



Removable Contacts for Series MRAC Connectors

General Description

Pye connector 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. Compact, and self-aligning, these

removable contacts provide high retention force and exceptional mechanical and electrical reliability.

Ordering information

To order Series MRAC contacts, specify the type number shown against the relevant illustration below. If heavy gold plating (0.0002 in) is required, please add /-02' to the type number, e.g. MRAC 62-27P/02. To order removable shielded contacts for Series MRAC connectors, specify the relevant type number from the table.

Type Number	in	A	mm	in	B	mm
MRAC 62-27 P/S	0.027	0.70		0.055	1.40	
MRAC 62-45 P/S	0.045	1.15		0.065	1.65	
MRAC 62-67 P/S	0.067	1.70		0.097	2.50	
MREC 40-43 P/S	0.043	1.10				
MRAC 62 P/S	0.067	1.70				

STYLE OF CONTACT

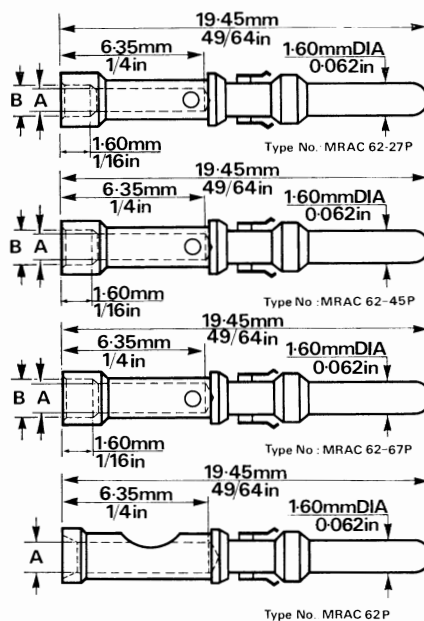
CRIMP BARREL
for wire sizes
7/004 to 19/0048

CRIMP BARREL
for wire sizes
19/006 to 19/0076

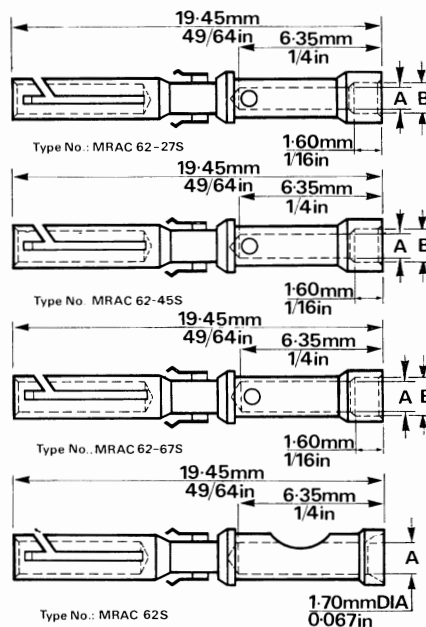
CRIMP BARREL
for wire sizes
19/0076 to 40/0076

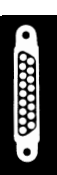
SOLDER BARREL

PIN



SOCKET





Wire-wrapping contacts for series MRAC connectors

Specification

Contact diameter: 0.062in**Post sizes:** 0.025in square × 0.530in long
0.045in square × 0.530in long**Wire sizes:** 24-30 AWG, 25-33 SWG**Current rating:** 13A maximum per contact**Material:** Phosphor bronze**Plating:** Gold over nickel or 0.0002in gold.

Pull-off force and contact resistance:
0.045in spills wrapped with 25SWG wire exhibit average pull-off forces of 15 lbf (Defence Guide 5029 requires 7 lbf minimum); average contact resistance of 1mΩ; and negligible contact resistance variation.

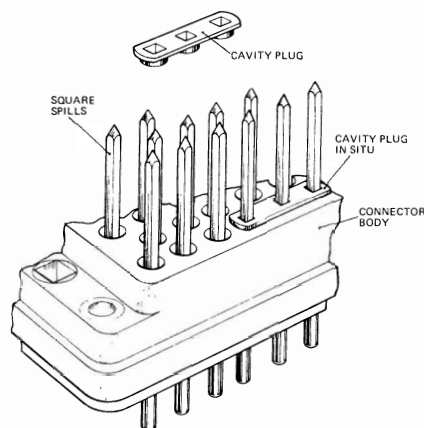
0.025in spills wrapped with 33SWG wire exhibit average pull-off forces of 6 lbf; contact resistance of 2.8mΩ; and no resistance variation. These results conform to Ministry of Aviation Specification RRE 33185.

Assembly

Pye wire-wrapping contacts snap-in simply and positively to any MRAC Series moulding to form a reliable and permanent connector assembly.

Cavity plugs are available if required for fitting over the contact spills to prevent them turning during wrapping, but they should not be necessary if a good quality wrapping tool is used.

For satisfactory results, Pye Connectors recommend the use of the following Gardner Denver tools:



0.025in square spill

WIRE GAUGE	BIT	SLEEVE	WRAP	No. OF TURNS OF BARE WIRE
24 AWG	505415	502129	Modified	5
25 SWG	502134	502135	Standard	5
26 AWG	506445	500350	Modified	6
27 SWG	505279	500350	Standard	6
28 AWG	501389	502129	Modified	7
30 SWG	506633	500350	Standard	7
30 AWG	507063	500350	Modified	8
33 SWG	500353	500350	Standard	8

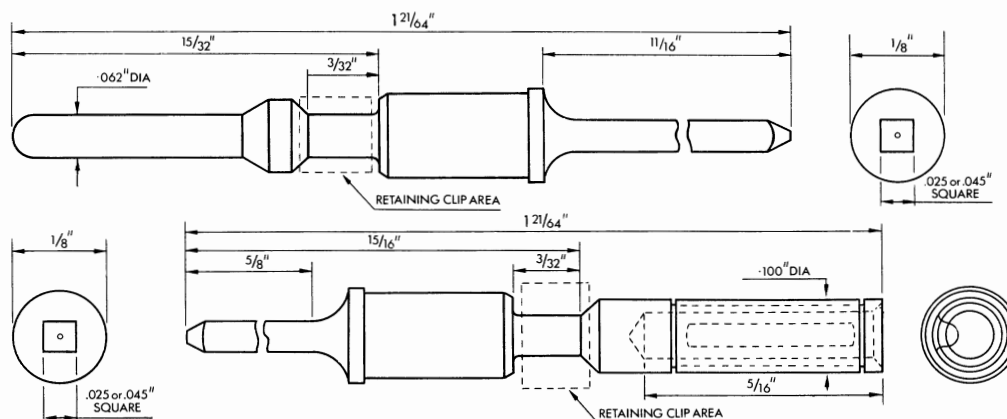
0.045in square spill

24 AWG	26263	18840	Modified	5
25 SWG	501696	18840	Standard	5
26 AWG	502118	512056	Modified	6
27 SWG	504910	512056	Standard	6
28 AWG	505412	512056	Modified	7
30 SWG	505373	512056	Standard	7
30 AWG	501194	502129	Modified	8
33 SWG				



Wire-wrapping contacts for series MRAC connectors (cont.)

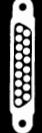
Contact dimensions



Ordering information

Contacts :	0.025in spill	socket pin	MRAC 8113-25S MRAC 8114-25P
	0.045in spill	socket pin	MRAC 8105-45S MRAC 8106-45P
If 0.0002in gold plating is required add /02 after the ordering code.			

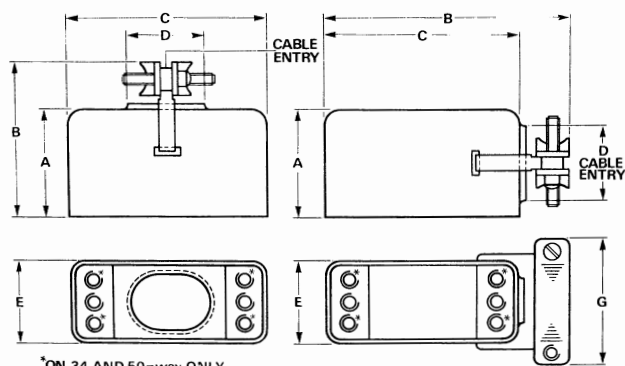
Cavity plugs :	for 0.025in spill	2 contact type MRAC NRK 25/2 3 contact type MRAC NRK 25/3
	for 0.045in spill	2 contact type MRAC NRK 45/2 3 contact type MRAC NRK 45/3



Accessories for Series MRA Mk 2 and MRE Mk 2 and MRAC Connectors

Hoods (anodised aluminium)

Hoods give protection to the wire connections, provide support and strain relief for the cable, and facilitate the disengagement of mated connectors.



*ON 34 AND 50-way ONLY

Top Entry Hood: Type HD

Fits Connector	A	B	C	D	E	G
7 in way mm	1 25.4	$1\frac{7}{16}$ 36.51	$1\frac{5}{16}$ 33.34	$1\frac{7}{16} \times \frac{5}{16}$ 11.11 × 7.94	$\frac{15}{32}$ 11.91	$\frac{57}{64}$ 22.62
14 in way mm	1 25.4	$1\frac{7}{16}$ 36.51	$1\frac{11}{32}$ 34.13	$1\frac{7}{16} \times \frac{5}{16}$ 11.11 × 7.94	$\frac{17}{32}$ 13.49	$\frac{61}{64}$ 24.21
18 in way mm	1 25.4	$1\frac{7}{16}$ 36.51	$1\frac{13}{32}$ 35.72	$\frac{31}{32} \times \frac{15}{32}$ 16.67 × 11.91	$\frac{31}{32}$ 16.67	$1\frac{5}{64}$ 27.38
26 in way mm	1 25.4	$1\frac{7}{16}$ 36.51	$1\frac{13}{32}$ 45.24	$\frac{31}{32} \times \frac{15}{32}$ 16.67 × 11.91	$\frac{31}{32}$ 16.67	$1\frac{5}{64}$ 27.38
34 in way mm	$1\frac{1}{2}$ 31.75	$1\frac{11}{16}$ 42.86	$2\frac{3}{32}$ 53.18	$1\frac{3}{8} \times \frac{9}{16}$ 19.05 × 14.29	$\frac{37}{32}$ 21.43	$\frac{61}{64}$ 24.21
50* in way mm	$1\frac{1}{2}$ 31.75	$1\frac{11}{16}$ 42.86	$2\frac{11}{32}$ 68.25	$1\frac{3}{8} \times \frac{9}{16}$ 19.05 × 14.29	$\frac{37}{32}$ 21.43	$\frac{61}{64}$ 24.21
104 in way mm	$2\frac{1}{4}$ 57.15	$2\frac{11}{16}$ 61.12	$2\frac{27}{32}$ 72.23	$1\frac{3}{8}$ diameter 34.93	$1\frac{1}{8}$ 41.28	$1\frac{13}{16}$ 46.04

* Also available is type 50HD LE with extra-large cable entry of $\frac{9}{16} \times \frac{1}{4}$ in (14.29 × 31.75 mm).

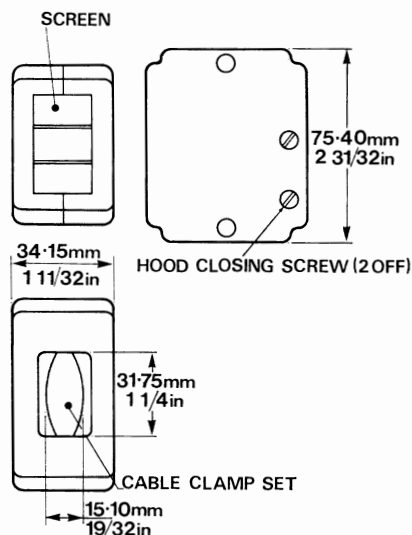
Side Entry Hood: Type HI-D

Fits Connector	A	B	C	D	E	G
7 in way mm	1 25.4	$1\frac{3}{4}$ 44.45	$1\frac{5}{16}$ 33.14	$1\frac{7}{16} \times \frac{5}{16}$ 11.11 × 7.94	$\frac{15}{32}$ 11.91	$\frac{57}{64}$ 22.62
14 in way mm	1 25.4	$1\frac{13}{16}$ 45.24	$1\frac{11}{32}$ 34.13	$1\frac{7}{16} \times \frac{5}{16}$ 11.11 × 7.94	$\frac{17}{32}$ 13.49	$\frac{61}{64}$ 24.21
18 in way mm	1 25.4	$1\frac{13}{16}$ 46.83	$1\frac{13}{32}$ 35.72	$\frac{31}{32} \times \frac{15}{32}$ 16.67 × 11.91	$\frac{31}{32}$ 16.62	$1\frac{5}{64}$ 27.38
26 in way mm	1 25.4	$2\frac{5}{16}$ 54.77	$1\frac{13}{32}$ 43.66	$\frac{31}{32} \times \frac{15}{32}$ 16.67 × 11.91	$\frac{31}{32}$ 16.62	$1\frac{5}{64}$ 27.38
34 in way mm	$1\frac{1}{2}$ 31.75	$2\frac{17}{32}$ 64.29	$2\frac{3}{32}$ 53.18	$1\frac{3}{8} \times \frac{9}{16}$ 19.05 × 14.29	$\frac{37}{32}$ 21.43	$\frac{61}{64}$ 24.21
50 in way mm	$1\frac{1}{2}$ 31.75	$3\frac{1}{8}$ 79.38	$2\frac{11}{16}$ 68.25	$1\frac{3}{8} \times \frac{9}{16}$ 19.05 × 14.29	$\frac{37}{32}$ 21.43	$\frac{61}{64}$ 24.21
104 in way mm	$2\frac{1}{4}$ 57.15	$3\frac{11}{16}$ 86.52	$2\frac{27}{32}$ 72.23	$1\frac{3}{8}$ diameter 34.93	$1\frac{1}{8}$ 41.28	$1\frac{13}{16}$ 46.04

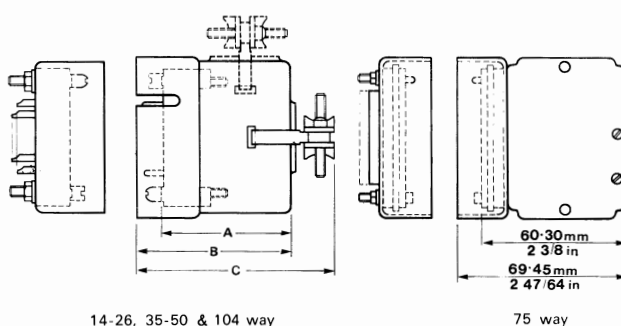
Hood (plastic), Type MH 75-way only

This hood has three cable entries: top and two side.

Entries not required are blanked with dust-proof, moisture-proof screens. It is supplied with two sets of cable clamps and two blanking plates.



Hoods and Shells



14-26, 35-50 & 104 way

75 way

Fits Connector	A	B	Top entry hoods only C
7-26 in way mm	$1\frac{3}{8}$ 34.93	$1\frac{1}{8}$ 41.28	$2\frac{1}{8}$ 52.39
34-50 in way mm	$1\frac{1}{8}$ 41.28	$1\frac{1}{4}$ 47.63	$2\frac{5}{8}$ 58.74
104 in way mm	$2\frac{5}{8}$ 66.68	$2\frac{31}{32}$ 75.39	$3\frac{7}{16}$ 87.31