41	–	–	–	–
MRAC 14	–	.59	–	–	.59	–	–	–	–	.80	1.31	–	2.41	–	–	2.41	–	–	–	–
MRAC 18	–	.59	–	–	.59	–	–	–	–	.80	1.31	–	2.41	–	–	2.41	–	–	–	–
MRAC 20	–	.59	–	–	.59	–	–	–	–	.80	1.31	–	2.41	–	–	2.41	–	–	–	–
MRAC 26	.80	.59	.59	.59	–	–	–	–	–	.80	1.31	2.61	2.41	2.41	2.41	–	–	–	–	–
MRAC 34	.63	.63	.63	.63	–	.63	.63	.63	.63	.80	1.31	2.41	2.41	2.41	–	–	–	2.41	2.41	2.41
MRAC 41	.63	.63	–	–	–	–	–	–	–	.80	1.31	2.41	2.41	–	–	–	–	–	–	–
MRAC 42	.58	.58	.58	.58	–	.58	.58	.58	.58	.80	1.31	2.41	2.41	2.41	–	–	2.41	2.41	2.41	2.41
MRAC 50	.58	.58	.58	.58	–	.58	.58	.58	.58	.80	1.31	2.41	2.41	2.41	–	–	2.41	2.41	2.41	2.41
MRAC 66	.69	–	–	.69	–	.5	–	–	.5	.80	1.31	2.41	–	–	2.41	–	2.41	–	–	2.41
MRAC 75	.56	.56	.56	.56	–	.56	.56	.56	.56	.80	1.31	2.41	2.41	2.41	–	–	2.41	2.41	2.41	2.41
MRAC 104	.5	–	–	.67	–	.5	–	–	.5	.80	1.52	3.42	–	–	3.42	–	3.25	–	–	3.25

New Monojacks Assemble and Disassemble With Remarkable Ease and Speed

To free the connector from the hood, simply remove four screws. Monojacks may be used on miniature rectangular connectors with from 34 to 104 contacts and with molds featuring guide hole and two mounting holes on both ends. Molds have 2 center thru holes and 4 mounting holes.



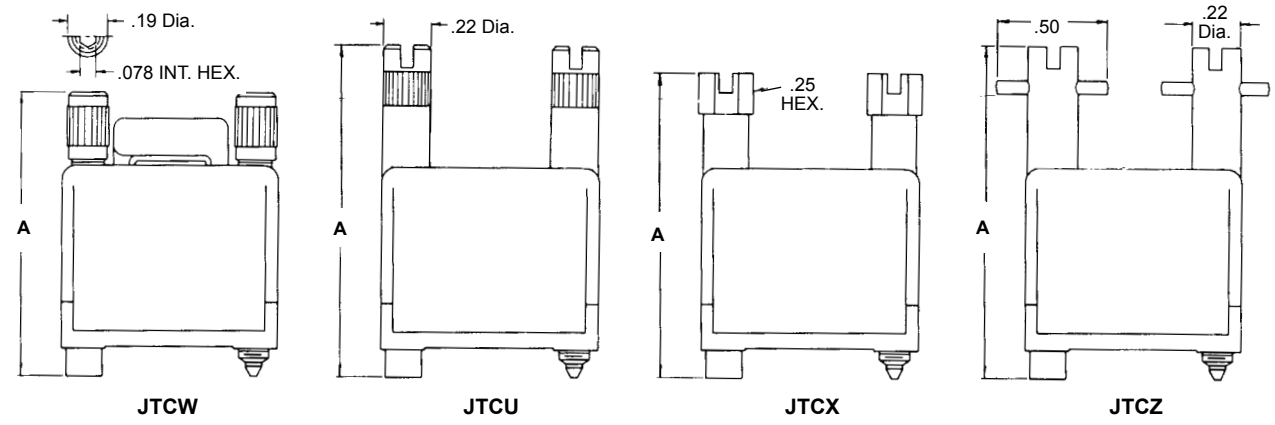
MOLDINGS HAVE STRAIGHT THRU HOLES



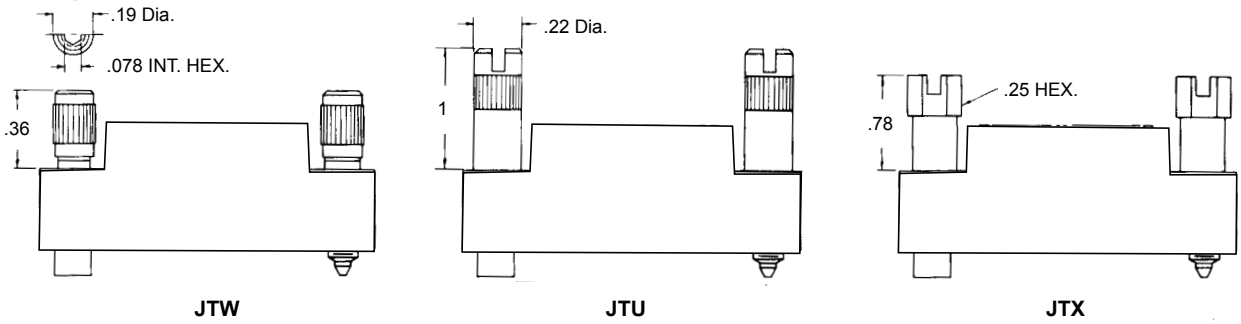
MONOJACKS ARE CAPTIVATED IN KEYHOLE SLOT OF HOOD AS SHOWN ABOVE. WHEN USING SHELLS, MONOJACKS ARE CAPTIVATED IN KEYHOLE OF SHELL AND CLEARANCE HOLES ARE PLACED IN HOODS.

Outline Jackscrews and Jacksockets

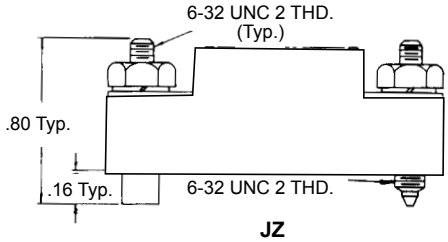
Dimensions are for reference only and are subject to change. Outline drawings on request.



JTCW JTCU JTCX JTCZ



JTW JTU JTX



JZ

Dimensions

All jackscrews and sockets are stainless steel, passivated except J & JTD which are nickel plated brass.
All knobs are aluminum, anodized except JTW and JTCW which are stainless steel, passivated.

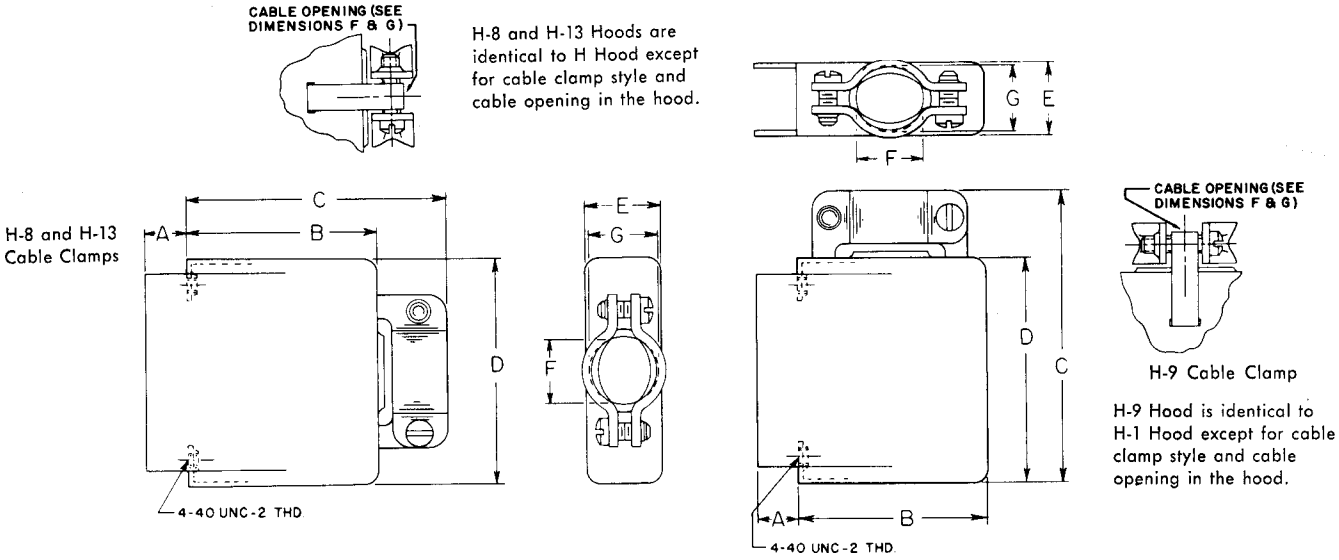
Hood Type

Size	Type JTCW					Size	Type JTCU					Size	Type JTCX					Size	Type JTCZ				
	H	H1	H8	H9	H13		H	H1	H8	H9	H13		H	H1	H8	H9	H13		H	H1	H8	H9	H13
	Dimension A						Dimension A						Dimension A						Dimension A				
9	–	2.22	–	–	2.22	9	–	2.47	–	–	2.47	9	–	2.34	–	–	2.34	9	–	2.47	–	–	2.47
14	–	2.22	–	–	2.22	14	–	2.47	–	–	2.47	14	–	2.34	–	–	2.34	14	–	2.47	–	–	2.47
18	–	2.22	–	–	2.22	18	–	2.47	–	–	2.47	18	–	2.34	–	–	2.34	18	–	2.47	–	–	2.77
20	–	2.22	–	2.22	2.22	20	–	2.47	–	2.47	2.47	20	–	2.34	–	2.34	2.34	20	–	2.47	–	2.47	2.47
26	2.22	2.22	2.22	2.22	–	26	2.47	2.47	2.47	2.47	–	26	2.61	2.34	2.34	2.34	–	26	2.73	2.47	2.47	2.47	–
34	2.22	2.22	2.22	2.22	–	34	2.47	2.47	2.47	2.47	–	34	2.34	2.34	2.34	2.34	–	34	2.47	2.47	2.47	2.47	–
41	2.22	2.22	–	–	–	41	2.47	2.47	–	–	–	41	2.34	2.34	–	–	–	41	2.47	2.47	–	–	–
42	2.22	2.22	2.22	2.22	–	42	2.47	2.47	2.47	2.47	–	42	2.34	2.34	2.34	2.34	–	42	2.47	2.47	2.47	2.47	–
50	2.22	2.22	2.22	2.22	–	50	2.47	2.47	2.47	2.47	–	50	2.34	2.34	2.34	2.34	–	50	2.47	2.47	2.47	2.47	–
66	2.22	–	–	2.22	–	66	2.47	–	–	2.47	–	66	2.34	–	–	2.34	–	66	2.47	–	–	2.47	–
75	2.22	2.22	2.22	2.22	–	75	2.47	2.47	2.47	2.47	–	75	2.34	2.34	2.34	2.34	–	75	2.47	2.47	2.47	2.47	–

Outline Formed Aluminum Hoods

Dimensions are for reference only and are subject to change. Outline drawings on request.

Hoods shown are MRE Hoods for use with MRAC Connectors



Dimensions

Formed Hoods for MRAC Connectors are available in top and side opening for most MRAC Connectors - Deep Drawn Hoods are available for MRAC 34, MRAC 66 and MRAC 104 connectors ... providing additional strength. Hoods and cable clamps are of anodized aluminum. They provide support and strain relief for the cable and may be applied to either Plug or Receptacle.

Hoods may be ordered separately (see code numbers in the tables below) or assembled on connectors.

Top Cable Opening

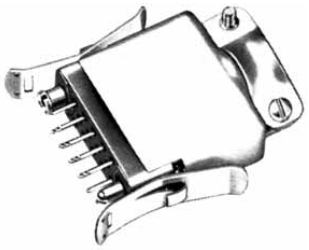
Code No.	DIMENSIONS					Cable Opening		Wt.	Fits
	A	B	C	D	E	F	G	Oz.	Connector
MRE9H-13	.28	1.28	1.58	1.31	.44	.59	.31	.3	MRAC9 (P or S)
MRE14H-13	.28	1.28	1.58	1.25	.5	.59	.38	.3	MRAC14 (P or S)
MRE18H-13	.28	1.28	1.78	1.31	.63	.61	.44	.3	MRAC18 (P or S)
MRE20H-13	.28	1.28	1.58	1.56	.5	.66	.38	.3	MRAC20 (P or S)
MRE26H	.28	1.28	1.72	1.63	.64	.59	.38	.4	
MRE26H-8	.28	1.28	1.78	1.63	.64	.78	.44	.4	MRAC26 (P or S)
MRE34H	.28	1.25	1.69	2	.83	.66D	–	.6	
MRE34H-8	.28	1.25	1.75	2	.83	1.06	.56	.6	MRAC34 (P or S)
MRE41H	.28	1.25	1.69	2.63	.5	.66	.44	.6	MRAC41 (P or S)
MRE42H	.09	1.30	1.73	2.31	.83	.63D	–	.7	
MRE42H-8	.09	1.30	1.80	2.31	.83	1.06	.56	.7	MRAC42 (P or S)
MRE50H	.09	1.30	1.73	2.59	.83	.63D	–	.8	
MRE50H-8	.09	1.30	1.80	2.59	.83	1.06	.56	.8	MRAC50 (P or S)
MRE75H	.09	1.31	1.75	2.59	1.19	.63	.88	1.0	
MRE75H-8	.09	1.31	1.86	2.59	1.19	1	.88	1.0	MRAC75 (P or S)

Side Cable Opening

Code No.	DIMENSIONS					Cable Opening		Wt.	Fits
	A	B	C	D	E	F	G	Oz.	Connector
MRE9H-1	.28	1.28	1.63	1.31	.44	.31D	–	.3	
MRE9H-9	.28	1.28	1.61	1.31	.44	.59	.31	.3	MRAC9 (P or S)
MRE14H-1	.28	1.28	1.69	1.25	.5	.38D	–	.3	
MRE14H-9	.28	1.28	1.55	1.25	.5	.59	.38	.3	MRAC14 (P or S)
MRE18H-1	.28	1.28	1.75	1.31	.63	.44D	–	.3	
MRE18H-9	.28	1.28	1.81	1.31	.63	.69	.44	.3	MRAC18 (P or S)
MRE20H-1	.28	1.28	2	1.56	.5	.38D	–	.3	
MRE20H-9	.28	1.28	1.86	1.56	.5	.66	.38	.3	MRAC20 (P or S)
MRE26H-1	.28	1.28	2.06	1.63	.64	.59	.38	.4	
MRE26H-9	.28	1.28	2.13	1.63	.64	.78	.44	.4	MRAC26 (P or S)
MRE34H-1	.28	1.25	2.42	2	.83	.66D	–	.6	
MRE34H-9	.28	1.25	–	2	.83	.81	.56	.6	MRAC34 (P or S)
MRE41H-1	.28	1.25	3.06	2.63	.5	.66	.44	.6	MRAC41 (P or S)
MRE42H-1	.09	1.30	2.73	2.31	.83	.63	.5	.7	
MRE42H-9	.09	1.30	–	2.31	.83	.84	.56	.7	MRAC42 (P or S)
MRE50H-1	.09	1.30	3.02	2.59	.83	.63	.5	.8	
MRE50H-9	.09	1.30	–	2.59	.83	1.06	.56	.8	MRAC50 (P or S)
MRE75H-1	.09	1.31	3.02	2.59	1.19	.63	.88	1.0	
MRE75H-9	.09	1.31	–	2.59	1.19	1	.88	1.0	MRAC75 (P or S)

Miniature Rectangular, Removable Contacts

Lock Tabs (MRE-V shown)



Lever & Pivot Assemblies (MRE-VL shown)

Vibration Locks

Nomenclature		Used on Connectors
Lever & Pilot Assembly	Lock Tabs (See Note)	
MRE-VL	MRE-V	MRAC 9, 14, 18, 20, 26, 34, 41, and 42
MRE-VL2	MRE-V2	MRAC 50 MRAC 75

Designed for MRAC connectors, this vibration lock features genuine simplicity of design, plus complete locking effectiveness. Assembly of either the lever-and-pivot assembly or the lock parts to the plug and receptacle is quick and easy. The unit locks automatically when the mating plug and receptacle are engaged. Unlocking and disengaging can be done with one hand.

Note 1:When panel mounting the lock-tab half of a MRAC 34, MRAC 42 or MRAC 50 connector, flat washers (.033 minimum thickness) should be used on the mounting screws to shim the molding away from the panel.

Note 2: Each code number indicates two units, i.e., the "MRE-VL" consists of two levers and two pivots (unassembled), and the "MRE-V" consists of two tabs.*

Note 3: These units are supplied unassembled to facilitate handling. The pivot is easily assembled to the lever merely by inserting the hooked end through the lever opening. It will automatically snap into proper position. Patent #2,760,174.

Dimensions / Outline

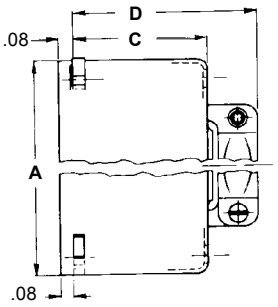
Hoods

Hoods shown are MRA Hoods for use with MRAC Connectors

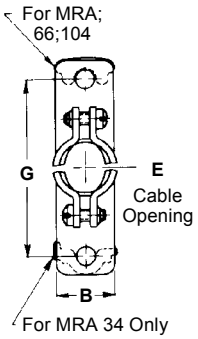
Code No.	DIMENSIONS - Top Opening							Wt. Oz.	Fits Connector
	A	B	C	D	E	H	G		
MRA 34H-491	2.08	.83	1.17	1.59	.66 x .75	–	1.688	.6	MRAC 34P MRAC 34S
MRA 66H	2.38	1.22	1.17	1.69	1.03 Dia.	–	1.969	.8	MRAC 66P MRAC 66S
MRA 104H	2.84	1.63	2.23	2.75	1.19 Dia.	–	2.375	1.0	MRAC 104P MRAC 104S

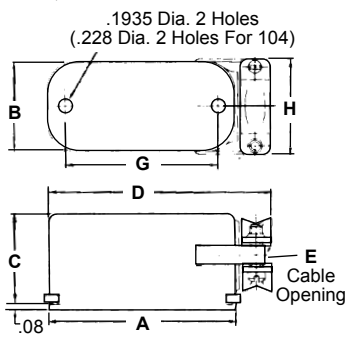
Code No.	DIMENSIONS - Side Opening							Wt. Oz.	Fits Connector
	A	B	C	D	E	H	G		
MRA 34H9-491	2.08	.83	1.17	2.59	.64 x .75	1.06	1.688	.6	MRAC 34P MRAC 34S
MRA 66H9	2.38	1.22	1.17	2.92	.84 Dia.	1.34	1.969	.8	MRAC 66P MRAC 66S
MRA 104H9	2.84	1.63	2.23	3.39	1.19 Dia.	1.63	2.375	1.0	MRAC 104P MRAC 104S

Dimensions are for reference only and are subject to change. Outline drawings on request.



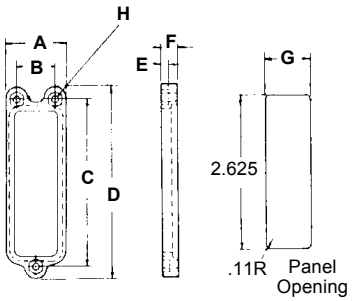
Top Cable Opening





Side Cable Opening

Dimensions / Outline



MRAC 50 and MRAC 75 connectors use the standard MRE 50 and MRE 75 mounting brackets.

Code No.	DIMENSIONS								Wt. Oz.
	A	B	C	D	E	F	G	H	
MRE 50B	1.06	.688	3.031	3.44	.13	.28	.78	.128 Dia 3 Holes (No. 4 Mounting Screw)	.4
MRE 75B	1.48	1.047	3.062	3.56	.14	.30	1.14	.150 Dia 3 Holes (No. 6 Mounting Screw)	.6

Ordering Information

Omit steps not required

MRAC	34	S	G	H	VL	

Step 1

Series:

MRAC

MNAC
Numerical contact identification on sizes 34, 50, and 104.

Step 2

Number of Contacts:

9, 14, 18, 20, 26, 34, 41, 42, 50, 66, 75, 104

See note 1 below.

Step 3

Contact Designation:

P - Pin

S - Socket

When ordering moldings less hardware to be used with monojacks, see note 2 below.

Step 4

Guides and Jackscrew Locks:

(See bottom Chart)

Step 5

Hoods:

H - Standard top opening. Sizes 26 thru 104 only.

H1 - Standard side opening. Available all sizes.

H8 - Large top opening. Sizes 26 thru 104 only.

H9 - Large side opening. Available all sizes.

H13 - Large top opening, high hood. Sizes 9, 14, 18 & 20 only.

Step 6

Vibration Locks:

V - Lock Tab

V2 - Lock Tab (Size 50 & 75)

VL - Lever & Pivot Ass'y

VL2 - Lever & Pivot Ass'y (Size 50 & 75)

Step 7

Special Options:

Consult Sales Department

Step 4

Guides

G*	Phosphor Bronze Cylindrical Guides
K	Beryllium Copper Cylindrical Guides
N*	Brass Cylindrical Guides

Guides are not recommended for Size 104

"P" indicates two guide pins or two jackscrews (EX. JTCP)

"S" indicates two guide sockets or two jacksockets (Ex. GS)

Jackscrew Locks

***J	Polarized Fixed Jackscrew and Jacksocket
JT	Polarized Short Turning Jackscrew and Jacksocket
JTC	Polarized Long Turning Jackscrew and Jacksocket
***JTD	Polarized Long Turning Mono-Jackscrew and Mono-Jacksocket for Sizes 34, 42, 50, 66, 75, and 104 only.
**JZ	Same as J but with 6-32 mtg. thd. (Std. on 104)
**JTW	Same as JT but with knurled round knob with internal hex (not avail. 104)
**JTU	Same as JT but with knurled round knob with screwdriver slot (not avail. 104)
**JTX	Same as JT but with hex knob (not avail. 104)
**JTCW	Same as JTC but with knurled round knob with internal hex (not avail. 104)
**JTCU	Same as JTC but with knurled round knob with screwdriver slot (not avail. 104)
**JTCX	Same as JTC but with hex knob (not avail. 104)
**JTCZ	Same as JTC but with prybar knob (not avail. 104)

* *For passivated stainless steel add SS suffix.*

** *Request availablity information.*

*** *Material: Nickel Plated Brass standard*

Notes: 1. Contacts are ordered separately. See 100 Series contact section of Rack & Panel

2. When ordering molding less hardware and hood for use with JTD Monojacks, connectors must be ordered as follows:

Pin connector = MRAC 34P8, MRAC 42P8, etc.

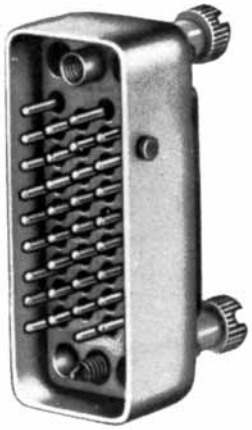
Socket connector = MRAC 34S8, MRAC 42S8, etc.

The number "8" indicates special housing for use with the JTD Monojack hardware (available on sizes 34, 42, 50, 66, 75 and 104).

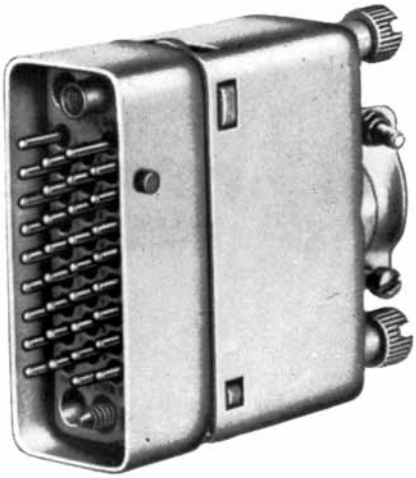
XAC Series

External Miniature Rectangular, Removable Contacts

XAC34SF2A010



XAC34PM1A000



XAC34PC1A700

Designed for external installation, the XAC is the MRAC removable contact connector equipped with protective shells and mounting plates for chassis or cable mounting on metal containers, bulkheads, or any outside surface equipment. Lighter and smaller than other external connectors, they provide dependable service under adverse conditions. Inserts are housed in protective shells and there is screw lock coupling of plug and receptacle.

Specifications

Current Rating: Up to 13 amps

No. of Contacts: 9, 14, 18, 20, 26, 34, 42, 50, 66, 75, 104

Contacts: Contacts must be ordered separately. Select from crimp, solder, dip solder, shielded or wire wrap terminations.

Electrical Data: Meets high potential performance requirements of MIL-C-28748. The dielectric withstanding voltage is one minute electrification at 2000 VAC.

Military versions are QPL'd to M28748/3 and M28748/4.

Dielectric: Diallyl Phthalate, MIL-M-14, Type SDG-F, Color Gray

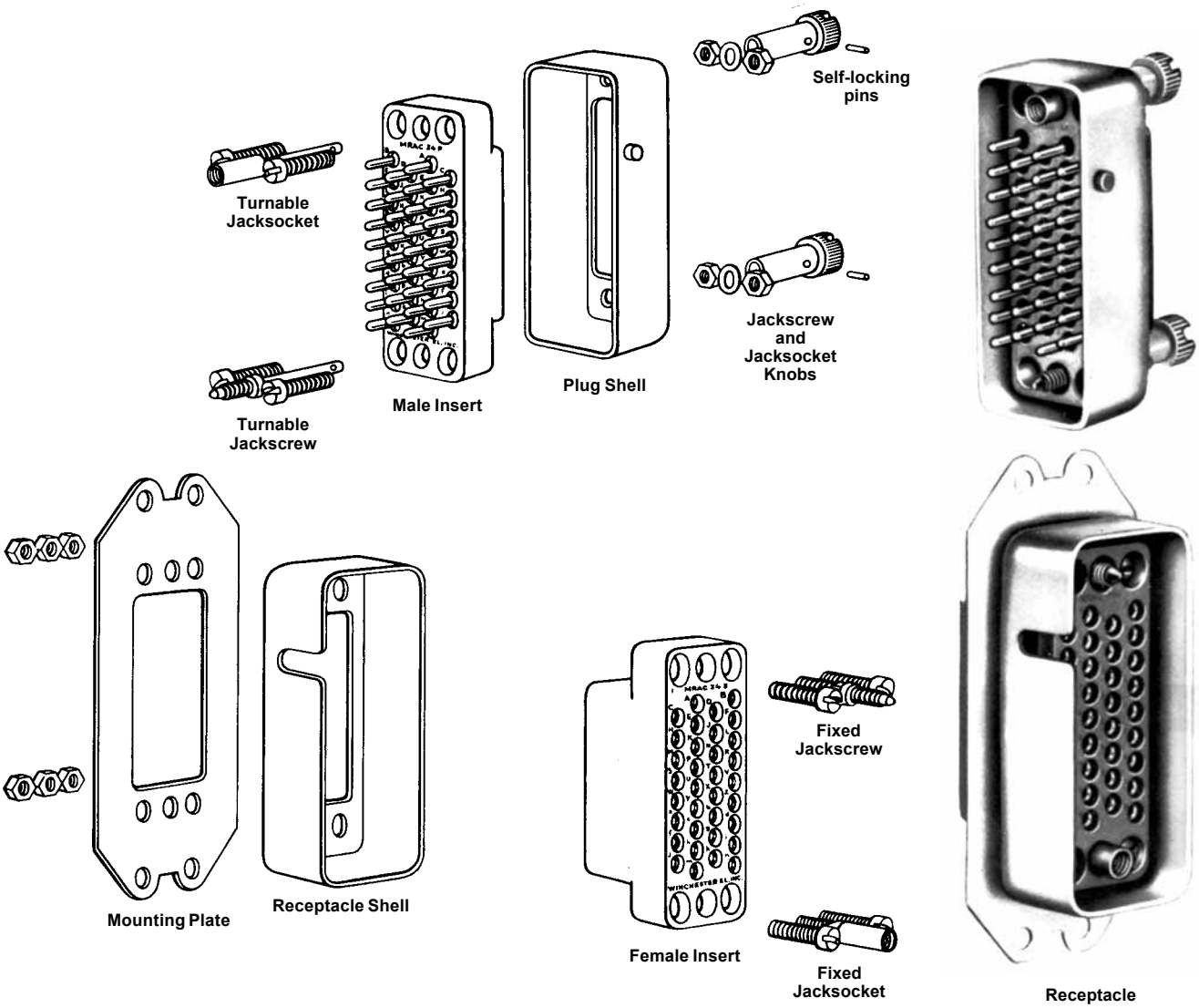
Polarization: Seven positions available for pin and slot polarization on shells. Additional polarization can be provided with various arrangements of jackscrews and guides.

Accessories: Shells, formed and drawn hoods, mounting plates, jackscrews and jacksockets.

CATALOG NO.		CATALOG NO.		CATALOG NO.	
XAC9-0300X	MS 18192-T8	XMRE75-0400XS	MS 18192SXX	XJMS603P	MS 18196-3
XAC14-0300X	MS 18192-T1	XMRE75-0400XP	MS 18192-S6	XJMS603S	MS 18196-4
XAC20-0300X	MS 18192-T2	XMRA66-0700	MS 18193-T1	XNMS700P	MS 18197-1
XMRE9-0400X	MS 18192-S8	XMRA66-0800	MS 18193-S1	XNMS700S	MS 18197-2
XMRE14-0400X	MS 18192-S1	XMRA 104-0700	MS 18193-T2	XNMS702P	MS 18197-3
XMRE20-0400X	MS 18192-S2	XMRA 104-0800	MS 18193-S2	XNMS702-S	MS 18197-4
XMRE26-0300X	MS18192-T9	XJTCMS605P	MS 18194-1	XMRA 14-0010	MS 18198-1
XMRE26-0400X	MS 18192-S9	XJTCMS605S	MS 18194-2	XMRA 20-0010	MS 18198-2
XMRE34-0300X	MS18192-T3	XJTCMS608P	MS 18194-3	XMRA 34-0010	MS 18199-1
XMRE34-0400X	MS 18192-S3	XJTCMS608S	MS 18194-4	XMRA42-0010	MS 18199-2
XMRE42-0300X	MS 18192-T4	XJTMS605P	MS 18195-1	XMRA50-0010	MS 18199-3
XMRE42-0400X	MS 18192-S4	XJTMS605S	MS 18195-2	XMRA75-0010	MS 18199-4
XMRE50-0300X	MS18192-T5	XJTMS606P	MS 18195-3	XMRA66-0010	MS 18200-1
XMRE50-0400X	MS 18192-S5	XJTMS606S	MS 18195-4	XMRA104-0010	MS 18200-2
XMRE75-0300XP	MS 18192-T6	XJMS602P	MS 18196-1		
XMRE75-0300XS	MS 18192-TXX	XJMS602S	MS 18196-2		

External Miniature Rectangular, Removable Contacts

Connector Assemblies



Definition of Connector Terms

Plug: The complete connector half which has the plug shell as part of its assembly.

Receptacle: The complete connector half which has the receptacle shell as part of its assembly.

Shell: The metal housing in which a male or female insert is assembled. A shell is either a plug shell or a receptacle shell:

Plug Shell - one which is designed to be inserted into a receptacle shell.

Receptacle Shell - one which is designed to receive and enclose the plug shell upon engagement.

Male Insert: The molded insulator body containing pin contacts.

Female Insert: The molded insulator body containing socket contacts.

Pin Contacts: Male Contacts that fit into the socket contacts.

Socket Contacts: Female Contacts tubular in shape, which receive the pin contacts and retain them by spring tension.

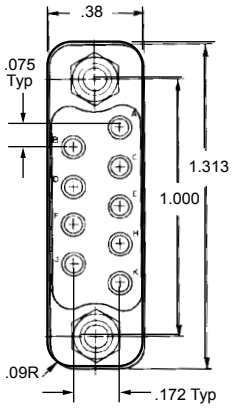
Polarization: A means of controlling the engagement of a plug and receptacle so that correct mating of the contacts is achieved.

Accessories: Those components such as hoods and mounting plates which are attachable to a plug or receptacle to facilitate mounting and/or handling of the connector, and to prevent inadvertent cross-mating.

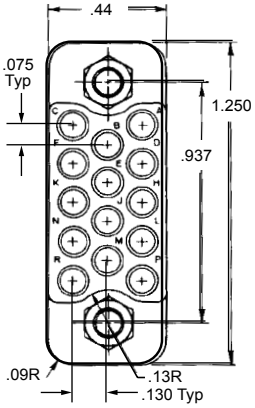
Contact Arrangements

External Miniature Rectangular, Removable Contacts

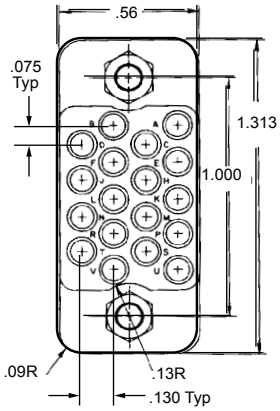
Dimensions are for reference only and are subject to change. Outline drawings on request.
Views are rear (wiring end) of female inserts. (Male inserts are opposite.)



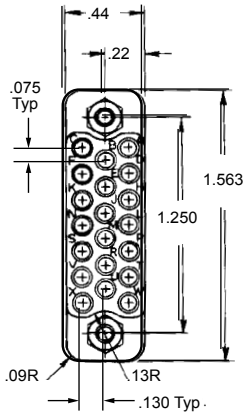
XAC 9



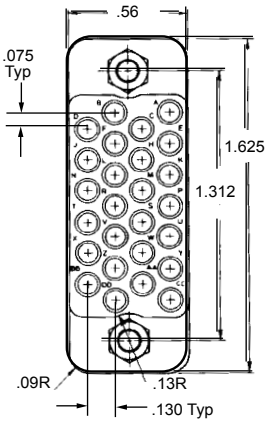
XAC 14



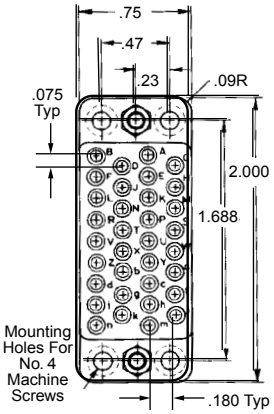
XAC 18



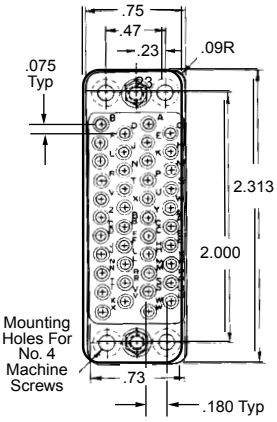
XAC 20



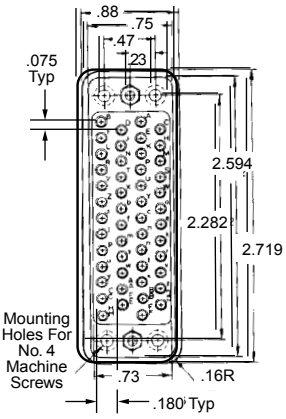
XAC 26



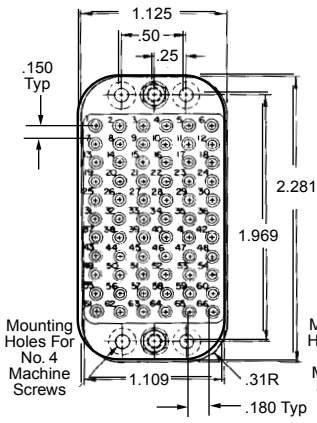
XAC 34*



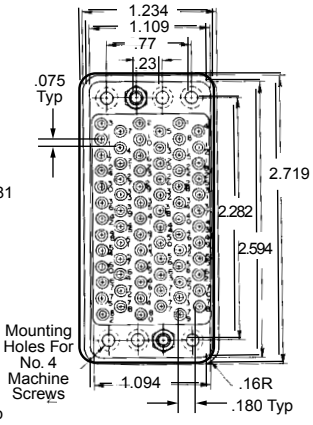
XAC 42



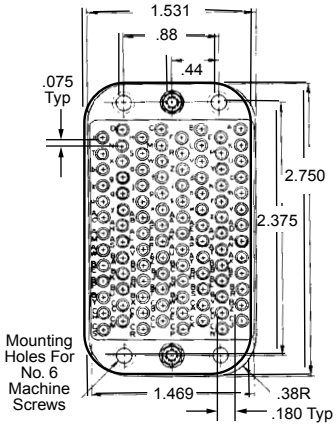
XAC 50*



XAC 66



XAC 75



XAC 104*

*For numerical contact identification instead of alphabetical, order XNAC**P or S available in sizes 34, 50, and 104.

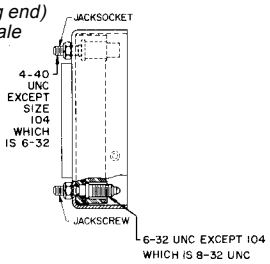
Sizes 66 and 75 have numerical contact identification as standard.

The spacing, arrangement, and identificaion of contacts of the XAC inserts are the same as those found on the Series MRAC removable contact connectors for the same number of contacts.

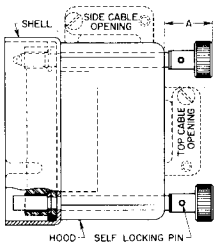
Jackscrew & Jacksockets

Dimensions are for reference only and are subject to change. Outline drawings on request.

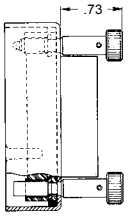
Views are rear (wiring end) of female inserts. (Male inserts are opposite.)



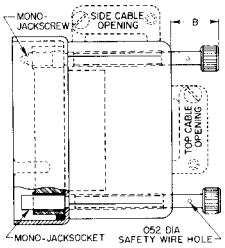
Fixed Jackscrews (F)



Long Turning Jackscrews (C) Used With Hoods



Short Turning Jackscrews (M) Used Only Without Hoods



Monojacks (D) Used With Hoods

Specifications

Turnable jackscrew-jacksocket combination (M, C, or D) assembles on either Plug or Receptacle; the mating connector-half (either Receptacle or Plug) must then contain fixed jackscrew-jacksocket combination (F).

Both short and long turning jackscrews (M and C) have knurled and slotted knobs for locking by hand or screwdriver. Knob is assembled on shaft with hollow, removable, self-locking pin. Safety wiring of engaged halves is achieved by using the through-hole in self-locking pin in the knob.

Monojacks (D) are long turning one-peice locking devices with slotted and knurled head. Shaft has through-hole for safety wire. available with hoods only, in sizes 34, 42, 50, 66, 75, and 104.

Drawings show extension of standard knobs beyond shell and beyond hood.

Applications

Jackscrew locking device assures positive coupling of engaged connectors to prevent accidental disconnecting from vibration or physical shock. It also aids easy connection and separation of connector plug and receptacle. Mounted connector-half houses one non-turnable fixed jackscrew and jacksocket to insure connector polarization. Mating-half houses one of the three types of turning jackscrew and jacksocket (M, C, or D).

LOCKING DEVICE	SPECIFICATIONS		
	CODE LETTER	WT. OZ. See Notes 1 & 2	MATERIAL AND FINISH
Jackscrew / Jacksocket } Fixed	F	0.15	Nickel Plated Brass
Jackscrew / Jacksocket } Short Turnable	M	0.30	Stainless Steel with Passivating Dip
Jackscrew / Jacksocket } Long Turnable	C	0.45	Stainless Steel with Passivating Dip
Mono-Jackscrew Long Turnable Mono-Jacksocket	D	1.07	Nickel Plated Brass
Knob Standard	—	—	Aluminum Anodized

Note 1: Weights are for pairs; i.e. for a jackscrew and jacksocket, etc., so weight figure may be added once to weights of other accessories when computing total weight of plug or receptacle.

Note 2: Weights of turnable jackscrews and turnable jacksockets include knob and rollpins, except mono-jackscrew and mono-jacksocket, which is a one-piece construction (shaft and knob made in one piece); weight of fixed jackscrew and jacksocket includes nuts.

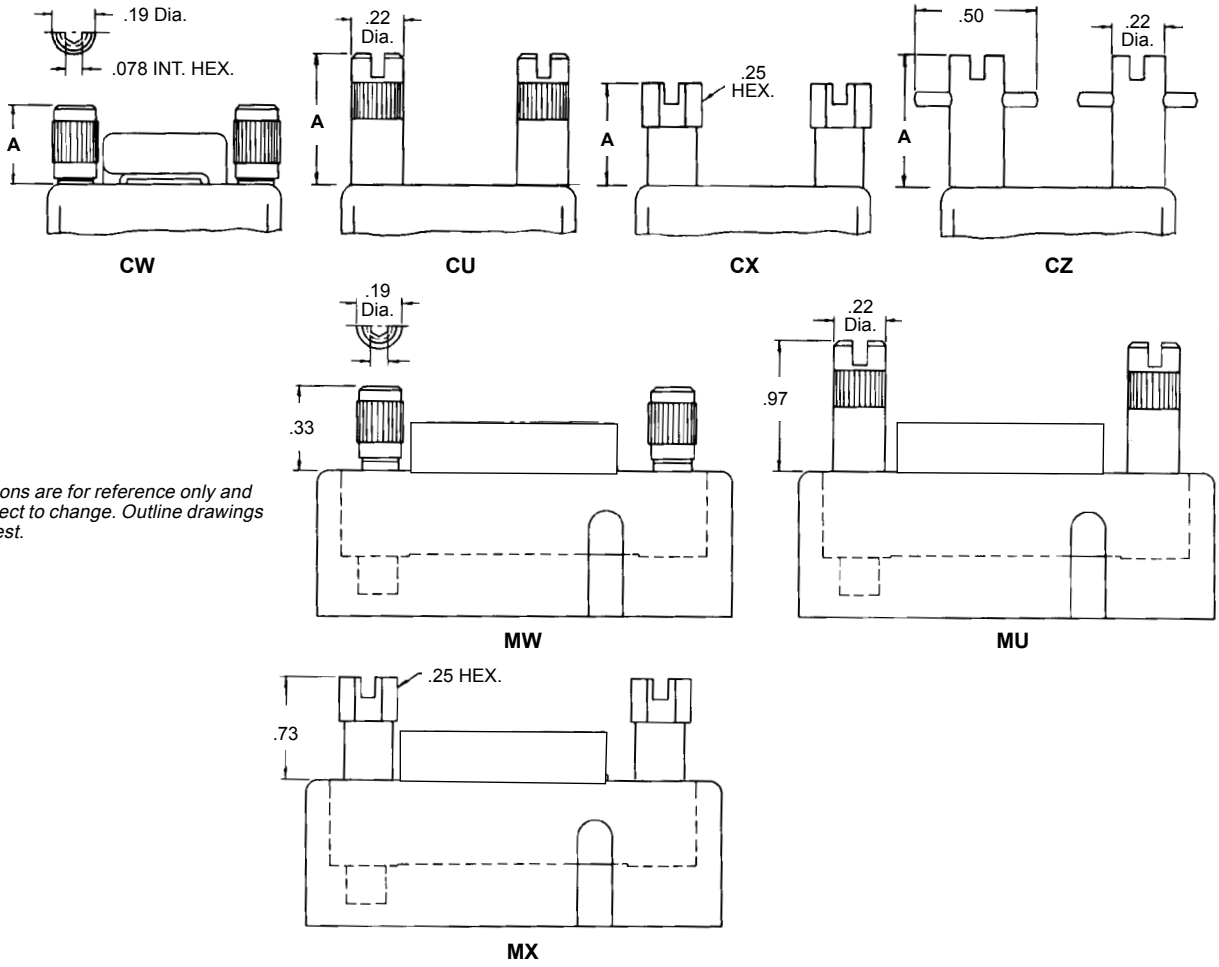
Dimensions

Standard Knobs - Extension Beyond Hood

	Dimension A											Dimension B					
XAC	9*	14*	18*	20*	26	34	42	50	66	75	104	34	42	50	66	75	104
0300	.55	.55	.55	.55	.77	.58	.53	.53	–	.52	–	.59	.55	.55	–	.53	–
0400	.55	.55	.55	.55	.55	.58	.53	.53	–	.52	–	.59	.55	.55	–	.53	–
0700	–	–	–	–	–	.58	–	–	.64	–	.52	–	–	–	.38	–	.38
0800	–	–	–	–	–	.58	–	–	.64	–	.52	–	–	–	.38	–	.38

**On sizes 9, 14, 18, and 20, only large top opening hoods are available when (c) long turning jackscrews are used. Catalog Number for large top opening hoods is - 0300X. Example: XAC20-0300X*

Outline – Jackscrews



Dimensions are for reference only and are subject to change. Outline drawings on request.

Dimensions

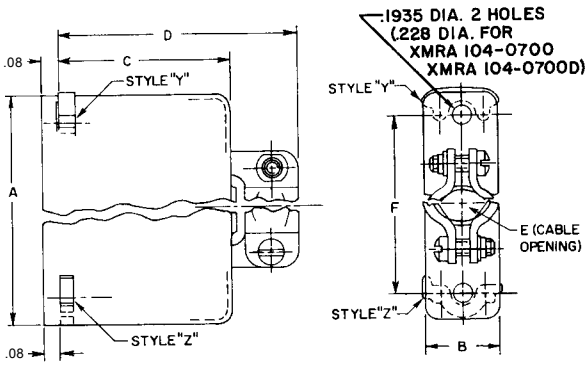
All jackscrews and sockets are stainless steel, passivated (except F & D which are nickel plated brass). All knobs are aluminum, anodized except MW and CW which are stainless steel, passivated.

Size	Hoods						Size	Hoods					
	0300	0400	0300X	0400X	0700	0800		0300	0400	0300X	0400X	0700	0800
Dimension A – Type CW							Dimension A – Type CX						
9	–	.36	.36	.36	–	–	9	–	.48	.48	.48	–	–
14	–	.36	.36	.36	–	–	14	–	.48	.48	.48	–	–
18	–	.36	.36	.36	–	–	18	–	.48	.48	.48	–	–
20	–	.36	.36	.36	–	–	20	–	.48	.48	.48	–	–
26	.36	.36	.36	.36	–	–	26	.77	.48	.48	.48	–	–
34	.39	.39	.39	.39	.47	.47	34	.52	.52	.52	.52	.61	.61
42	.34	.34	.34	.34	–	–	42	.47	.47	.47	.47	–	–
50	.34	.34	.34	.34	–	–	50	.47	.47	.47	.47	–	–
66	–	–	–	–	.47	.47	66	–	–	–	–	.61	.61
75	.33	.33	.33	.33	–	–	75	.45	.45	.45	.45	–	–
Dimension A – Type CU							Dimension A – Type CZ						
9	–	.61	.61	.61	–	–	9	–	.61	.61	.61	–	–
14	–	.61	.61	.61	–	–	14	–	.61	.61	.61	–	–
18	–	.61	.61	.61	–	–	18	–	.61	.61	.61	–	–
20	–	.61	.61	.61	–	–	20	–	.61	.61	.61	–	–
26	.61	.61	.61	.61	–	–	26	.92	.61	.61	.61	–	–
34	.64	.64	.64	.64	.72	.72	34	.64	.64	.64	.64	.72	.72
42	.59	.59	.59	.59	–	–	42	.59	.59	.59	.59	–	–
50	.59	.59	.59	.59	–	–	50	.59	.59	.59	.59	–	–
66	–	–	–	–	.72	.72	66	–	–	–	–	.72	.72
75	.58	.58	.58	.58	–	–	75	.58	.58	.58	.58	–	–

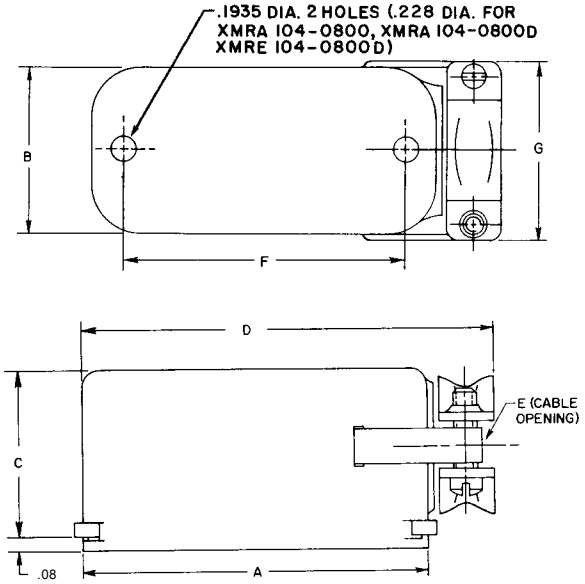
Outline Hoods– Drawn Aluminum

Dimensions are for reference only and are subject to change. Outline drawings on request.

The XAC Series uses standard XMRA/ XMRE protective hardware. To order separately, use XMRE/XMRA catalog numbers indicated.



Top Cable Opening



Side Cable Opening

Dimensions

XMRA Drawn Hoods for use with XAC Connectors.

Hoods - Side Cable Opening

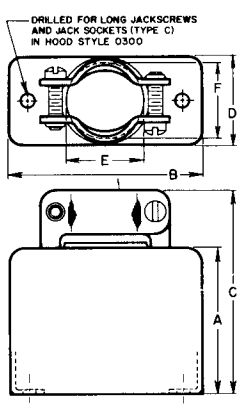
ForUse With	Hood Part No. (If ordered separately)	DIMENSIONS						
		A	B	C	D	E	F	G
Type C Jack Sockets and Jackscrews	XMRA 34-0800	2.09	.84	1.17	2.58	.64x.75	1.688	1.06
	XMRA 66-0800	2.38	1.22	1.17	2.91	.84D	1.969	1.34
	XMRA 104-0800	2.84	1.63	2.23	3.38	1.19D	2.375	1.63
Type D Jack Sockets and Jackscrews	XMRA 34-0800D	2.09	.84	1.17	2.58	.64x.75	1.688	1.06
	XMRA 66-0800D	2.38	1.22	1.17	2.91	.84D	1.969	1.34
	XMRA 104-0800D	2.84	1.63	2.23	3.38	1.19D	2.375	1.63
Type F Jackscrews	XMRA 34-0200	2.09	.84	1.17	2.58	.64x.75	–	1.06
	XMRA 66-0200	2.38	1.22	1.17	2.91	.84D	–	1.34
	XMRA 104-0200	2.84	1.63	2.23	3.38	1.19D	–	1.63

Hoods - Top Cable Opening

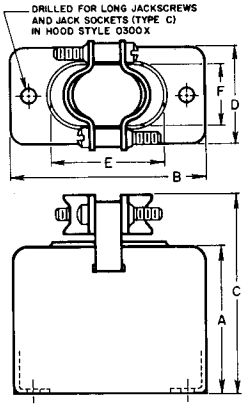
ForUse With	Hood Part No. (If ordered separately)	DIMENSIONS					
		A	B	C	D	E	F
Type C Jack Sockets and Jackscrews	XMRA 34-0700	2.09	.84	1.17	1.59	.66x.75	1.688
	XMRA 66-0700	2.38	1.22	1.17	1.69	1.03D	1.969
	XMRA 104-0700	2.84	1.63	2.23	2.75	1.19D	2.375
Type D Jack Sockets and Jackscrews	XMRA 34-0700D	2.09	.84	1.17	1.59	.66x.75	1.688
	XMRA 66-0700D	2.38	1.22	1.17	1.69	1.03D	1.969
	XMRA 104-0700D	2.84	1.63	2.23	2.75	1.19D	2.375
Type F Jackscrews	XMRA 34-0900	2.09	.84	1.17	1.59	.66x.75	–
	XMRA 66-0900	2.38	1.22	1.17	1.69	1.03D	–
	XMRA 104-0900	2.84	1.63	2.23	2.75	1.19D	–

Outline Hoods– Formed Aluminum

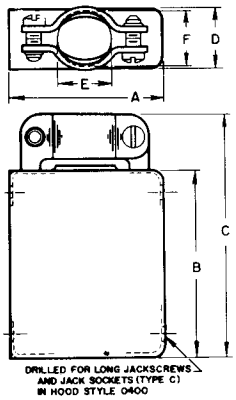
Dimensions are for reference only and are subject to change. Outline drawings on request.



Top Cable Opening



Large Top Cable Opening



Side Cable Opening

Dimensions

XMRE Formed Hoods for use with XAC Connectors

Hoods - Top Cable Opening

For use with Monojacks	For use with Type C Jacksockets & Jackscrews Hood Part No. (If ordered separately)	For use with Fixed Jackscrews*	Dimensions A	B	C	D	Cable Opening E Dia.	F Dia.	Wt. Oz. (Inc. 2 Cable Clamps and Screws)
	XAC 9-0300X	XAC 9-0500XJ	1.28	1.31	1.58	.44	.59	.31	0.3
	XAC 14-0300X	XAC 14-0500XJ	1.28	1.25	1.58	.50	.59	.38	0.3
	XAC 18-0300X	XAC 18-0500XJ	1.28	1.31	1.78	.63	.61	.44	0.4
	XAC 20-0300X	XAC 20-0500XJ	1.28	1.56	1.58	.50	.66	.38	0.3
	XMRE 26-0300	XMRE 26-0500J	1.28	1.63	1.72	.64	.59	.38	
	XMRE 26-0300X	XMRE 26-0500XJ	1.28	1.63	1.78	.64	.78	.44	0.4
XMRE 34-0300D	XMRE 34-0300	XMRE 34-0500J	1.25	2	1.69	.83	.66	–	
XMRE 34-0300XD	XMRE 34-0300X	XMRE 34-0500XJ	1.25	2	1.75	.83	1.06	.56	0.6
XMRE 42-0300D	XMRE 42-0300	XMRE 42-0500J	1.30	2.31	1.73	.83	.63	–	
XMRE 42-0300XD	XMRE 42-0300X	XMRE 42-0500XJ	1.30	2.31	1.80	.83	1.06	.56	0.7
XMRE 50-0300D	XMRE 50-0300	XMRE 50-0500J	1.30	2.59	1.73	.83	.63	–	
XMRE 50-0300XD	XMRE 50-0300X	XMRE 50-0500XJ	1.30	2.59	1.80	.83	1.06	.56	0.8
XMRE 75-0300D	XMRE 75-0300	XMRE 75-0500J	1.31	2.59	1.75	1.19	.63	.88	
XMRE 75-0300XD	XMRE 75-0300X	XMRE 75-0500XJ	1.31	2.59	1.86	1.19	1	.88	1.0

** For use with G, K, or N guides, eliminate letter "J" from part number*

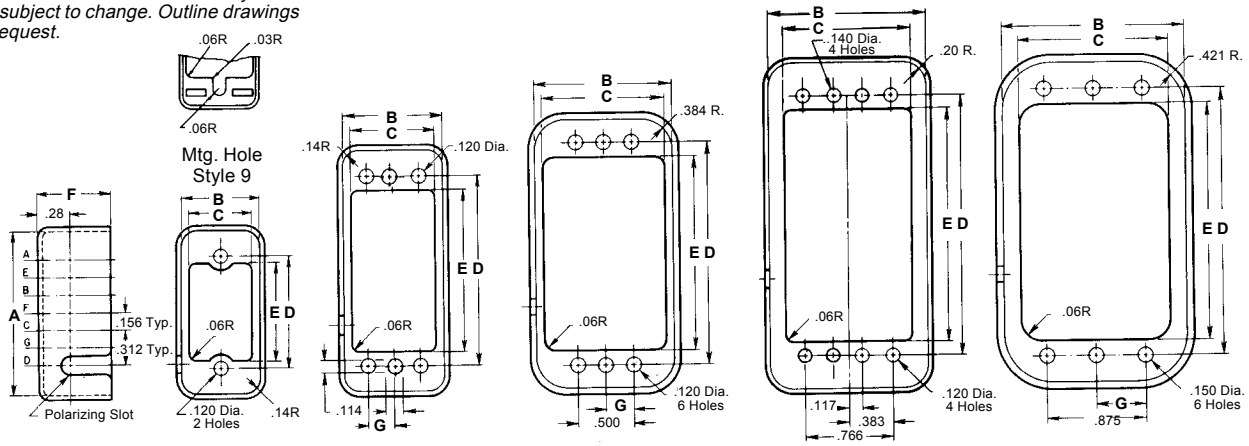
Hoods - Side Cable Opening

For use with Monojacks	For use with Type C Jacksockets & Jackscrews Hood Part No. (If ordered separately)	For use with Fixed Jackscrews*	Dimensions A	B	C	D	Cable Opening E Dia.	F Dia.	Wt. Oz. (Inc. 2 Cable Clamps and Screws)
	XMRE 9-0400	XMRE 9-0600J	1.28	1.31	1.63	.44	.31	–	
	XMRE 9-0400X	XMRE 9-0600XJ	1.28	1.31	1.61	.44	.59	.31	0.3
	XMRE 14 -0400	XMRE 14-0600J	1.28	1.25	1.69	.5	.38	–	
	XMRE 14-0400X	XMRE 14-0600XJ	1.28	1.25	1.55	.5	.59	.38	0.3
	XMRE 18-0400	XMRE 18-0600J	1.28	1.31	1.75	.38	.44	–	
	XMRE 18-0400X	XMRE 18-0600XJ	1.28	1.31	1.81	.38	.69	.44	0.4
	XMRE 20-0400	XMRE 20-0600J	1.28	1.56	2	.5	.38	–	
	XMRE 20-0400X	XMRE 20-0600XJ	1.28	1.56	1.86	.5	.66	.38	0.3
	XMRE 26-0400	XMRE 26-0600J	1.28	1.63	2.06	.64	.59	.38	
	XMRE 26-0400X	XMRE 26-0600XJ	1.28	1.63	2.13	.64	.78	.44	0.4
XMRE 34-0400D	XMRE 34-0400	XMRE 34-0600J	1.25	2	2.42	.83	.66	–	
XMRE 34-0400XD	XMRE 34-0400X	XMRE 34-0600XJ	1.25	2	2.50	.83	.81	.56	0.6
XMRE 42-0400D	XMRE 42-0400	XMRE 42-0600J	1.30	2.31	2.73	.83	.63	.5	
XMRE 42-0400XD	XMRE 42-0400X	XMRE 42-0600XJ	1.30	2.31	2.81	.83	.84	.56	0.7
XMRE 50-0400D	XMRE 50-0400	XMRE 50-0600J	1.30	2.59	3.02	.83	.63	.5	
XMRE 50-0400XD	XMRE 50-0400X	XMRE 50-0600XJ	1.30	2.59	3.09	.83	1.06	.56	0.8
XMRE 75-0400D	XMRE 75-0400	XMRE 75-0600J	1.31	2.59	3.02	1.19	.63	.88	
XMRE 75-0400XD	XMRE 75-0400X	XMRE 75-0600XJ	1.31	2.59	3.14	1.19	1	.88	1.0

** For use with G, K, or N guides, eliminate letter "J" from part number*

Outline Shells– Receptacles

Dimensions are for reference only and are subject to change. Outline drawings on request.



For All XAC Configurations | For XAC 9 to 26 | For XAC 34, 42, and 50 | For XAC 66 | For XAC 75 | For XAC 104

Dimensions Shells – Receptacles

Important Note When Ordering Plug and Receptacle Shells

The shell part numbers given in the table show an asterisk (*) where the code letter for the desired polarizing position belongs - example: XMRE9-2*000 becomes XMRE9-2B000 when polarization in position "B" is desired. Specify the same position on the mating shell.

For non-polarized shells, merely omit this position, e.g. XMRE9-2000.

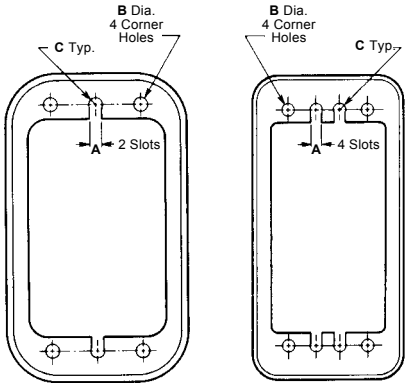
Shell Part No. (If ordered separately)	DIMENSIONS							Wt. Oz.
	A	B	C	D	E	F	G	
XMRE 9-2*000	1.45	.52	.38	1.000	.88	.66	–	0.15
XMRE 14-2*000	1.39	.58	.45	.937	.81	.66	–	0.16
XMRE 18-2*000	1.45	.70	.58	1.000	.88	.66	–	0.17
XMRE 20-2*000	1.70	.58	.45	1.250	1.13	.66	–	0.19
XMRE 26-2*000	1.77	.70	.58	1.312	1.19	.66	–	0.23
XMRE 34-2*000 **XMRE 34-4*000**	2.14	.89	.75	1.687	1.44	.66	.234	0.25
XMRE 42-2*000 **XMRE 42-4*000**	2.45	.89	.75	2.000	1.75	.66	.234	0.28
XMRE 50-2*000 **XMRE 50-4*000**	2.86	1.02	.75	2.282	2.03	.66	.234	0.30
XMRA 66-2*000 **XMRA 66-4*000**	2.42	1.27	1.13	1.969	1.72	.66	.250	0.28
XMRE 75-2*000 **XMRE 75-4*000**	2.86	1.38	1.11	2.282	2.03	.66	–	0.32
XMRA 104-2*000 **XMRA 104-4*000**	2.91	1.69	1.48	2.375	2.13	.66	.437	0.30

TYPICAL SHELLS FOR MONOJACKS STYLE No. 4000

Shells are .040 in. thick.

Shells are aluminum, anodized for protection against corrosion. Either shell style - plug or receptacle - may be used to house the female insert, thus allowing the "live" socket contacts to be cable or panel mounted, as desired. Shells also provide a means by which connector polarization is accomplished - the receptacle shell is slotted for engaging a polarizing pin on the plug shell. Any of seven positions (A, B, C, D, E, F or G) may be specified for polarization; non-polarized shells have the slot and pin omitted.

For Connector Size	A	B	C
34, 42, 50, 66, 75	.11	.120	.06R
104	.14	.150	.07R



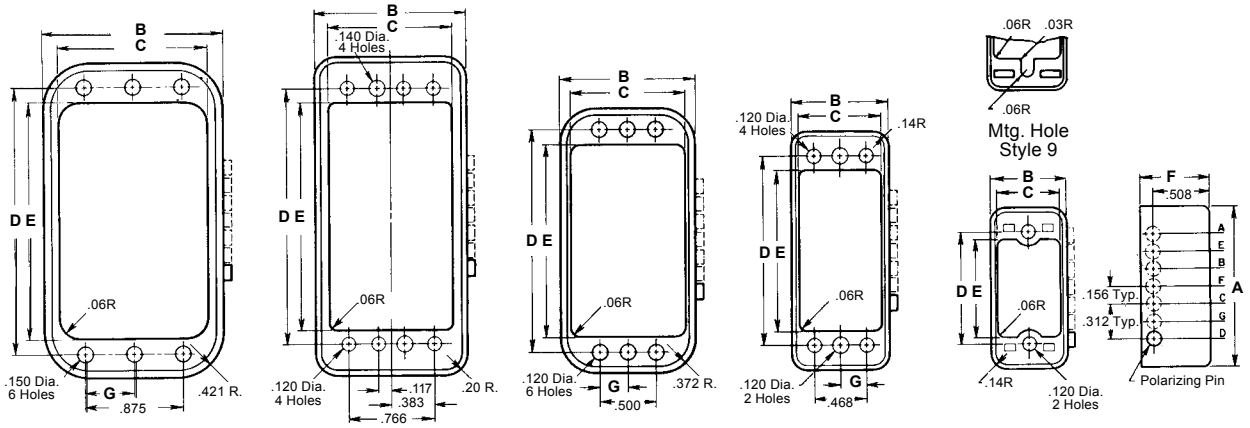
For XAC 34, 42, 50, 66, and 104 Configurations | For XAC 75 Configuration

Receptacle Shell Style No. 2000

Shells are .040 in. thick.

Outline Shells – Plugs

Dimensions are for reference only and are subject to change. Outline drawings on request.



For XAC 104 | For XAC 75 | For XAC 66 | For XAC 34, 42, and 50 | For XAC 75 For XAC 9 to 26 | For All XAC Configurations

Dimensions

Important Note When Ordering Plug Shells

The shell part numbers given in the table shows an asterisk (*) where the code letter for the desired polarizing position belongs - example: XMRE9-1*000 becomes XMRE9-1B000 when polarization in position "B" is desired. Specify the same position on the mating shell.

For non-polarized shells, merely omit this position, e.g. XMRE9-1000.

Shells are .040 in. thick.

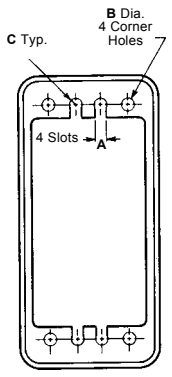
Stainless steel shells available for 66 and 104 sizes. Dimensions vary from those shown for aluminum shells. Check sales for availability and dimensions on all sizes.

Shell Part No. (If ordered separately)	DIMENSIONS							Wt.
	A	B	C	D	E	F	G	Oz.
XMRE 9-1*000	1.44	.5	.38	1.000	.88	.63	–	0.14
XMRE 14-1*000	1.38	.56	.45	.937	.81	.63	–	0.15
XMRE 18-1*000	1.44	.69	.58	1.000	.88	.63	–	0.16
XMRE 20-1*000	1.69	.56	.45	1.250	1.13	.63	–	0.18
XMRE 26-1*000	1.75	.69	.58	1.312	1.19	.63	–	0.22
XMRE 34-1*000 **XMRE 34-3*000**	2.13	.88	.75	1.687	1.44	.66	.234	0.24
XMRE 42-1*000 **XMRE 42-3*000**	2.44	.88	.75	2.000	1.75	.66	.234	0.26
XMRE 50-1*000 **XMRE 50-3*000**	2.84	1	.75	2.282	2.03	.66	.234	0.28
XMRA 66-1*000 **XMRA 66-3*000**	2.41	1.25	1.13	1.969	1.72	.66	.250	0.28
XMRE 75-1*000 **XMRE 75-3*000**	2.84	1.36	1.11	2.282	2.03	.66	–	0.30
XMRA 104-1*000 **XMRA 104-3*000**	2.88	1.66	1.48	2.375	2.13	.66	.437	0.30

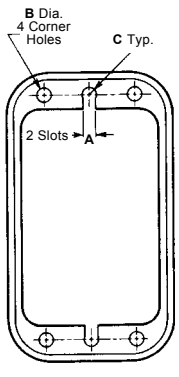
TYPICAL SHELLS FOR MONOJACKS STYLE No. 3000

Shells are aluminum, anodized for protection against corrosion. Either shell style - plug or receptacle - may be used to house the female insert, thus allowing the "live" socket contacts to be cable or panel mounted, as desired. Shells also provide a means by which connector polarization is accomplished - the receptacle shell is slotted for engaging a polarizing pin on the plug shell. Any of seven positions (A, B, C, D, E, F or G) may be specified for polarization; non-polarized shells have the slot and pin omitted.

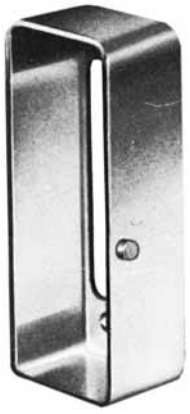
For Connector Size	A	B	C
34, 42, 50, 66, 75	.11	.120	.06R
104	.14	.150	.07R



For XAC 75 Configuration



For XAC 34, 42, 50, 66, and 104 Configurations



Plug Shell Style No. 1000

Shells are .040 in. thick.

Ordering Informations

Omit steps not required

XAC	9	P	M	1	A	0	00	

■ Step 1

Series:
XAC, XNAC

Numerical contact identification on sizes 34, 50, and 104.

■ Step 2

No. of Contacts:

9, 14, 18, 20, 26, 34, 42, 50, 66, 75, and 104

See note 1 below

■ Step 3

Pin or Socket Contacts:

P - Pin
S - Socket

■ Step 4

Jackscrews

(See bottom chart)

■ Step 5

Shell Type:

0 No shell
1 Plug shell, style 1˚000.
2 Receptacle shell, style 2˚000.
3 Plug shell, monojack type, style 3˚000.
4 Receptacle, monojack type, style 4˚000.
** 7 Stainless Steel Plug shell, style 7˚000.
** 8 Stainless Steel Receptacle shell, style 8˚000.

˚ Polarizing Position
*** Request availability information*

■ Step 6

Polarization Position:

A, B, C, D, E, F or G. Omit letter when polarization is not required.

■ Step 7

(See bottom chart)

■ Step 8

Mounting Plate:

00- When no mounting plate is required
*10- Mounting plate, style #0010.

*Note: See section XMRA/E RP/**57**.*

**Mounting plates are not used with "M", "C" or "D" jackscrews.*

■ Step 9

Special Gaskets:

Omit letter when gaskets are not required.

** G- Bulkhead gasket, style #0000G. Use only when mounting plate is specified.
** F- Face gasket, style #0000F. Use with male insert only.
** B- If both gasket #0000G and gasket #0000F are desired.

** Check plant for availability on all gaskets.

■ Step 4

Guides

G- Cylindrical guide with single spring member. Recommended for ground only.
K- Cylindrical guide with four spring members. May be used for electrical contact.
N- Cylindrical guide without spring member. Recommended for extra mechanical strength.

Jackscrews and Jacksockets

M- Polarized short turnable jackscrew and jacksocket. Cannot be used with hoods.
C- Polarized long turnable jackscrew and jacksocket for use with hoods.
*** D- Polarized one-piece mono-jackscrew and mono-jacksocket (no separate knob); to be used with hoods on sizes: 34, 42, 50, 66, 75, and 104.
***F- Polarized fixed jackscrew and jacksocket usable with or without hood; (no knob required).
** MW- Same as M but with knurled round knob with internal hex.
** MU- Same as M but with knurled round knob with screwdriver slot.
** MX- Same as M but with hex knob.
** CW- Same as C but with knurled round knob with internal hex.
** CU- Same as C but with knurled round knob with screwdriver slot.
** CX- Same as C but with hex knob.
** CZ- Same as C but with prybar knob.

*** Request availability information*
**** Material: Nickel Plated Brass standard*

■ Step 7

Formed Hoods:

0- No Hood.
3- Hood, top opening, style #0300, for use with Type "C" or "D" jackscrews.
4- Hood, side opening, style #0400, for use with Type "C" or "D" jackscrews.
5- Hood, top opening, style #0500J, for use with "F" style jackscrews.
6- Hood, side opening, style #0600J, for use with "F" style jackscrews.

Deep Drawn Hoods:

7- Hood, top opening, style #0700, for use with Type "C" or "D" jackscrews.
8- Hood, side opening, style #0800, for use with Type "C" or "D" jackscrews.
9- Hood, top opening, style #0900, for use with "F" jackscrews.
2- Hood, side opening, style #0200, for use with "F" jackscrews.

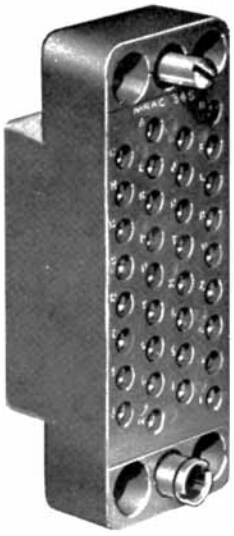
***Note:** Addition of "X" to code # indicates cable opening larger than std. See hoods for cable opening size.*

Example: XAC20PC1A300 X

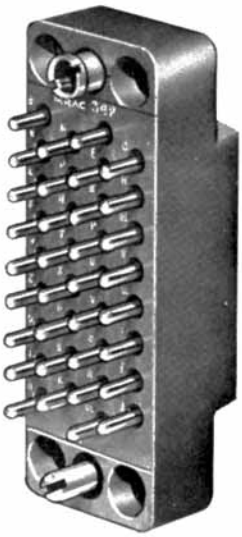
Note: 1. Contacts are ordered separately. See 100 Series contact section of Rack & Panel

TMRAC Series

Heavy Duty, Industrial and Commercial Mini Rectangular Rack & Panel Connector



TMRAC 34S-G



TMRAC 34P-G

Removable contacts offer a substantial savings of time, labor and a great flexibility in the choice of circuitry. The contact is easily removed with the hand tool depicted and then placed by hand or with a simple insertion tool.

The TMRAC Series was designed specifically for the industrial/commercial customer for application in high temperature, rough service operations. This series features the same military-type anodized aluminum hoods, rugged polyester thermoplastic insulators, screw-machine removable contacts, guide and hardware as the MRAC Series.

Specifications

Insulators: Polyester thermoplastic, black color. High potential performance: withstanding voltage is one minute electrification at 2000 VAC (sea level).

Insulation Resistance: 500V

Thermal Shock: -55ºF to +150ºF

Hoods: Anodized aluminum. May be applied on plug or receptable. Both top and side opening hoods available.

Polarization: Gold plated guides provide positive polorization. Polarized nickel-plated brass and/or passivated stainless steel jackscrews with anodized aluminum knobs are available.

Number of Contacts: Eight size connectors: 9-, 14-, 18-, 20-, 26-, 34-, 42- and 50-contact, available in either .040" or .062" diameter.

Contacts: Must be ordered separately. Select from crimp, solder, dip solder, shielded or Wire-Wrap termination contacts. See 100 Series contact section.

Contact Identification: Standard contact identification is alphabetical.

Sizes: .040" diameter and .062" diameter contacts in 7.5-amp and 13-amp current ratings.

Termination Types: Crimp, dip-solder, solder removable in .040" and .062" diameter. Wire Wrap tails and stabilizing bushings for .025" and .045" square.

Current Rating: 7.5 amps maximum for .040" contacts.

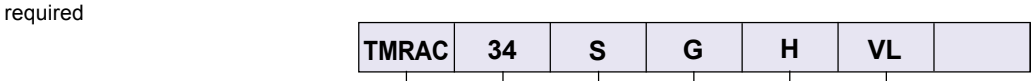
13 amps maximum for .062" contacts.

CSA Certified File No. LR34182

Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650

Ordering Information

Omit steps not required



■ Step 1
Insert Series Code:
TMRAC

■ Step 2
Number of Contacts:
9, 14, 18, 20, 26, 34, 42, 50,
See note 1 below.

■ Step 3
Contact Designation:
P - Pin
S - Socket
When ordering moldings less hardware for use with mono-jacks, see note 2 below.

■ Step 4
Guides and Jackscrew Locks:
(See bottom Chart)

■ Step 5
Hoods:
H - Standard top opening. Sizes 26, 34, 42 & 50 only.
H1 - Standard side opening. Available all sizes.
H8 - Large top opening. Sizes 26, 34, 42 & 50 only.
H9 - Large side opening. Available all sizes.
H13 - Large top opening, high hood. Sizes 9, 14, 18 & 20 only.

■ Step 6
Vibration Locks:
V - Lock Tab
V2 - Lock Tab (Size 50)
VL - Lever & Pivot Ass'y
VL2- Lever & Pivot Ass'y (Size 50)

■ Step 7
Special Options:
Consult Sales Department

■ Step 4

Guides

G*	Phosphor Bronze Cylindrical Guides
K	Beryllium Copper Cylindrical Guides
N*	Brass Cylindrical Guides

"P" indicates two guide pins or two jackscrews (EX. JTCP)
"S" indicates two guide sockets or two jacksockets (Ex. GS)

* *For passivated stainless steel add SS suffix.*

Jackscrew Locks

***J	Polarized Fixed Jackscrew and Jacksocket
JT	Polarized Short Turning Jackscrew and Jacksocket
JTC	Polarized Long Turning Jackscrew and Jacksocket
***JTD	Polarized Long Turning Mono-Jackscrew and Mono-Jacksocket for Sizes 34, 42, and 50 only.
**JZ	Same as J but with 6-32 mtg. thd.
**JTW	Same as JT but with knurled round knob with internal hex
**JTU	Same as JT but with knurled round knob with screwdriver slot
**JTX	Same as JT but with hex knob
**JTCW	Same as JTC but with knurled round knob with internal hex
**JTCU	Same as JTC but with knurled round knob with screwdriver slot
**JTCX	Same as JTC but with hex knob
**JTCZ	Same as JTC but with prybar knob

** *Request availablity information.*
*** *Material: Nickel Plated Brass standard*

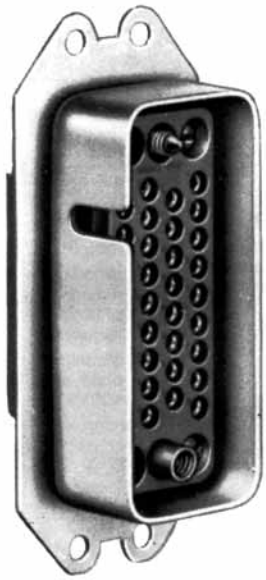
Notes: 1. Contacts are ordered separately. See 100 Series contact section of Rack & Panel
2. When ordering hoods, hardware and connectors separately for use with JTD Monojacks, connectors must be ordered as follows:
Pin connector = TMRAC34P8, TMRAC42P8, etc.
Socket connector = TMRAC34S8, TMRAC42S8, etc.
The number "8" indicates special housing for use with the JTD Monojack hardware (available on sizes 34, 42, and 50).

Dimensions

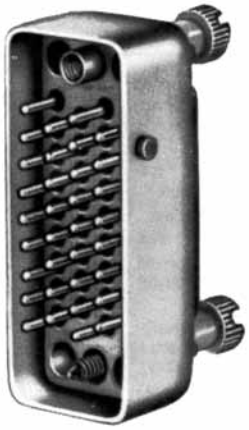
All dimensions for TMRAC housings are the same as MRAC housings. All hoods, hardware, and accesories used on the TMRAC Series are the same as those used on the MRAC Series. See MRAC Series section for part numbers and dimensions. Note the TMRAC Series maximum number of contacts is 50.

TXAC Series

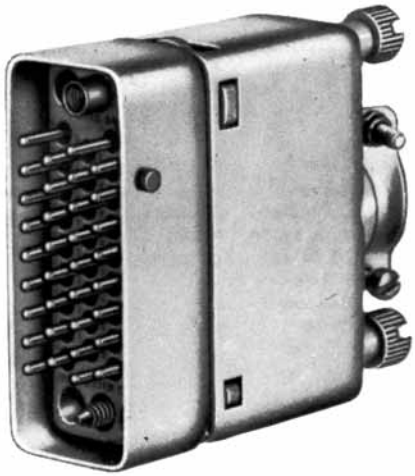
Heavy Duty, Industrial and Commercial, External Mini Rectangular Rack & Panel Connectors



TXAC34SF2A010



TXAC34PM1A000



TXAC34PC1A700

The TXAC Series was designed for external installation specifically for the industrial/commercial customer in high temperature, rough service applications. This series features the same military-type anodized aluminum hoods, rugged polyester thermoplastic insulators, screw-machine removable contacts, guide and jack hardware, and protective, anodized aluminum shells as the XAC Series. These features make this Series suitable for chassis mounting, bulkheads, or any outside surface equipment.

Specifications

Insulators: Polyester thermoplastic, green color. High potential performance: withstanding voltage is one minute electrification at 2000 VAC (sea level).

Insulation Resistance: 500V

Thermal Shock: -55ºF to +150ºF

Hoods: Anodized aluminum. May be applied on plug or receptable. Both top and side opening hoods available.

Polarization: Gold Plated guides provide positive polarization. Polarized nickel-plated brass and/or passivated stainless steel with anodized aluminum knobs are available. 7-position pin and slot polarization on shells.

Number of Contacts: Eight size connectors: 9-, 14-, 18-, 20-, 26-, 34-, 42- and 50-contact, available in either .040" or .062" diameter.

Contacts: Must be ordered separately. Select from crimp, solder, dip solder, shielded or Wire-Wrap termination contacts. See 100 Series contact section.

Contact Identification: Standard contact identification is alphabetical.

Sizes: .040" diameter and .062" diameter contacts in 7.5-amp and 13-amp current ratings.

Contact Resistance: @ 7.5 amps, 14 millivolts max.
@ 13 amps, 10 millivolts max.

Termination Types: Crimp, dip-solder, solder removable in .040" and .062" diameter. Wire Wrap tails and stabilizing bushings for .025" and .045" square.

Current Rating: 7.5 amps maximum for .040" contacts.
13 amps maximum for .062" contacts.

CSA Certified File No. LR34182
Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650

Ordering Infomation

Omit steps not required

TXAC	34	S	D	4	A	3	00	

■ Step 1

Insert Series Code:
TXAC

■ Step 2

No. of Contacts:
9, 14, 18, 20, 26, 34, 42, and 50

See note 1 below.

■ Step 3

Pin or Socket Contacts:
P - Pin
S - Socket

■ Step 4

Jackscrews
(See bottom chart)

■ Step 5

Shell Type:

0 No shell
1 Plug shell, style 1˚000.
2 Receptacle shell, style 2˚000.
3 Plug shell, monojack type, style 3˚000.
4 Receptacle, monojack type, style 4˚000.
** 7 Stainless Steel Plug shell, style 7˚000.
** 8 Stainless Steel Receptacle shell, style 8˚000.

˚Polarizing Position
*** Request availability information*

■ Step 6

Polarization Position:
A, B, C, D, E, F or G.
Omit letter when polarization is not required.

■ Step 7

(See bottom chart)

■ Step 8

Mounting Plate:

00- When no mounting plate is required
*10- Mounting plate, style #0010.

**Mounting plates are not used with "M", "C" or "D" jackscrews.*

■ Step 9

Special Gaskets:
Omit letter when gaskets are not required.

** G- Bulkhead gasket, style #0000G. Use only when mounting plate is specified.
** F- Face gasket, style #0000F. Use with male insert only.
** B- If both gasket #0000G and gasket #0000F are desired.

** Check plant for availability on all gaskets.

■ Step 4

Jackscrews and Jacksockets

M- Polarized short turnable jackscrew and jacksocket. Cannot be used with hoods.
C- Polarized long turnable jackscrew and jacksocket for use with hoods.
*** D- Polarized one-piece mono-jackscrew and mono-jacksocket (no separate knob); to be used with hoods on sizes: 34, 42, and 50.
*** F- Polarized fixed jackscrew and jacksocket usable with or without hood (no knob required). Sizes: 34, 42, and 50.
** MW- Same as M but with knurled round knob with internal hex.
** MU- Same as M but with knurled round knob with screwdriver slot.
** MX- Same as M but with hex knob.
** CW- Same as C but with knurled round knob with internal hex.
** CU- Same as C but with knurled round knob with screwdriver slot.
** CX- Same as C but with hex knob.
** CZ- Same as C but with prybar knob.

*** Request availability information*
**** Material Nickel plated brass - standard*

■ Step 7

Formed Hoods:

0- No Hood.
3- Hood, top opening, style #0300, for use with Type "C" or "D" jackscrews.
4- Hood, side opening, style #0400, for use with Type "C" or "D" jackscrews.
5- Hood, top opening, style #0500J, for use with "F" style jackscrews.
6- Hood, side opening, style #0600J, for use with "F" style jackscrews.

Deep Drawn Hoods:

7- Hood, top opening, style #0700, for use with Type "C" or "D" jackscrews.
8- Hood, side opening, style #0800, for use with Type "C" or "D" jackscrews.
9- Hood, top opening, style #0900, for use with "F" jackscrews.
2- Hood, side opening, style #0200, for use with "F" jackscrews.

***Note:** Addition of "X" to code # indicates cable opening larger than std. See hoods for cable opening size.*

Example: TXAC20PC1A300 X

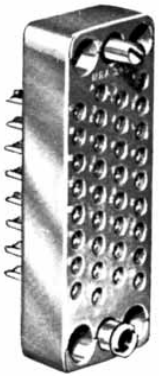
Note: 1. Contacts are ordered separately. See 100 Series contact section of Rack & Panel

Dimensions

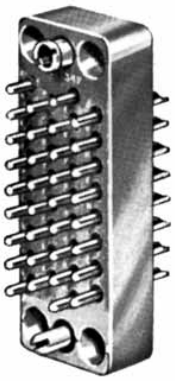
All dimensions for TXAC housing are the same as MRAC housings. All hoods, shells, hardware, and accesories used on the TXAC Series are the same as those used on the XAC Series. See the XAC Series section for part numbers and dimensions. Note the TXAC Series maximum number of contacts is 50.

MRA Series

Miniature Rectangular / #16 Contacts / .062" Dia. / 13 Amps



Receptacle MRA 34S-G



Plug MRA 34P-G

Hood

The MRA Series offers compact, lightweight and self-aligning plugs and receptacles with unusually high current and voltage ratings for their size. Performance tests show them to well exceed military standards. Except for contact size, the MRA and MRE Series share the same hoods, hardware and accessories.

Right angle, dip solder, pin or socket contacts are available. Consult factory.

Dimensions are for reference only and are subject to change. Outline drawings on request.

Specifications

Current Rating: 13 amps

Number of contacts: 9, 14, 20, 34, 41, 42, 50, 50-8, 66, 75, 104

Pin Contacts: .062 diameter, gold plated brass

Socket Contacts: Phosphor bronze, gold plated

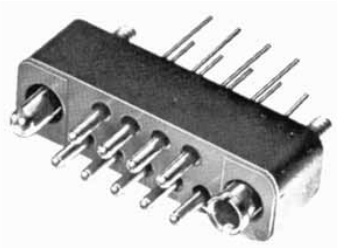
Terminations: .070 dia. solder cup is standard. Will accommodate up to #16 AWG stranded wire. Pin and Socket contacts available with .030 diameter dip solder terminations. Consult Sales Dept. for lengths available.

Electrical Data: Meets high potential performance of MIL-C-28748. Military versions are QPL'd to M28748/1 and M28748/2. The minimum dielectric withstanding voltage is one minute electrification 1000 VAC, sea level.

Dielectric: Gray glass filled diallyl phthalate, per MIL-M-14, SDG-F.

Polarization: Gold plated guides provide polarization. Polarized nickel-plated brass and/or passivated stainless steel jackscrews with anodized aluminum knobs are available.

Hoods: Anodized aluminum. May be applied to either plug or receptacle. Both top and side opening hoods available.



Termination Types

Solder Cup

For pin and socket contacts, .070 diameter solder cup is the standard termination for cable and panel mount applications. Wire accommodation: up to #16 AWG stranded.

Dip Solder

For pin and socket contacts, .030 diameter dip solder terminations, straight or right angle for mounting to printed circuit board or for use with flexible cable.

Guide Sockets

3 Types of Guide Sockets are Available

Guide Socket Code Letter	Application	Actual Size Photo	
G*	The "G" type socket is the standard guide supplied. It has good physical strength and may be used electrically in a low current circuit or as a contact for ground leads.	G Type For General Use Phosphor	
K	The "K" guide socket is an excellent electrical conductor. Its extra spring-tension provides a high normal force uniformly distributed along the surface of the engaged pilot guide, thus minimizing electrical resistance. The multivolt drop across extreme ends of the engaged pilot and socket guide is 10 mv. at 20 amps.	K Type For High Electrical Conductivity Beryllium Copper	Standard Guide Pin mates with all types Brass
N*	The high physical strength of the "N" guide socket allows a greater degree of forcible tightening against a mounting surface than is permitted by the other guide sockets. This feature is particularly desirable for mounting connectors which will be subject to severe vibration in service. "N" guides are not to be used electrically.	N Type For extra Mechanical Strength Brass	

** For passivated stainless steel add SS suffix*

Physical Data

WEIGHT IN OZ.	NUMBER OF CONTACTS										
	9	14	20	34	41	42	50	50-8	66	75	104
PLUG	.5	.5	.5	1.1	1.2	1.2	1.5	1.5	2.0	2.3	3.1
RECEPTACLE	.4	.4	.4	.8	.9	.9	1.1	1.1	1.5	1.7	2.2

Special

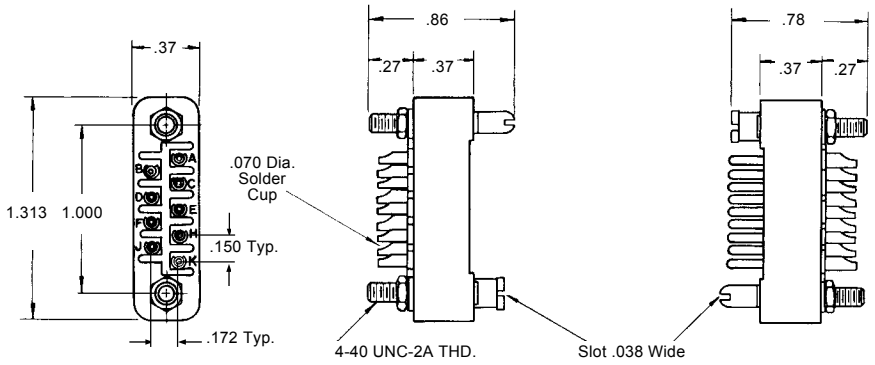
MRA-50-8 with 8, 20 amp solder cup contacts and 50, 13 amp solder cup contacts

CONTACTS	CURRENT RATING	PIN DIAMETER	MAX. WIRE SIZE	SOLDER CUP DIA
8	20 amps	.093	#12 AWG	.106 D
.50	13 amps	.062	#16 AWG	.070 D

Outline

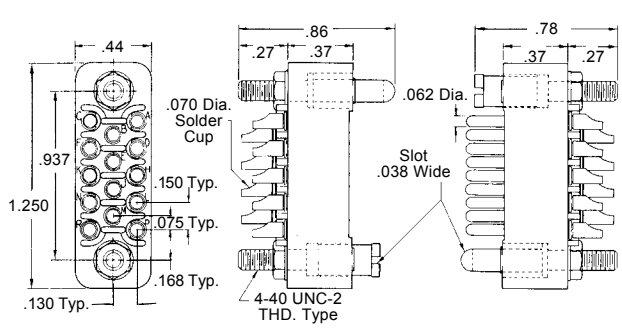
Dimensions are for reference only and are subject to change. Outline drawings on request.

Drawings and corresponding part numbers show G type guide sockets.



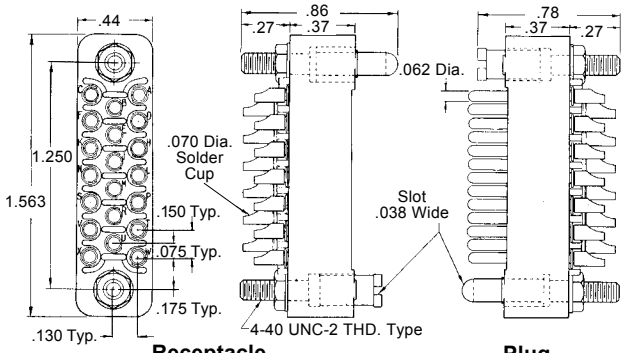
Receptacle
MRA 9S-G

Plug
MRA 9P-G



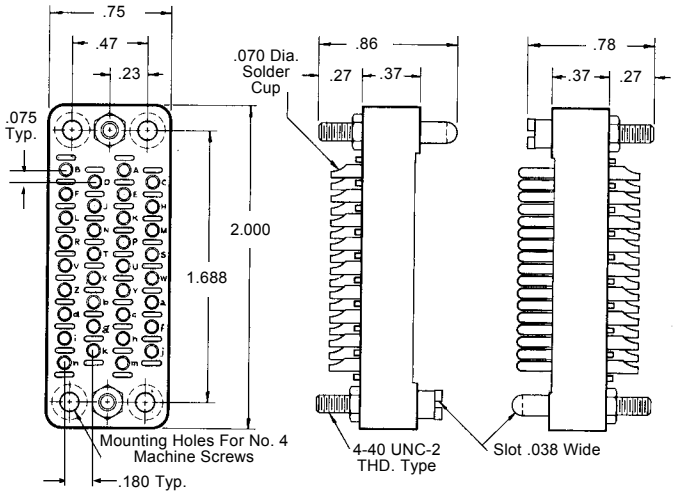
Receptacle
MRA 14S-G

Plug
MRA 14P-G



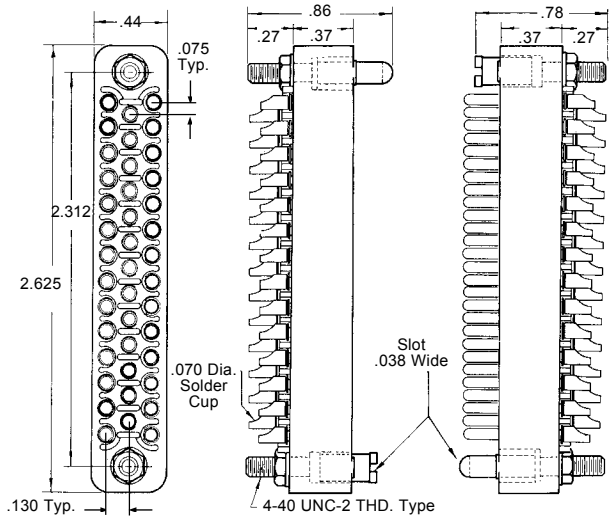
Receptacle
MRA 20S-G

Plug
MRA 20P-G



Receptacle
MRA 34S-G

Plug
MRA 34P-G



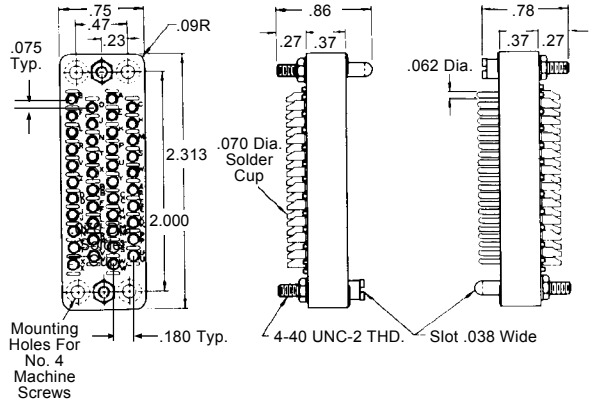
Receptacle
MRA 41S-G

Plug
MRA 41P-G

Outline

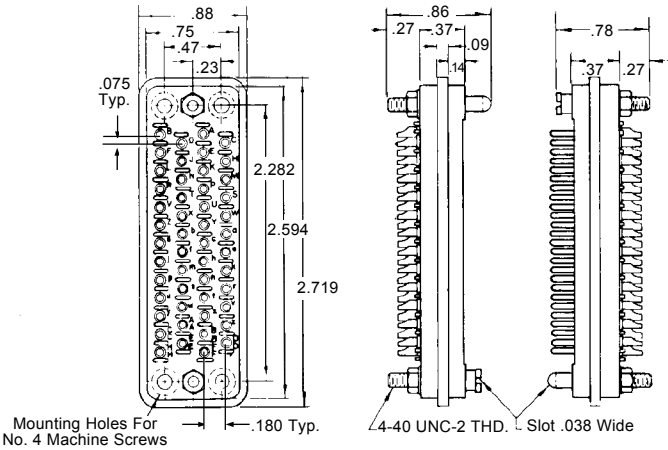
Dimensions are for reference only and are subject to change. Outline drawings on request.

Drawings and corresponding part numbers show G type guide sockets.



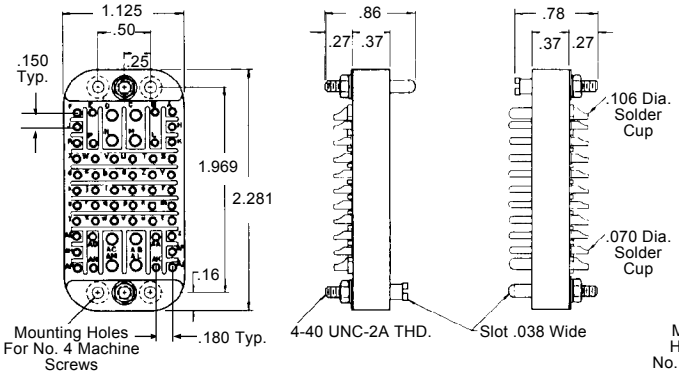
Receptacle MRA 42S-G

Plug MRA 42P-G



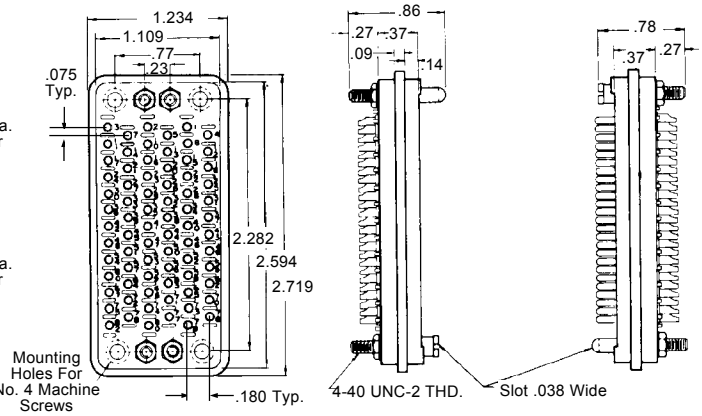
Receptacle MRA 50S-G

Plug MRA 50P-G



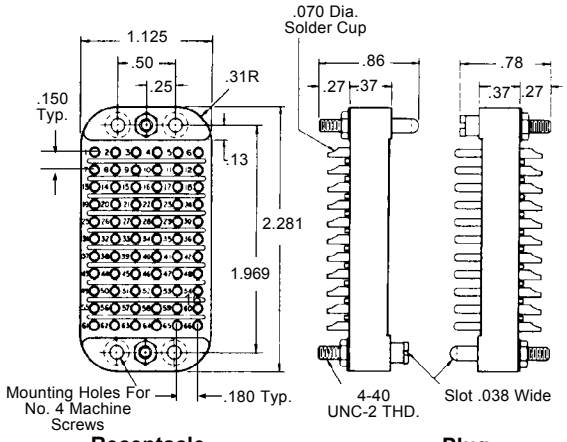
Receptacle MRA 50-8S-G

Plug MRA 50-8P-G



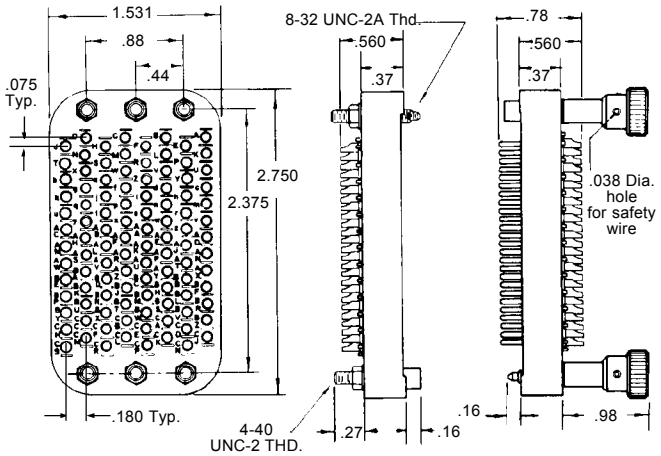
Receptacle MRA 75S-G

Plug MRA 75P-G



Receptacle MRA 66S-G

Plug MRA 66P-G



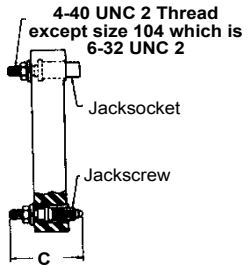
Receptacle MRA 104S-J

Plug MRA 104P-JT

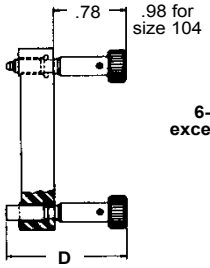
Polarized jackscrews give the ease and assurance of threaded positive coupling. The actuating side consists of two turnable screws, one male and one female, each with knurled and slotted knobs. On the mating half are the two fixed screws required to complete the locking action. When mated, the jackscrews may be locked with a safety wire through the hole in the self-locking pin (in the jackscrew shaft).

The drawings show the extension of the jackscrew knobs beyond a typical MRA connector and beyond the connector-and-hood assembly (center drawings). Dimensions given are constant for all connectors except as noted. Other dimensions applicable to various hood styles are detailed in the chart.

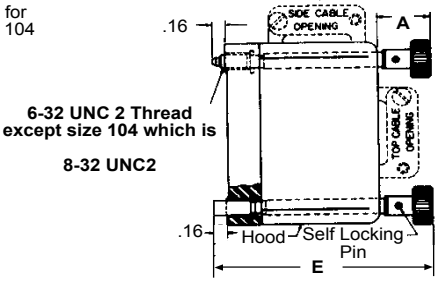
Jackscrews & Jacksockets



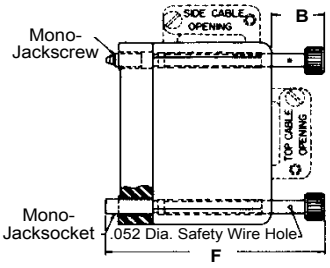
Connector with fixed Jackscrews. Code designation: J



Mating connector half with turnable Jackscrews-with-Knobs. Code designation: JT



Mating connector half with Hood and turnable Long Jackscrews-with Knobs. Code designation: JTCH, JTCH1



Mating connector half with Hood and turnable Monojacks. Code designation: JTDH, JTDH1

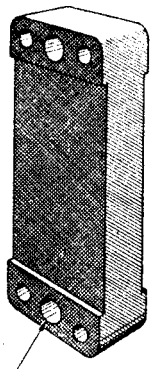
Dimensions

Dimensions are for reference only and are subject to change. Outline drawings on request.

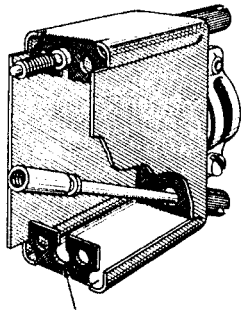
Connector Size	Dimension A				Dimension B				Dimen C	Dimen D	Dimension E				Dimension F			
	H	H1	H8	H9	H	H1	H8	H9			H	H1	H8	H9	H	H1	H8	H9
MRA 9	–	.59	.58	.59	–	–	–	–	.80	1.31	–	2.41	2.09	2.41	–	–	–	–
MRA 14	–	.59	.58	.59	–	–	–	–	.80	1.31	–	2.41	1.84	2.41	–	–	–	–
MRA 20	–	.59	.58	.59	–	–	–	–	.80	1.31	–	2.41	1.84	2.41	–	–	–	–
MRA 34	.63	.63	.63	.63	.63	.63	.63	.63	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRA 41	.63	.63	–	–	–	–	–	–	.80	1.31	2.41	2.41	–	–	–	–	–	–
MRA 42	.58	.58	.58	.58	.58	.58	.58	.58	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRA 50	.58	.58	.58	.58	.58	.58	.58	.58	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRA 50-8	.77	–	–	.70	.50	–	–	.50	.80	1.31	2.47	–	–	2.41	2.19	–	–	2.19
MRA 66	.77	–	–	.70	.50	–	–	.50	.80	1.31	2.47	–	–	2.41	2.19	–	–	2.19
MRA 75	.56	.56	.56	.56	.56	.56	.56	.56	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRA 104	.67	–	–	.67	.50	–	–	.50	.80	1.52	3.42	–	–	3.42	3.25	–	–	3.25

New Monojacks Assemble and Disassemble With Remarkable Ease and Speed

To free the connector from the hood, simply remove four screws. Monojacks may be used on miniature rectangular connectors with from 34 to 104 contacts, molds have 2 center thru holes and 4 mounting holes.



MOLDINGS HAVE STRAIGHT THRU HOLES

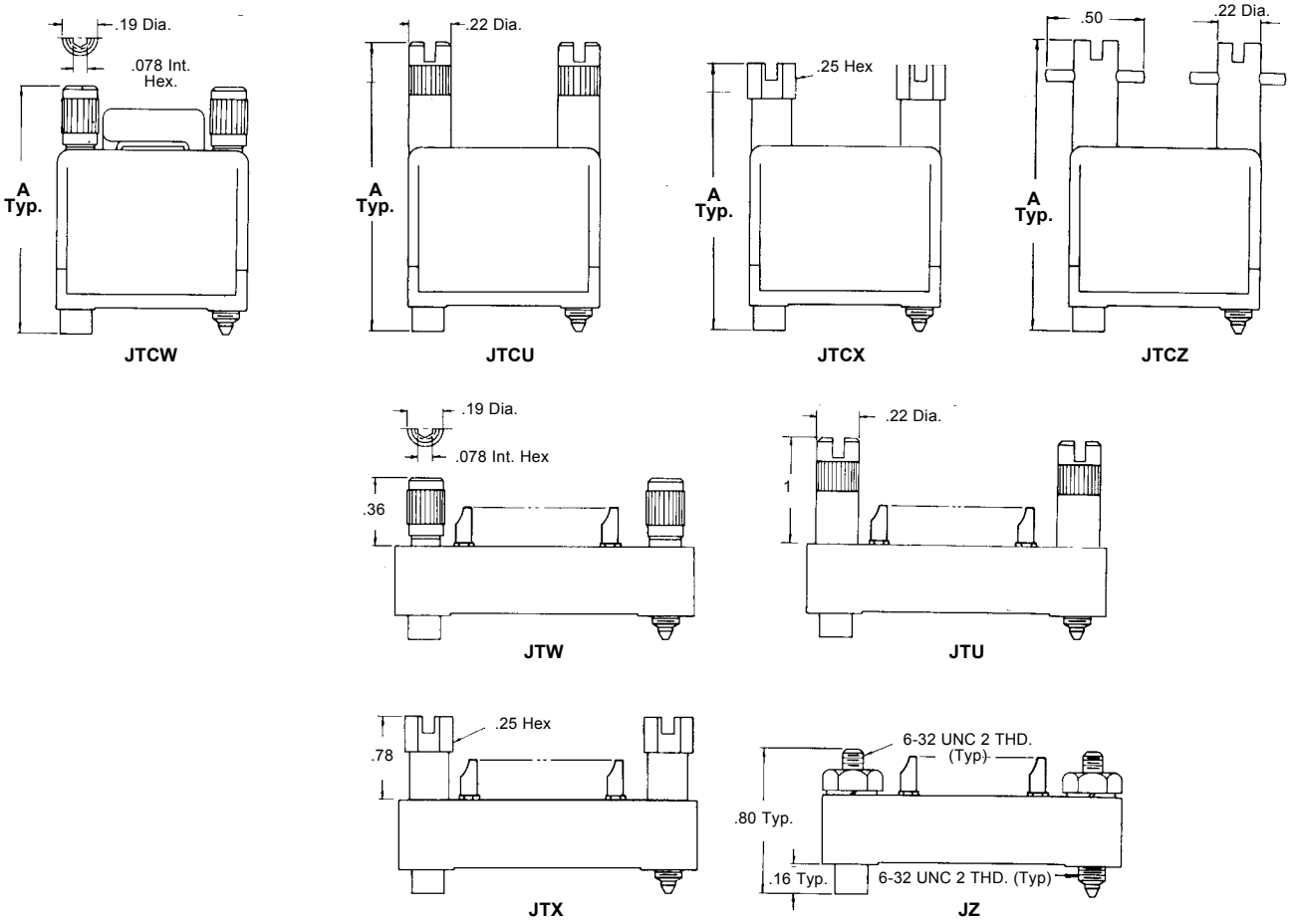


MONOJACKS ARE CAPTIVATED IN KEYHOLE SLOT OF HOOD AS SHOWN ABOVE.

WHEN USING SHELLS, MONOJACKS ARE CAPTIVATED IN KEYHOLE OF SHELL AND CLEARANCE HOLES ARE PLACED IN HOODS.

Outline Jackscrews & Jacksockets

Dimensions are for reference only and are subject to change. Outline drawings on request.



Dimensions

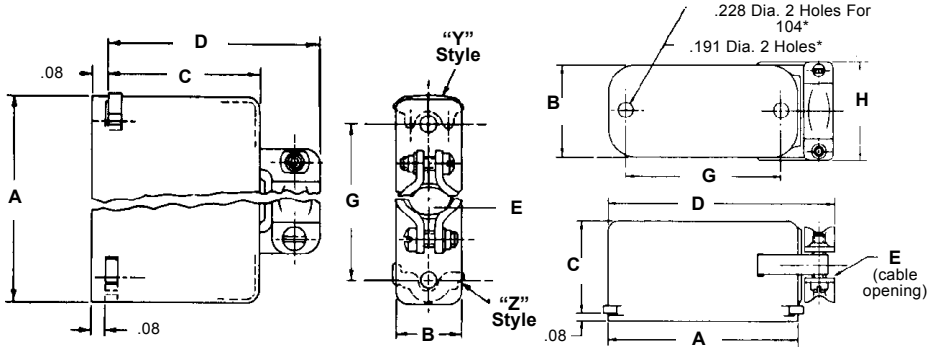
All jackscrews and sockets are stainless steel, passivated, except J & JTD which are nickel-plated brass. All knobs are aluminum, anodized except JTW and JTCW which are stainless steel, passivated.

Hood Type

Size	Type JTCW				Size	Type JTCU				Size	Type JTCX				Size	Type JTCZ			
	H	H1	H8	H9		H	H1	H8	H9		H	H1	H8	H9		H	H1	H8	H9
	Dimension A					Dimension A					Dimension A					Dimension A			
9	–	2.22	1.91	2.22	9	–	2.47	2.16	2.47	9	–	2.34	2.03	2.34	9	–	2.47	2.16	2.47
14	–	2.22	1.66	2.22	14	–	2.47	1.91	2.47	14	–	2.34	1.78	2.34	14	–	2.47	1.91	2.47
20	–	2.22	1.66	2.22	20	–	2.47	1.91	2.47	20	–	2.34	1.78	2.34	20	–	2.47	1.91	2.47
34	2.22	2.22	2.22	2.22	34	2.47	2.47	2.47	2.47	34	2.34	2.34	2.34	2.34	34	2.47	2.47	2.47	2.47
41	2.22	2.22	–	–	41	2.47	2.47	–	–	41	2.34	2.34	–	–	41	2.47	2.47	–	–
42	2.22	2.22	2.22	2.22	42	2.47	2.47	2.47	2.47	42	2.34	2.34	2.34	2.34	42	2.47	2.47	2.47	2.47
50	2.22	2.22	2.22	2.22	50	2.47	2.47	2.47	2.47	50	2.34	2.34	2.34	2.34	50	2.47	2.47	2.47	2.47
50-8	2.22	–	–	2.22	50-8	2.47	–	–	2.47	50-8	2.34	–	–	2.34	50-8	2.47	–	–	2.47
66	2.22	–	–	2.22	66	2.47	–	–	2.47	66	2.34	–	–	2.34	66	2.47	–	–	2.47
75	2.22	2.22	2.22	2.22	75	2.47	2.47	2.47	2.47	75	2.34	2.34	2.34	2.34	75	2.47	2.47	2.47	2.47

Outline Hoods– Drawn Aluminum

Dimensions are for reference only and are subject to change. Outline drawings on request.



Dimensions

Top Cable Opening

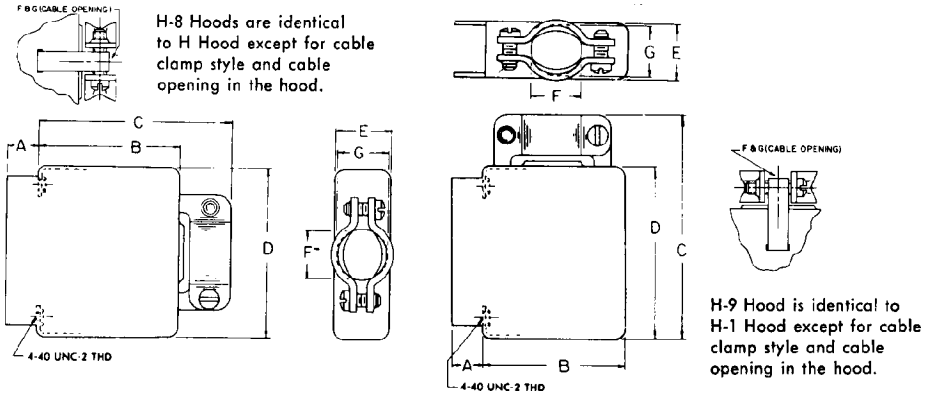
Catalog No.	DIMENSIONS – TOP OPENING							Wt. Oz.	Fits Connector	Style
	A	B	C	D	E	F	G			
MRA 34H-491	2.09	.84	1.17	1.59	.66 x .75	–	1.688	.6	MRA 34P MRA 34S	"Z"
MRA 50-8H	2.38	1.22	1.17	1.69	1.03D	–	1.969	.8	MRA 50-8P MRA 50-8S	"Y"
MRA 66H	2.38	1.22	1.17	1.69	1.03	–	1.969	.8	MRA 66P MRA 66S	"Y"
MRA 104H	2.84	1.63	2.23	2.75	1.19D	–	2.375	1.0	MRA 104P MRA 104S	"Y"

Side Cable Opening

Catalog No.	DIMENSIONS – SIDE OPENING							Wt. Oz.	Fits Connector	Style
	A	B	C	D	E	H	G			
MRA 34H9-491	2.09	.84	1.17	1.59	.64 x .75	1.06	1.688	.6	MRA 34P MRA 34S	"Z"
MRA 50-8H9	2.38	1.22	1.17	2.92	.84D	1.34	1.969	.8	MRA 50-8P MRA 50-8S	"Y"
MRA 66H9	2.38	1.22	1.17	2.92	.84D	1.34	1.969	.8	MRA 66P MRA 66S	"Y"
MRA 104H9	2.84	1.63	2.23	3.39	1.19D	1.63	2.375	1.0	MRA 104P MRA 104S	"Y"

Outline Hoods– Formerd Aluminum

MRE Series hoods for use with MRA Series connectors



Dimensions

Top Cable Opening

Side Cable Opening

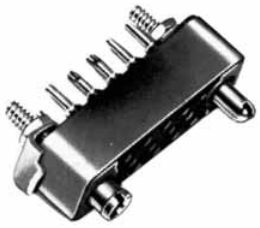
H and H-8 Cable Clamps (Top Opening)

Code No.	Dimensions					Cable Opening		Wt. Oz.	Fits Connector
	A	B	C	D	E	F	G		
MRE 9H*	.28	1	1.31	1.31	.44	.31D	–	.3	MRA 9 (P or S)
MRE 9H-8	.28	1	1.30	1.31	.44	.31	.59	.3	MRA 9 (P or S)
MRE 14H*	.28	.75	1.19	1.25	.5	.44D	–	.3	MRA 14 (P or S)
MRE 14H-8	.28	.75	1.05	1.25	.5	.38	.59	.3	MRA 14 (P or S)
MRE 20H*	.25	.75	1.19	1.56	.5	.44D	–	.3	MRA 20 (P or S)
MRE 20H-8	.25	.75	1.05	1.56	.5	.38	.66	.3	MRA 20 (P or S)
MRE 34H	.28	1.25	1.67	2	.83	.66D	–	.6	MRA 34 (P or S)
MRE 34H-8	.28	1.25	1.75	2	.83	1.06	.56	.6	MRA 34 (P or S)
MRE 41H	.28	1.25	1.67	2.63	.5	.66	.44	.6	MRA 41 (P or S)
MRE 42H	.09	1.30	1.72	2.31	.83	.63D	–	.7	MRA 42 (P or S)
MRE 42H-8	.09	1.30	1.80	2.31	.83	1.06	.56	.7	MRA 42 (P or S)
MRE 50H	.09	1.30	1.72	2.59	.83	.63D	–	.8	MRA 50 (P or S)
MRE 50H-8	.09	1.30	1.80	2.59	.83	1.06	.56	.8	MRA 50 (P or S)
MRE 75H	.09	1.31	1.73	2.59	1.19	.63	.88	1.0	MRA 75 (P or S)
MRE 75H-8	.09	1.31	1.86	2.59	1.19	1	.88D	1.0	MRA 75 (P or S)

**** H Hoods for MRA 9, 14, and 20 will not accept JTC hardware. Use H8 hoods.***

H-1 and H-9 Cable Clamps (Side Opening)

Code No.	Dimensions					Cable Opening		Wt. Oz.	Fits Connector
	A	B	C	D	E	F	G		
MRE 9H-1	.28	1.28	1.63	1.31	.44	.31D	–	.3	MRA 9 (P or S)
MRE 9H-9	.28	1.28	1.61	1.31	.44	.59	.31	.3	MRA 9 (P or S)
MRE 14H-1	.28	1.28	1.69	1.25	.5	.38D	–	.3	MRA 14 (P or S)
MRE 14H-9	.28	1.28	1.55	1.25	.5	.59	.38	.3	MRA 14 (P or S)
MRE 20H-1	.28	1.28	2	1.56	.5	.38D	–	.3	MRA 20 (P or S)
MRE 20H-9	.28	1.28	1.86	1.56	.5	.66	.38	.3	MRA 20 (P or S)
MRE 34H-1	.28	1.25	2.42	2	.83	.66D	–	.6	MRA 34 (P or S)
MRE 34H-9	.28	1.25	–	2	.83	.81	.56	.6	MRA 34 (P or S)
MRE 41H-1	.28	1.25	3.06	2.63	.5	.66	.44	.6	MRA 41 (P or S)
MRE 42H-1	.09	1.30	2.73	2.31	.83	.63	.5	.7	MRA 42 (P or S)
MRE 42H-9	.09	1.30	–	2.31	.83	.84	.56	.7	MRA 42 (P or S)
MRE 50H-1	.09	1.30	3.02	2.59	.83	.63	.5	.8	MRA 50 (P or S)
MRE 50H-9	.09	1.30	–	2.59	.83	1.06	.56	.8	MRA 50 (P or S)
MRE 75H-1	.09	1.31	3.02	2.59	1.19	.63	.88	1.0	MRA 75 (P or S)
MRE 75H-9	.09	1.31	–	2.59	1.19	1	.88	1.0	MRA 75 (P or S)



Lock Tabs (MRE-V shown)

Lever & Pivot Assemblies (MRE-VL shown)

Hoods – Locking

Lever & Pilot Assembly	Lock Tabs (See Note)	Used on Connectors
MRE-VL	MRE-V	MRA 9, 14, 20, 34, 41, 42, 66
MRE-VL2	MRE-V2	MRA 50,75

Vibration Locks*

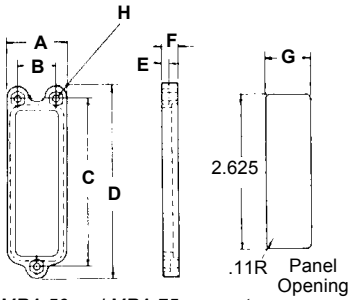
Vibration locks offer simplicity of design and positive locking in excess of 50G shock impact and 10G vibration acceleration. Mating halves automatically lock when engaged. To unlock, depress the levers. Drilled holes in the levers are provided for safety wiring. Vibration locks are available separately for assembly on connectors now in service. Each code number indicates two units: two levers with two pivots, and two lock tabs.

**US Patent Number 2760174*

Note: When panel mounting the lock-tab half of a MRA 34, MRA 42 or MRA 50 and MRA 66 connector, flat washers (.033 minimum thickness) should be used on the mounting screws to shim the moulding away from the panel.

Dimensions / Outline Mounting Brackets

Code No.	DIMENSIONS								Wt. Oz.
	A	B	C	D	E	F	G	H	
MRE 50B	1.06	.688	3.031	3.44	.13	.28	.72	.128 Dia 3 Holes (No. 4 Mounting Screw)	.4
MRE 75B	1.48	1.047	3.062	3.56	.14	.30	1.14	.150 Dia 3 Holes (No. 6 Mounting Screw)	.6



MRA 50 and MRA 75 connectors use the standard MRE 50 and MRE 75 mounting brackets

Dimensions / Outline Pre-Shaped Nylon Potting Forms

Dimensions are for reference only and are subject to change. Outline drawings on request.

Each form matches the back opening contour of its appropriate shell, and stays easily in place during the potting operation. Of negligible weight, it need not be removed from the connector after potting. Because of floating contacts, connector halves should always be engaged during the potting operation to preserve contact alignment.

Potting Form Code No.	Fig.	Dimensions	
		A	B
MRA 9 FM	3	.77	.43
MRA 14 FM	2	.93	.49
MRA 20 FM	2	1.12	.49
MRA 26 FM	2	1.18	.61
MRA 34 FM	1	1.38	.80
MRA 41 FM	2	2.18	.49
MRA 42 FM	1	1.69	.80
MRA 50 FM	1	1.97	.80
MRA 75 FM	1	1.98	1.16

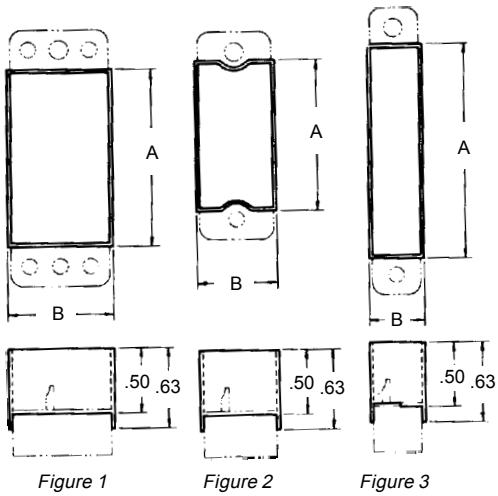


Figure 1 *Figure 2* *Figure 3*

Ordering Information

Omit steps not required

MRA	34	S		G	H	VL		

Step 1
Insert Series Code
By adding "ML" to the series code, connector is supplied with diallyl phthalate type SDG-F and mil plated contacts.
Example: MRAML

Step 2
Number of Contacts:
9, 14, 20, 34, 41, 42, 50, 50-8, 66, 75, 104

Step 3
Contact Designation:
P - Pin
S - Socket
When ordering molding less hardware to be used with mono-jacks, see Note below.

Step 4
Type of Contact:
Blank = Standard Solder Cup
Straight Dip Solder .030" dia.:
D3 = .094"
D4 = .125"
D5 = .156"
For additional lengths in 1/32" increments, contact Winchester's Sales Department.

Step 5
Guides and Jackscrew Locks:
(See bottom Chart)

Step 6
Hoods:
H - Standard Top Opening*
H1 - Standard Side Opening
H8 - Large Top Opening
H9 - Large Side Opening
See Hood Section for Availability
**(Note: H Hoods for MRA 9, 14 and 20 will not accept JTC hardware. Use H8 hoods.)*

Step 7
Vibration Locks:
V - Lock Tab
V2 - Lock Tab (Size 50 & 75)
VL - Lever & Pivot Ass'y
VL2 - Lever & Pivot Ass'y (Size 50 & 75)

Step 8
Accessories:
FM - Potting Forms. Cannot be Used with Hoods. Request availability information.

Step 9
Special Options:
Consult Sales Department

Step 5

Guides

*G	Phosphor Bronze Cylindrical Guides*
K	Beryllium Copper Cylindrical Guides
*N	Brass Cylindrical Guides*

Guides are not recommended for Size 104
"P" indicates two guide pins or two jackscrews (EX. JTCP)
"S" indicates two guide sockets or two jacksockets. (Ex. GS)

Jackscrew Locks

*** J	Polarized Fixed Jackscrew and Jacksocket
JT	Polarized Short Turning Jackscrew and Jacksocket
JTC	Polarized Long Turning Jackscrew and Jacksocket
*** JTD	Polarized Long Turning Mono-Jackscrew and Mono-Jacksocket for Sizes 34, 42, 50, 66, 75, and 104 only.
** JZ	Same as J but with 6-32 mtg. thd. (Std. on 104)
** JTW	Same as JT but with knurled round knob with internal hex (not avail. 104)
** JTU	Same as JT but with knurled round knob with screwdriver slot (not avail. 104)
** JTX	Same as JT but with hex knob (not avail. 104)
** JTCW	Same as JTC but with knurled round knob with internal hex (not avail. 104)
** JTCU	Same as JTC but with knurled round knob with screwdriver slot (not avail. 104)
** JTCX	Same as JTC but with hex knob (not avail. 104)
** JTCZ	Same as JTC but with prybar knob (not avail. 104)

** *Request availablity information.*
*** *Material: Nickel-plated brass - standard.*

* For passivated stainless steel add SS suffix. (**Example:** MRA34SGSS)

Mounting Note: Connectors MRA 9, MRA 14, MRA 20 and MRA41 use guides or fixed jacks for mounting in a hood or on a panel. Connectors MRA 34, MRA 42, MRA 50, MRA 66, MRA 75 use four #4 machine screws, and MRA 104 uses four #6 machine screws for mounting in a hood or on a panel. Guides are not recommended for use with MRA 104.

Note: When ordering hoods, hardware and connectors separately for use with JTD Monojacks, connectors must be ordered as follows:

Pin connector = MRA34P8, MRA42P8, etc.

Socket connector = MRA34S8, MRA42S8, etc.

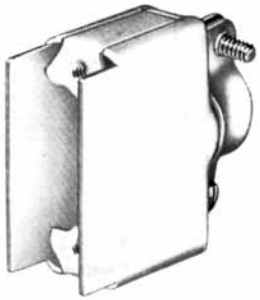
The number "8" indicates special housing for use with the JTD Monojack hardware (available on sizes 34, 42, 50, 66, 75 and 104).

MRE Series

Miniature Rectangular / #20 Contacts / .040" Dia. / 7.5 Amps

Receptacle MRE 14S-G

Plug MRE 14P-G



Hood MRE 14H

MRE Series plugs and receptacles are the accepted standard for rectangular-shaped, miniature, internal-type connectors. They embody all of the features expected of true miniaturization: maximum utility of space, extremely lightweight and unusually high working voltage and current ratings. Their long life and trouble-free service continue to make them highly popular for use in aircraft, instrumentation and portable equipment. The MRE and MRA series share the same hoods, hardware and accessories.

Specification

Current Rating: 7.5 amps

No. of Contacts: 7, 8, 9, 11, 14, 18, 20, 21, 26, 34, 41, 42, 50, 75, 104

Pin Contacts: .040 dia., gold plated brass

Socket Contacts: Phosphor bronze plated gold.

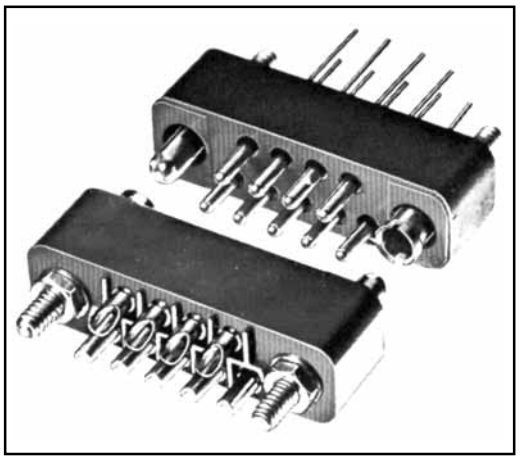
Termination Types: .048 dia. solder cup is standard. It will accept up to #20 AWG stranded wire. Pin and Socket Contacts available with dip solder terminations, .025 Dia. Check Sales Dept. for lengths available.

Electrical Data: Meets high potential performance requirements of MIL-C-28748. Military versions are QPL'd to M28748/5 and M28748/6. The dielectric withstanding voltage is one minute at 1200 volts.

Dielectric: Brown mineral filled diallyl phthalate. Also available in gray glass filled diallyl phthalate, per MIL-M-14, SDG-F.

Polarization: Gold plated guides provide positive polarization. Polarized nickel-plated brass and/or passivated stainless steel jackscrews with anodized aluminum knobs are available.

Hoods: Anodized aluminum. May be applied to either plug or receptacle. Both top and side openings are available.



Termination Types

Solder Cup

.048 diameter solder cup is the standard termination for cable and panel mounting applications. It will accept up to #20 AWG stranded wire.

Dip Solder

For mounting on printed circuit boards, .025 diameter straight dip solder terminations (for Pin Contacts and Socket Contacts) are available. Consult the Sales Department for available lengths.

Guide Forms

3 Types of Guide Sockets are Available

Guide Socket Code Letter	Application	Actual Size Photo	
G*	The "G" type socket is the standard guide supplied. It has good physical strength and may be used electrically in a low current circuit or as a contact for ground leads.	G Type For General Use Phosphor	
K	The "K" guide socket is an excellent electrical conductor. Its extra spring-tension provides a high normal force uniformly distributed along the surface of the engaged pilot guide, thus minimizing electrical resistance. The multivolt drop across extreme ends of the engaged pilot and socket guide is 10 mv. at 20 amps.	K Type For High Electrical Conductivity Beryllium Copper	Standard Guide Pin mates with all types Brass
N*	The high physical strength of the "N" guide socket allows a greater degree of forcible tightening against a mounting surface than is permitted by the other guide sockets. This feature is particularly desirable for mounting connectors which will be subject to severe vibration in service. "N" guides are not to be used electrically.	N Type For extra Mechanical Strength Brass	

** For passivated stainless steel add SS suffix*

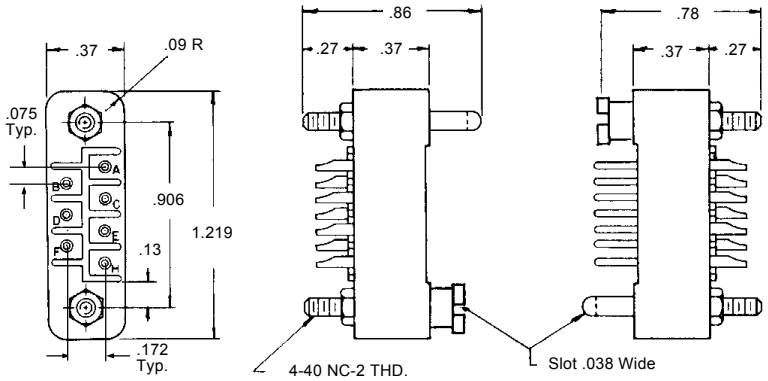
Physical Data

HOW TO ORDER: To obtain "K" or "N" guides in place of the standard "G" type, substitute the desired socket style code letter ("K" or "N") for "G" in both the Plug and Receptacle Code Numbers. (See Code Numbers in table at right.

Total No. of Contacts	Plug	Recept.	No. Standard Contacts, 7.5 Amps (.048 dia. solder cup for #20 AWG)	No. Standard Contacts, 10 Amps (.052 dia. solder cup for #18 AWG)	Weight Oz.		Total No. of Contacts	Plug	Recept.	No. Standard Contacts, 7.5 Amps (.048 dia. solder cup for #20 AWG)	No. Standard Contacts, 10 Amps (.052 dia. solder cup for #18 AWG)	Weight Oz.	
	Winchester Electronics Code No.	Winchester Electronics Code No.			Plug	Rec.		Winchester Electronics Code No.	Winchester Electronics Code No.			Plug	Rec.
7	MRE 7P-G	MRE 7S-G	7	none	.3	.3	26	MRE 26P-G	MRE 26S-G	26	none	.6	.5
8	MRE 8P-N	MRE 8S-N	8	none	.2	.2	34	MRE 34P-G	MRE 34S-G	34	none	.8	.7
9	MRE 9P-G	MRE 9S-G	9	none	.3	.3	41	MRE 41P-G	MRE 41S-G	41	none	.8	.6
11	MRE 11 P-G	MRE 11S-G	11	none	.3	.3	42	MRE 42P-G	MRE 42S-G	42	none	.9	.8
14	MRE14P-G	MRE 14S-G	14	none	.3	.3	50	MRE 50P-G	MRE 50S-G	50	none	1.0	.9
18	MRE 18P-G	MRE 18S-G	18	none	.4	.4	75	MRE 75 P-G	MRE 75S-G	75	none	1.5	1.3
20	MRE 20P-G	MRE 20S-G	20	none	.5	.4	104	MRE 104P-JT	MRE 104S-G	104	none	3.3	2.2
21	MRE 21P-G	MRE 21S-G	21	none	.5	.5							

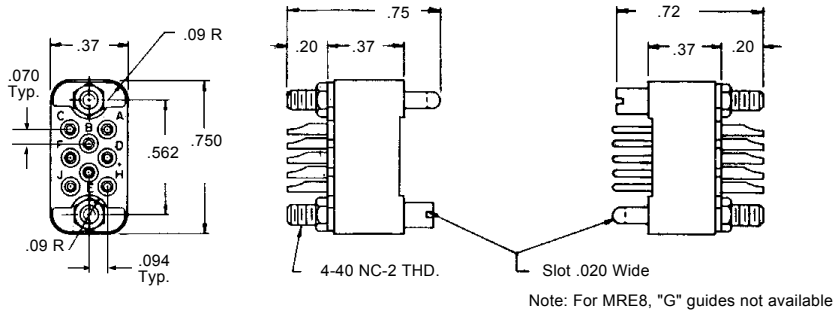
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.



Receptacle
MRE 7S-G

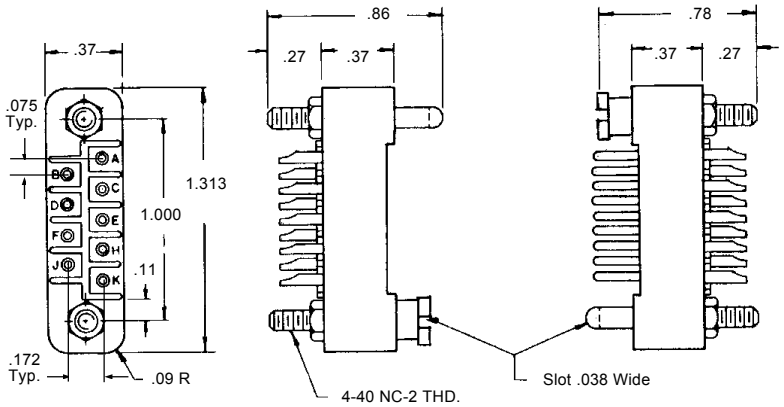
Plug
MRE 7P-G



Note: For MRE8, "G" guides not available

Receptacle
MRE 8S-N

Plug
MRE 8P-N

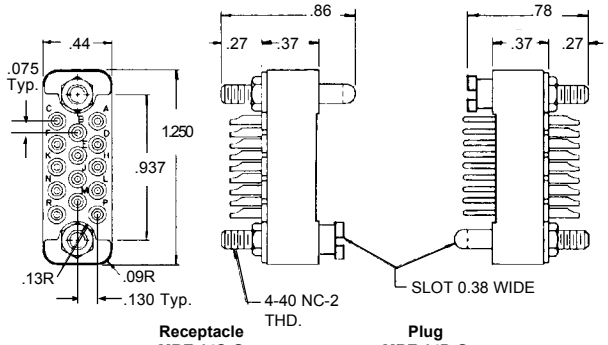


Receptacle
MRE 9S-G

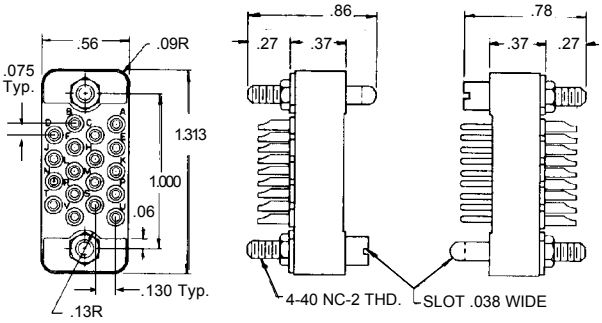
Plug
MRE 9P-G

Outline

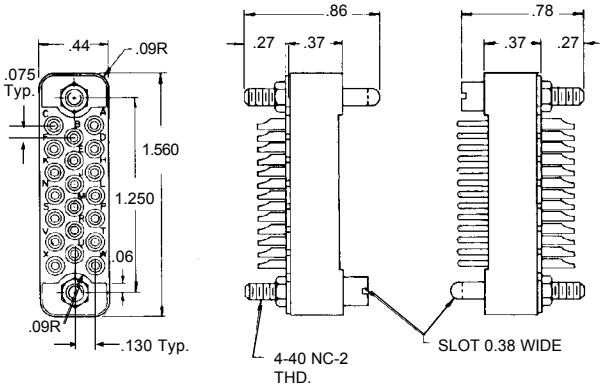
Dimensions are for reference only and are subject to change. Outline drawings on request.



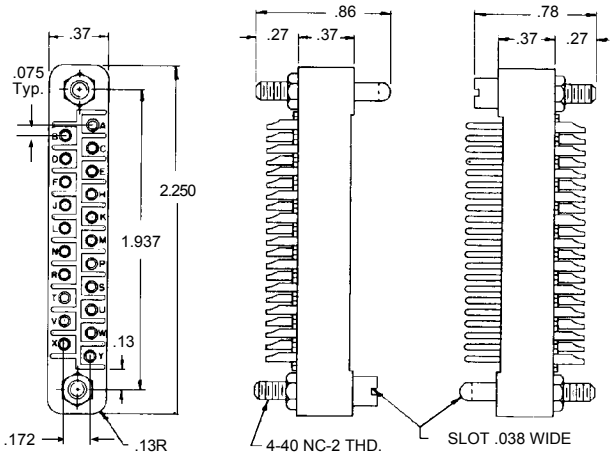
Receptacle MRE 14S-G **Plug MRE 14P-G**



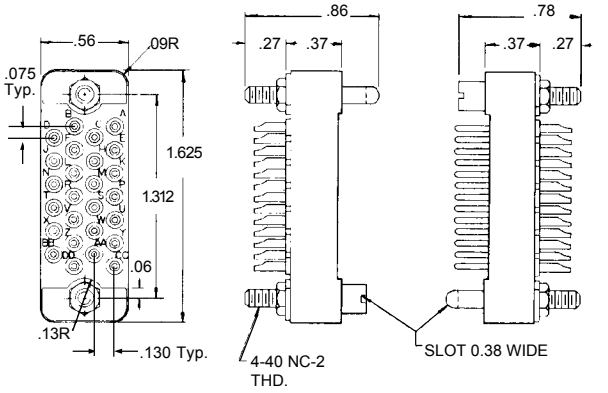
Receptacle MRE 18S-N **Plug MRE 18P-N**



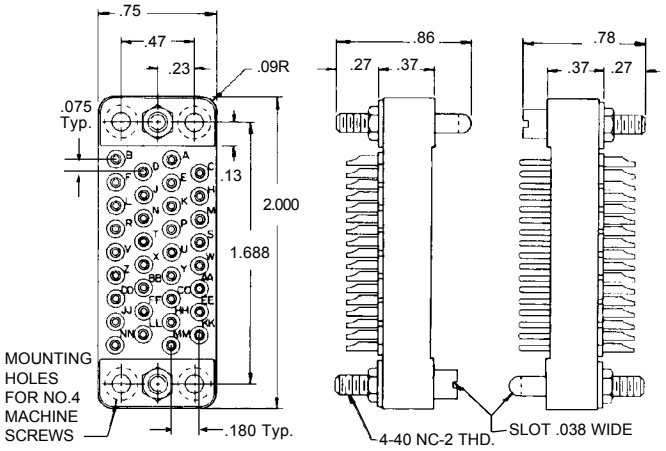
Receptacle MRE 20S-N **Plug MRE 20P-N**



Receptacle MRE 21S-N **Plug MRE 21P-N**



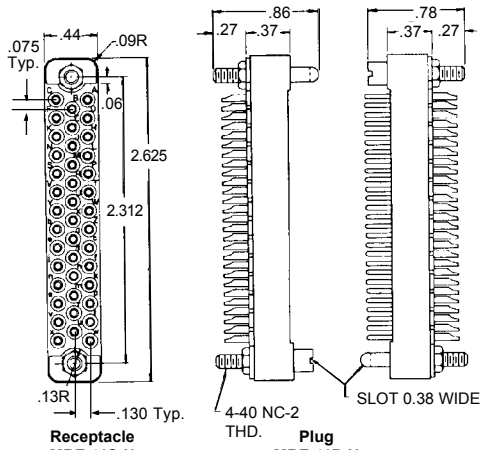
Receptacle MRE 26S-N **Plug MRE 26P-N**



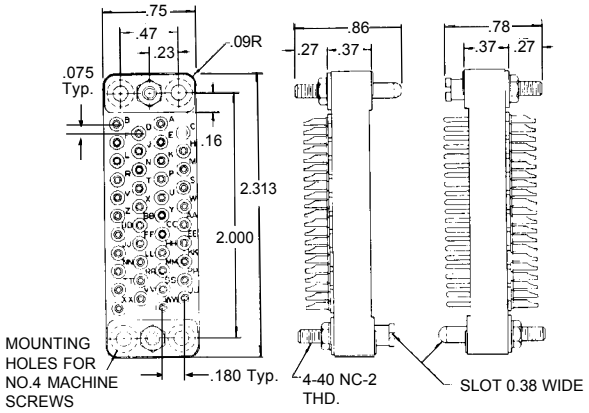
Receptacle MRE 34S-N **Plug MRE 34P-N**

Outline

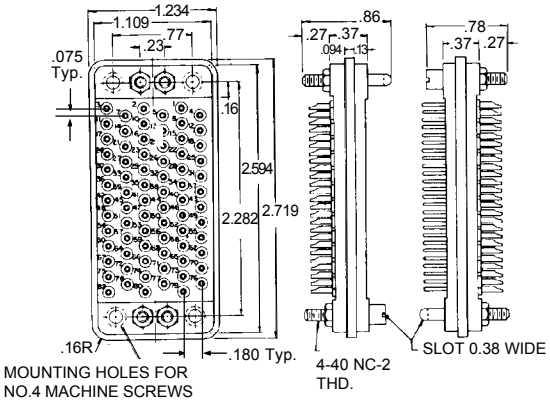
Dimensions are for reference only and are subject to change. Outline drawings on request.



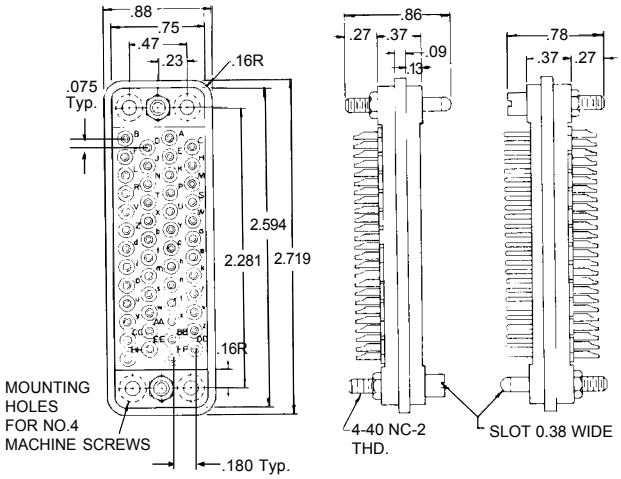
Receptacle MRE 41S-N **Plug MRE 41P-N**



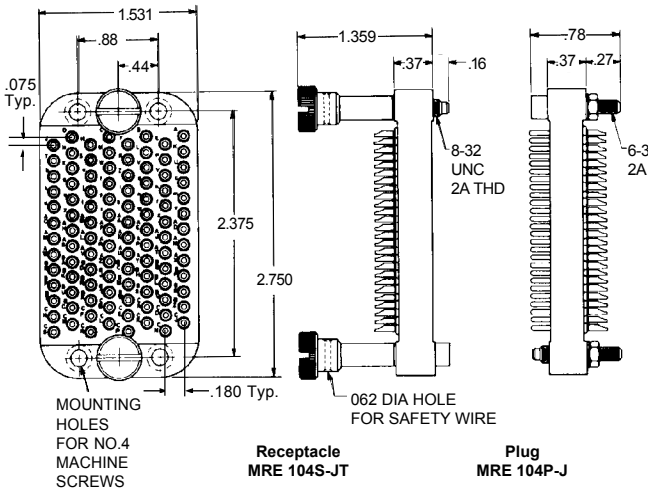
Receptacle MRE 42S-G **Plug MRE 42P-G**



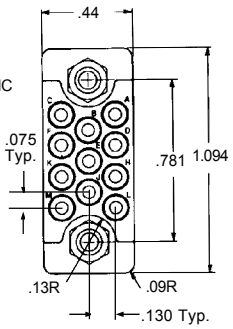
Receptacle MRE 75S-N **Plug MRE 75P-N**

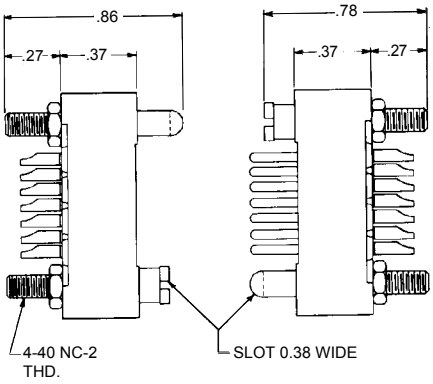


Receptacle MRE 50S-N **Plug MRE 50P-N**



Receptacle MRE 104S-JT **Plug MRE 104P-J**



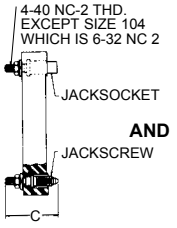


Receptacle MRE 11S-G **Plug MRE 11P-G**

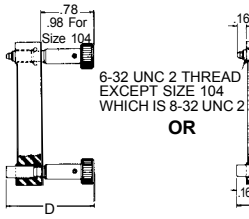
Jackscrews & Jacksockets

Polarized jackscrews give the ease and assurance of threaded positive coupling. The actuating side consists of two turnable screws, one male and one female, each with knurled and slotted knobs. On the mating half are the two fixed screws required to complete the locking action. When mated, the jackscrews may be locked with a safety wire through the hole in the self-locking pin (in the jackscrew shaft).

The drawings show the extension of the jackscrew knobs beyond a typical MRA connector and beyond the connector-and-hood assembly (center drawings). Dimensions given are constant for all connectors except as noted. Other dimensions applicable to various hood styles are detailed in the chart.

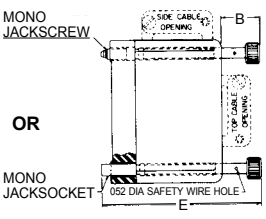


Connector with fixed Jackscrews. Code designation: J



Mating connector half with turnable Jack-screws-with-Knobs. Code designation: JT

Mating connector half with Hood and turnable Long Jackscrews-with Knobs. Code designation: JTCH, JTCH1



Mating connector half with Hood and turnable Monojacks. Code designation: JTDH, JTDH1

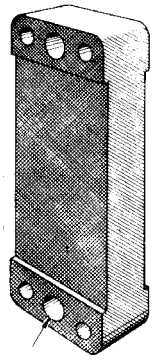
Dimensions

Dimensions are for reference only and are subject to change. Outline drawings on request.

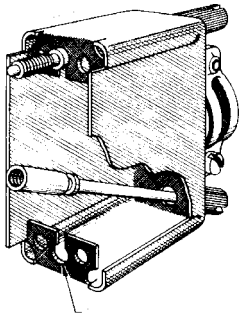
Connector Size	Dimension A				Dimension B				Dimen C	Dimen D	Dimension E				Dimension F			
	H	H1	H8	H9	H	H1	H8	H9			H	H1	H8	H9	H	H1	H8	H9
MRE 7	–	.58	.58	–	–	–	–	–	.80	1.31	–	2.09	2.09	–	–	–	–	–
MRE 8	–	.5	.5	.5	–	–	–	–	.80	1.31	–	2.02	2.02	2.02	–	–	–	–
MRE 9	–	.59	.58	.59	–	–	–	–	.80	1.31	–	2.41	2.09	2.41	–	–	–	–
MRE 14	–	.59	.58	.59	–	–	–	–	.80	1.31	–	2.41	1.84	2.41	–	–	–	–
MRE 18	–	.59	.83	.59	–	–	–	–	.80	1.31	–	2.41	2.09	2.41	–	–	–	–
MRE 20	–	.59	.58	.59	–	–	–	–	.80	1.31	–	2.41	1.84	2.41	–	–	–	–
MRE 21	.67	.59	.67	.59	–	–	–	–	.80	1.31	2.09	2.41	2.09	2.41	–	–	–	–
MRE 26	.81	.59	.59	.59	–	–	–	–	.80	1.31	2.61	2.41	2.41	2.41	–	–	–	–
MRE 34	.63	.63	.63	.63	.63	.63	.63	.63	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRE 41	.63	.63	–	–	–	–	–	–	.80	1.31	2.41	2.41	–	–	–	–	–	–
MRE 42	.58	.58	.58	.58	.58	.58	.58	.58	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRE 50	.58	.58	.58	.58	.58	.58	.58	.58	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRE 75	.56	.56	.56	.56	.56	.56	.56	.56	.80	1.31	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41
MRE 104	.67	–	–	.67	.5	–	–	.5	.80	1.52	3.42	–	–	3.42	3.25	–	–	3.25

New Monojacks Assemble and Disassemble With Remarkable Ease and Speed

To free the connector from the hood simply remove four screws. Monojacks may be used on miniature rectangular connectors with from 34 to 104 contacts. Molds have 2 center thru holes and 4 mounting holes.



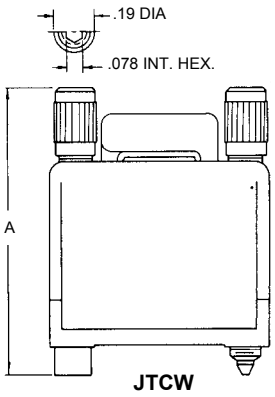
MOLDINGS HAVE STRAIGHT THRU HOLES



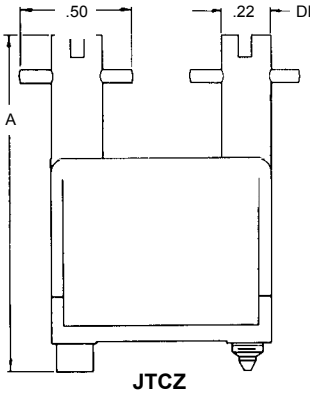
MONOJACKS ARE CAPTIVATED IN KEYHOLE SLOT OF HOOD AS SHOWN ABOVE.

WHEN USING SHELLS, MONOJACKS ARE CAPTIVATED IN KEYHOLE OF SHELL AND CLEARANCE HOLES ARE PLACED IN HOODS.

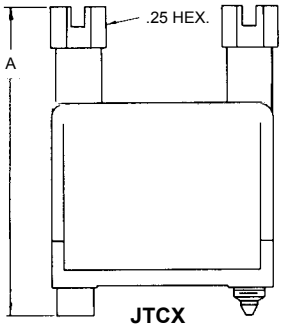
Outline Jackscrews & Jacksockets



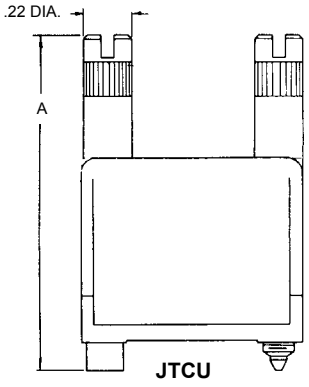
JTCW



JTCZ

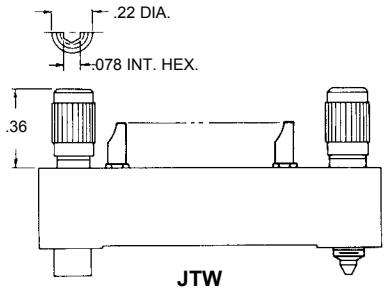


JTCX

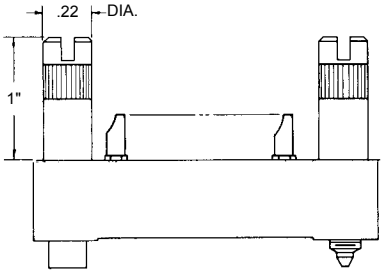


JTCU

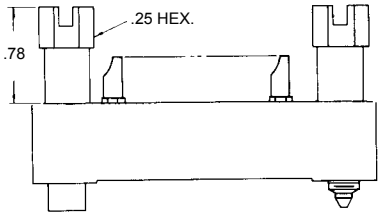
Dimensions are for reference only and are subject to change. Outline drawings on request.



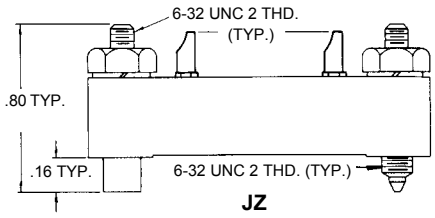
JTW



JTU



JTX



JZ

Dimensions

All jackscrews and sockets are stainless steel, passivated, except for J & JTD which are nickel-plated brass. All knobs are aluminum, anodized except JTW and JTCW which are stainless steel, passivated.

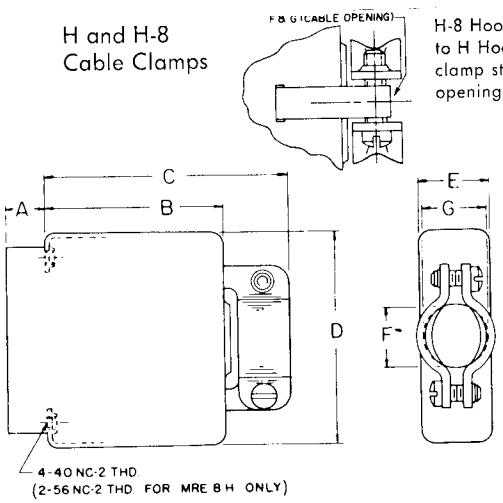
Hood Type

Size	Type JTCW				Size	Type JTCU				Size	Type JTCX				Size	Type JTCZ			
	H	H1	H8	H9		H	H1	H8	H9		H	H1	H8	H9		H	H1	H8	H9
	Dimension A					Dimension A					Dimension A					Dimension A			
7	–	1.91	1.91	–	7	–	2.16	2.16	–	7	–	2.03	2.03	–	7	–	2.16	2.16	–
9	–	2.22	1.91	2.22	9	–	2.47	2.16	2.47	9	–	2.34	2.03	2.34	9	–	2.47	2.16	2.47
14	–	2.22	1.66	2.22	14	–	2.47	1.91	2.47	14	–	2.34	1.78	2.34	14	–	2.47	1.91	2.47
18	–	2.22	1.66	2.22	18	–	2.47	1.91	2.47	18	–	2.34	2.03	2.34	18	–	2.47	2.16	2.47
20	–	2.22	1.66	2.22	20	–	2.47	1.91	2.47	20	–	2.34	1.78	2.34	20	–	2.47	1.91	2.47
21	1.91	2.22	1.91	2.22	21	2.16	2.47	2.16	2.47	21	2.03	2.34	2.03	2.34	21	2.16	2.47	2.16	2.47
26	2.22	2.22	2.22	2.22	26	2.47	2.47	2.47	2.47	26	2.61	2.34	2.34	2.34	26	2.77	2.47	2.47	2.47
34	2.22	2.22	2.22	2.22	34	2.47	2.47	2.47	2.47	34	2.34	2.34	2.34	2.34	34	2.47	2.47	2.47	2.47
41	2.22	2.22	–	–	41	2.47	2.47	–	–	41	2.34	2.34	–	–	41	2.47	2.47	–	–
42	2.22	2.22	2.22	2.22	42	2.47	2.47	2.47	2.47	42	2.34	2.34	2.34	2.34	42	2.47	2.47	2.47	2.47
50	2.22	2.22	2.22	2.22	50	2.47	2.47	2.47	2.47	50	2.34	2.34	2.34	2.34	50	2.47	2.47	2.47	2.47
75	2.22	2.22	2.22	2.22	75	2.47	2.47	2.47	2.47	75	2.34	2.34	2.34	2.34	75	2.47	2.47	2.47	2.47

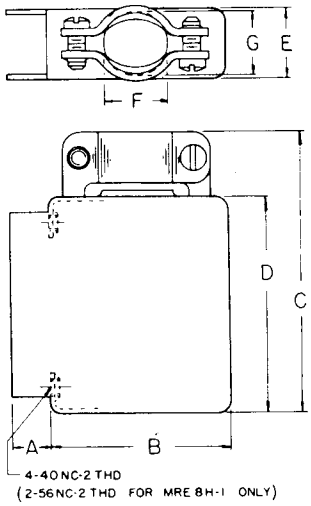
Outline Hoods– Formed Aluminum

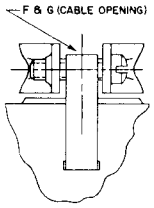
Dimensions are for reference only and are subject to change. Outline drawings on request.

H and H-8 Cable Clamps



H-8 Hoods are identical to H Hood except for cable clamp style and cable opening in the hood.





H-9 Cable Clamp

H-9 Hood is identical to H-1 Hood except for cable clamp style and cable opening in the hood.

Dimensions

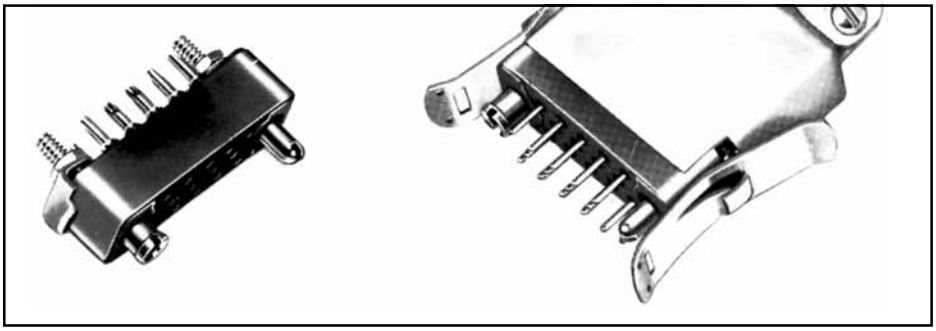
Top Cable Opening

Code No.	Dimensions					Cable Opening		Wt. Oz.	Fits Connector
	A	B	C	D	E	F	G		
MRE 7H*	.28	1	1.31	1.22	.44	.31D	–	.3	MRE 7 (P or S)
MRE 7H-8	.28	1	1.30	1.22	.44	.59	.31	.3	MRE 7 (P or S)
MRE 8H*	.28	1	1.31	.81	.44	.25D	–	.2	MRE 8 (P or S)
MRE 8H-8	.28	1	1.30	.81	.44	.31D	–	.2	MRE 8 (P or S)
MRE 9H*	.28	1	1.31	1.31	.44	.31D	–	.3	MRE 9 (P or S)
MRE 9H-8	.28	1	1.30	1.31	.44	.59	.31	.3	MRE 9 (P or S)
MRE 14H*	.28	.75	1.19	1.25	.5	.44D	–	.3	MRE 14 (P or S)
MRE 14H-8	.28	.75	1.05	1.25	.5	.59	.38	.3	MRE 14 (P or S)
MRE 18H*	.28	.75	1.19	1.31	.63	.44D	–	.4	MRE 18 (P or S)
MRE 18H-8	.28	.75	1.25	1.31	.63	.63	.44	.4	MRE 18 (P or S)
MRE 20H*	.25	.75	1.19	1.56	.5	.44D	–	.3	MRE 20 (P or S)
MRE 20H-8	.25	.75	1.05	1.56	.5	.66	.38	.3	MRE 20 (P or S)
MRE 21H	.28	.91	1.34	2.25	.44	.59	.31	.5	MRE 21 (P or S)
MRE 21H-8	.28	.91	1.36	2.25	.44	.78	.31	.5	MRE 21 (P or S)
MRE 26H	.28	1.28	1.72	1.63	.64	.59	.38	.4	MRE 26 (P or S)
MRE 26H-8	.28	1.28	1.78	1.63	.64	.78	.44	.4	MRE 26 (P or S)
MRE 34H	.28	1.25	1.69	2	.83	.66D	–	.6	MRE 34 (P or S)
MRE 34H-8	.28	1.25	1.75	2	.83	1.06	.56	.6	MRE 34 (P or S)
MRE 41H	.28	1.25	1.69	2.63	.5	.66	.44	.6	MRE 41 (P or S)
MRE 42H	.09	1.30	1.73	2.31	.83	.63D	–	.7	MRE 42 (P or S)
MRE 42H-8	.09	1.30	1.80	2.31	.83	1.06	.56	.7	MRE 42 (P or S)
MRE 50H	.09	1.30	1.73	2.59	.83	.63D	–	.8	MRE 50 (P or S)
MRE 50H-8	.09	1.30	1.80	2.59	.83	1.06	.56	1.8	MRE 50 (P or S)
MRE 75H	.09	1.31	1.75	2.59	1.19	.63	.88	1.0	MRE 75 (P or S)
MRE 75H-8	.09	1.31	1.86	2.59	1.19	1	.88	1.0	MRE 75 (P or S)
MRA104H	FOR DIMENSIONS SEE PAGE RP/36								

**** H Hoods for MRE 7, 8, 9, 14, 18 and 20 will not accept JTC hardware. Use H8 hoods.***

Side Cable Opening

Code No.	Dimensions					Cable Opening		Wt. Oz.	Fits Connector
	A	B	C	D	E	F	G		
MRE 7H-1	.28	1.28	1.53	1.22	.44	.31D	–	.3	MRE 7 (P or S)
MRE 8H-1	.28	1.28	1.13	.81	.44	.25	–	.2	MRE 8 (P or S)
MRE 8H-9	.28	1.28	1.13	.81	.44	.59	.31	.2	MRE 8 (P or S)
MRE 9H-1	.28	1.28	1.63	1.31	.44	.31D	–	.3	MRE 9 (P or S)
MRE 9H-9	.28	1.28	1.61	1.31	.44	.59	.31	.3	MRE 9 (P or S)
MRE 14H-1	.28	1.28	1.69	1.25	.5	.38D	–	.3	MRE 14 (P or S)
MRE 14H-9	.28	1.28	1.55	1.25	.5	.59	.38	.3	MRE 14 (P or S)
MRE 18H-1	.28	1.28	1.75	1.31	.63	.44D	–	.3	MRE 18 (P or S)
MRE 18H-9	.28	1.28	1.81	1.31	.63	.69	.44	.3	MRE 18 (P or S)
MRE 20H-1	.28	1.28	2	1.56	.5	.38D	–	.3	MRE 20 (P or S)
MRE 20H-9	.28	1.28	1.86	1.56	.5	.66	.38	.3	MRE 20 (P or S)
MRE 21H-1	.28	1.28	2.69	2.25	.44	.53	.25	.5	MRE 21 (P or S)
MRE 21H-9	.28	1.28	2.72	2.25	.44	.78	.31	.5	MRE 21 (P or S)
MRE 26H-1	.28	1.28	2.06	1.63	.64	.59	.38	.4	MRE 26 (P or S)
MRE 26H-9	.28	1.28	2.13	1.63	.64	.78	.44	.4	MRE 26 (P or S)
MRE 34H-1	.28	1.25	2.42	2	.83	.66D	–	.6	MRE 34 (P or S)
MRE 34H-9	.28	1.25	–	2	.83	.81	.56	.6	MRE 34 (P or S)
MRE 41H-1	.28	1.25	3.06	2.63	.5	.66	.44	.6	MRE 41 (P or S)
MRE 42H-1	.09	1.30	2.73	2.31	.83	.63	.5	.7	MRE 42 (P or S)
MRE 42H-9	.09	1.30	–	2.31	.83	.84	.56	.7	MRE 42 (P or S)
MRE 50H-1	.09	1.30	3.02	2.59	.83	.63	.5	.8	MRE 50 (P or S)
MRE 50H-9	.09	1.30	–	2.59	.83	1.06	.56	.8	MRE 50 (P or S)
MRE 75H-1	.09	1.31	3.02	2.59	1.19	.63	.88	1.0	MRE 75 (P or S)
MRE 75H-9	.09	1.31	–	2.59	1.19	1	.88	1.0	MRE 75 (P or S)
MRA104H-9	FOR DIMENSIONS SEE PAGE RP/36								



Lock Tabs (MRE-V shown) *Lever & Pivot Assemblies (MRE-VL shown)*

Hoods – Locking

Lever & Pilot Assembly	Lock Tabs (See Note)	Used on Connectors
MRE-VL	MRE-V	MRA 9, 14, 20, 34, 41, 42, 66
MRE-VL2	MRE-V2	MRE 50,75

Vibration Locks*

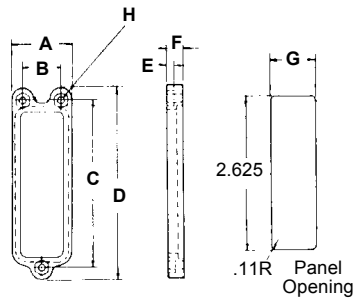
Vibration locks offer simplicity of design and positive locking in excess of 50G shock impact and 10G vibration acceleration. Mating halves automatically lock when engaged. To unlock, depress the levers. Drilled holes in the levers are provided for safety wiring. Vibration locks are available separately for assembly on connectors now in service. Each code number indicates two units: two levers with two pivots, and two lock tabs.

**US Patent Number 2760174*

Note: When panel mounting the lock-tab half of a MRE 34, MRE 42 or MRE 50 and MRE 66 connector, flat washers (.033 minimum thickness) should be used on the mounting screws to shim the molding away from the panel.

Dimensions / Outline Mounting Brackets

Code No.	DIMENSIONS								Wt. Oz.
	A	B	C	D	E	F	G	H	
MRE 50B	1.06	.688	3.031	3.44	.13	.28	.78	.128 Dia 3 Holes (No. 4 Mounting Screw)	.4
MRE 75B	1.48	1.047	3.062	3.56	.14	.30	1.14	.150 Dia 3 Holes (No. 6 Mounting Screw)	.6



MRE 50 and MRE 75 connectors use the standard MRE 50 and MRE 75 mounting brackets

Dimensions / Outline Pre-Shaped Nylon Potting Forms

Dimensions are for reference only and are subject to change. Outline drawings on request.

Each form matches the back opening contour of its appropriate shell, and stays easily in place during the potting operation. Of negligible weight, it need not be removed from the connector after potting. Because of floating contacts, connector halves should always be engaged during the potting operation to preserve contact alignment.

Potting Form Code No.	Fig.	Dimensions	
		A	B
MRE 7 FM	3	.62	.43
MRE 8 FM	2	.46	.43
MRE 9 FM	3	.77	.43
MRE 14 FM	2	.93	.49
MRE 18 FM	2	.87	.61
MRE 20 FM	2	1.12	.49
MRE 21 FM	3	1.68	.43
MRE 26 FM	2	1.18	.61
MRE 34 FM	1	1.38	.80
MRE 41 FM	2	2.18	.49
MRE 42 FM	1	1.69	.80
MRE 50 FM	1	1.97	.80
MRE 75 FM	1	1.98	1.16

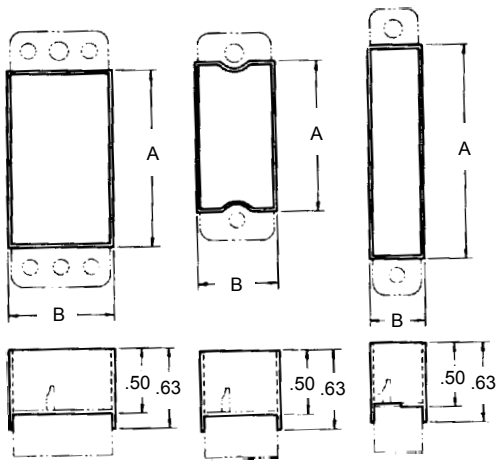


Figure 1 *Figure 2* *Figure 3*

Ordering Information

Omit steps not required

MRE	34	S		G	H	VL		

Step 1
Insert Series Code:
MRE
By adding "ML" to the series code, connector is supplied with diallyl phthalate type SDG-F and mil plated contacts.
Example: MREML

Step 2
Number of Contacts:
7, 8, 9, 11, 14, 18, 20, 21, 26, 34, 41, 42, 50, 75, 104

Step 3
Contact Designation:
P - Pin
S - Socket
When ordering molding less hardware to be used with mono-jacks, see note below.

Step 4
Type of Contact:
Blank = Standard Solder Cup
Straight Dip Solder .025" dia.:
D3 = .094"
D4 = .125"
D5 = .156"
For additional lengths in 1/32" increments, contact Winchester's Sales Department.

Step 5
Guides and Jackscrew Locks:
(See bottom Chart)

Step 6
Hoods:
H - Standard Top Opening*
H1 - Standard Side Opening
H8 - Large Top Opening
H9 - Large Side Opening
**For MRE 7, 8, 9, 14, 18 and 20, JTC hardware may not be used with H hoods. Use H8 hoods.*

Step 7
Vibration Locks:
V - Lock Tab
V2 - Lock Tab (Size 50 & 75)
VL - Lever & Pivot Ass'y
VL2 - Lever & Pivot Ass'y (Size 50 & 75)

Step 8
Accessories:
FM - Potting Forms. Cannot be Used with Hoods. Request availability information.

Step 9
Special Options:
Consult Sales Department

Step 5

Guides

*G	Phosphor Bronze Cylindrical Guides*
K	Beryllium Copper Cylindrical Guides
*N	Brass Cylindrical Guides*

Guides are not recommended for Size 104
"P" indicates two guide pins or two jackscrews (Ex. JTCP)
"S" indicates two guide sockets or two jacksockets. (Ex. GS)

Jackscrew Locks

***J	Polarized Fixed Jackscrew and Jacksocket
JT	Polarized Short Turning Jackscrew and Jacksocket
JTC	Polarized Long Turning Jackscrew and Jacksocket
*** JTD	Polarized Long Turning Mono-Jackscrew and Mono-Jacksocket for Sizes 34, 42, 50, 75, and 104 only.
**JZ	Same as J but with 6-32 mtg. thd. (Not available 5-3, 8) (Std. on 104)
**JTW	Same as JT but with knurled round knob with internal hex (not avail. 5-3, 8, 104)
**JTU	Same as JT but with knurled round knob with screwdriver slot (not avail. 5-3, 8, 104)
**JTX	Same as JT but with hex knob (not avail. 5-3, 8, 104)
**JTCW	Same as JTC but with knurled round knob with internal hex (not avail. 5-3, 8, 104)
**JTCU	Same as JTC but with knurled round knob with screwdriver slot (not avail. 5-3, 8, 104)
**JTCX	Same as JTC but with hex knob (not avail. 5-3, 8, 104)
**JTCZ	Same as JTC but with prybar knob.

** *Request availablity information.*
*** *Material: Nickel-plated brass - standard*
Example: MRE34SJTDBH8

** For passivated stainless steel add SS suffix* (**Example:** MRE34SGSS)

Mounting Note: Connectors MRE 41, MRE 26, and smaller use guides for mounting in a hood or on a panel. Connectors MRE 34, MRE 42, MRE 50, MRE 75, use four #4 machine screws, in addition to guides, for mounting in a hood or on a panel.

Note: When ordering hoods, hardware and connectors separately for use with JTD Monojacks, connectors must be ordered as follows:

Pin connector = MRE34P8, MRE42P8, etc.
Socket connector = MRE34S8, MRE42S8, etc.
The number "8" indicates special housing for use with the JTD Monojack hardware (available on sizes 34, 42, 50, 66, 75 and 104).

XMRA & XMRE Series External Miniature Rectangular / #16 Contacts / .062" Dia. 13 Amps & #20 Contacts / .040" Dia. / 7.5 Amps

A typical Series "XMRE" Receptacle and Plug fully wired and potted.

The XMRE and XMRA Series connectors are designed to provide a sturdy, space-saving, lightweight electrical connection. Inserts are housed in protective shells with screw lock coupling plus wall and cable mounting accessories available.

Specifications

Current Rating: XMRA - 13 amps
XMRE - 7.5 amps

No. of Contacts: XMRA - 9, 14, 20, 34, 42, 50, 50-8, 66, 75, 104
XMRE - 9, 14, 18, 20, 26, 34, 42, 50, 75, 104

Pin Contacts: XMRA - .062 diameter, gold plated brass
XMRE - .040 diameter, gold plated brass

Socket Contacts: Phosphor bronze plated gold.

Termination Types: XMRA - .070 dia. solder cup will accept up to #16 AWG stranded wire.
XMRE - .048 dia. solder cup will accept up to #20 AWG stranded wire.

Electrical Data: Both XMRE and XMRA meet high potential performance requirements of MIL-C-28748.

Military versions are QPL'd to M28748/1 and M28748/2 (XMRA) and to M28748/5 and M28748/6 (XMRE)

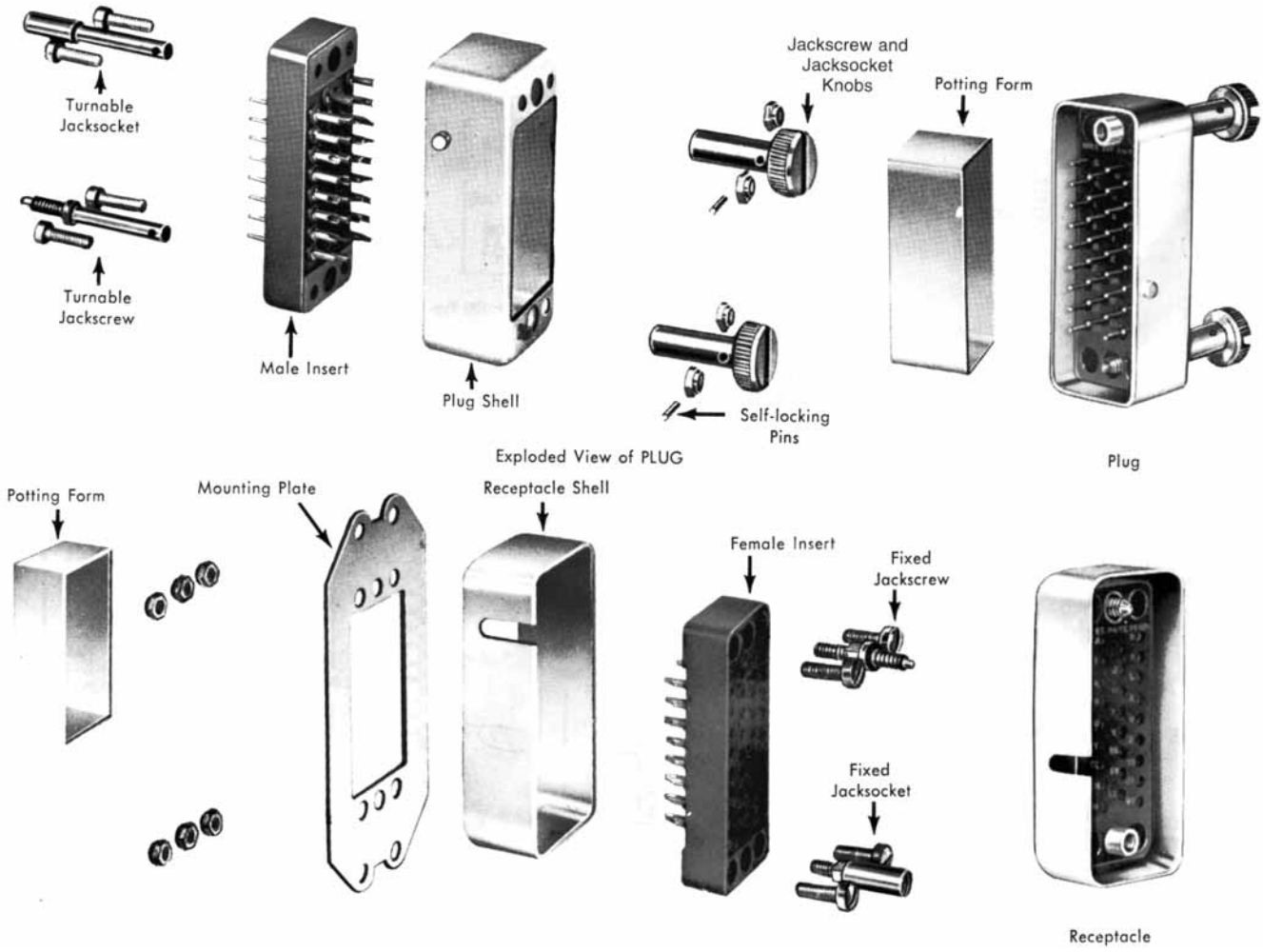
The minimum dielectric withstanding voltage is one minute electrification at 1000 VAC (sea level) for XMRA and 1200 VAC for XMRE Series.

Dielectric: Brown mineral filled diallyl phthalate. Also available in gray glass filled diallyl phthalate, per MIL-M-14, SDG-F.

Polarization: A polarizing stud in the plug shell and a mating slot in the receptacle shell eliminates misalignment. Jackscrews and jacksockets or guide pins and sockets are alternative methods of polarization.

Hoods: Anodized Aluminum. May be applied to both plug and receptacles. Both top and side opening hoods are available.

Connector Assemblies



Connector Terms

Plug: The complete connector half which has the plug shell as part of its assembly.

Receptacle: The complete connector half which has the receptacle shell as part of its assembly.

Shell: The metal housing in which a male or female insert is assembled. A shell is either a plug shell or a receptacle shell.

Plug Shell: One which is designed to be inserted into a receptacle shell.

Receptacle Shell: One which is designed to receive and enclose the plug shell upon engagement.

Male Insert: The molded insulator body containing pin contacts.

Femal Insert: The molded insulator body containing socket contacts.

Pin Contacts: Male metal conductors that fit into the socket contacts.

Socket Contacts: Female metal conductors, tubular in shape, which receive the pin contacts and retain them by spring tension.

Polarization: A means of controlling the engagement of a plug and receptacle so that correct mating of the contacts is achieved.

Potting Form: A plastic mold used to retain and shape the sealing compound during the moisture-proofing, or potting operation.

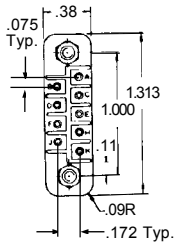
Potting: A method of moisture-proofing the back of a plug or receptacle and the soldered wire connections by injecting a free flowing sealing compound into a pre-shaped form and allowing it to set. The result is a homogeneous mass, chemically bonded to the back of the insert and around the soldered connections.

Accessories: Those components such as hoods, mounting plates and finger grips which are attachable to a plug or receptacle to facilitate mounting and/or handling of the connector.

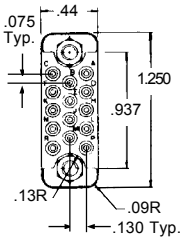
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

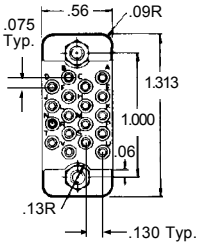
Contact Arrangements



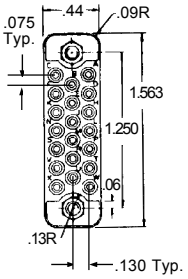
9 Contacts
XMRE 9 or XMRA9



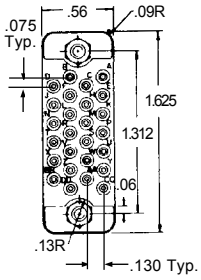
14 Contacts
XMRE 14 or XMRA 14



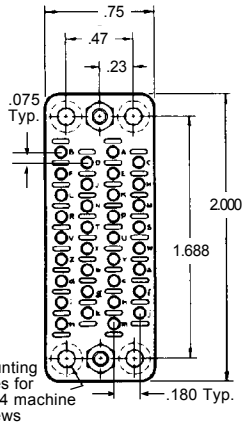
18 Contacts
XMRE 18



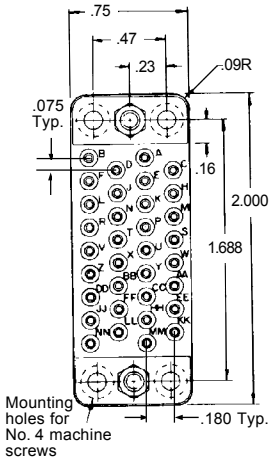
20 Contacts
XMRE 20 0r XMRA 20



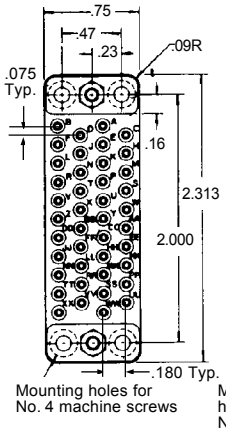
26 Contacts
XMRE 26



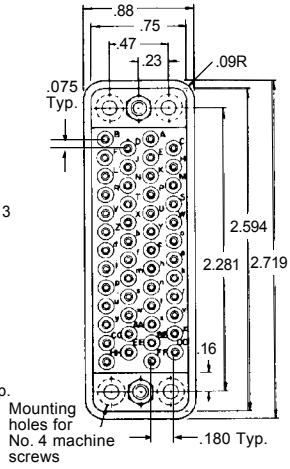
34 Contacts XMRA 34



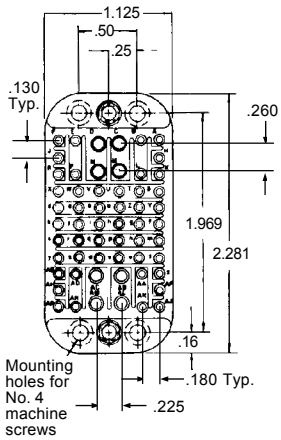
34 Contacts XMRE 34



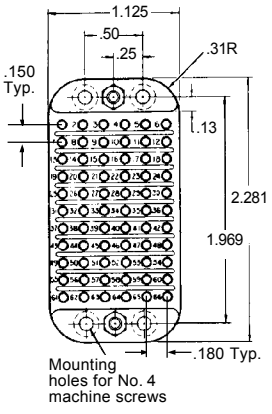
42 Contacts
XMRE 42 or XMRA 42



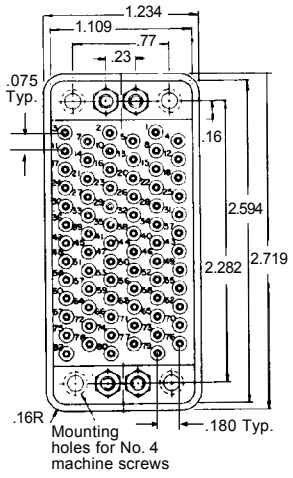
50 Contacts
XMRE 50 or XMRA 50



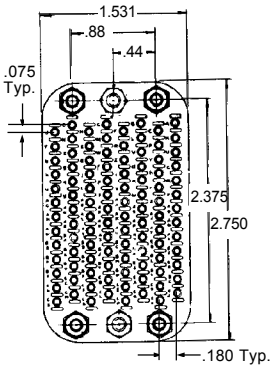
58 Contacts
XMRA 50-8



66 Contacts
XMRA 66



75 Contacts XMRE 75 or XMRA 75



104 Contacts
XMRA 104
XMRE 104

Views are rear (wiring end) of female inserts (male inserts are mirror image). The spacing, arrangement, and identification of contacts of the XMRE inserts are the same as found on the Series MRE Connectors for the same number of contacts.

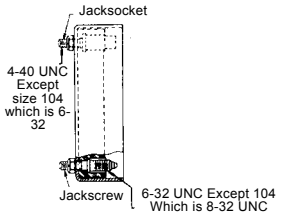
Jackscrews & Jacksockets

Jackscrew Locking Devices

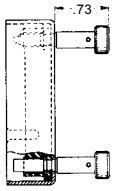
Polarized jackscrews offer the ease and assurance of threaded positive coupling. They are particularly desirable for the larger connectors (XMRE 34 and larger) whenever they are to be used in locations that make it difficult to apply enough direct pull to separate the two halves of the connector.

Type C (long-turning jackscrews and jacksockets) or Type D (monojacks) must be specified if both jackscrews and hood are required on the same connector half. Monojacks eliminate the need for roll pins, spacers and washers.

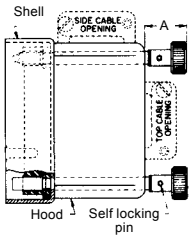
Outline



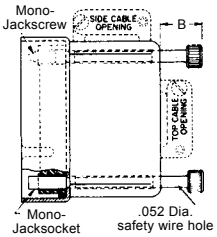
Connector with fixed Jackscrews
Code designation: F



AND
Mating connector half with turnable Jackscrews-with-Knobs
Code designation: M



OR
Mating connector half with Hood and turnable Long Jackscrews-with-Knobs



Code designation: C-0300, C-0400
OR
Mating connector half with Hood and turnable Monojacks
Code designation: D-0300, D-0400

Drawings show extension of knobs beyond shell (left) and beyond hood. Refer to details of shells and hoods for the other dimensions which vary according to connector size.

Dimensions

Dimension A

SERIES	CODE	9	14	18	20	26	34	42	50	50-8	66	75	104
XMRE	0300	–	–	–	–	.77	.58	.53	.53	–	–	.52	–
	0300X	.53	.53	.78	.53	.55	.58	.53	.53	–	–	.52	–
	0400	.55	.55	.55	.55	.55	.58	.53	.53	–	–	.52	–
	0400X	–	–	–	.55	.55	.58	.53	.53	–	–	.52	–
XMRA	0700	–	–	–	–	–	.58	–	–	.64	.64	–	.52
	0800	–	–	–	–	–	.58	–	–	.64	.64	–	.52

Dimension B

CODE	34	42	50	66	75	104
0300	.59	.55	.55	–	.53	–
0400	.59	.55	.55	–	.53	–
0700	–	–	–	.38	–	.38
0800	–	–	–	.38	–	.38

Part	Code Letter	Wt. Oz. See Notes 1 & 2	Material and Finish
Jackscrews Jacksockets	Turntable M	0.30	stainless steel with passivating dip
Jackscrews Jacksockets	Long Turntable C	0.45	stainless steel with passivating dip
Jackscrews Jacksockets	Fixed F	0.15	nickel-plated brass
Knobs (except Monojacks			al. anodized
Monojackscrews Monojacksockets	Turning Turning D		nickel-plated brass

Note 1: Weights are given for pairs, i.e., for a jackscrew and a jacksocket, etc., so that the weight figure may be added once to the weights of other accessories when computing the total weight of a plug or receptacle.

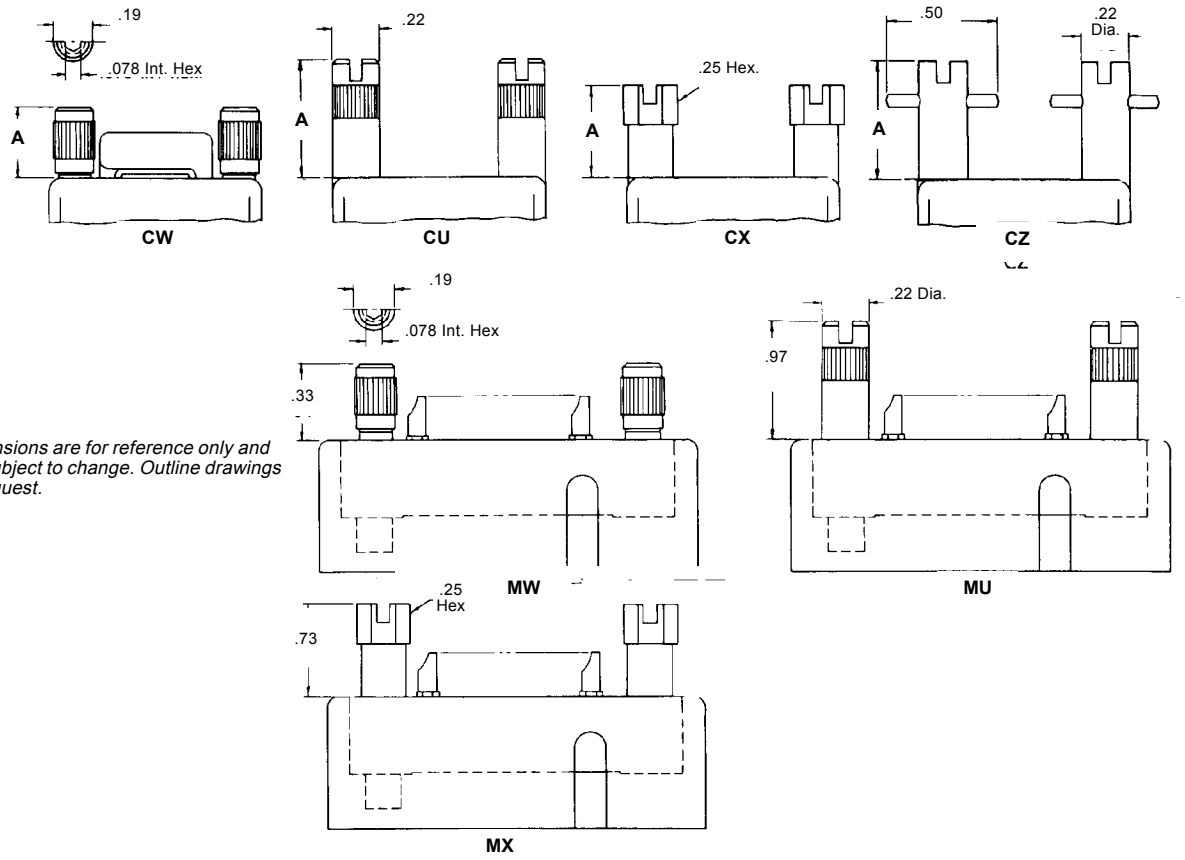
Note 2: Weights of turnable jackscrews and turnable jacksockets include knobs and roll pins; weights of fixed hardware include nuts.

Guide Socket Code Letter	Actual Size Photo	
G	G Type For General Use	
K	K Type For High Electrical Conductivity	Standard Guide Pin mates with all types
N	N Type For Extra Mechanical Strength	

MATERIALS
"G" Socket: Phosphor bronze.
"K" Socket: Beryllium copper.
"N" Socket: Brass.
Guide Pin: Brass

FINISH
Gold over Nickel

Outline Jackscrews & Jacksockets



Dimensions are for reference only and are subject to change. Outline drawings on request.

Dimensions

All jackscrews and sockets are stainless steel, passivated, except F & D which are nickel-plated brass.

All knobs are aluminum, anodized except MW and CW which are stainless steel, passivated.

Jackscrew Locking For Series XMRE, XMRA

Size	0300	0400	0300X	0400X	0700	0800
Dimension A - Type CW						
9	–	.36	.34	.36	–	–
14	–	.36	.34	.36	–	–
18	–	.36	.34	.36	–	–
20	–	.36	34	.36	–	–
26	.36	.36	.36	.36	–	–
34	.39	.39	.39	.39	.47	.47
42	.34	.34	.34	.34	–	–
50	.34	.34	.34	.34	–	–
50-8	–	–	–	–	.47	.47
66	–	–	–	–	.47	.47
75	.33	.33	.33	.33	–	–

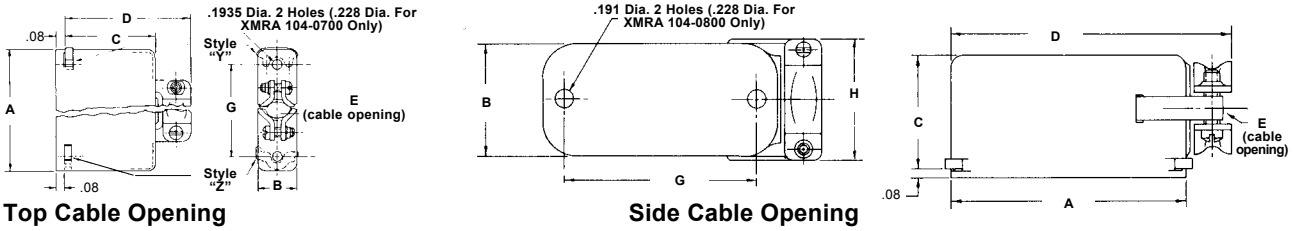
Size	0300	0400	0300X	0400X	0700	0800
Dimension A - Type CX						
9	–	.48	.47	.48	–	–
14	–	.48	.47	.48	–	–
18	–	.48	.72	.48	–	–
20	–	.48	.47	.48	–	–
26	.77	.48	.48	.48	–	–
34	.52	.52	.52	.52	.61	.61
42	.47	.47	.47	.47	–	–
50	.47	.47	.47	.47	–	–
50-8	–	–	–	–	.61	.61
66	–	–	–	–	.61	.61
75	.45	.45	.45	.45	–	–

Size	0300	0400	0300X	0400X	0700	0800
Dimension A - Type CU						
9	–	.61	.59	.61	–	–
14	–	.61	.59	.61	–	–
18	–	.61	.59	.61	–	–
20	–	.61	.59	.61	–	–
26	.61	.61	.61	.61	–	–
34	.64	.64	.64	.64	.72	.72
42	.59	.59	.59	.59	–	–
50	.59	.59	.59	.59	–	–
50-8	–	–	–	–	.72	.72
66	–	–	–	–	.72	.72
75	.58	.58	.58	.58	–	–

Size	0300	0400	0300X	0400X	0700	0800
Dimension A - Type CZ						
9	–	.61	.59	.61	–	–
14	–	.61	.59	.61	–	–
18	–	.61	.84	.61	–	–
20	–	.61	.59	.61	–	–
26	.92	.61	.61	.61	–	–
34	.64	.64	.64	.64	.72	.72
42	.59	.59	.59	.59	–	–
50	.59	.59	.59	.59	–	–
50-8	–	–	–	–	.72	.72
66	–	–	–	–	.72	.72
75	.58	.58	.58	.58	–	–

Outline Hoods– Drawn Aluminum

Dimensions are for reference only and are subject to change. Outline drawings on request.



Top Cable Opening

	Hood Part Number	Dimensions					
		A	B	C	D	E	G
For use with Type C Jacksockets & Jackscrews	XMRA 34-0700	2.09	.84	1.17	1.59	.66x.75	1.688
	XMRA 50-8-0700	2.38	1.22	1.17	1.69	1.03D	1.969
	XMRA 66-0700	2.38	1.22	1.17	1.69	1.03D	1.969
	XMRA 104-0700	2.84	1.63	2.23	2.75	1.19D	2.375
For use with Type D Jacksockets & Jackscrews	XMRA 34-0700D	2.09	.84	1.17	1.59	.66x.75	1.688
	XMRA 50-8-0700D	2.38	1.22	1.17	1.69	1.03D	1.969
	XMRA 66-0700D	2.38	1.22	1.17	1.69	1.03D	1.969
	XMRA 104-0700D	2.84	1.63	2.23	2.75	1.19D	2.375
For use with G, K, or N, Type Guides or Type F Jackscrews	XMRA 34-0900	2.09	.84	1.17	1.59	.66x.75	–
	XMRA 50-8-0900	2.38	1.22	1.17	1.69	1.03D	–
	XMRA 66-0900	2.38	1.22	1.17	1.69	1.03D	–
	XMRA 104-0900	2.84	1.63	2.23	2.75	1.19D	–

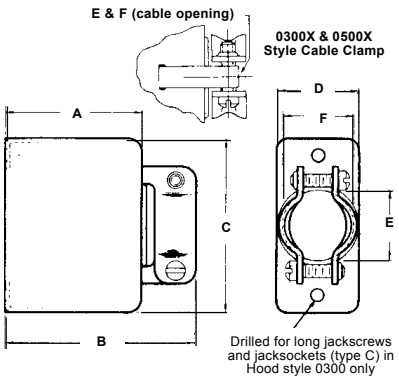
Side Cable Opening

	Hood Part Number	Dimensions						
		A	B	C	D	E	H	G
For use with Type C Jacksockets & Jackscrews	XMRA 34-0800	2.09	.84	1.16	2.58	.64x.75	1.06	1.688
	XMRA 50-8-0800	2.38	1.22	1.16	2.91	.84 D	1.34	1.969
	XMRA 66-0800	2.38	1.22	1.16	2.91	.84D	1.34	1.969
	XMRA 104-0800	2.84	1.63	2.22	3.38	1.19D	1.63	2.375
For use with Type D Jacksockets & Jackscrews	XMRA 34-0800D	2.09	.84	1.17	2.58	.64x.75	1.688	1.06
	XMRA 50-8-0800D	2.38	1.22	1.17	2.91	.84D	1.969	1.34
	XMRA 66-0800D	2.38	1.22	1.17	2.91	.84D	1.969	1.34
	XMRA 104-0800D	2.84	1.63	2.23	3.38	1.19D	2.375	1.63
For use with G, K, or N, Type Guides or Type F Jackscrews	XMRA 34-0200	2.09	.84	1.16	2.58	.64X.75	1.06	–
	XMRA 50-8-0200	2.38	1.22	1.16	2.91	.84D	1.34	–
	XMRA 66-0200	2.38	1.22	1.16	2.91	.84D	1.34	–
	XMRA 104-0200	2.84	1.63	2.22	3.38	1.19D	1.63	–

Dimensions Hoods– Formed Aluminum

For use with Monojacks	For use with Type C Jacksockets & Jackscrews	For use with G, K, or N, Type Guides *	Dimensions				Cable Opening		Wt. Oz.
	Hood Part No. (If ordered separately)		A	B	C	D	E Dia.	F Dia.	
		XMRE 9-0500	1	1.31	1.31	.44	.31	–	0.3
	XMRE 9-0300X	XMRE 9-0500X	1	1.30	1.31	.44	.59	.31	
		XMRE 14-0500	.75	1.19	1.25	.5	.44D	–	0.3
	XMRE 14-0300X	XMRE 14-0500X	.75	1.05	1.25	.5	.59	.38	
		XMRE 18-0500	.75	1.19	1.31	.63	.44D	–	0.4
	XMRE 18-0300X	XMRE 18-0500X	.75	1.25	1.31	.63	.63	.44	
		XMRE 20-0500	.75	1.19	1.56	.5	.44D	–	0.3
	XMRE 20-0300X	XMRE 20-0500X	.75	1.05	1.56	.5	.66	.38	
	XMRE 26-0300	XMRE 26-0500	1.28	1.72	1.63	.64	.59	.38	0.4
	XMRE 26-0300X	XMRE 26-0500X	1.28	1.78	1.63	.64	.78	.44	
XMRE 34-0300D	XMRE 34-0300	XMRE 34-0500	1.25	1.67	2	.83	.66D	–	0.6
XMRE 34-0300XD	XMRE 34-0300X	XMRE 34-0500X	1.25	1.75	2.00	.83	1.06	.56	
XMRE 42-0300D	XMRE 42-0300	XMRE 42-0500	1.30	1.73	2.31	.83	.63D	–	0.7
XMRE 42-0300XD	XMRE 42-0300X	XMRE 42-0500X	1.30	1.80	2.31	.83	1.06	.56	
XMRE 50-0300D	XMRE 50-0300	XMRE 50-0500	1.30	1.80	2.59	.83	.63D	–	0.8
XMRE 50-0300XD	XMRE 50-0300X	XMRE 50-0500X	1.30	1.80	2.59	.83	1.06	.28	
XMRE 75-0300D	XMRE 75-0300	XMRE 75-0500	1.31	1.75	2.59	1.19	.63	.88	1.0
XMRE 75-0300XD	XMRE 75-0300X	XMRE 75-0500X	1.31	1.86	2.59	1.19	1	.88	

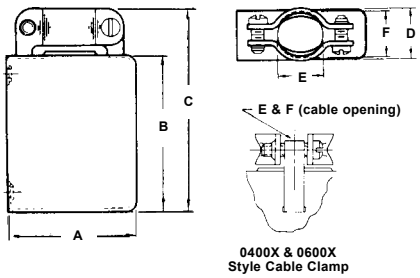
Top Cable Opening



For use with Monojacks	For use with Type C Jacksockets & Jackscrews	For use with G, K, or N, Type Guides *	Dimensions				Cable Opening		Wt. Oz.
	Hood Part No. (If ordered separately)		A	B	C	D	E Dia.	F Dia.	
	XMRE 9-0400	XMRE 9-0600	1.28	1.31	1.63	.44	.31D	–	0.3
	XMRE 9-0400X	XMRE 9-0600X	1.28	1.31	1.61	.44	.59	.31	
	XMRE 14-0400	XMRE 14-0600	1.28	1.25	1.69	.5	.38D	–	0.3
	XMRE 14-0400X	XMRE 14-0600X	1.28	1.25	1.55	.5	.59	.38	
	XMRE 18-0400	XMRE 18-0600	1.28	1.31	1.75	.63	.44D	–	0.3
	XMRE 18-0400X	XMRE 18-0600X	1.28	1.31	1.81	.63	.69	.44	
	XMRE 20-0400	XMRE 20-0600	1.28	1.56	2	.5	.38D	–	0.3
	XMRE 20-0400X	XMRE 20-0600X	1.28	1.56	1.86	.5	.66	.38	
	XMRE 26-0400	XMRE 26-0600	1.28	1.63	2.06	.64	.59	.38	0.4
	XMRE 26-0400X	XMRE 26-0600X	1.28	1.63	2.13	.64	.78	.44	
XMRE 34-0400D	XMRE 34-0400	XMRE 34-0600	1.25	2	2.42	.83	.66	–	0.6
XMRE 34-0400XD	XMRE 34-0400X	XMRE 34-0600X	1.25	2	2.5	.83	.81	.56	
XMRE 42-0400D	XMRE 42-0400	XMRE 42-0600	1.30	2.31	2.73	.83	.63	.5	0.7
XMRE 42-0400XD	XMRE 42-0400X	XMRE 42-0600X	1.30	2.31	2.81	.83	.84	.56	
XMRE 50-0400D	XMRE 50-0400	XMRE 50-0600	1.30	2.59	3.02	.83	.63	.5	0.8
XMRE 50-0400XD	XMRE 50-0400X	XMRE 50-0600X	1.30	2.59	3.09	.83	1.06	.56	
XMRE 75-0400D	XMRE 75-0400	XMRE 75-0600	1.31	2.59	3.02	1.19	.63	.88	1.0
XMRE 75-0400XD	XMRE 75-0400X	XMRE 75-0600X	1.31	2.59	3.14	1.19	1	.88	

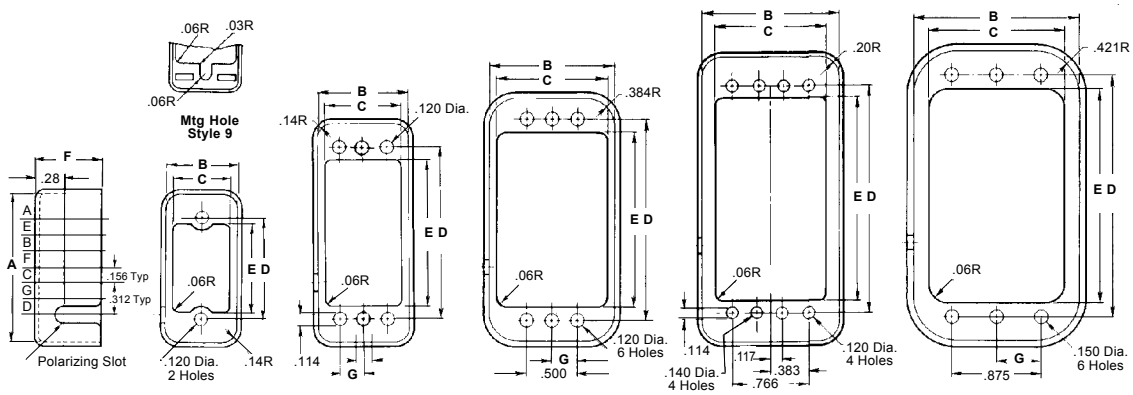
** Add "J" to hood P/N when used with "F" jackscrews.*

Side Cable Opening



Outline Shells – Receptacle

Dimensions are for reference only and are subject to change. Outline drawings on request.



For All Conf. | **For 9 to 26** | **For 34, 42, and 50** | **For 66 and 50-8** | **For 75** | **For 104**

Dimensions Shells – Receptacle

Important Note When Ordering Plug and Receptacle Shells

The shell part numbers given in table show an asterisk (*) where the code letter for the desired polarizing position belongs - example: XMRE9-2*000 becomes XMRE9-2B000 when polarization in position "B" is desired. Specify the same position on the mating shell.

For non-polarized shells, merely omit this position, e.g. XMRE9-2000.

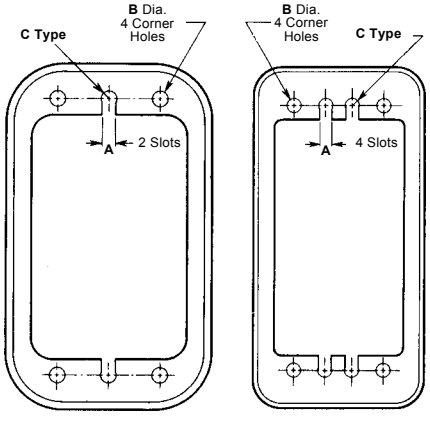
Shell Part No. (if ordered separately)	Dimensions							Wt.
	A	B	C	D	E	F	G	Oz.
XMRE 9-2*000	1.45	.52	.38	1.000	.88	.66	–	0.15
XMRE 14-2*000	1.39	.58	.45	.937	.81	.66	–	0.16
XMRE 18-2*000	1.45	.70	.58	1.000	.88	.66	–	0.17
XMRE 20-2*000	1.70	.58	.45	1.250	1.13	.66	–	0.19
XMRE 26-2*000	1.77	.70	.58	1.312	1.19	.66	–	0.23
XMRE 34-2*000 **XMRE 34-4*000**	2.14	.89	.75	1.687	1.44	.66	.234	0.25
XMRE 42-2*000 **XMRE 42-4*000**	2.45	.89	.75	2.000	1.75	.66	.234	0.28
XMRE 50-2*000 **XMRE 50-4*000**	2.86	1.02	.75	2.282	2.03	.66	.234	0.30
XMRA 66-2*000 **XMRA 66-4*000** **XMRA 50-8-2*000** **XMRA 50-8-4*000**	2.42	1.27	1.13	1.969	1.72	.66	.250	0.28
XMRE 75-2*000 **XMRE 75-4*000**	2.86	1.38	1.11	2.282	2.03	.66	–	0.32
XMRA 104-2*000 **XMRA 104-4*000**	2.91	1.69	1.48	2.375	2.13	.66	.437	0.30

TYPICAL SHELLS FOR MONOJACKS

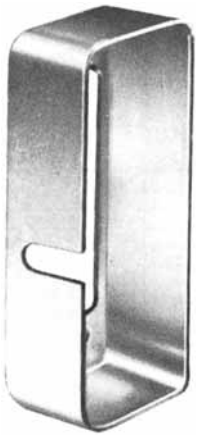
Shells are aluminum, anodized for protection against corrosion. Either shell style - plug or receptacle - may be used to house the female insert, thus allowing the "live" socket contacts to be cable or panel mounted, as desired. Shells also provide a means by which connector polarization is accomplished - the receptacle shell is slotted for engaging a polarizing pin on the plug shell. Any of seven positions (A, B, C, D, E, F, or G) may be specified for polarization; non-polarized shells have the slot and pin omitted.

Stainless steel shells available for 66 and 104 sizes. Dimensions vary from those shown for aluminum shells, Check Sales for availability and dimensions on all sizes.

For Connector Size	A	B	C
34, 42, 50, 50-8, 66, 75	.11	.120	.06R
104	.14	.150	.07R



For 34, 42, 50, 50-8, 66 and 104 Configuration | **For 75 Configuration**

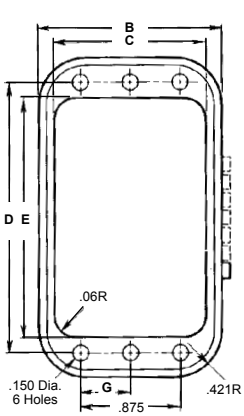


Receptacle Shell Style Number 2000

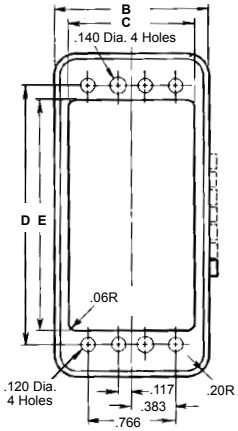
Shells are .040 in. thick.

Outline Shells – Plug

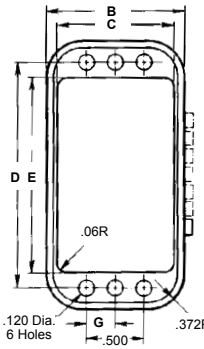
Dimensions are for reference only and are subject to change. Outline drawings on request.



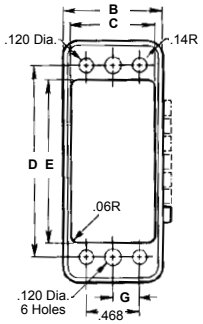
For 104



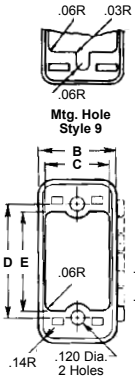
For 75



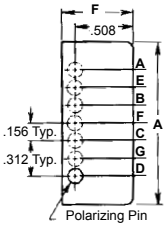
For 66 and 50-8



For 34, 42, and 50



For 9 to 26



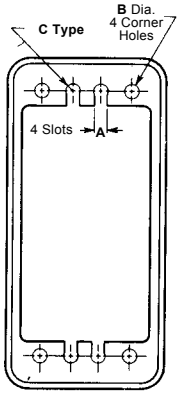
For All Config.

Dimensions

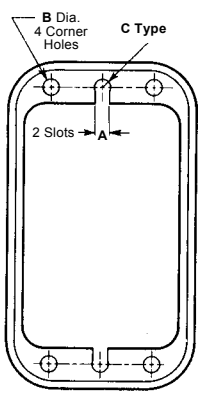
Shell Part No. (if ordered separately)	Dimensions							Wt.
	A	B	C	D	E	F	G	Oz.
XMRE 9-1*000	1.44	.5	.38	1.000	.88	.63	–	0.14
XMRE 14-1*000	1.38	.56	.45	.937	.81	.63	–	0.15
XMRE 18-1*000	1.44	.69	.58	1.000	.88	.63	–	0.16
XMRE 20-1*000	1.69	.56	.45	1.250	1.13	.63	–	0.18
XMRE 26-1*000	1.75	.69	.58	1.312	1.19	.63	–	0.22
XMRE 34-1*000 **XMRE 34-3*000**	2.13	.88	.75	1.687	1.44	.66	.234	0.24
XMRE 42-1*000 **XMRE 42-3*000**	2.44	.88	.75	2.000	1.75	.66	.234	0.26
XMRE 50-1*000 **XMRE 50-3*000**	2.84	1	.75	2.282	2.03	.66	.234	0.28
XMRA 66-1*000 **XMRA 66-3*000** **XMRA 50-8-1*000** **XMRA 50-8-3*000**	2.41	1.25	1.13	1.969	1.72	.66	.250	0.28
XMRE 75-1*000 **XMRE 75-3*000**	2.84	1.36	1.11	2.282	2.03	.66	–	0.30
XMRA 104-1*000 **XMRA 104-3*000**	2.88	1.66	1.48	2.375	2.13	.66	.437	0.30

Typical Shells For Monojacks

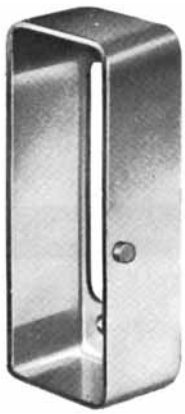
For Connector Size	A	B	C
34, 42, 50, 50-8, 66, 75	.11	.120	.06R
104	.14	.150	.07R



For 75 Configuration



For 34, 42, 50, 50-8, 66 and 104 Configuration



Plug Shell Style Number 1000

Shells are .040 in. thick.

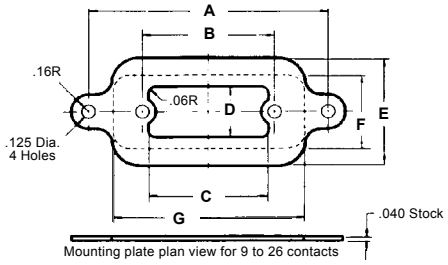
Outline Mounting Plates

Dimensions are for reference only and are subject to change. Outline drawings on request.

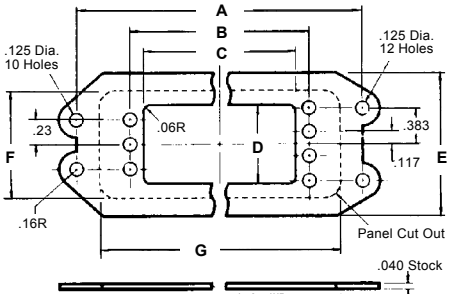
Mounting Plates for External Miniature Rectangular Connectors, Potting Forms

Mounting Plates enable attachment of a connector to a wall, bulkhead, or other supporting surface. The plate is assembled to the back of a plug or receptacle by employing the same hardware and/or guides used to retain the insert in the shell; No. 4 machine screws are then used to mount the complete assembly against the required surface.

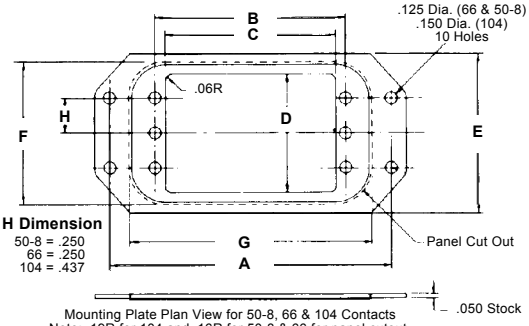
Mounting plates are aluminum, anodized to resist corrosion.



Mounting plate plan view for 9 to 26 contacts



Left half shows holes for 34, 42, 50 contacts; right half for 75 contacts only. Each plate is symmetrical about the indicated center line.



Mounting Plate Plan View for 50-8, 66 & 104 Contacts
Note: .19R for 104 and .16R for 50-8 & 66 for panel cutout.

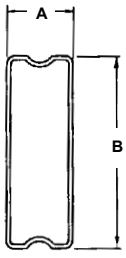
Dimensions

Mounting Plate Part No. (If Ordered Separately)	Dimensions					Panel Cutout		Wt.
	A	B	C	D	E	F	G	Oz.
XMRE 9-0010	2.02	1.000	.88	.41	.95	.64	1.58	0.09
XMRE 14-0010	1.95	.937	.81	.47	1.02	.70	1.52	0.10
XMRE 18-0010	2.02	1.000	.88	.59	1.14	.83	1.58	0.11
XMRE 20-0010	2.27	1.250	1.13	.47	1.02	.70	1.83	0.12
XMRE 26-0010	2.33	1.312	1.19	.59	1.14	.83	1.89	0.14
XMRE 34-0010	2.70	1.687	1.44	.75	1.33	1.02	2.27	0.15
XMRE 42-0010	3.02	2.000	1.75	.75	1.33	1.02	2.58	0.16
XMRE 50-0010	3.42	2.281	2.03	.75	1.45	1.14	2.98	0.18
XMRE 75-0010	3.42	2.281	2.03	1.11	1.80	1.48	2.98	0.19
XMRA 50-8-0010 XMRA 66-0010	2.98	1.969	1.72	1.13	1.69	1.39	2.55	0.18
XMRA 104-0010	3.5	2.375	2.13	1.48	2.0	1.81	3.03	0.19

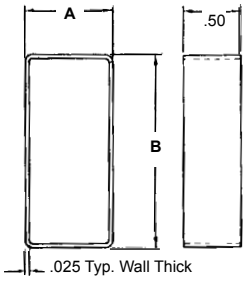
Outline Potting Forms

Potting Forms for External Miniature Rectangular Connectors

Nylon Potting Forms: Each form matches the back opening contour of its appropriate shell. Stays easily in place during the potting operation. Of negligible weight, the form need not be removed from the connector after potting. XMRE and XMRA connector-halves should always be engaged during the potting operation to preserve the contact alignment.



Potting form plan view for 9 to 26 contacts



Potting form plan view for 34, 42, 50, 50-8, 66, and 104 contacts

Dimensions

Potting Form Part No. (If Ordered Separately)	Dimensions	
	A	B
XMRE 9-0100	.38	.86
XMRE 14-0100	.45	.81
XMRE 18-0100	.56	.86
XMRE 20-0100	.44	1.11
XMRE 26-0100	.56	1.17
XMRE 34-0100	.75	1.39
XMRE 42-0100	.75	1.69
XMRE 50-0100	.75	1.98
XMRE 75-0100	1.11	1.98

Potting Form Part No. (If Ordered Separately)	Dimensions	
	A	B
XMRA 9-0100	.38	.86
XMRA 14-0100	.45	1.11
* XMRA 20-0100	.44	1.11
XMRA 34-0100	.75	1.39
XMRA 42-0100	.75	1.69
XMRA 50-0100	.75	2.03
XMRA 50-8-0100	1.13	1.72
XMRA 66-0100	1.13	1.72
XMRA 75-0100	1.11	2.03
XMRA 104-0100	1.48	2.08

**Stepped construction not shown or dimensioned. Cut-outs to clear XMRA barriers not shown.*

Ordering Information

Omit steps not required

XMRE 34	S		-F	-2	A	1	10	
XMRA 34	S		-F	-2	A	1	10	

■ Step 1

Insert Code No. of Contacts:

XMRA 9, 14, 20, 34, 42, 50, 50-8, 66, 75, 104

XMRE 9, 14, 18, 20, 26, 34, 42, 50, 75, 104

By adding "ML" to the series code, connector is supplied with diallyl phthalate type SDG-F and mil plated contacts.

Example:
XMREML
XMRAML

■ Step 2

Pin or Socket Contacts:

P - Pin
S - Socket

■ Step 3

Type of Contact:

Blank =
Standard Solder Cup
Straight Dip Solder
.030" dia.= XMRA
.025" dia.= XMRE
D3 = .094"
D4 = .125"
D5 = .156"

For additional lengths in 1/32" increments, contact Winchester's Sales Department.

■ Step 4

Guides

Jackscrews and Jacksockets

(See bottom chart)

■ Step 5

Shell Type:

0 No shell.
1 Plug shell, style 1˚000.
2 Receptacle shell, style 2˚000.
3 Plug shell, monojack type, style 3˚000.
4 Receptacle, monojack type, style 4˚000.
** 7 Stainless Steel Plug shell, style 7˚000 (66 & 104 only)
** 8 Stainless Steel Receptacle shell, style 8˚000 (66 & 104 only)

* *Polarizing Position*
** *Request availablity information.*

■ Step 6

Polarization Position:

A, B, C, D, E, F or G. Omit letter when polarization is not required.

■ Step 7

(See bottom chart)

■ Step 8

Mounting Plate or Finger Grips:

00- When no mounting plate is required
*10- Mounting plate, style #0010.

**Mounting plates are not used with "M", "C", "D", "J", or "L" jackscrews.*

■ Step 9

Special Gaskets:

Omit letter when gaskets are not required.

** G- Bulkhead gasket, style #0000G. Use only when mounting plate is specified.
** F- Face gasket, style #0000F. Use with male insert only.
** B- If both gasket #0000G and gasket #0000F are desired.

** Check plant for availability on all gaskets.

■ Step 4

Guides

G- Cylindrical guide with single spring member. Recommended for ground only.
K- Cylindrical guide with four spring members. May be used for electrical contact.
N- Cylindrical guide without spring member. Recommended for extra mechanical strength.

Jackscrews and Jacksockets

M- Polarized short turnable jackscrew and jacksocket. Cannot be used with hoods.
C- Polarized long turnable jackscrew and jacksocket for use with hoods.
***D- Polarized turnable jackscrew and jacksocket for use with hoods for sizes 34 thru 104 excluding 41.
***F- Polarized fixed jackscrew and jacksocket.
J- Non-polarized short turnable jackscrews. Cannot be used with hoods.
**L- Non-polarized long turnable jackscrews.
**R- Non-polarized fixed jacksocket.
**FZ- Same as F but with 6-32 mtg thd (std on 104).
**MW- Same as M but with knurled round knob with internal hex (not avail. 104).
**MU- Same as M but with knurled round knob with screwdriver slot (not avail. 104).
**MX- Same as M but with hex knob (not avail 104).
**CW- Same as C but with knurled round knob with internal hex (not avail. 104).
**CU- Same as C but with knurled round knob with screwdriver slot (not avail. 104).
**CX- Same as C but with hex knob (not avail. 104).
**CZ- Same as C but with prybar knob (not avail. 104).

** *Request availablity information.*
*** *Material: Nickel-plated brass - standard*

■ Step 7

Potting Form or Hoods:

0- When no potting form or hood is required.
1- Potting form style #0100. Cannot be used with hood. Request availability information. Cannot be used

Formed Hoods:

3- Hood, top opening, style #0300, for use with Type "C" or "D" jackscrews.
4- Hood, side opening, style #0400, for use with Type "C" or "D" jackscrews.
5- Hood, top opening, style #0500, for use with "G", "K", or "N" type guides only and "F" style jackscrews.
6- Hood, side opening, style #0600, for use with "G", "K", or "N" type guides only and "F" style jackscrews.

Deep Drawn Hoods:

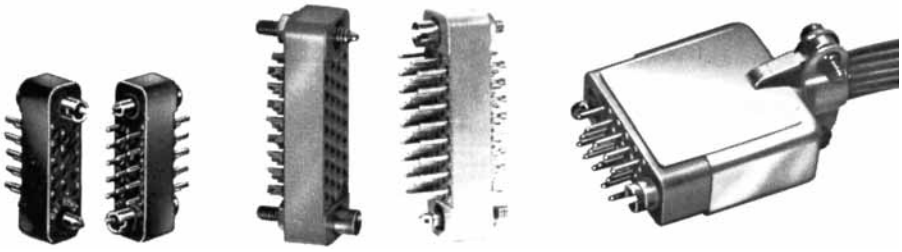
7- Hood, top opening, style #0700, for use with Type "C" or "D" jackscrews.
8- Hood, side opening, style #0800, for use with Type "C" or "D" jackscrews.
9- Hood, top opening, style #0900, for use with "G", "K", and "N" type guides or "F" jackscrews.
2- Hood, side opening, style #0200, for use with "G", "K", or "N" type guides or "F" jackscrews.

Note: *Addition of "X" to end of code # indicates cable opening larger than std. See hoods for cable opening size.*

Example: XMRE34PD3A300X

SLE-SME-SRE Series

Sub Miniature / High Density Rectangular / .025" Dia. / 3 Amps .030" Dia. / 5 Amps / .040" Dia. / 7.5 Amps



SLE
.025 Diameter Contacts — 3 Amps.

SRE
.030 Diameter Contacts — 5 Amps

SME
.040 Diameter Contacts — 7.5 Amps

Within this series, you'll find a standard size connector for which you can select one of three current ratings: 3, 5 or 7.5 amps. Compact and lightweight, they are especially suited for aircraft, instrumentation and portable equipment applications.

Right angle, dip solder, pin or socket contacts are available. Consult factory.

Specifications

Current Rating: SLE - 3 amps: SRE - 5 amps; SME - 7.5 amps.

No. of Contacts: 4, 5, 7, 9, 11, 14, 20, 26, 29, 34, 44, 50.

Pin Contacts: Brass, gold plated except for SLE which is phosphor bronze, gold plated.

Socket Contacts: Phosphor bronze, gold plated.

Termination Types: .037 diameter solder cup will accept up to #22 AWG stranded wire. Solder cup adaptor (Part No. S45) will accept up to #20 AWG stranded wire. Dip solder terminations available for SRE Series, .030 Dia. Check Sales Department for available lengths.

Military versions of SRE are QPL'd to M28748/7 and M28748/8.

Electrical Data: The dielectric withstanding voltage is one minute electrification at 1000 VAC.

Dielectric: Green glass-filled diallyl phthalate per MIL-M-14, SDG-F.

Guides: Type NSS stainless steel, passivated or Type N Brass, gold plated.

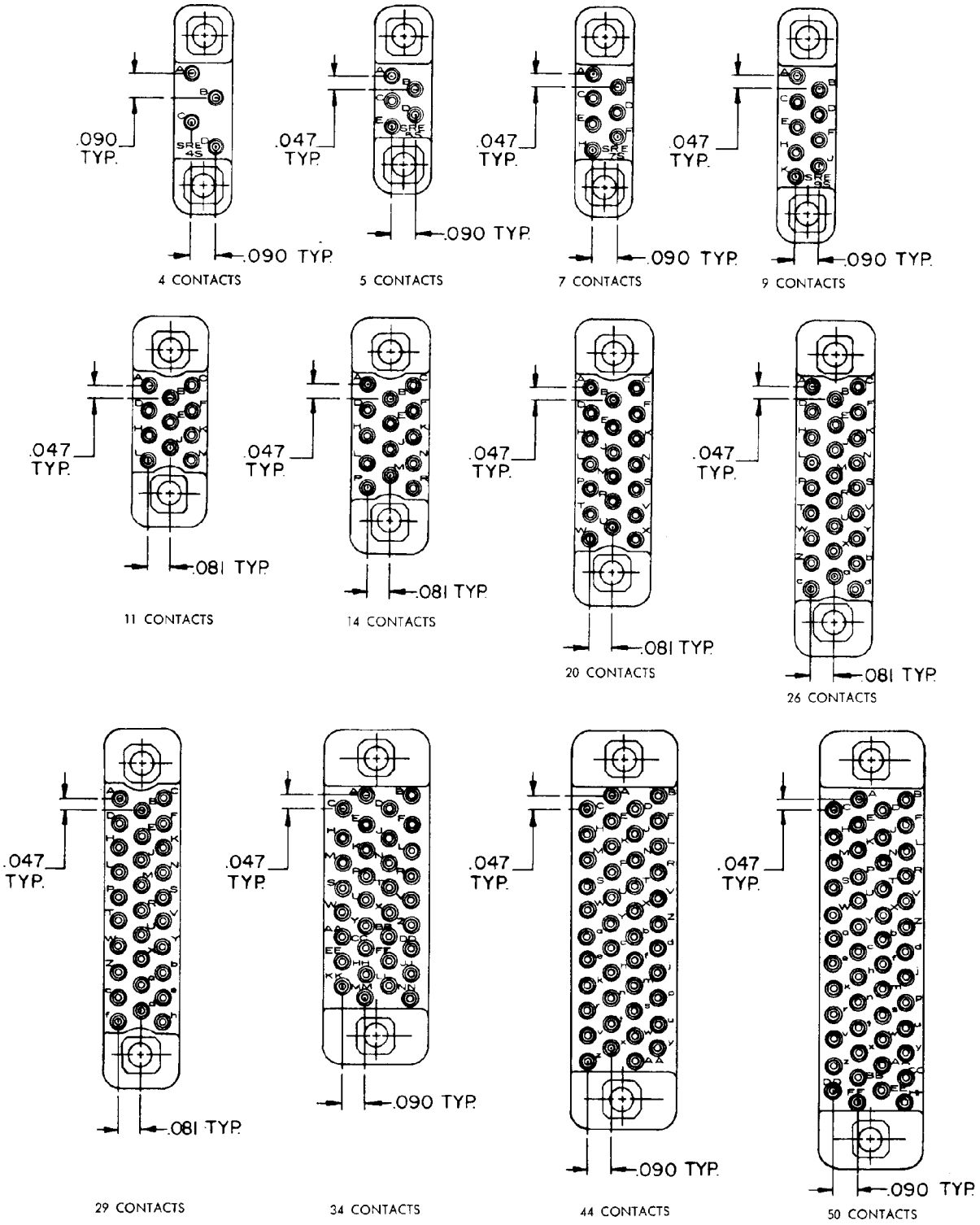
Jackscrews: Stainless steel, passivated. Aluminum knobs on the jackscrews are equipped with set screws, except JTU jackscrews which have stainless steel knobs equipped with groove pins.

Hoods: Anodized aluminum. May be applied to either plug or receptacle. Both top and side openings are available for use with either guides or jackscrews.

Contact Arrangement

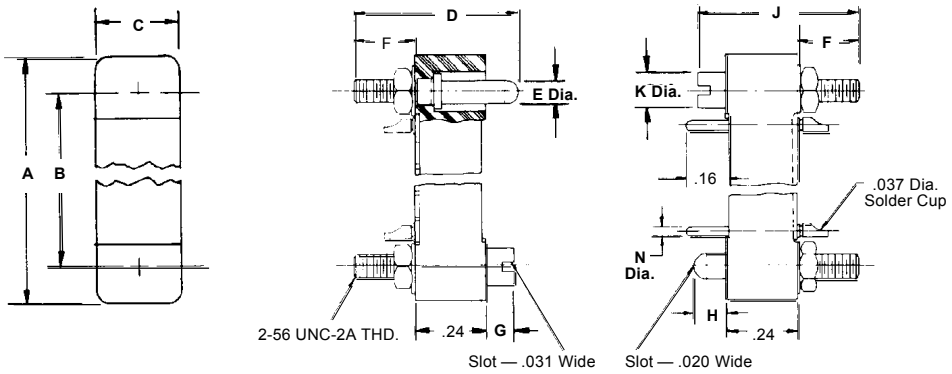
Mating Face of Female Moldings - Male Moldings Reverse Image

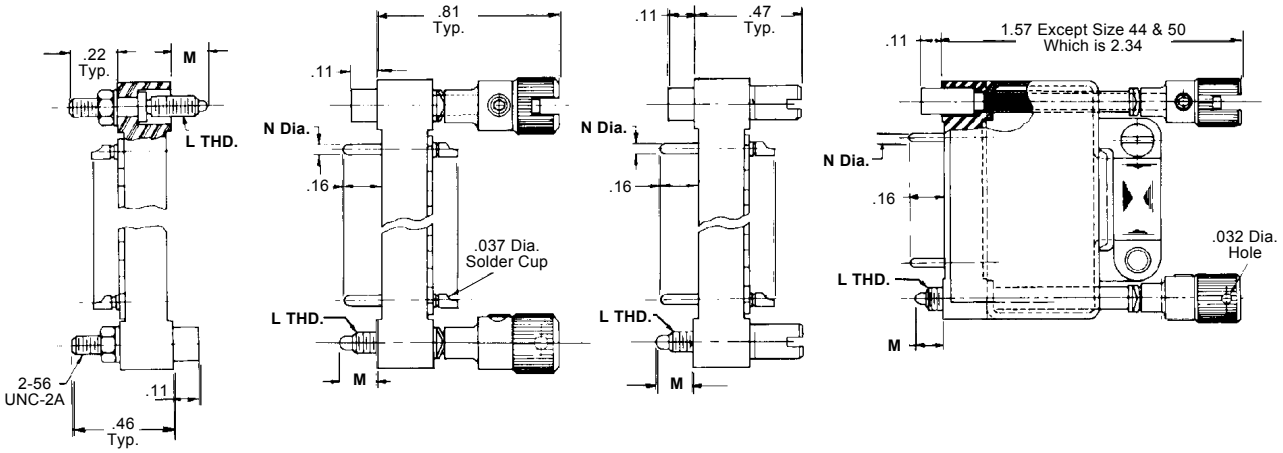
Dimensions are for reference only and are subject to change. Outline drawings on request.



Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.





J Jackscrews | **JT Jackscrews** | **JTU Jackscrews** | **JTC Jackscrews**

Dimensions

The stainless steel guide pin and socket have good physical strength and are particularly desirable for mounting connectors which will be subject to severe vibration in service, but not for electrical applications. Optional gold plated brass available for electrical applications.

No. of Contacts	A	B	C
4	.78	.562	.21
5	.70	.482	.21
7	.78	.562	.21
9	.88	.656	.21
11	.78	.531	.28
14	.88	.625	.28
20	1.06	.814	.28
26	1.25	1.000	.28
29	1.34	1.094	.28
34	1.25	1.032	.39
44	1.48	1.267	.39
50	1.63	1.408	.39

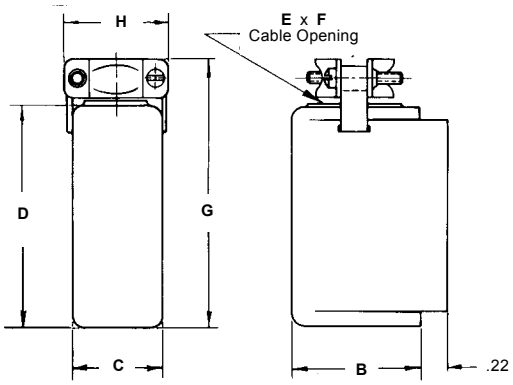
Series	D	E Dia	F	G	H	J	K	L Thd	M	N
SLE	.62	.08	.24	.10	.14	.59	.125	2-56 UNC	.15	.025
SRE	.57	.09	.22	.11	.12	.57	.137	3-48 UNC*	.12	.030
SME	.62	.08	.24	.10	.14	.59	.125	2-56 UNC	.15	.040

**2-56 UNC Thread also available.*
See ordering information for part number suffix.

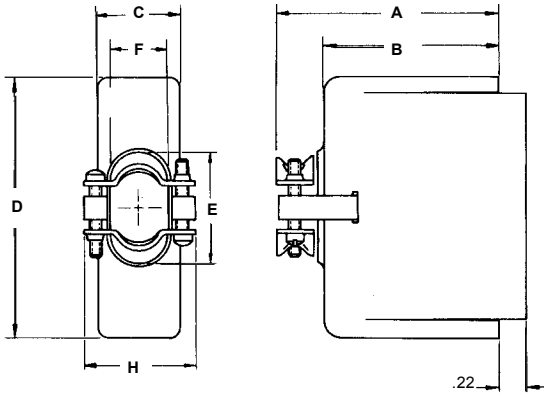
Outline

Hoods Formed Aluminum

Dimensions are for reference only and are subject to change. Outline drawings on request.



Style H9 — *Side Cable Opening*



Style H8 / H13 — *Top Cable Opening*

Dimensions

Hood Style	Hood Catalog Number Guides Only*	Dimensions						Cable Opening		No. of Con-acts
		A	B	C	D	G	H	E	F	
H8	SRE11H8	1.02	.72	.33	.78	–	.53	.28	.28	11
H8	SRE50H8	1.80	1.50	.45	1.63	–	.63	1.19	.38	50
H9	SRE11H9	–	.72	.33	.78	1.08	.53	.50	.22	11
H9	SRE50H9	–	1.50	.45	1.63	1.92	.63	1.19	.38	50
H13	SRE4&7H13	1.02	.75	.25	.78	–	.53	.22	.16	4 & 7
H13	SRE14H13	1.02	.75	.34	.88	–	.53	.25	.16	14
H13	SRE20H13	1.02	.75	.34	1.06	–	.53	.38	.25	20
H13	SRE26H13	1.02	.75	.34	1.25	–	.53	.41	.25	26
H13	SRE34H13	1.05	.75	.45	1.25	–	.63	.73	.38	34
NOT AVAILABLE										5
										9
H13	SRE29H13	1.02	.75	.34	1.34	–	.53	.41	.25	29
NOT AVAILABLE										44

***** Add "J" to hood part number when used with fixed jackscrews
Add "JTC" to hood part number when used with long turning jackscrews.

Ordering Infomation

SRE	34	S		JTC	H13	

■ Step 1

Insert Code Series:

SLE- .025 Dia. Contact
SME- .040 Dia. Contact
SRE- .030 Dia. Contact

■ Step 2

Number of Contacts:

4, 5, 7, 9, 11, 14, 20, 26, 29, 34, 44, 50

■ Step 3

Contact Designation:

P- Pin
S- Socket

■ Step 4

Special Contacts:

This step to be used only when a special material, finish, or style is required. Omit when standard contacts are used. Consult sales department for proper designation.

Order Solder Cup Adapter for #20 AWG Stranded wire. Use Part No. S45. Must be ordered separately.

■ Step 5

Jackscrew Locks:

J- Polarized Fixed Screw & Socket
JT- Polarized Short Turning Screw & Socket
JTC- Polarized Long Turning Screw & Socket
JTU- Polarized Short Turning Screw & Socket with Round Knob

Guides:

NSS- Stainless Steel Cylindrical Polarized Guides
N- Gold Plated Brass Polarized Guides

■ Step 6

Mounting:

H8- Large Top Opening
H13- Large Top Opening (High)
H9- Large Side Opening

**When ordering hoods separately use Catalog Number in Chart*

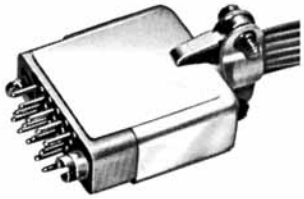
■ Step 7

For Special 2-56 thds add -859 suffix on Series SRE part numbers

SREC Series

Sub Miniature Rectangular, Removable Contacts

SREC 14SN



SREC 14PNH13

Tool 107-1012

The SREC series is the first family of subminiature crimp contact rack and panel connectors. While retaining all of the important features of true connector miniaturization, the SREC offers .030 diameter crimp (4 indents) type removable contacts with .094 center to center spacing. Contacts are precision machined to assure solid pin and socket reliability. Compact and light in weight, the SREC Series is especially suitable for aircraft, instrumentation, computer and portable equipment applications.

Specifications

Current Rating: 5 amps

No. of Contacts: 7, 11, 14, 18, 20, 26, 34, 44, 50

Pin Contacts: .030 dia. 4 indent crimp. Leaded commercial bronze, gold plated.

Socket Contacts: Phosphor bronze, gold plated.

Termination Types: Crimp or .025 sq. wire wrap. Crimp contacts will accommodate #20-#28 AWG stranded wire.

Dielectric: Glass-filled diallyl phthalate per MIL-M-14, SDG-F.

Electrical Data: The dielectric withstanding voltage is one minute electrification at 1400 VAC.

Jackscrews: Long and short turning, passivated stainless steel. Anodized aluminum knurled knobs equipped with set screws for long turning jackscrews. Stainless steel knobs with groove pins for short turning jackscrews.

Guides: Type N is standard - brass for extra mechanical strength.

Type K - beryllium copper for high electrical conductivity.

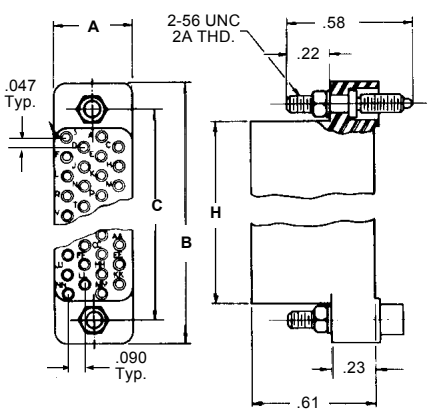
Type NSS - stainless steel

Hoods: Top opening hoods are available in all sizes. Side opening available for SREC 50 only.

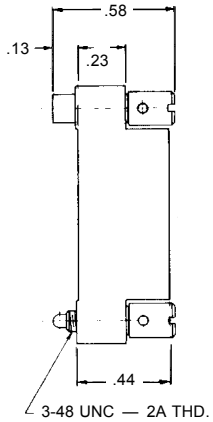
SREC Series

Outline

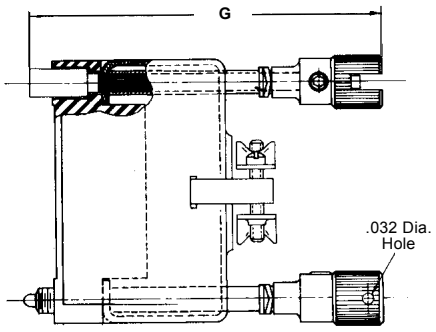
Dimensions are for reference only and are subject to change. Outline drawings on request.



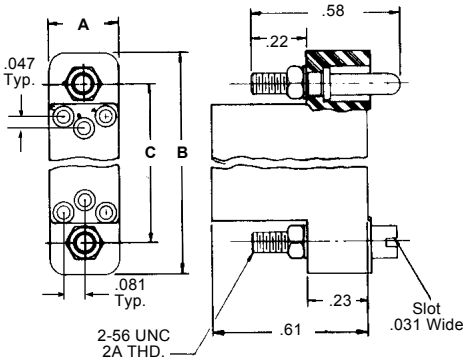
SREC-SJ



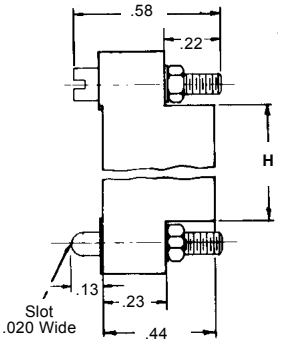
SREC-PJT



SREC-JTCH13



SREC-SN/K



SREC-PN/K

Dimensions

DIMENSION CHART					
No. of Contacts	A	B	C	G	H
7	.20	.78	.56	1.67	.41
14	.28	.88	.63	1.67	.50
20	.28	1.06	.81	1.67	.69
26	.28	1.25	1.000	1.67	.88
34	.39	1.25	1.03	1.67	.88
50	.39	1.63	1.40	2.45	1.25

SREC 11, 18 and 44 outline drawings on request

Physical Data

Weight in Ounces (w/o contacts)		SREC 7	SREC 14	SREC 20	SREC 26	SREC 34	SREC 50
	Plug	.03	.05	.07	.08	.12	.15
	Plug	.04	.06	.08	.09	.15	.20

Component Parts	Guide Pin	Guide Socket	L Washer (2)	Nut (2)
Weight in Ounces	.02	.02	.007	.01

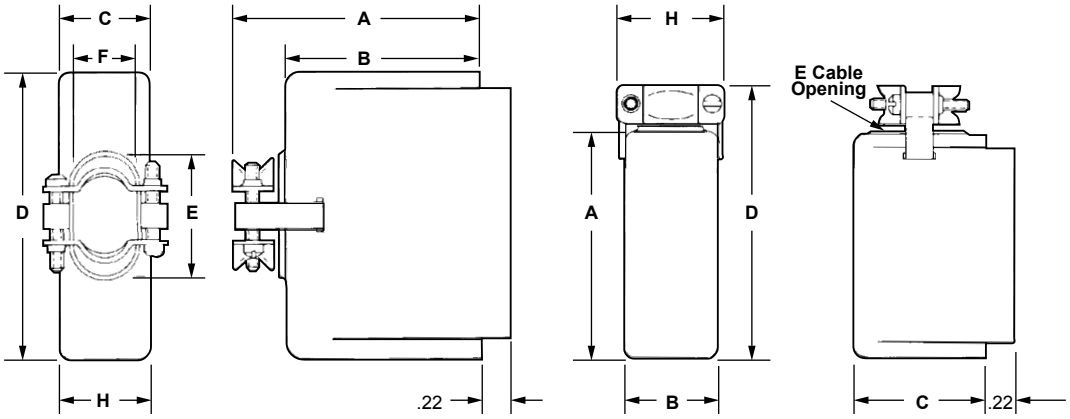
Contacts

Part No.	Contact Type	Wire Size (Stranded)	Dimensions				Current Rating
			A	B	C	D	
100-4024P	P (Male)	24-26-28	—	.56	.028	.055	5 Amp
100-4024S	S (Female)	24-26-28	.55	—	.028	.055	
100-4020P	P (Male)	20-22	—	.50	.046	—	
100-4020S	S (Female)	20-22	.48	—	.046	—	

Polarizing Pin: Brass, Gold Plated, Part No. 109-8565

Outline Formed Aluminum Hoods

Dimensions are for reference only and are subject to change. Outline drawings on request.



Dimentions

SRE/SREC Large Top Opening Hoods

Code No.*	Dimensions				Cable Opening			Fits Connector
	A	B	C	D	E	F	H	
SRE7H13	1.02	.75	.25	.78	.22	.16	.53	SRE 7 P/S SREC 7 P/S
SRE14H13	1.02	.75	.34	.88	.38	.25	.53	SRE 14 P/S SREC 14 P/S
SRE20H13	1.02	.75	.34	1.06	.38	.25	.53	SRE 20 P/S SREC 20 P/S
SRE26H13	1.02	.75	.34	1.25	.41	.25	.53	SRE 26 P/S SREC 26 P/S
SRE34H13	1.05	.75	.45	1.25	.73	.38	.63	SRE 34 P/S SREC 34 P/S
SRE50H8	1.80	1.50	.45	1.63	1.19	.38	.63	SRE 50 P/S SREC 50 P/S

SRE/SREC Large Side Opening Hoods

Code No.*	A	B	C	D	E	H	Fits Connector
SRE50H9	1.63	.45	1.50	1.92	1.19 x .38	.63	SRE 50 P/S SREC 50 P/S

* Code numbers shown are for use with guides. For use with jackscrews, add J or JTC to hood part number.

Ordering Information

Omit steps not required

SREC	34	S		JTC	H13	859

■ Step 1
Insert Series Code:
SREC

■ Step 2
Number of Contacts:
7, 11, 14, 18, 20, 26, 34, 44, 50

■ Step 3
Contact Designation:
P - Pin Molding
S - Socket Molding

■ Step 4
Contact Wire Size. Omit this step if contacts are to be ordered separately.

Use only when contacts are supplied with connector

Add:
20 - for 20-22 AWG
24 - for 24-26 AWG
28 - for 28-30 AWG

■ Step 5
(See bottom chart)

■ Step 6
Hood Type:
H8 - Large Top Opening (50 size only)
H9 - Large Side Opening (50 size only)
H13 - Higher Top Opening (all others)
See Hood Section For Availability

■ Step 7
For 2-56 UNC 2A Threads on Jackscrews, add suffix -859. Omit if not required.

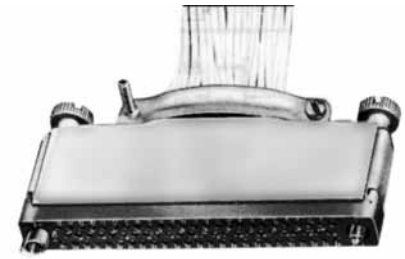
■ Step 5

Guides
K- Beryllium Copper Cylindrical Guides
N- Brass Cylindrical Guides (Standard)
NSS- Same style as above but Stainless Steel

Jackscrew Locks
J- Polarized Fixed Jackscrew and Jacksocket
JT- Polarized Short Turning Jackscrew and Jacksocket
JTC- Polarized Long Turning Jackscrew and Jacksocket

42 Series

Panel Mount Miniature 22 AWG – .030" Diameter – 5 Amps



42-4574S

42-3674P

Termination Types

Dip Solder: .125" or .156" standard lengths with other lengths available on special order.

Grid Spacing: .100" x .100" grid

50 or 74 contact positions on .100" centers in 3 rows. Two outboard rows for 25 contacts each. Center row either for 24 additional contacts or polarizing pins in specified positions.

Solder Cup: Accommodates up to #22 AWG stranded wire.

Crimp Removable: Crimp contacts available for #20 through #30 AWG stranded wire. Designed for four indent crimp. See crimp tooling.

Polarization

Available in 50 contact configuration only. Choice of any combination of 24, center positions. Specify polarizing positions required. Positions top to bottom are: A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z, a.b.

When 74 contacts are required no polarization other than hardware polarization is available.

Specifications

Current Rating: 5.0 amps.

Pin Contacts: .030" dia. gold plated brass conforming to specification QQ-B-626.

Socket Contacts: Gold plated phosphor bronze.

Termination Types: Solder cup, dip solder and crimp removable contacts.

Housing Material: Red diallyl phthalate for Dip Solder and Solder Cup Housings. Green diallyl phthalate for Crimp Removable Housings

Dielectric: Minimum withstanding voltage is one minute electrification at 1200 VAC.

Polarization: Polarizing pins may be used in any combination in center row.

Jackscrews: Passivated stainless steel, anodized aluminum knobs.

Hoods: Anodized aluminum, top opening only.

Crimp Tooling

Automatic Crimping Machine:
Cat. No. 107-0952.

Hand Crimping Tool:
Cat. No. 107-0616.

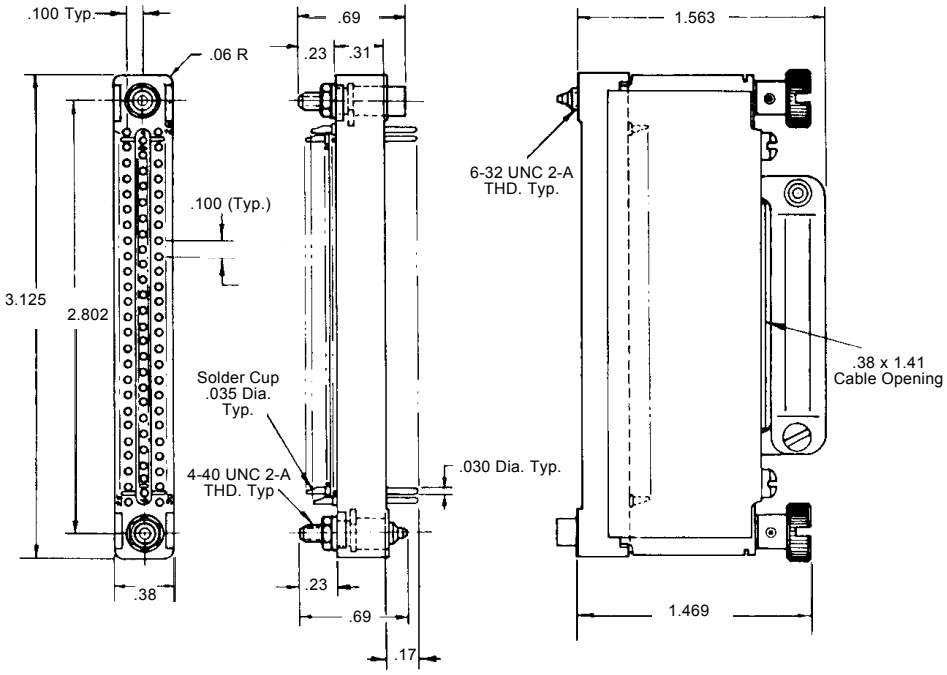
Locator:
Cat. No. 107-0617.

Contact Removal Tool:
Cat. No. 107-1012.

Contact Insertion Tool:
Cat. No. 107-1011.

Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.



Solder Cup, Clipped-in Contacts

Ordering Information

42	36	50 / 74	P / S	

■ Step 1

Series Code:
Series 42

■ Step 2

Hardware and Accessories:
(See bottom chart)

■ Step 3

No. of Contacts:
50 or 74

■ Step 4

Contact Type:
S = Socket
P = Pin

■ Step 5

Polarization Positions:
Blank = Non-Polarized

Polarization available in 50 contact configuration only. Choice of any combination of 24 center positions. Specify polarizing positions required. Positions top to bottom are: A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z, a, b.

When 74 contacts are required no polarization other than hardware polarization is available.

SOLDER CUP PLUG (Clipped-in Contacts)

34 = Molding, No Hardware
35 = Molding, With Guides
36 = Molding, With Fixed Jackscrews
52 = Molding, With Short-Turning Jackscrews
53 = Molding, With Long-Turning Jackscrews
54 = Molding, With Guides and Hood
55 = Molding, With Long-Turning Jackscrews and Hood

SOLDER CUP RECEPTACLE (Clipped-in Contacts)

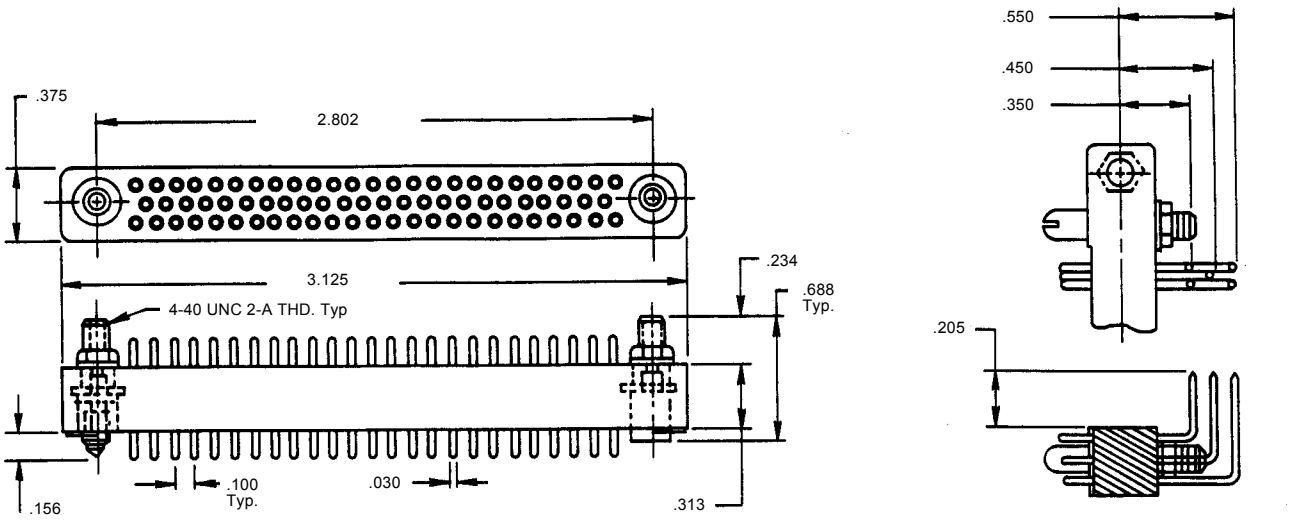
40 = Molding, No Hardware
41 = Molding, With Guides
42 = Molding, With Short-Turning Jackscrews, No Hood
43 = Molding, With Long-Turning Jackscrews, No Hood
44 = Molding, With Guides and Hoods
45 = Molding, With Long-Turning Jackscrews and Hood
46 = Molding, With Fixed Jackscrews

Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

Dip Solder Receptacle

Shown:
74 contact right angle configuration. Center row eliminated for 50 contact connector.



Dip Solder, Molded-in Contacts

Ordering Information

42	-30	74	P		4

■ Step 1
Series Code:
Series 42

■ Step 2
Hardware and Accessories:
DIP SOLDER (Molded-in Contacts)
30 = No Hardware
31 = Guide Pin and Socket
32 = Fixed Jackscrew and Jacksocket

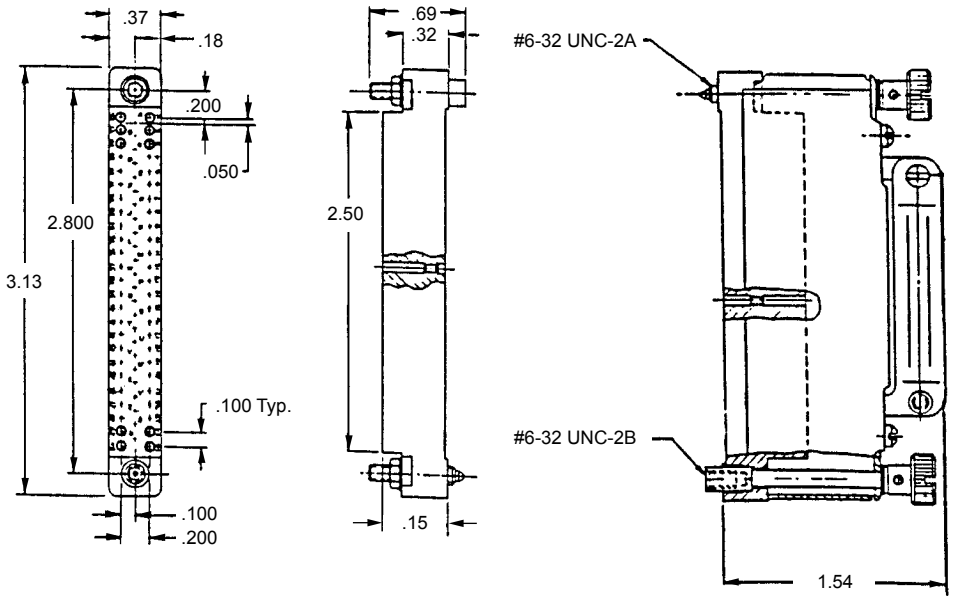
■ Step 3
No. of Contacts:
50 or 74

■ Step 4
Contact Type:
P = Pin

■ Step 5
Polarization Positions:
Blank = Non-Polarized
Polarization available in 50 contact configuration only. Choice of any combination of 24 center positions. Specify polarizing positions required. Positions top to bottom are: A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z, a, b.
When 74 contacts are required no polarization other than hardware polarization is available.

■ Step 6
Termination Type:
4 = Dip Solder Contacts...125"
5 = Dip Solder Contacts...156"
852 = Right Angle Dip Solder Contacts .205"

Outline



Ordering Information

42	1	36	50	P	

■ Step 1
Series Code:
Series 42

■ Step 2
1 = Crimp Connector Molding

■ Step 3
Hardware and Accessories:
(See bottom chart)

Crimp Removable Pin Contacts
34 = Molding, No Hardware
35 = Molding, With Guides
36 = Molding, With Fixed Jackscrews
52 = Molding, With Short-Turning Jackscrews
53 = Molding, With Long-Turning Jackscrews
54 = Molding, With Guides and Hood
55 = Molding, With Long-Turning Jackscrews and Hood

Crimp Removable Socket Contacts
40 = Molding, No Hardware
41 = Molding, With Guides
42 = Molding, With Short-Turning Jackscrews, No Hood
43 = Molding, With Long-Turning Jackscrews, No Hood
44 = Molding, With Guides and Hoods
45 = Molding, With Long-Turning Jackscrews and Hood
46 = Molding, With Fixed Jackscrews

■ Step 4
No. of Contacts:
50 or 74

■ Step 5
Contact Type:
S = Socket
P = Pin
Crimp removable contacts are ordered separately.

Pin Contacts:
100-4020P
100-4024P
100-4028P

Socket Contacts:
100-4020S
100-4024S
100-4028S

Socket Contacts (Closed Entry):
100-54020S
100-54024S
100-54028S

See 100 Series Contact Section of Rack & Panel

■ Step 6
Polarization Positions:
Blank = Non-Polarized

Polarization available in 50 contact configuration only. Choice of any combination of 24 center positions. Specify polarizing positions required. Positions top to bottom are: A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z, a, b.
When 74 contacts are required no polarization other than hardware polarization is available.

SRM Series

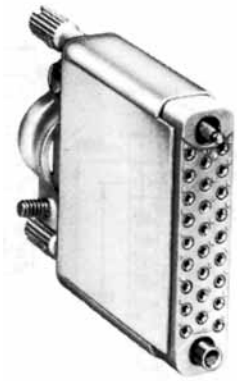
Sub Miniature Rectangular #20 Contacts / .040" Dia. / 7.5 Amps

SRM Series connectors are particularly suitable where current rating and voltage drop requirements dictate a larger wire size than can be used with other subminiature connectors.

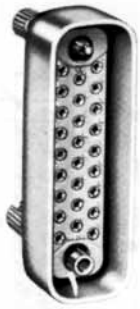
XSRM14PNSS2500

XSRM14PNSS1000

SRM14SNSS0000



SRM26SCO300



XSRM26SM2000

SRM26PF0000

Specifications

Current Rating: 7.5 Amps

No. of Contacts: 5, 7, 11, 14, 20, 26, 34, 50, 75, 104

Pin Contacts: .040 dia. brass, gold plated.

Socket Contacts: Phosphor, bronze, gold plated.

Termination Types: .048 dia. solder cups will accept up to #20 AWG stranded wire. Dip Solder Contacts, .030 dia. Check Sales Dept. for available lengths.

Electrical Data: Minimum dielectric withstanding voltage is one minute at 1500 VAC when tested in accordance with MIL-C-28748.

Dielectric: Glass-filled diallyl phthalate - grey- per MIL-M-14, SDG-F.

Guides: NSS Type, stainless steel; or N Type, brass.

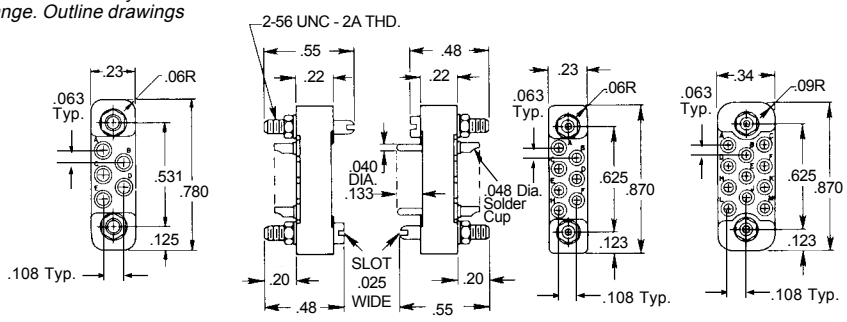
Jackscrews: Stainless steel with knurled and slotted aluminum knobs.

Hoods: Anodized aluminum. May be applied to either plug or receptacle. Both top and side openings are available.

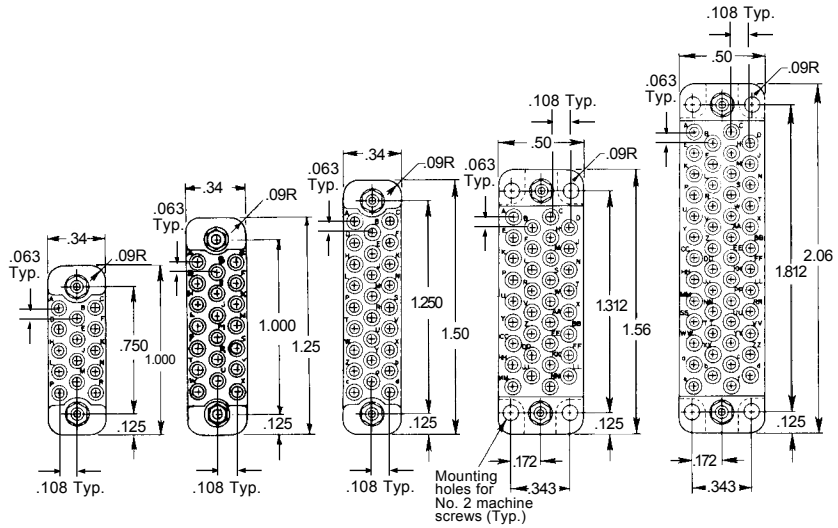
Shells: Polarized shells are available. SRM connector assembled with a shell changes part number from SRM _ _ _ _ _ to XSRM _ _ _ _ _ .

Contact Arrangements

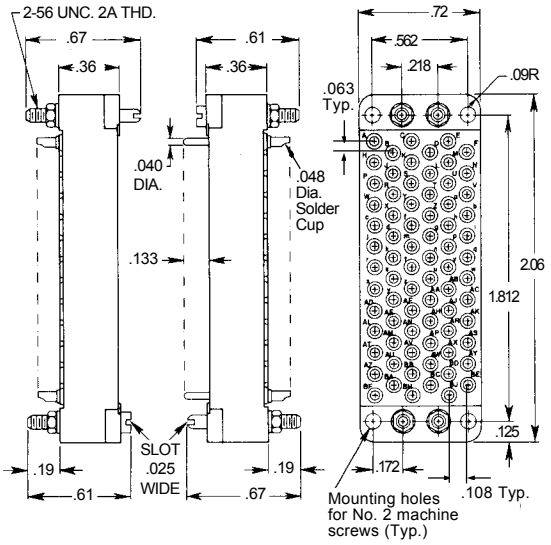
Dimensions are for reference only and are subject to change. Outline drawings on request.



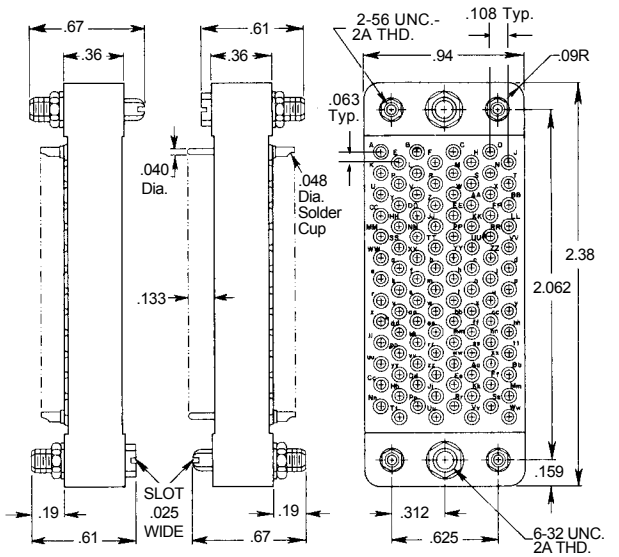
SRM5P-NSS **SRM7S-NSS** **SRM7P-NSS** **SRM11P-NSS**



SRM14P-NSS **SRM20P-NSS** **SRM26S-NSS** **SRM34P-NSS** **SRM50P-NSS**



SRM75S-NSS **SRM75P-NSS**

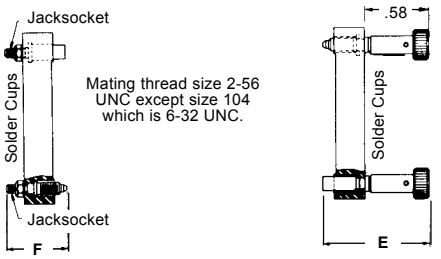


SRM104S-NSS **SRM104P-NSS**

*Center guides are .038 x .062

OUTLINE JACKSCREWS & JACKSOCKETS

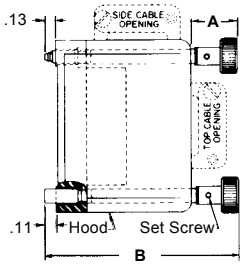
Dimensions are for reference only and are subject to change. Outline drawings on request.



Connector with fixed Jackscrews Code designation F

AND

Mating connector half with turnable Jackscrews-with-Knobs Code designation M



OR

Mating connector half with Hood and turnable Long Jackscrews-with-Knobs Code designation C-0300, C-0400

Jackscrew locking device assures positive coupling of engaged connectors to prevent accidental disconnecting from vibration or physical shock. It also aids easy connection and separation of connector plug and receptacle. Mounted connector-half houses one non-turnable fixed jackscrew and jacksocket to insure connector polarization. Mating-half houses one of the two types of turning jackscrew and jacksocket (M or C)

Turnable jackscrew-jacksocket combination (M or C) assembles on either Plug or Receptacle, the mating connector-half (either Receptacle or Plug) must then contain fixed jackscrew-jacksocket combination (F).

Both short and long turning jackscrews (M and C) have knurled and slotted knobs for locking by hand or screwdriver. Knob is assembled on shaft with a socket setscrew. Safety wiring of engaged halves is achieved by using the through-holes.

Drawings show extension of standard knobs beyond hood.

Dimensions

Standard Connector Size	Long Turning Code "C"		Short Turning Code "M"	Fixed Jacks Code "F"
	0300	0300X		
	A	B	E	F
SRM 5	–	–	.92	.53
SRM 7	–	1.28	.92	.53
SRM 11	–	1.84	.92	.53
SRM 14	–	1.84	.92	.53
SRM 20	–	2.09	.92	.53
SRM 26	.56	2.09	.92	.53
SRM 34	.56	2.09	.92	.53
SRM 50	.56	2.09	.92	.53
SRM 75	.56	2.23	1.06	.67
SRM 104	.56	2.80	1.06	.67

Codes

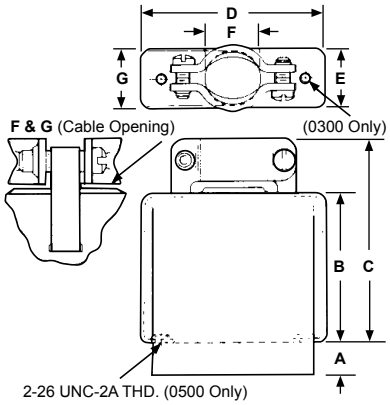
Note: Jackscrews and jacksockets are stainless steel with passivating dip. Knob is anodized aluminum.

TYPE		Code Letter
Jackscrew Jacksocket	Fixed	F
Jackscrew Jacksocket	Short Turnable	M
Jackscrew Jacksocket	Long Turnable	C
Knob	Standard	—

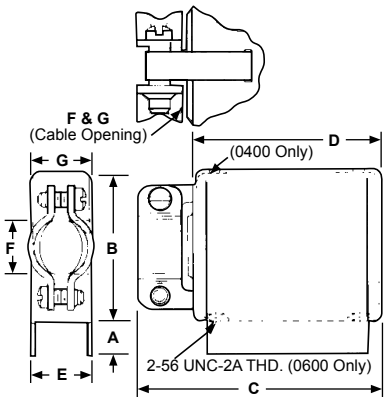
Hoods– Formed Aluminum

Dimensions are for reference only and are subject to change. Outline drawings on request.

Top Cable Opening Hoods



Side Cable Opening Hoods



0300X Cable Clamp

0300X Hood is identical to 0300 Hood except for cable clamp style and cable opening in the hood.

0400X Cable Clamp

0400X Hood is identical to 0400 Hood except for cable clamp style and cable opening in the hood.

Dimensions

Top Cable Opening Hoods

Code No.	Dimensions					Cable Opening		Code No.	Dimensions					Cable Opening	
	A*	B	C	D	E	F	G		A*	B	C	D	E	F	G
SRM 7-0300X	.16	.38	.67	.88	.30	.36	.23	SRM 34-0300	.16	1.19	1.63	1.56	.56	.63	.5
SRM 7-0500	.16	.38	.69	.88	.30	.30	.23	SRM 34-0300X	.16	1.19	1.67	1.56	.56	.81	.5
SRM 7-0500X	.16	.38	.67	.88	.30	.36	.23	SRM 34-0500	.16	1.19	1.63	1.56	.56	.63	.5
SRM 11-0300X	.16	.94	1.23	.88	.41	.47	.34	SRM 34-0500X	.16	1.19	1.67	1.56	.56	.81	.5
SRM 11-0500	.16	.94	1.25	.88	.41	.44	.34	SRM 50-0300	.16	1.19	1.63	2.06	.56	.66	.5
SRM 11-0500X	.16	.94	1.23	.88	.41	.47	.34	SRM 50-0300X	.16	1.19	1.67	2.06	.56	.88	.5
SRM 14-0300X	.16	.94	1.23	1	.41	.5	.34	SRM 50-0500	.16	1.19	1.63	2.06	.56	.66	.5
SRM 14-0500	.16	.94	1.25	1	.41	.44	.34	SRM 50-0500X	.16	1.19	1.67	2.06	.56	.88	.5
SRM 14-0500X	.16	.94	1.23	1	.41	.5	.34	SRM 75-0300	.16	1.19	1.63	2.06	.78	.63 Dia.	
SRM 20-0300X	.16	1.19	1.67	1.25	.41	.72	.34	SRM 75-0300X	.16	1.19	1.72	2.06	.78	.91	.72
SRM 20-0500	.16	1.19	1.63	1.25	.41	.34	.72	SRM 75-0500	.16	1.19	1.63	2.06	.78	.63 Dia.	
SRM 20-0500X	.16	1.19	1.67	1.25	.41	.72	.34	SRM 75-0500X	.16	1.19	1.72	2.06	.78	.91	.72
SRM 26-0300	.16	1.19	1.63	1.5	.41	.56	.34	SRM 104-0300	.16	1.75	2.28	2.38	1	1.06	.94
SRM 26-0300X	.16	1.19	1.63	1.5	.41	.91	.34	SRM 104-0300X**	.16	1.75	2.52	2.38	1	.86	1.36
SRM 26-0500	.16	1.19	1.63	1.5	.41	.56	.34	SRM 104-0500	.16	1.75	2.28	2.38	1	1.06	.94
SRM 26-0500X	.16	1.19	1.63	1.5	.41	.91	.34	SRM 104-0500X**	.16	1.75	2.52	2.38	1	.86	1.36

Hoods may be ordered separately (see code numbers in above tables) or assembled on connectors. If desired assembled to connectors, see Code Numbering System for complete catalog number.

Prefix hood code numbers with "X" for use with shells. **Example:** XSRM34-0300

Side Cable Opening Hoods

Code No.	Dimensions					Cable Opening		Code No.	Dimensions					Cable Opening	
	A*	B	C	D	E	F	G		A*	B	C	D	E	F	G
SRM 11-0400	.16	.94	1.19	.88	.41	.44	.34	SRM 34-0400	.16	1.19	2	1.56	.56	.63	.5
SRM 11-0400X	.16	.94	1.17	.88	.41	.34	.47	SRM 34-0400X	.16	1.19	2.03	1.56	.56	.81	.5
SRM 11-0600	.16	.94	1.19	.88	.41	.44	.34	SRM 34-0600	.16	1.19	2	1.56	.56	.63	.5
SRM 11-0600X	.16	.94	1.17	.88	.41	.34	.47	SRM 34-0600X	.16	1.19	2.03	1.56	.56	.81	.5
SRM 14-0400	.16	.94	1.31	1	.41	.44	.34	SRM 50-0400	.16	1.19	2.5	2.06	.56	.66	.5
SRM 14-0400X	.16	.94	1.30	1	.41	.5	.34	SRM 50-0400X	.16	1.19	2.53	2.06	.56	.88	.5
SRM 14-0600	.16	.94	1.31	1	.41	.44	.34	SRM 50-0600	.16	1.19	2.5	2.06	.56	.66	.5
SRM 14-0600X	.16	.94	1.30	1	.41	.5	.34	SRM 50-0600X	.16	1.19	2.53	2.06	.56	.88	.5
SRM 20-0400	.16	1.19	1.69	1.25	.41	.56	.34	SRM 75-0400	.16	1.19	2.5	2.06	.78	.63 Dia.	
SRM 20-0400X**	.16	1.19	1.73	1.25	.41	.72	.34	SRM 75-0400X	.16	1.19	2.58	2.06	.78	.91	.72
SRM 20-0600	.16	1.19	1.69	1.25	.41	.56	.34	SRM 75-0600	.16	1.19	2.5	2.06	.78	.63 Dia.	
SRM 20-0600X**	.16	1.19	1.73	1.25	.41	.72	.34	SRM 75-0600X	.16	1.19	2.58	2.06	.78	.91	.72
SRM 26-0400	.16	1.19	1.94	1.5	.41	.56	.34	SRM 104-0400	.16	1.75	2.91	2.38	1	1.06	.94
SRM 26-0400X	.16	1.19	1.94	1.5	.41	.91	.34	SRM 104-0400X	.16	1.75	2.91	2.38	1	1.44	.94
SRM 26-0600	.16	1.19	1.94	1.5	.41	.56	.34	SRM 104-0600	.16	1.75	2.91	2.38	1	1.06	.94
SRM 26-0600X	.16	1.19	1.94	1.5	.41	.91	.34	SRM 104-0600X	.16	1.75	2.91	2.38	1	1.44	.94

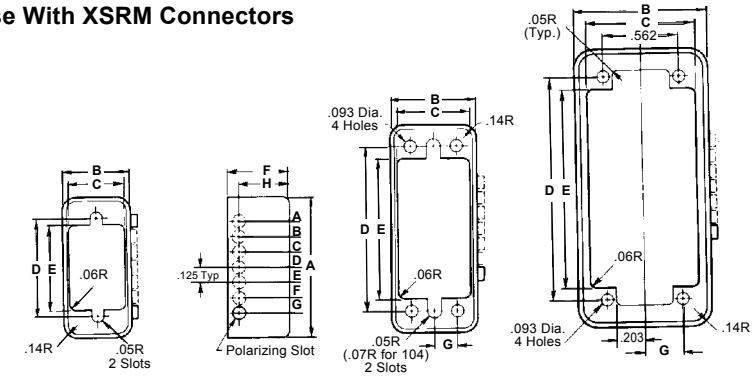
**Note: This dimension does not apply when shells are used. Tab is removed.*

***Request availability information.*

Plug Shells

Dimensions are for reference only and are subject to change. Outline drawings on request.

For Use With XSRM Connectors

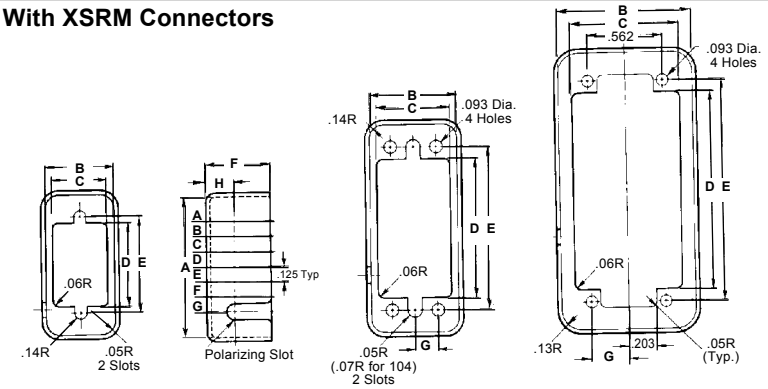


For XSMR 7 to 26 | For All XSRM Config. | For XSRM 34, 50, and 104 | For XSRM 75

Receptacle Shells

Dimensions are for reference only and are subject to change. Outline drawings on request.

For Use With XSRM Connectors



For XSMR 7 to 26 | For All XSRM Config. | For XSRM 34, 50, and 104 | For XSRM 75

Materials

Shells are .031 thick aluminum, anodized for protection against corrosion. Either style - plug or receptacle - may be used to house a female insert, thus allowing “live” socket contacts to be cable or panel mounted.

Shells also provide a means by which connector polarization is accomplished - receptacle shell is slotted for engaging a polarizing pin on plug shell. Non-polarized shells have the slot and pin omitted.

Polarization

The shell part numbers given in table show an asterisk (*) where the code letter for the desired polarizing position belongs - example: XSRM14-2*000 becomes XSRM14-2B000 when polarization in position “B” is desired. Specify the same position on the mating shell. For non-polarized shells, merely omit this position, e.g. XSRM14-2000.

Shell Size	Available Polarization Positions	Shell Size	Available Polarization Positions
7	A,B,C,D	34	A,B,C,D,E,F,G
11	A,B,C,D	50	A,B,C,D,E,F,G
14	A,B,C,D,E	75	A,B,C,D,E,F,G
20	A,B,C,D,E,F,G	104	A,B,C,D,E,F,G
26	A,B,C,D,E,F,G		

Dimensions

Plug Shells (.031" thick)

Shell Part No. (if ordered separately)	Dimensions							
	A	B	C	D	E	F	G	H
XSRM 7-1*000	.97	.33	.23	.625	.53	.44	–	.31
XSRM 11-1*000	.97	.44	.34	.625	.53	.44	–	.31
XSRM 14-1*000	1.11	.44	.34	.750	.67	.44	–	.31
XSRM 20-1*000	1.34	.44	.34	1.00	.94	.44	–	.31
XSRM 26-1*000	1.61	.44	.34	1.250	1.16	.44	–	.31
XSRM 34-1*000	1.66	.61	.5	1.312	1.16	.44	.172	.31
XSRM 50-1*000	2.16	.83	.5	1.812	1.66	.44	.172	.31
XSRM 75-1*000	2.16	.81	.72	1.812	1.66	.58	.281	.45
XSRM 104-1*000	2.48	1.05	.94	2.062	1.81	.58	.312	.45

Receptacle Shells (.031" thick)

Shell Part No. (if ordered separately)	Dimensions							
	A	B	C	D	E	F	G	H
XSRM 7-2*000	1	.36	.23	.625	.53	.44	–	.19
XSRM 11-2*000	1	.47	.34	.625	.53	.44	–	.19
XSRM 14-2*000	1.13	.47	.34	.750	.67	.44	–	.19
XSRM 20-2*000	1.38	.47	.34	1.00	.94	.44	–	.19
XSRM 26-2*000	1.63	.47	.34	1.250	1.16	.44	–	.19
XSRM 34-2*000	1.69	.63	.5	1.312	1.16	.44	.172	.19
XSRM 50-2*000	2.19	.63	.5	1.812	1.66	.44	.172	.19
XSRM 75-2*000	2.19	.84	.72	1.812	1.66	.58	.281	.33
XSRM 104-2*000	2.5	1.06	.94	2.062	1.81	.58	.312	.33

Ordering Information

Omit steps not required

SRM	26	P		C	0		3	0	0

Step 1
Insert Series Code:
SRM - When protective shells are not required.
XSRM - When protective shells are required.

Step 2
Number of Contacts:
5, 7, 11, 14, 20, 26, 34, 50, 75 and 104.

Step 3
Contact Designation:
P - Pin
S - Socket

Step 4
Type of Contact:
Blank = Standard Solder Cup
This step to be used only when a special material, finish, or style is required. Omit when standard contacts are used. Consult Sales Department for proper designation of Dip Solder Terminations

Step 5
Guides:
(See bottom Chart)

Step 6
Shell Type:
0 - Shell not required SRM Series
1 - Plug shell XSRM Series
2 - Receptacle shell XSRM Series

Step 7
Polarization Position:
A, B, C, D, E, F or G. Omit letter when polarization of shell is not required.

Step 8
Hoods:
0 - When no hood required.
3 - Standard size top cable opening. If extra large cable opening is desired, add "X" to end of catalog number.
4 - Standard size side cable opening. If extra large cable opening is desired, add "X" to end of catalog number.
5 - Top opening hood for use with guides.
6 - Side opening hood for use with guides.

Step 9
"0" fill to complete part number

Step 10
"0" fill to complete part number

Step 5

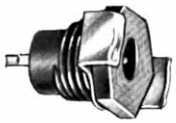
Guides
NSS - Standard stainless steel cylindrical guides.
N - Brass cylindrical guides. Plated, gold over copper.

Jackscrews and Jacksockets
C - Polarized long turning jackscrew and jacksocket for use with hoods.
F - Polarized fixed jackscrew and jacksocket.
M - Polarized short turning jackscrew and jacksocket.
J - Non-polarized short turning jackscrews.
L - Non-polarized long turning jackscrews.
R - Non-polarized fixed jacksockets.

PM6 Series

High Voltage, Single Contact / #20 Contacts / .040" Dia. / 7.5 Amps

N
Nylon Nut



PM1SLR
Plug with lock ring

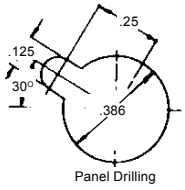
PM1PLS
Receptacle with lock spring

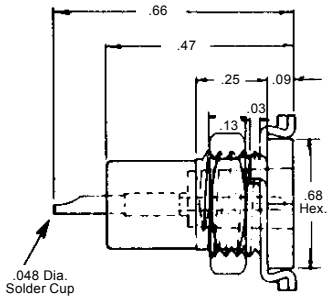
H10
Hood

This connector was developed for applications requiring moderately high voltage ratings, this single contact connector is particularly well adapted to Photo-Flash, Aircraft, Instumentation and Communications Equipment.

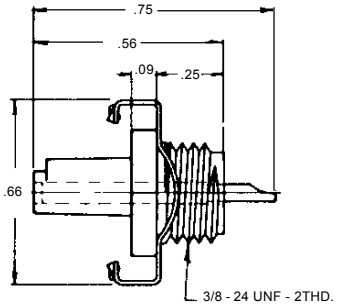
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

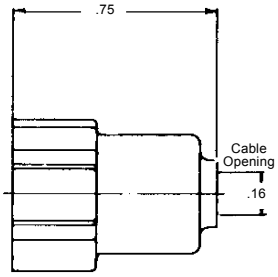




PM1SLRN
Plug with lock ring



PM1PLS
Receptacle with lock spring



H10
Hood

Specifications

Current Rating: 7.5 amps

No. of Contacts: 1

Pin Contacts: .040 dia. brass, gold plated

Socket Contacts: Phosphor bronze, gold plated

Terminations: .048 solder cup will accept up to #20 AWG stranded wire.

Electrical Data: Dielectric withstanding voltage is one minute electrification at 5650 VAC.

Dielectric: Molded Diallyl phthalate per MIL-M-14, type SDG-F. Color Gray.

Polarization: Permits one engaging position only and prevents rotation of the plug and receptacle with respect to each other.

Mounting: Cable or panel mounted. Use nylon nut applied to either plug or receptacle.

Lock Ring (and lock spring): Applied to plug or receptacle. Prevents connector rotation on panel and when engaged with lock spring, prevents accidental disconnection due to vibration, etc.

Hood: Diallyl Phthalate cable hood

Weight in Ounces: Receptacle .05, Plug .05, Washer .005, Hood .07, Lock Ring .017, Lock Spring .019, Nut .015

Ordering Information

PM1PLR- Connector, plug with lock ring
PM1SLS- Connector, receptacle with lock spring
PM1PLS- Connector, plug with lock spring
PM1SLR- Connector, receptacle with lock ring
PM1P- Connector, plug without vibration lock
PM1S- Connector, receptacle without vibration lock

***Add H10-** to above numbers when ordering hoods
***Add H10C-** to above numbers for hood with cable clamp
Add **N-** to above numbers when ordering nylon nut

* When ordering hoods separately specify P/N **H10T34 or H10CT34**

PM6 Series

N
Nylon Nut

PM6SLR
Receptacle with lock ring

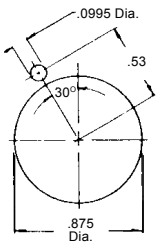
PM6PLS
Plug with lock spring

PM6H
Hood

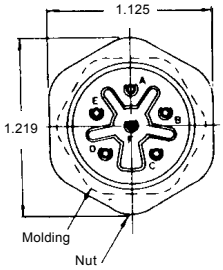
This connector was developed for applications requiring moderately high voltage ratings, this connector of minimum bulk and weight is particularly well adapted to Photo-Flash, Aircraft, Instumentation and Communications Equipment.

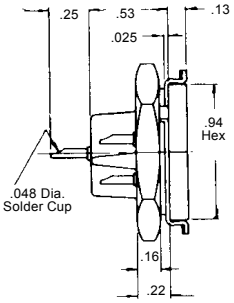
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

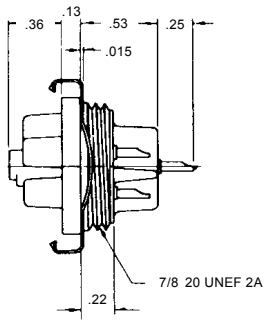


Panel Drilling

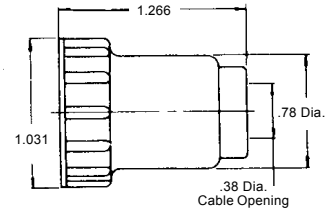




PM6SLRN
Receptacle



PM6PLS
Plug



PM6H
Hood

Specifications

Current Rating: 7.5 amps

No. of Contacts: 6

Pin Contacts: .040 dia. brass, gold plated

Socket Contacts: Spring temper phosphor bronze, gold plated

Terminations: .048 dia. solder cup accepts up to #20 AWG stranded wire.

Electrical Data: Dielectric withstanding voltage is one minute electrification at 3560 VAC.

Dielectric: Molded Diallyl phthalate per MIL-M-14, type SDG-F. Color Gray.

Polarization: Body design makes it impossible to make connection except in proper position.

Mounting: Cable or panel mounted. Use nylon nut applied to either plug or receptacle.

Lock Ring (and lock spring): Prohibits connector rotation on panel mounting and when engaged with lock spring, prevents accidental disconnection due to vibration, etc.

Hood: Molded diallyl phthalate cable hood may be applied to either plug or receptacle.

Ordering Information

PM6PLS-	Connector, plug with lock spring
PM6SLR-	Connector, receptacle with lock ring
PM6PLR-	Connector, plug with lock ring
PM6SLS-	Connector, receptacle with lock spring
PM6P-	Connector, plug without vibration lock
PM6S-	Connector, receptacle without vibration lock
Add **H-**	to above numbers when ordering hoods
Add **N-**	to above numbers when ordering nylon nut

SM Series

Sub Miniature / #20 – #24 Contacts / 3 And 7.5 Amps

N
Nylon Nut

SM2
Receptacle

SM2P
Plug

SMH
Hood

Extreme compactness and lightweight of these subminiature connectors make them ideal for limited space application in Aircraft. Portable Equipment and Instrumentation.

Specifications

Current Rating: SM1 - 7.5 amps; SM2, SM3 - 3 amps

No. of Contacts: 1, 2, 3

Pin Contacts: SM1 - .040 dia. brass, gold plated
SM2, SM3 - .025 dia. brass, gold plated

Socket Contacts: Phosphor bronze, gold plated

Terminations: SM1 - .048 dia. solder cup will accept up to #20 AWG stranded wire.
SM2, SM3 - .037 dia. solder cup will accept up to #24 AWG stranded wire.

Electrical Data: Dielectric withstanding voltage is one minute electrification at 1200 VAC.

Dielectric: Diallyl Phthalate per MIL-M-14, type SDG-F. Color Gray.

Polarization: Body design allows engagement in only one position.

Mounting: Either plug or receptacle may be mounted on chassis or bulkhead with 1/4 - 28 cadmium plated brass nut. Add "**N**" to code number to order.

Hood: Cable hood may be applied to both plug and receptacle. Add "**H**" to code number. When ordering a hood separately, order P/N SMH.

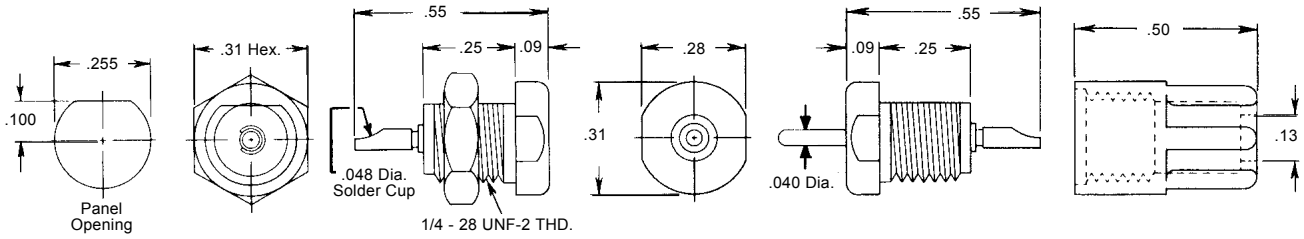
Physical and Electrical Data

Current Rating	Weight in Ounces		* Wire Range
	P.	R.	
SM1 - 7.5 Amp	.02	.02	SM1 - #20
SM2 - 3 Amp	.02	.02	SM2 - #24
SM3 - 3 Amp	.02	.02	SM3 - #24

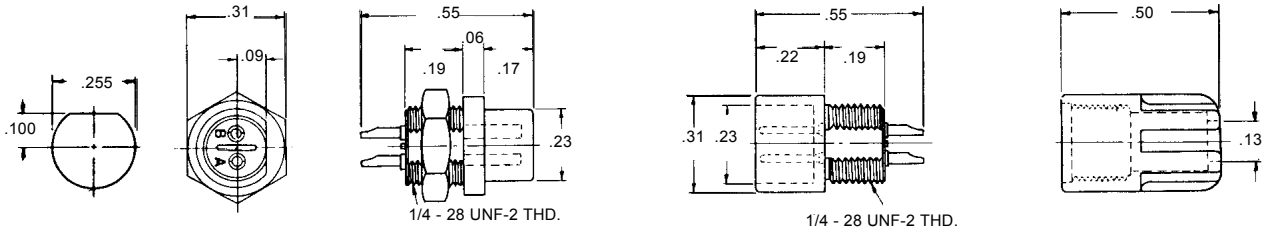
*** Stranded**

Outline

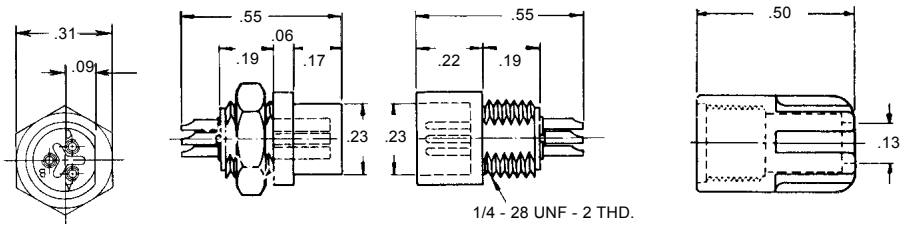
Dimensions are for reference only and are subject to change. Outline drawings on request.



Receptacle SM1SN | **Plug SM1P** | **Hood SMH**



Receptacle SM2SN | **Plug SM2P** | **Hood SMH**



Receptacle SM3SN | **Plug SM3P** | **Hood SMH**

Ordering Information

SM	3	S	H

■ Step 1
Series Code:
Series SM

■ Step 3
No. of Contacts:
1, 2, 3

■ Step 4
Contact Type:
P = Pin
S = Socket

■ Step 4
Type:
N = Nut
H = Hood

M Series

High Voltage Miniature / #20 Contacts / .040" Dia. / 7.5 Amps

M4PLSH10
Plug with lock spring and hood

M4SLRGN
Receptacle with lock ring, ground lug and nut

M10SLRN
Receptacle with lock ring and nut

M10PLSH19
Plug with lock spring and hood

N
Nylon Nut

M12SLS12
Receptacle with lock spring

M12P
Plug

M12H
Hood with lock shell

The extreme compactness and lightweight of M connectors make them ideal for such applications as strain gauges, telemetry and pressure pick-up installations in aircraft, portable equipment and instrumentation.

Specifications

Current Rating: 7.5 amps

No. of Contacts: 4, 5, 7, 9, 10, 12

Pin Contacts: .040 dia. brass, gold plated

Socket Contacts: Spring temper phosphor bronze, gold plated

Terminations: .048 dia. solder cup accepts up to #20 AWG stranded wire. M12 - .043 dia. solder cup accepts up to #20 AWG stranded wire.

Electrical Data: The dielectric withstanding voltage is one minute electrification at 1500 VAC. (2250 VAC for M12).

Dielectric: Brown mineral filled diallyl phthalate. Also available in gray glass filled diallyl phthalate, per MIL-M-14, SDG-F.

Polarization: Body design permits engagement in proper position only.

Mounting: For 1/16" panel mounting of either plug or receptacle use cadmium plated brass nut for M4-10, nylon nut for M12. Add "**N**" to code number.

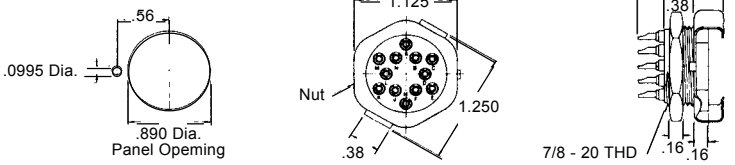
Lock Ring (and lock spring): May be applied to plug or receptacle to stop connector rotation on panel. When engaged with lock spring, prevents accidental disconnection due to vibration, etc.

Ground Lug: Can be used to ground any of the 4 contacts on M4 connector. Add "**G**" to code number.

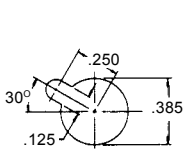
Hood: Anodized aluminum or brown mineral filled diallyl phthalate hoods may be applied to plug or receptacle of M4-M10. With or without cable clamps to provide additional strain relief for the cable.

Outline

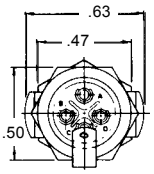
Dimensions are for reference only and are subject to change. Outline drawings on request.

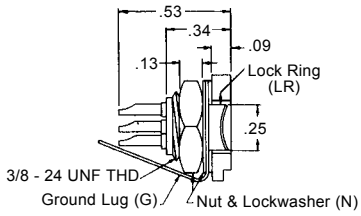


M21S

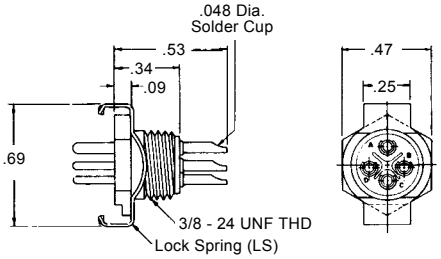


Panel Drilling

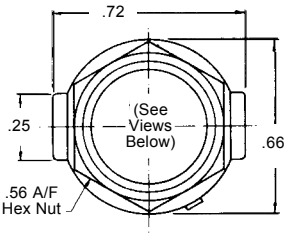


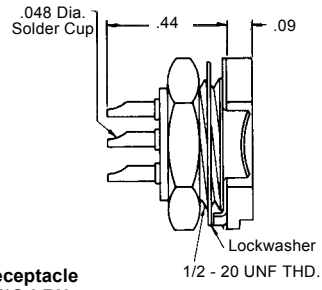


Receptacle
M4S-LRGN

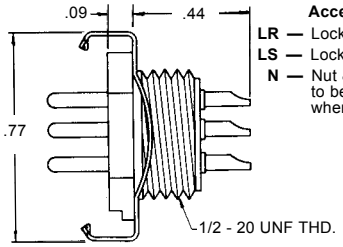


Plug
M4P-LS



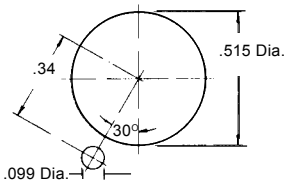


Receptacle
M*S-LRN

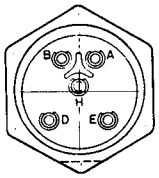


Plug
M*P-LS

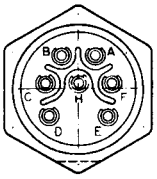
Accessory Code
LR — Lock Ring
LS — Lock Spring
N — Nut & Lockwasher to be used as suffixes when required.



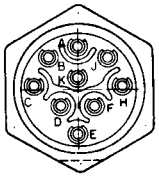
Panel Drilling
(Viewed from Front of Panel)



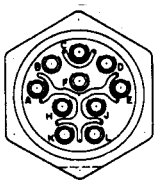
Contact Arrangement M5S



Contact Arrangement M7S



Contact Arrangement M9S



Contact Arrangement M10S

Contact locations are shown from terminal sides

NOTE: Contact arrangement of M*P are reversed
* Insert number, indicating number of contacts (5, 7, 9, 10)

Physical & Electrical Data

Catalog Number	Number of Contacts	Weight In Ounces						Solder Cup Hole Dia./in.	Current Rating
		Plug	Rec.	Nut	Lock Spring	Lock Ring	Lock Washer		
M4P M4S	4	.08	.06	.08	.02	.02	.01	.048	7.5 amps
M5P M5S	5	.10	.08	.06	.02	.03	.01	.048	7.5 amps
M7P M7S	7	.12	.10	.06	.02	.03	.01	.048	7.5 amps
M9P M9S	9	.13	.10	.06	.02	.03	.01	.048	7.5 amps
M10P M10S	10	.13	.10	.06	.02	.03	.01	.048	7.5 amps
M12P M12S	12	.3	.4	.05	.02	.03	.01	.043	7.5 amps

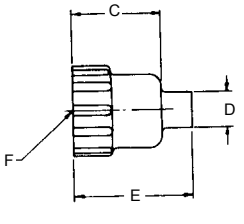
Molded Diallyl Phthalate and Aluminum Hoods

Molded diallyl phthalate cable hoods protect soldered wires and facilitate disengagement of connectors. Cable clamps provide additional strain relief and support. They are supplied on hoods with "**C**" in the code number. Clamps are cadmium plated with olive drab iridite finish. Anodized aluminum hoods are precision machined from bar stock to give greater strength than die cast units. Cable clamps are machined as an integral part of the connector. The set screw prevents accidental disassembly from vibration, etc. A polyethylene sleeve liner provides added insulation in the terminal area.

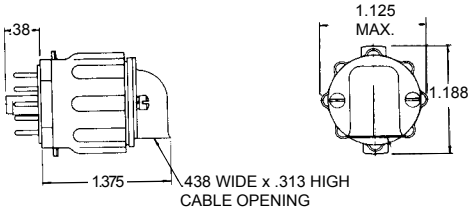
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

standard hoods

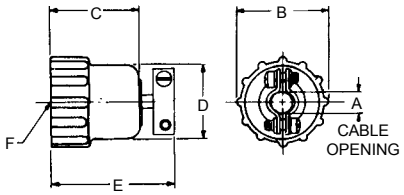


H9, H10, H19



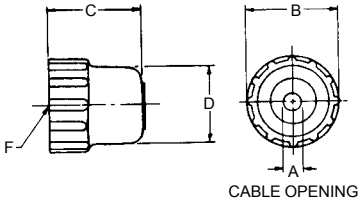
M12H

hood with cable clamps



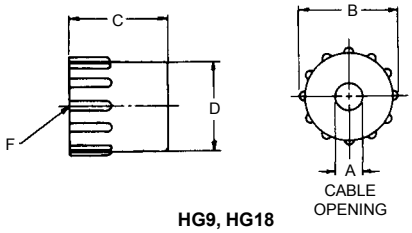
H9C, H10C, H19C, H19CS

modified hoods



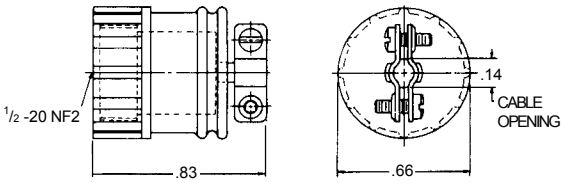
H9S, H19S

special hoods



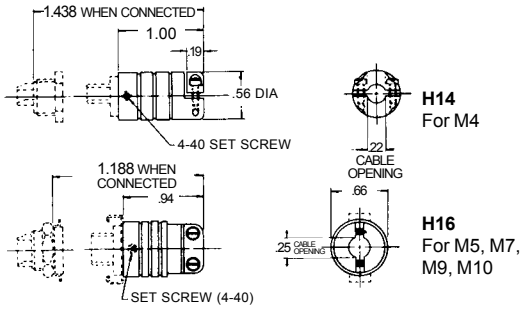
HG9, HG18

special hood with cable clamps
Used on Connectors M5, M7, M9, M10



HG9C

aluminum hoods



H14
For M4

H16
For M5, M7, M9, M10

Physical Data

Hood Code Number	Used on of Connectors	DIMENSIONS						Weight In Ounces
		A	B	C	D	E	F-Thds	
H9	M5, 7, 9, 10	.14	.66	.66	.27	.88	1/2 - 20	.10
H10	M4	.16	.56	.69	.25	.75	3/8 - 24	.05
H19	M5, 7, 9, 10	.30	.66	.66	.42	.88	1/2 - 20	.08
H9C	M5, 7, 9, 10	.16	.66	.78	.55	.97	1/2 - 20	.11
H10C	M4	.19	.56	.69	.44	.88	3/8 - 24	.09
H19C	M5, 7, 9, 10	.30	.66	.78	.55	.97	1/2 - 20	.12
H19CS	M5, 7, 9, 10	.30	.66	.66	.55	.86	1/2 - 20	.11
H9S	M5, 7, 9, 10	.14	.66	.66	.55		1/2 - 20	.07
H19S	M5, 7, 9, 10	.30	.66	.66	.55		1/2 - 20	.06
HG9	M5, 7, 9, 10	.22	.66	.66	.59		1/2 - 20	.10
HG18	M5, 7, 9, 10	.28	.66	.66	.59		1/2 - 20	.11
HG9C	M5, 7, 9, 10	See Drawing						.14
H14	M4	See Drawing						.25
H16	M5, 7, 9, 10	See Drawing						.25
H12H	M12	See Drawing						1.10

Ordering Information

Omit steps not required

M		P / S				

■ Step 1
Series Code:
M series

■ Step 2
No. of Contacts:
4, 5, 7, 9, 10, 12

■ Step 3
Contact Type:
P = Pin
S = Socket

■ Step 4
LS = lock spring
LR = lock ring
LS6 = M12 lock spring
LR6 = M12 lock ring
LS12 = lock spring for M12H hood

■ Step 5
N = Nut

■ Step 6
G = Ground lug (M4 only)

■ Step 7
Hoods:
See hood code number above.

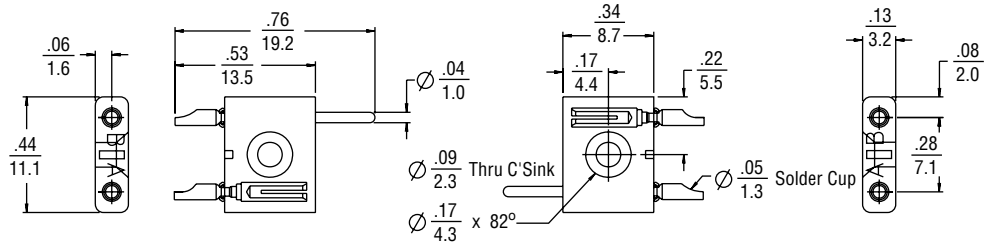
Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.

Side Mounting, 4 Position Rectangular
2 and 4 Position In-Line

JF Series, PIN and Socket, 2 Position In-Line Connectors

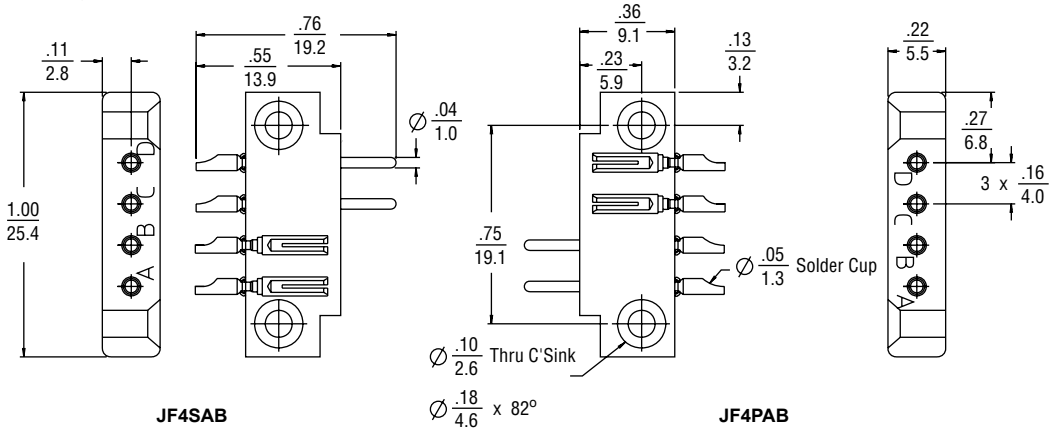
Dimensions shown are typical for all standard 2 position in-line connectors.



JF1S1PA **JF1P1SA**

JF Series, PIN and Socket, 4 Position In-Line Connectors

Dimensions shown are typical for all standard 4 position in-line connectors.

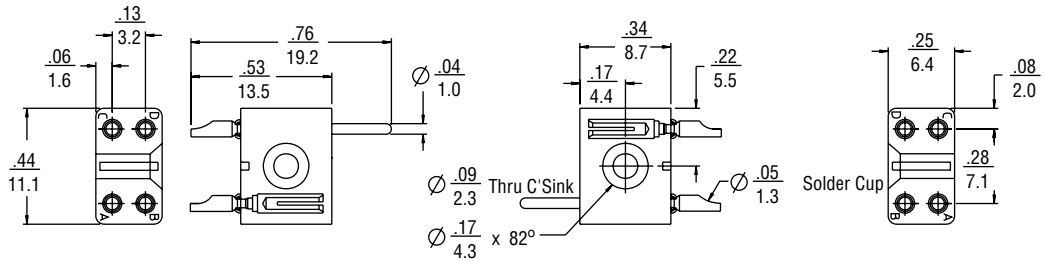


JF4SAB **JF4PAB**

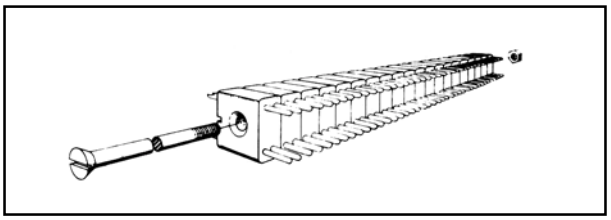
Side Mounting, 4 Position Rectangular, 2 and 4 Position In-Line

JF Series, PIN and Socket, 4 Position Rectangular Connectors

Dimensions shown are typical for all standard 4 position rectangular connectors.



JF2S2PAB **JF2P2SAB**



JF-2P
20 connectors assembled

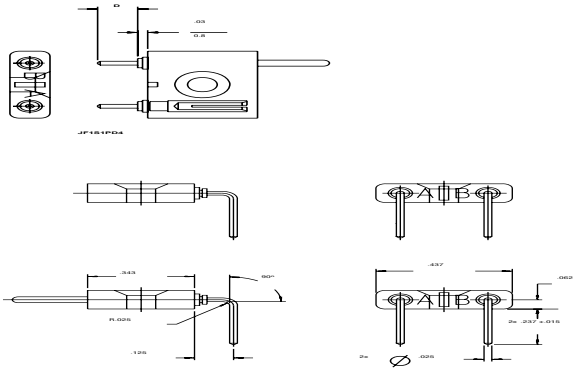
The versitile JF Series has a countersunk mounting hole and narrow width permitting exceptionally flat mounting. Maximum circuit density is provided with many positive polarizations. “Custom” multi-contact connectors are readily available by using the building block technique shown above.

Outline

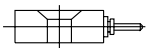
Dimensions are for reference only and are subject to change. Outline drawings on request.

Typical Connector With DIP Solder Termination

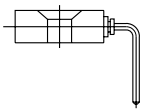
JF Series connectors may be ordered with dip solder and right angle terminations. Consult factory for availability.



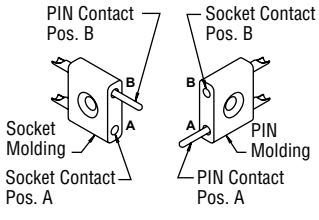
Straight Dip Solder



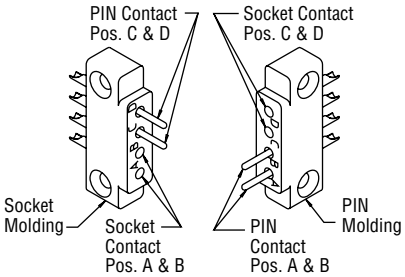
Right Angle Dip Solder



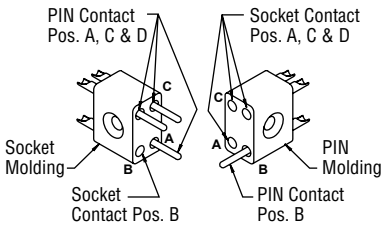
Typical Connectors Assemblies



JF1S1PA **JF1P1SA**



JF4SAB **JF4AB**



JF1S3PB **JF1P3SB**

Ordering Information

2 Position In-Line Connector

JF	1S	1P	A

Step 1
Series Code
JF

Step 2 **
Primary Contact and Molding Type

Code	Description
1S or 2S*	Number of socket contacts and socket molding.
1P or 2P*	Number of pin contacts and pin molding.
2SR*	Number of socket contacts pin moldings.
2PR*	Number of pin contacts socket moldings.

Step 3
Secondary Contact

Code	If Step 2 equals
1P =	1S
1S =	1P

Step 4
Primary Contact Location
Code = A or B

**For two same type contacts, skip Steps 3 & 4.*

4 Position In-Line Connectors

JF4	S	AB

Step 1
Series Code
JF4

Step 2 **
Primary Contact and Molding Type

Code	Description
S	Socket contact and socket molding.
P	Pin contact and pin molding.

Step 3
Primary Contact Location

Code	Number Of Primary Contacts
A, B, C or D	= 1
AB, AC, AD, BC, BD, or CD	= 2
ABC, ABD, ACD, or BCD	= 3

For four same type contacts: omit step

For four same type contacts with molding gender reversed, add R

4 Position Rectangular Connector

JF	2S	2P	AB

Step 1
Series Code
JF

Step 2 **
Primary Contact and Molding Type

Code	Description
1S, 2S, 3S or 2S2S	Number of socket contacts and socket molding.
1P, 2P, 3P or 2P2P*	Number of pin contacts and pin molding.
2S2SR*	Number of socket contacts and pin molding.
2P2PR	Number of pin contacts and socket molding.

Step 3
Secondary Contact

Code	If Step 2 equals
3P =	1S
2P =	2S
1P =	3S
3S =	1P
2S =	2P
1S =	3P

Step 4
Primary Contact Location

Code	Number Of Primary Contacts
A, B, C or D	= 1
AB, AC, AD, BC, BD, or CD	= 2
ABC, ABD, ACD, or BCD	= 3

**For four same type contacts, skip Steps 3 & 4.*

*****For Pictorial Presentation, see RP/79 and RP/80***

Specifications

Materials

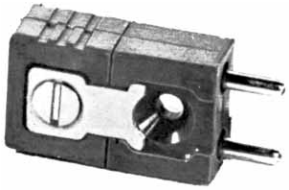
Moldings (PIN and Socket):	Diallyl Orthophthalate
Pin Contacts:	.040 Brass, gold plated
Socket Contacts:	Phosphor bronze, gold plated

Performance Characteristics

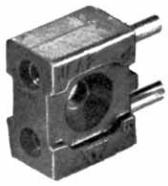
Dielectric Withstanding Voltage:	1500 VAC (at sea level)
Current Rating:	7.5 Amps
Operating Temperature Range:	-55°C to +125°C
Termination Type:	.050 dia. solder cup to accept #20 AWG stranded wire.

JFA Series

Miniature Side Mount / #16 Contacts / .062" Dia. / 13 Amps



JFA2H — JFA2P
Hood and plug



JFA2S
Receptacle

JFA2H
Hood

For applications in electronic and communications equipment requiring miniature connectors with high current capacity.

Series JFA miniature connectors may be used in television, radio and communications equipment. The countersunk side mounting hole and narrow width permits exceptionally flat mounting —thereby minimizing connector protrusion when installed on equipment

Specifications

Current Rating: 13 amps

No. of Contacts: 2

Pin Contacts: .062 dia. brass, gold plated

Socket Contacts: Phosphor bronze, gold plated

Terminations: .070 dia. solder cup will accept up to #16 AWG stranded wire.

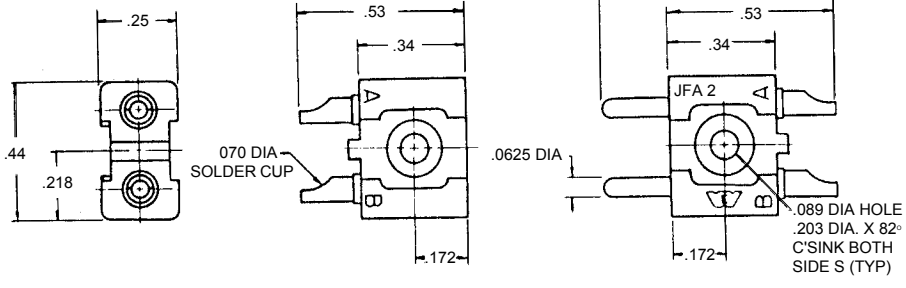
Electrical Data: Dielectric withstanding voltage is one minute electrification at 2925 VAC.

Dielectric: Molded diallyl phthalate per MIL-M-14

Hood: Locked to connector by means of two side mounted straps.

Outline

Dimensions are for reference only and are subject to change. Outline drawings on request.



JFA-2S
Receptacle

JFA-2P
Plug

JFA-2H
Hood

Ordering Information

Physical Data

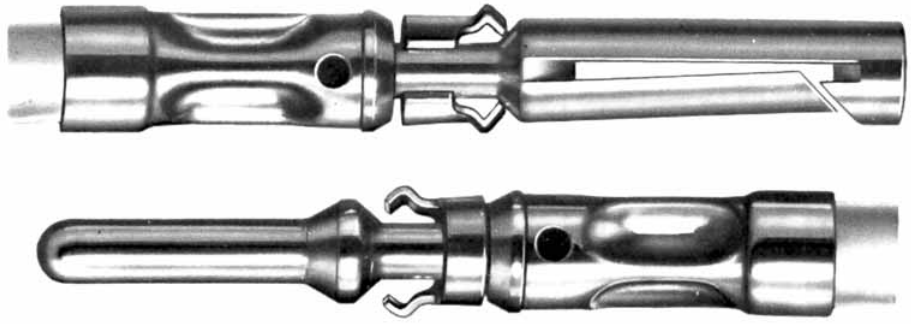
Code Number	Number of Contacts	Current Rating Amps	Wire Size A.W.G.	Weight Ozs.
JFA-1P1S	1 Pin 1 Socket	13	#16	.082
JFA-2PH JFA-2SH (with hoods)	2 Pins 2 Sockets			.059 .046
JFA-1S1P	1 Pin 1 Socket	13	#16	.082
JFA-2P JFA-2S (no-straps-on hoods)	2 Pins 2 Sockets			.059 .046

JFA2H — Hood — used on any of above 3 parts

Mating Combinations

JFA2P	mates with	**JFA2S**
JFA2PH	mates with	**JFA2SH**
JFA1P1S-A	mates with	**JFA1S1P-A**
JFA1P1S-B	mates with	**JFA1S1P-B**
JFA1P1SH-A	mates with	**JFA1S1PH-A**
JFA1P1SH-B	mates with	**JFA1S1PH-B**

Removable Contacts



6x Actual Size — Typical Removable Contact

Winchester Electronics removable contacts allow quick, easy removal and replacement of any contact without disturbing another - and without discarding the connector. They offer exceptional flexibility in both the choice and revision of circuitry for rack and panel equipment ... at substantial savings in replacement and installation time. In addition, wiring costs are significantly lowered, as wires may be assembled away from the connector itself. Assembly of contacts to wires is further simplified by crimp type contacts. A contact is slipped on the wire, inserted in the crimping tool, and crimped securely in place in seconds. Compact and self-aligning, these removable contacts provide high retention force and exceptional mechanical and electrical reliability. Solder type removable contacts are available for connectors using MRAC contacts.

Specifications

Pin Contacts:	Copper Alloy, gold plated.
Socket Contacts:	Closed entry type machined from copper alloy, gold plated.
Tools:	Complete line available. Includes automatic pneumatic, pneumatic hand operated, hand operated crimping tools, insertion and removal tools.
Military Specifications:	Conforms to applicable portions of MIL-C-39029
Wire Sizes:	From a minimum 28 to a maximum 14 AWG. All contacts are designed to accept a minimum AWG conductor up to two sizes below maximum gage (each contact.)
Termination Types:	Crimp, solder, dip solder or wire-wrap
Current Rating:	7.5 Amps maximum for .040 contacts. 13 Amps maximum for .062 contacts.

To Order: Specify by catalog number

Note: Series 100 Removable Contacts are not supplied with the connector. They must be ordered as a separate item.

100 SERIES CONTACTS

Loose Contact Part Number	Reeled Contact Part Number 2,000/Reel	Accom-modates Conductor Sizes	Used In Connector Series	Diameter (See Drawings)		Mating Pin Diameter	Description of Contacts	See Figure Number	AMPS per Cont	For Loose Contacts				For Loose Contacts			For Reeled Contacts		
				A	B					Locator	Hand Tool	Pneumatic Tool	Gage Plug Part Number	Hand Tool Part Number	Positioner Part Number	Gage Plug Part Number	Pneumatic Tool Part Number	Depth Block Part Number	Gage Plug Part Number
100-1014P	100-0909P	14-16	MRAC, TMRAC, XAC, TXAC	.081	.105	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-22	107-0970	107-0981	5431-17	107-0961	107-0966	5431-14
100-1014S	100-0919S	14-16	MRAC, TMRAC, XAC, TXAC	.081	.105	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-22	107-0970	107-0981	5431-17	107-0961	107-0966	5431-14
100-1016P	100-0911P	16-18-20	MRAC, TMRAC, XAC, TXAC	.067	.092	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-1016S	100-0921S	16-18-20	MRAC, TMRAC, XAC, TXAC	.067	.097	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-1018P	100-0913P	18-20-22	MRAC, TMRAC, XAC, TXAC	.052	.078	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-1018S	100-0923S	18-20-22	MRAC, TMRAC, XAC, TXAC	.052	.078	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-1020P	100-0915P	20-22-24	MRAC, TMRAC, XAC, TXAC	.045	.067	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1020S	100-0925S	20-22-24	MRAC, TMRAC, XAC, TXAC	.045	.065	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1022P	100-0907P	22-24-26	MRAC, TMRAC, XAC, TXAC	.033	.055	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1022S	100-0908S	22-24-26	MRAC, TMRAC, XAC, TXAC	.033	.055	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1024P	100-0917P	24-26-28	MRAC, TMRAC, XAC, TXAC	.027	.055	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1024S	100-0927S	24-26-28	MRAC, TMRAC, XAC, TXAC	.027	.055	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1026P	100-0963P	26-28-30	MRAC, TMRAC, XAC, TXAC	.024	.050	.062	Crimp Contact	1	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-1026S	100-0965S	26-28-30	MRAC, TMRAC, XAC, TXAC	.024	.050	.062	Crimp Contact	2	13	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-2016P	100-0949P	16-18-20	MRAC, TMRAC, XAC, TXAC	.067	.096	.040	Crimp Contact	3	7.5	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-2016S	100-0939S	16-18-20	MRAC, TMRAC, XAC, TXAC	.067	.096	.040	Crimp Contact	4	7.5	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-2018P	100-0943P	18-20-22	MRAC, TMRAC, XAC, TXAC	.052	.078	.040	Crimp Contact	3	7.5	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-2018S	100-0933S	18-20-22	MRAC, TMRAC, XAC, TXAC	.052	.078	.040	Crimp Contact	4	7.5	107-0945	107-0903-2A	107-0918	5431-14	107-0970	107-0977	5431-11	107-0961	107-0966	5431-14
100-2020P	100-0945P	20-22-24	MRAC, TMRAC, XAC, TXAC	.045	.065	.040	Crimp Contact	3	7.5	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-2020S	100-0935S	20-22-24	MRAC, TMRAC, XAC, TXAC	.045	.065	.040	Crimp Contact	4	7.5	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-2022P	100-0947P	22-24-26	MRAC, TMRAC, XAC, TXAC	.033	.055	.040	Crimp Contact	3	7.5	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-2022S	100-0937S	22-24-26	MRAC, TMRAC, XAC, TXAC	.033	.055	.040	Crimp Contact	4	7.5	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-2024P	100-0951P	24-26-28	MRAC, TMRAC, XAC, TXAC	.027	.055	.040	Crimp Contact	3	7.5	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15
100-2024S	100-0941S	24-26-28	MRAC, TMRAC, XAC, TXAC	.027	.055	.040	Crimp Contact	4	7.5	107-0945	107-0903-2A	107-0918	5431-15	107-0970	107-0976	5431-12	107-0961	107-0965	5431-15

Continued on page **RP** / 85

100 SERIES CONTACTS

Loose Contact Part Number	Reeled Contact Part Number 2,000/Reel	Accom-modates Conductor Sizes	Used In Connector Series	Diameter (See Drawings)		Mating Pin Diameter	Description of Contacts	See Figure Number	AMPS per Cont	For Loose Contacts				For Loose Contacts			For Reeled Contacts		
				A	B					Locator	Hand Tool	Pneumatic Tool	Gage Plug Part Number	Hand Tool Part Number	Positioner Part Number	Gage Plug Part Number	Pneumatic Tool Part Number	Depth Block Part Number	Gage Plug Part Number
100-2514P	Not Available	14-16-18	MRAC, TMRAC XAC, TXAC	.081	.105	.062	Solder Contact	5	13	N/A Solder Contact									
100-2514S	Not Available	14-16-18	MRAC, TMRAC XAC, TXAC	.081	.105	.062	Solder Contact	6	13	N/A Solder Contact									
100-2516P	Not Available	16-18-20	MRAC, TMRAC XAC, TXAC	.067	.097	.062	Solder Contact	5	13	N/A Solder Contact									
100-2516S	Not Available	16-18-20	MRAC, TMRAC XAC, TXAC	.067	.097	.062	Solder Contact	6	13	N/A Solder Contact									
100-2518P	Not Available	18-20-22	MRAC, TMRAC XAC, TXAC	.052	.076	.062	Solder Contact	5	13	N/A Solder Contact									
100-2518S	Not Available	18-20-22	MRAC, TMRAC XAC, TXAC	.052	.076	.062	Solder Contact	6	13	N/A Solder Contact									
100-2520P	Not Available	20-22-24	MRAC, TMRAC XAC, TXAC	.045	.065	.062	Solder Contact	5	13	N/A Solder Contact									
100-2520S	Not Available	20-22-24	MRAC, TMRAC XAC, TXAC	.045	.065	.062	Solder Contact	6	13	N/A Solder Contact									
100-2522P	Not Available	22-24-26	MRAC, TMRAC XAC, TXAC	.033	.055	.062	Solder Contact	5	13	N/A Solder Contact									
100-2522S	Not Available	22-24-26	MRAC, TMRAC XAC, TXAC	.033	.055	.062	Solder Contact	6	13	N/A Solder Contact									
100-2524P	Not Available	24-26-28	MRAC, TMRAC XAC, TXAC	.027	.055	.062	Solder Contact	5	13	N/A Solder Contact									
100-2524S	Not Available	24-26-28	MRAC, TMRAC XAC, TXAC	.027	.055	.062	Solder Contact	6	13	N/A Solder Contact									
100-2616P	Not Available	16-18-20	MRAC, TMRAC XAC, TXAC	.067	.096	.040	Solder Contact	7	7.5	N/A Solder Contact									
100-2616S	Not Available	16-18-20	MRAC, TMRAC XAC, TXAC	.067	.096	.040	Solder Contact	8	7.5	N/A Solder Contact									
100-2620P	Not Available	20-22-24	MRAC, TMRAC XAC, TXAC	.045	.065	.040	Solder Contact	7	7.5	N/A Solder Contact									
100-2620S	Not Available	20-22-24	MRAC, TMRAC XAC, TXAC	.045	.065	.040	Solder Contact	8	7.5	N/A Solder Contact									
100-4020P	100-0801P	20-22	SREC, 42 Series	See Drawing		.030	Crimp Contact	23	5	107-43302	107-43300		5431-25				107-0961	107-0965	5431-15
100-4020S	100-0802S	20-22	SREC, 42 Series	See Drawing		.030	Crimp Contact	24	5	107-43302	107-43300		5431-25				107-0961	107-0965	5431-15
100-4024P	100-0805P	24-26-28	SREC, 42 Series	See Drawing		.030	Crimp Contact	25	5	107-43302	107-43300		5431-25				107-0961	107-0965	5431-15
100-4024S	100-0806S	24-26-28	SREC, 42 Series	See Drawing		.030	Crimp Contact	26	5	107-43302	107-43300		5431-25				107-0961	107-0965	5431-15
100-4028P	100-0809P	28-30	SREC, 42 Series	See Drawing		.030	Crimp Contact	27	5	107-43302	107-43300		5431-25				107-0961	107-0965	5431-15
100-4028S	100-0810S	28-30	SREC, 42 Series	See Drawing		.030	Crimp Contact	28	5	107-43302	107-43300		5431-25				107-0961	107-0965	5431-15
100-51014S	100-0981S	14-16	MRAC, TMRAC, XAC, TXAC	.081	.105	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-14				107-0961	107-0966	5431-14
100-51016S	100-0982S	16-18-20	MRAC, TMRAC, XAC, TXAC	.067	.094	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-14				107-0961	107-0966	5431-14
100-51018S	100-0983S	18-20-22	MRAC, TMRAC, XAC, TXAC	.052	.078	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-14				107-0961	107-0966	5431-14
100-51020S	100-0984S	20-22-24	MRAC, TMRAC, XAC, TXAC	.045	.067	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-15				107-0961	107-0965	5431-15

Continued on page **RP** / 86

100 SERIES CONTACTS

Loose Contact Part Number	Reeled Contact Part Number 2,000/Reel	Accom-modates Conductor Sizes	Used In Connector Series	Diameter (See Drawings)		Mating Pin Diameter	Description of Contacts	See Figure Number	AMPS per Cont	For Loose Contacts				For Loose Contacts			For Reeled Contacts		
				A	B					Locator	Hand Tool	Pneumatic Tool	Gage Plug Part Number	Hand Tool Part Number	Positioner Part Number	Gage Plug Part Number	Pneumatic Tool Part Number	Depth Block Part Number	Gage Plug Part Number
100-51022S	100-0985S	22-24-26	MRAC, TMRAC, XAC, TXAC	.033	.055	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-15				107-0961	107-0965	5431-15
100-51024S	100-0986S	24-26-28	MRAC, TMRAC, XAC, TXAC	.027	.055	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-15				107-0961	107-0965	5431-15
100-51026S	100-0987S	26-28-30	MRAC, TMRAC, XAC, TXAC	.024	.050	.062	3 Piece Crimp	19	13	107-0945	107-0903-2A	107-0918	5431-15				107-0961	107-0965	5431-15
100-54020S	100-0804S	20-22	SREC, 42 Series	See Drawing		.030	3 Piece Crimp	20	5	107-43302	107-43300		5431-25						
100-54024S	100-0823S	24-26	SREC, 42 Series	See Drawing		.030	3 Piece Crimp	21	5	107-43302	107-43300		5431-25						
100-54028S	Not Available	28-30	SREC, 42 Series	See Drawing		.030	3 Piece Crimp	22	5	107-43302	107-43300		5431-25						
											Inner Contact			Outer Contact					
100-8000P	Not Available	RG178, 196/U	MRAC, TMRAC, XAC, TXAC	See Drawing		.078	Shielded Crimp	31	—	107-43303	107-43300		5431-26	107-0903-2A	107-0944				
100-8000S	Not Available	RG178, 196/U	MRAC, TMRAC, XAC, TXAC	See Drawing		.078	Shielded Crimp	32	—	107-43303	107-43300		5431-26	107-0903-2A	107-0944				
100-8001P	Not Available	RG161,179 187/U	MRAC, TMRAC, XAC, TXAC	See Drawing		.078	Shielded Crimp	31	—	107-43303	107-43300		5431-26	107-43330	Not Required				
100-8001S	Not Available	RG161,179 187/U	MRAC, TMRAC, XAC, TXAC	See Drawing		.078	Shielded Crimp	32	—	107-43303	107-43300		5431-26	107-43330	Not Required				
100-8003P	Not Available	RG174,188 316/U	MRAC, TMRAC, XAC, TXAC	See Drawing		.078	Shielded Crimp	31	—	107-43303	107-43300		5431-26	107-43330	Not Required				
100-8003S	Not Available	RG174,188 316/U	MRAC, TMRAC, XAC, TXAC	See Drawing		.078	Shielded Crimp	32	—	107-43303	107-43300		5431-26	107-43330	Not Required				
7130	Not Available	Dip Solder	MRAC, TMRAC	Not Applicable		.062	Dip Solder	9	13	N/A Dip Solder									
7131	Not Available	Dip Solder	MRAC, TMRAC	Not Applicable		.062	Dip Solder	10	13	N/A Dip Solder									
8122	Not Available	Wire Wrap	SREC	Not Applicable		.030	Wire Wrap	13	5	N/A Wire Wrap									
8123	Not Available	Wire Wrap	SREC	Not Applicable		.030	Wire Wrap	14	5	N/A Wire Wrap									
8124	Not Available	Dip Solder	MRAC, TMRAC	Not Applicable		.062	Dip Solder	11	5	N/A Dip Solder									
8125	Not Available	Dip Solder	MRAC, TMRAC	Not Applicable		.062	Dip Solder	12	13	N/A Dip Solder									
8113	Not Available	Wire Wrap	MRAC, TMRAC	Not Applicable		.062	Wire Wrap	16	13	N/A Wire Wrap									
8114	Not Available	Wire Wrap	MRAC, TMRAC	Not Applicable		.062	Wire Wrap	15	13	N/A Wire Wrap									
8105	Not Available	Wire Wrap	MRAC, TMRAC	Not Applicable		.062	Wire Wrap	18	13	N/A Wire Wrap									
8106	Not Available	Wire Wrap	MRAC, TMRAC	Not Applicable		.062	Wire Wrap	17	13	N/A Wire Wrap									

100-S = Military Contacts

Continued on page **RP** / 87

MIL-C-39029 Contacts

MIL-C-39029 CONTACTS

M39029 Part Number	Winchester Part Number	Accom-modates Conductor Sizes	Used in Connector Series	Diameter		Mating Pin Dia.	Description of Contacts	See Figure Number	AMPS per Cont	MIL Spec Crimp Tool	Winchester Crimp Tool	MIL Spec Positioner	Winchester Positioner	Insertion Tool MIL	Insertion Tool Winchester	Removal Tool MIL	Removal Tool Winchester
				A	B												
M39029/34-271	100R-2020P95	20-22-24	M28748	.045	.067	.040	Crimp Contact	3	7.5	M22520/1-01	107-0903-2A	M22520/1-03	107-0945	M81969/18-01	107-1015	M81969/20-01	107R1001
M39029/34-272	100R-1020P95	20-22-24	M28748	.045	.067	.062	Crimp Contact	1	13	M22520/1-01	107-0903-2A	M22520/1-03	107-0945	M81969/18-01	107-1015	M81969/20-01	107R1001
M39029/34-273	100B-1016P95	16-18-20	M28748	.067	.092	.062	Crimp Contact	1	13	M22520/1-01	107-0903-2A	M22520/1-03	107-0945	M81969/18-01	107-1015	M81969/20-01	107R1001
M39029/34-440	100-202861-50	22-24-26	M28748	.035	.056	.030	Crimp Contact	29	5	M22520/2-01	107-43300	Buchn.614412	107-0611	M81969/18-02	IT2857	M81969/20-02	RT2855
M39029/35-274	100R-2020S95	20-22-24	M28748	.045	.067	.040	Crimp Contact	4	7.5	M22520/1-01	107-0903-2A	M22520/1-03	107-0945	M81969/18-01	107-1015	M81969/20-01	107R1001
M39029/35-275	100R-51020S95	20-22-24	M28748	.045	.067	.062	Crimp Contact	19	13	M22520/1-01	107-0903-2A	M22520/1-03	107-0945	M81969/18-01	107-1015	M81969/20-01	107R1001
M39029/35-276	100B-51016S95	16-18-20	M28748	.067	.092	.062	Crimp Contact	19	13	M22520/1-01	107-0903-2A	M22520/1-03	107-0945	M81969/18-01	107-1015	M81969/20-01	107R1001
M39029/35-441	100-202862-50	22-24-26	M28748	.035	.056	.030	Crimp Contact	30	5	M22520/2-01	107-43300	Buchn.614412		M81969/18-02	IT2857	M81969/20-02	RT2855

Outline

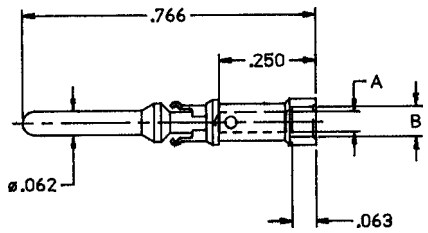


Figure 1

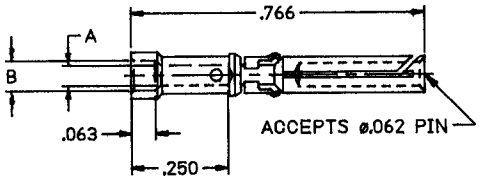


Figure 2

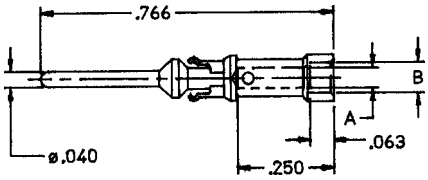


Figure 3

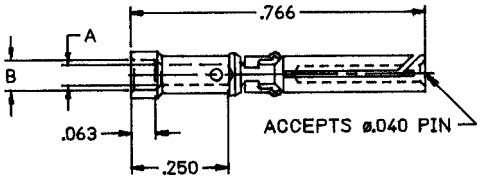


Figure 4

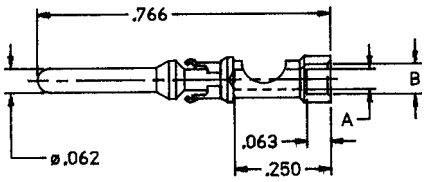


Figure 5

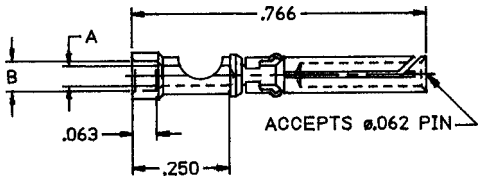


Figure 6

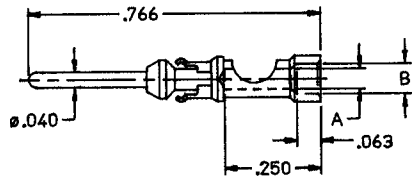


Figure 7

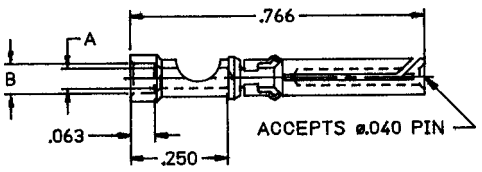


Figure 8

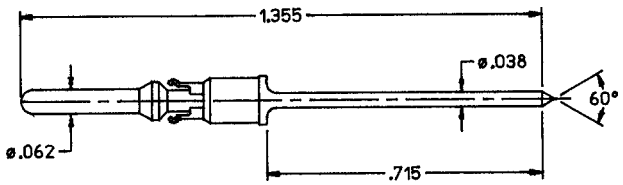


Figure 9

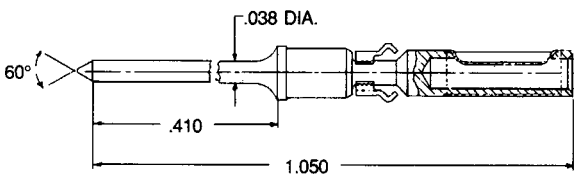


Figure 10

Outline

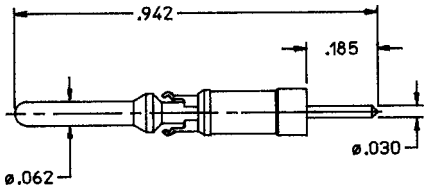


Figure 11

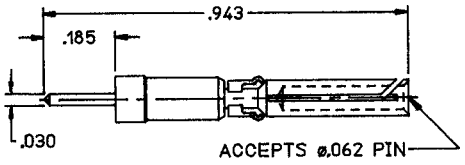


Figure 12

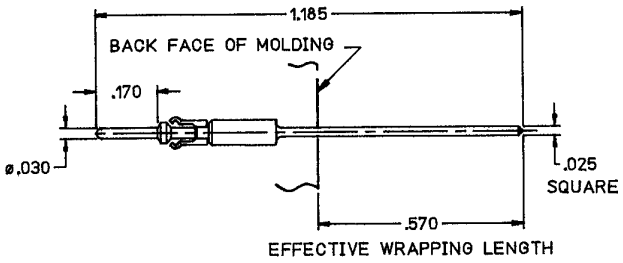


Figure 13

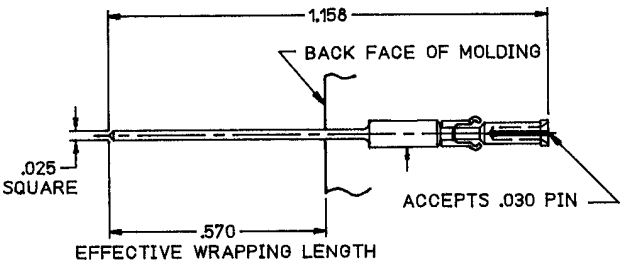


Figure 14

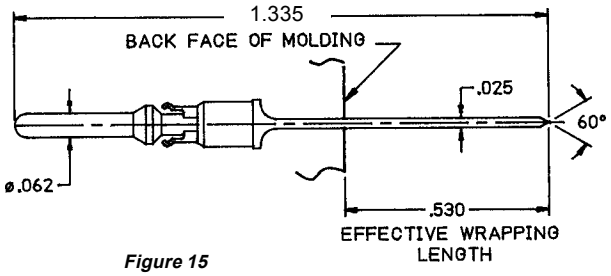


Figure 15

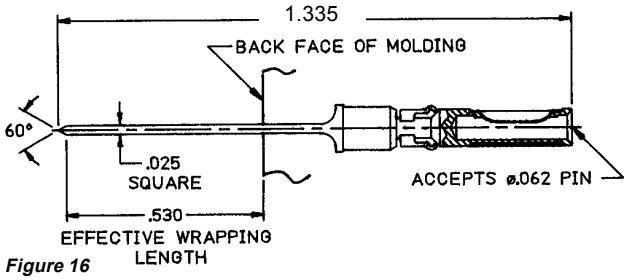


Figure 16

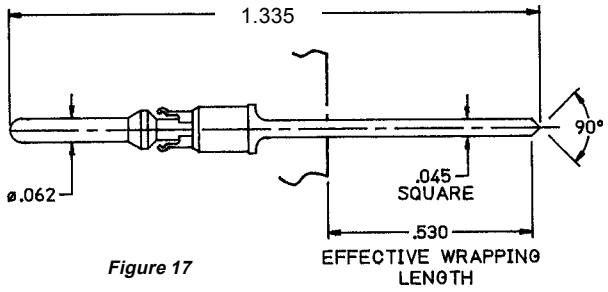


Figure 17

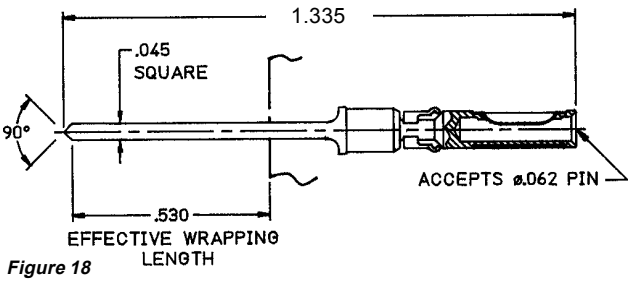


Figure 18

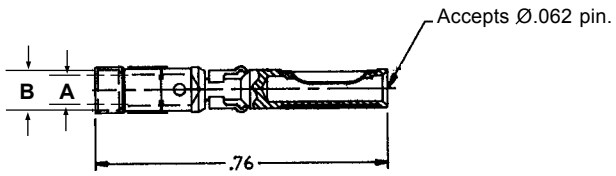


Figure 19

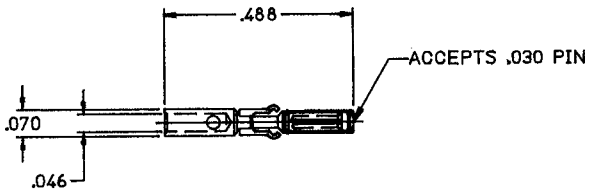


Figure 20

Outline

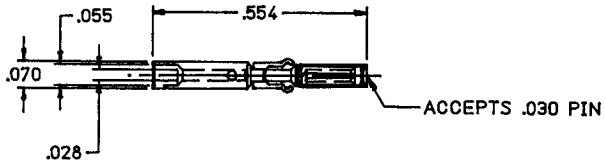


Figure 21

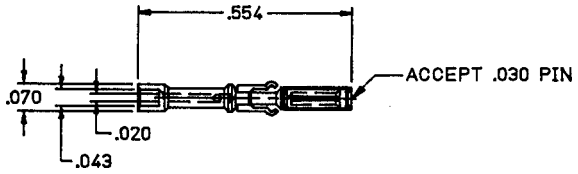


Figure 22

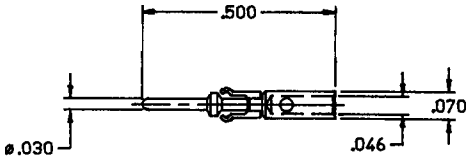


Figure 23

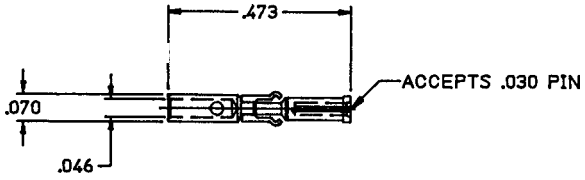


Figure 24

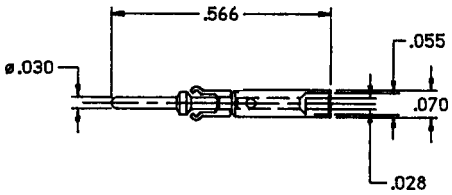


Figure 25

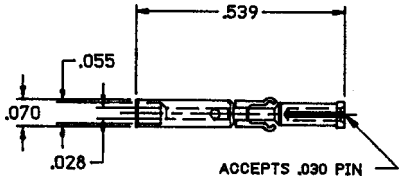


Figure 26

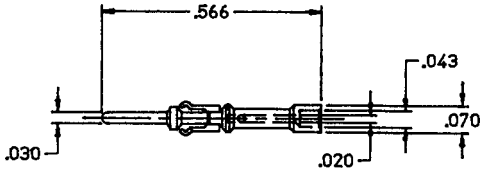


Figure 27

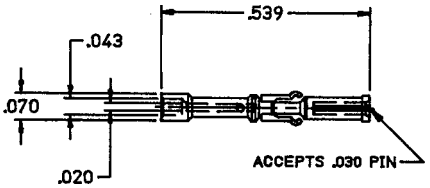


Figure 28

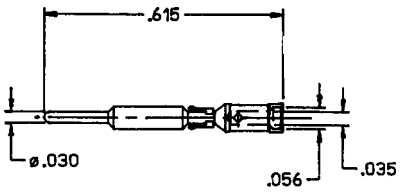


Figure 29

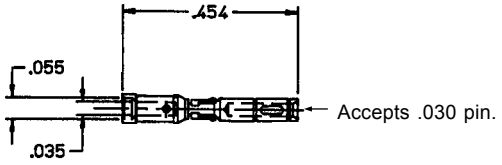


Figure 30

Outline

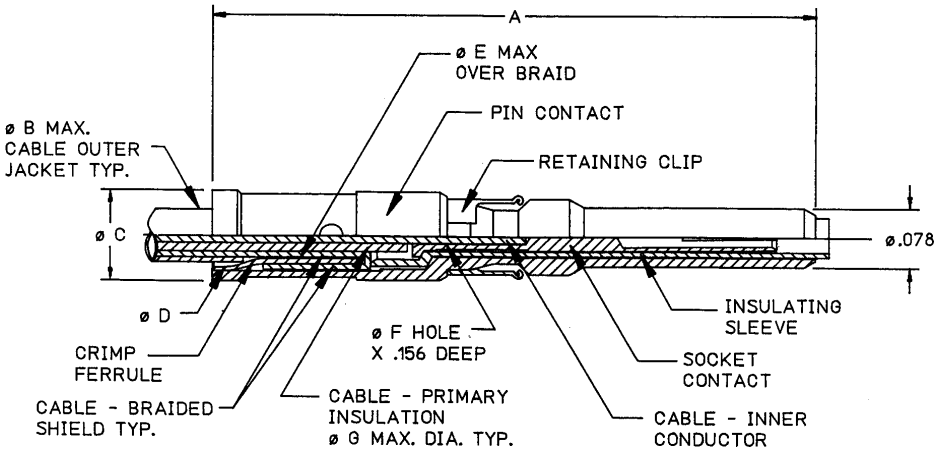


Figure 31

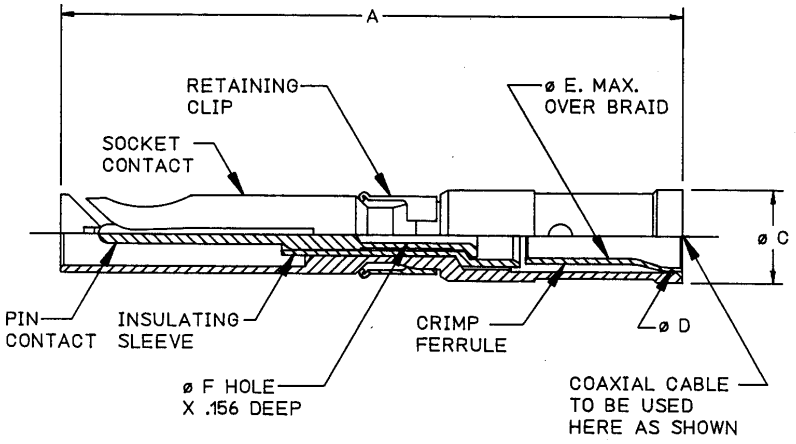


Figure 32

Ordering Information

Catalog Number	Style	Cable Sizes	Dimensions						
			A	B	C	D	E	F	G
100-8000P	Pin	RG178/U RG196/U	.797	.080	.120	.082	.057	.020	.036
100-8000S	Socket								
100-8001P	Pin	RG161/U RG179/U RG187/U	1.031	.110	.137	.111	.082	.020	.063
100-8001S	Socket								
100-8003P	Pin	RG174/U RG188/U RG316/U	1.031	.110	.137	.111	.082	.023	.063
100-8003S	Socket								

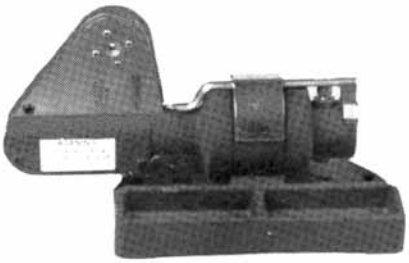
Crimping Tools and Accessories

Pneumatic And Hand Crimping Tools

Automatic Feed Crimping Tool 600/1200 Crimps Per Hour

Catalog Number **107-0961**

Air operated tool provides for a large capacity reel and foot valve control. Crimp depths are accurately controlled by interchangeable snap-in depth blocks when the tool is bench mounted. Leaves operator's hands free. (Does not include reel or foot valve control.) Includes crimp depth blocks. Automatic Crimp Tool made up of bench mount (107-0962) and crimp t ool (107-0960). Used to crimp 100-10**P/S, 100-20**P/S, 100-510**S Series.



Pneumatic Hand Crimping Tool 400 Crimps Per Hour

Catalog Number **107-0918**

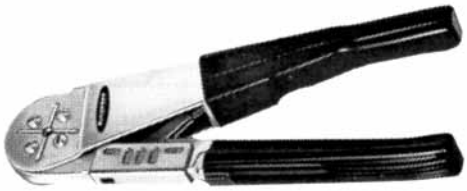
Requires 80/120 psi. Crimp depth adjustment made by internal screw. Locators, adaptor sleeves, and gage plugs should be ordered separately. Locator 107-0945 and adapter 107-0950 supplied with tool.

Hand Operated Crimping Tool 200/300 Crimps Per Hour

Catalog Number **107-0903-2A**

(Mil-T-22520 Class II Equivalent)

Gage plugs should be ordered separately. Locator 107-0945 and Spanner wrench 107-1102 supplied with tool.



Miniature Hand Operated Crimping Tool

Catalog Number **107-43300**

This miniature version of the MS crimping tool is suited for the smaller crimp contacts such as the SREC series. It is only 7 1/2 inches long and weighs 10 1/2 ounces. Positioners are ordered separately.

Miniature Hand Operated Crimping Tool

Catalog Number **107-0625**

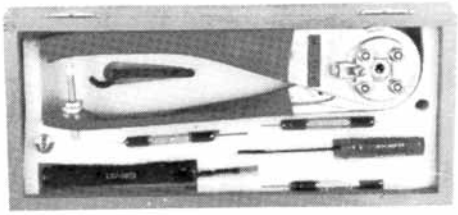
Miniature tool with a continuously variable crimp depth adjustment. Locators must be ordered separately.

Hand Operated Crimping Tool 200/500 Crimps Per Hour

Catalog Number **107-0970**

MS—3191-2 (Mil-T-22520 Class I)

Ruggedly built hand tools with forged body, and four indentors machined from high grade tool steel. Size approximately 9 inches long. Weight approximately 19 ounces.



Tool Kit

Catalog Number **107K4**

Includes crimping tool 107-0903-2A, locator 107-0945, insertion tool 107-1015, removal tool 107R-1001, spanner wrench 107-1102 and go/no-go gages 5431.

107 Series

Guide Set Tool

This tool provides fast and easy installation of G7 and N7 Guide Sets. Screwdriver type tips are enclosed by cylindrical aligners that hold tips in place in the Guide pin and socket slots to prevent slippage. Tool holds pin or socket in place while hex nut is tightened with hex wrench.

Catalog Number **107-0701**
for MRE / MRA / MRAC G7 / N7 Guide

Catalog Number **107-0704**
for MRE 5-3, 8 / SREC N Guide

Removable Contact Insertion Tools

Catalog Number **107-1011**
for SREC

Catalog Number **107-1015**
for MRAC / STD & Shielded

Removable Contact Removal Tools

Catalog Number **107-1005**
for MRAC / STD & Shielded

Catalog Number **107-1012**
for SREC

Catalog Number 107R1001
for MRAC / STD

Hex Wrench

This tool provides fast and easy installation of guides and fixed jacks. This tool may be used with the guide set tool.

Catalog Number **107-0703**
for MRE / MRA / MRAC (hex size 3/16)

Catalog Number **107-0708**
for MRE 5-3, 8 / SRE / SREC (hex size 5/32)

Contact Pin Straightener

Catalog Number **107-1024**
used on .040 or .062 dia.

Gage Plug

Catalog Number **5431**
When ordering gage plugs, please specify:

1. Tool
2. Contact Size
3. Wire Size

Locators

Catalog Number	Used With	
	Contact	Tool
107-0626	SREC	107-0625
107-0627	MRAC (Inner) Shielded	
107-0628	MRAC 20, 22, 24, 26	
107-0945	MRAC	107-0902 & 107-0903-2A
107-43302	MRAC (Outer) Shielded	

Positioners

Catalog Number	Used With	
	Contact	Tool
107-0981	MRAC Pin and Socket #14 & 16	107-0970
107-0977	MRAC Pin and Socket #16 & 18	
107-0976	MRAC Pin and Socket #20, 22, 24, 26	
107-43302	SREC #20 & 24	107-43300
107-43303	MRAC (Inner) Shielded	
107-43304	MRAC #20 22, 24, 26	

Crimping Tools

Bench Mount For Crimping Tool 107-0960

Catalog Number **107-0962**
includes crimp depth blocks

Crimp Depth Blocks For Crimping Tools 107-0960 and 107-0961

Catalog Numbers **107-0965 - #20, 107-0966 - #16, 107-0967 - #12**

Spanner Wrench

Catalog Number **107-1102**
for use with **107-0903-2A**
Crimping Tool