



TRINEKS

Professional broadcast equipment supplier

CATALOGUE





Product Index

1. Rigid Transmission Line Componenets (50 ohms)

Line size 1 5/8 "	3
Line size 3 1/8 "	8
Line size 4 1/2 "	13
Line size 6 1/8 "	18

2. Coaxial RF Power Transfer Switches

7/16 " - motorized	23
7/16 " - manual	24
7/8 " - motorized	25
7/8 " - manual	26
1 5/8 " - motorized	27
1 5/8 " - manual	28
3 1/8 " - motorized	29
3 1/8 " - manual	30
4 1/2 " - motorized	31
4 1/2 " - manual	32
6 1/8 " - motorized	33
6 1/8 " - manual	34

3. Coaxial Switches U – Link Type

3 1/8 " -	35
4 1/2 " -	36
4 1/16 " -	37
6 1/8 " -	38

4. Coaxial Switches connected in Matrix Systems

Coaxial Switches connected in Matrix Systems	39
--	----



Product Index

5. 19 " Rack Control Panels for Motorized RF Power Switches

19 " Rack Control Panel for Motorized RF Power Switch	40
---	----

6. Antennas (50 ohms)

UHF Panel Antenna with eight elements	42
FM Dipole antenna	44
FM Yagi antenna with three elements	45
FM Circular Antenna	46
FM Panel Antenna	47
VHF Panel Antenna	48

7. Power Splitters (50 ohms)

FM , VHF , UHF	49
--------------------------	----

8. Filers (50 ohms)

FM band pass Filter (1 kW)	52
FM band pass Filter (10 kW)	53
UHF band pass Filter (0.8 kW)	54

9. Adapters

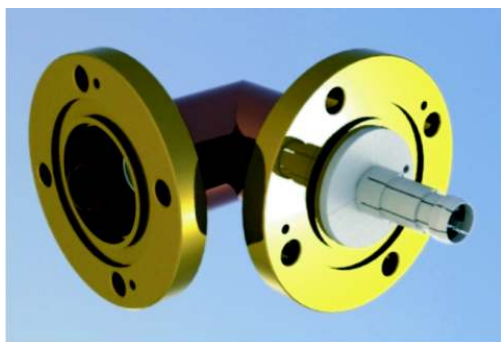
Straight Adapters	55
-----------------------------	----

10. Connectors

Connectors for Coaxial Cable	56
--	----

11. Engineering

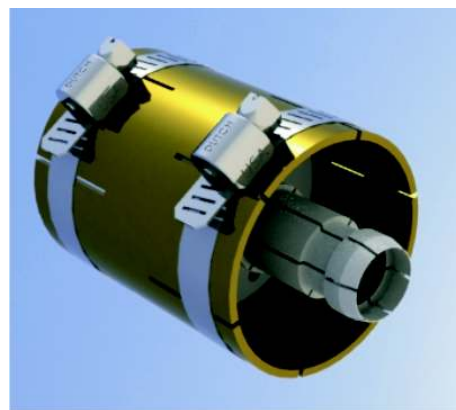
Tube dimensions and cut – back dimensions	58
Terminal dimensions	59



RL 158.14



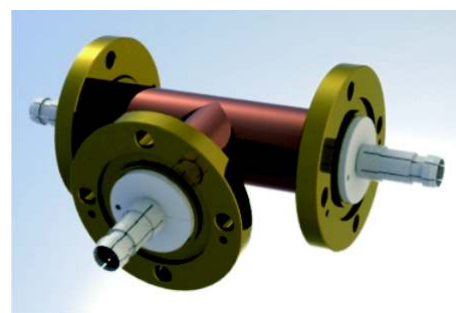
RL 158.35



RL 158.32

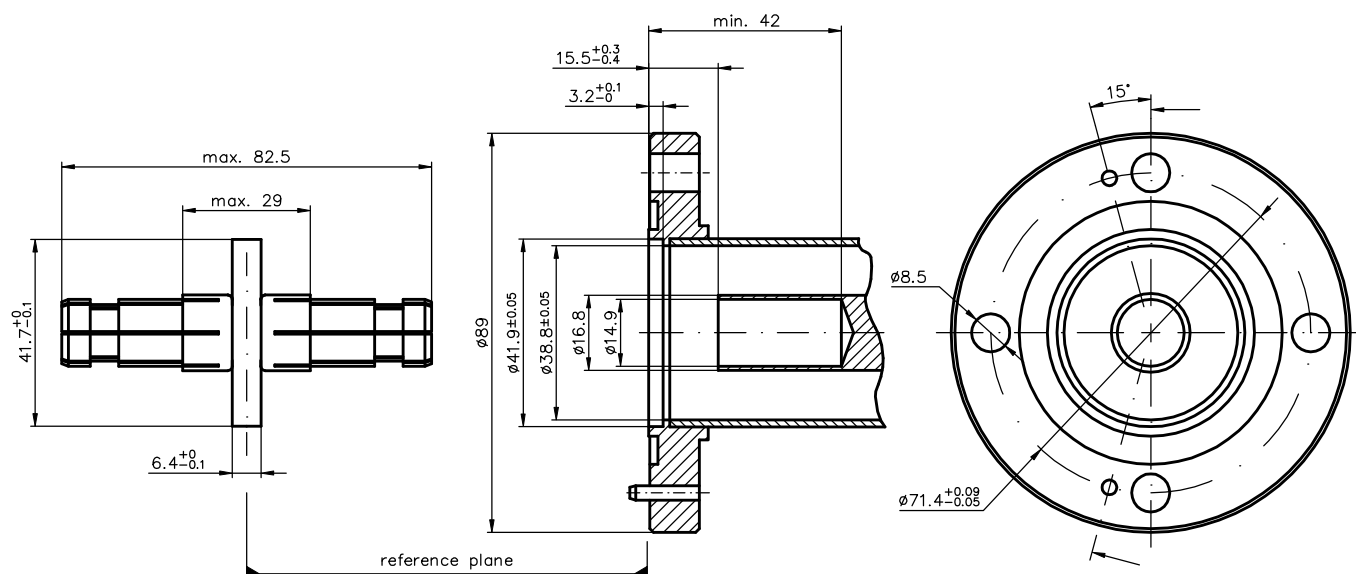


RL 158.01



RL 158.19

Outer Conductor: high conductivity hard drawn copper tubing
($\varnothing 41.3$ mm. x $\varnothing 38.8$ mm.)
Inner Conductor: high conductivity hard drawn copper tubing
($\varnothing 16.9$ mm. x $\varnothing 14.9$ mm.)
Insulation Material: virgin PTFE

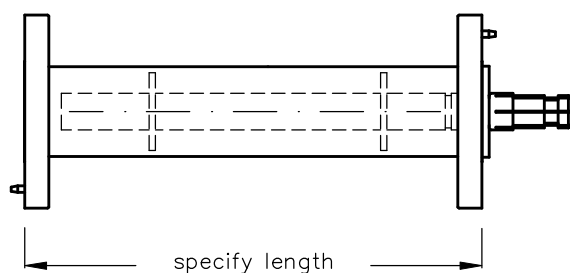


* All dimensions shown are in millimeters.
* Drawings not to scale.

Mating Face Dimension - 1 5/8"
(EIA standard RS-225)



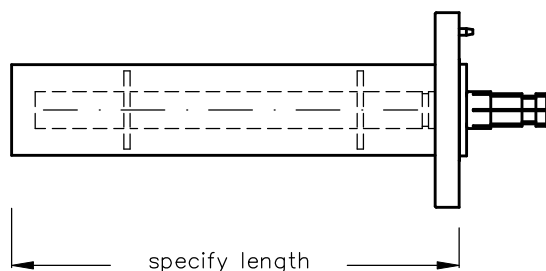
Line size 1 5/8"



Line assembly, flanged with fixed and swivel flange. Brass and copper construction. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 158.01

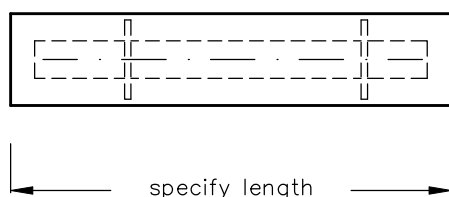
Line size 1 5/8"



Line assembly, one end fixed flanged. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 158.02

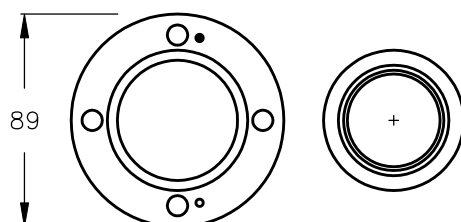
Line size 1 5/8"



Line assembly, unflanged, no insulator conductor connector or hardware.

RL 158.04

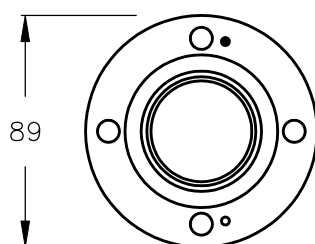
Line size 1 5/8"



Swivel EIA flange, brass. Includes only sliding and fixed ring prepared for silver brazing to outer conducting tubing.

RL 158.06

Line size 1 5/8"



Fixed EIA flange prepared for silver brazing to outer conducting tubing.

RL 158.08

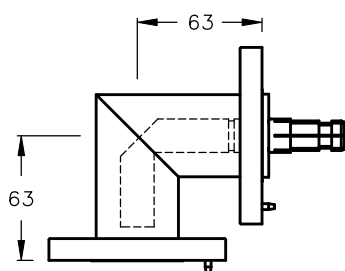


* All dimensions shown are in millimeters.

* Drawings not to scale.



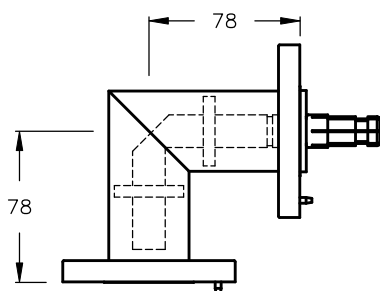
Line size 1 5/8"



Miter elbow 90°, swivel EIA flanges on both ends, brass and copper construction. Includes unsupported inner conductor, one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 158.11

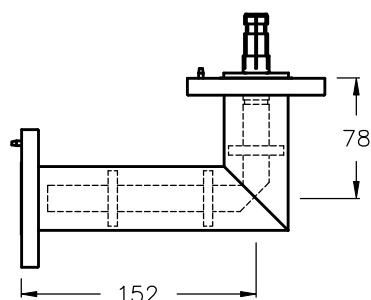
Line size 1 5/8"



Miter elbow 90°, swivel EIA flanges on both ends, brass and copper construction. Includes supported inner conductor, anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 158.14

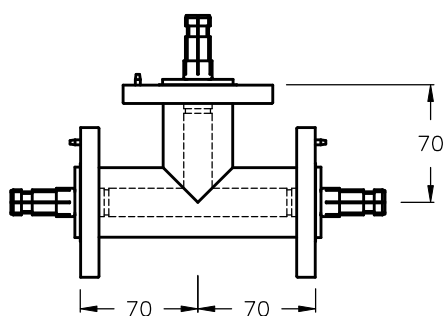
Line size 1 5/8"



Miter elbow 90°-unequal legs, swivel EIA flanges on both ends, brass and copper construction. Includes supported inner conductor, one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 158.16

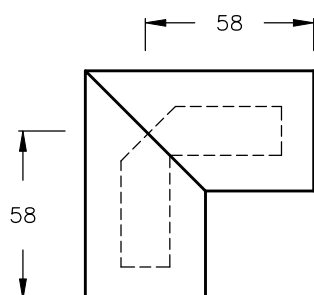
Line size 1 5/8"



Tee assembly, swivel EIA flanges. Includes three anchor insulator connectors, O-rings and hardware sets.

RL 158.19

Line size 1 5/8"



Miter elbow 90°-unflanged, copper construction. Includes only one unsupported inner conductor.

RL 158.22

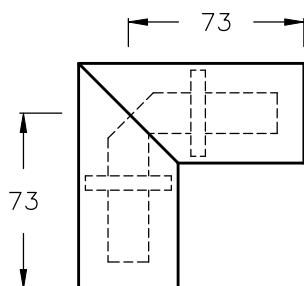


* All dimensions shown are in millimeters.

* Drawings not to scale.



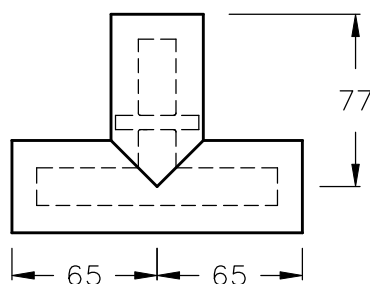
Line size 1 5/8"



Miter elbow 90°-unflanged, long legs, copper construction. Includes only one supported inner conductor.

RL 158.25

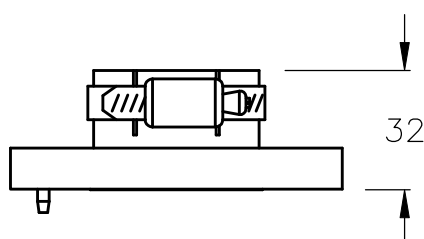
Line size 1 5/8"



Tee assembly, unflanged, copper construction. Includes only supported inner conductor.

RL 158.28

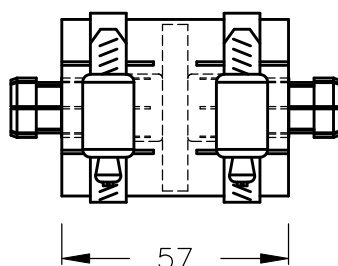
Line size 1 5/8"



Unpressurized EIA field flange for indoor use. Includes one stainless steel hose clamp and hardware set.

RL 158.30

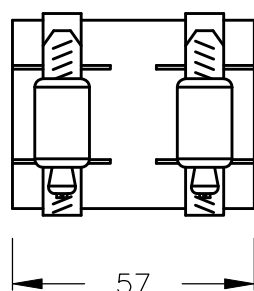
Line size 1 5/8"



Line coupling for connection of unflanged lines. Includes supported inner conductor connector and two stainless steel hose clamps.

RL 158.32

Line size 1 5/8"



Line coupling for connection of unflanged lines. No inner conductor connector. Includes two stainless steel hose clamps (does not increase outer conductor length).

RL 158.33

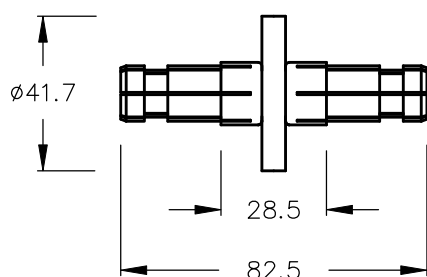


* All dimensions shown are in millimeters.

* Drawings not to scale.



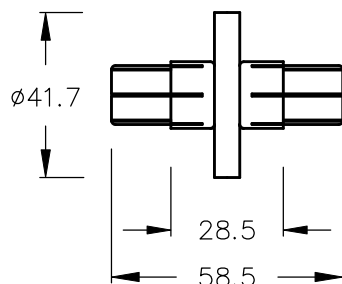
Line size 1 5/8"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Standard lenght.**

RL 158.35

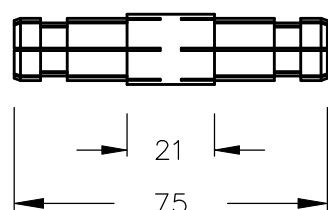
Line size 1 5/8"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Short version.**

RL 158.36

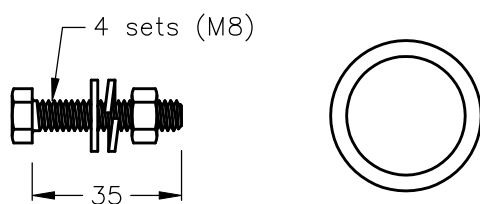
Line size 1 5/8"



Unsupported inner conductor connector.

RL 158.40

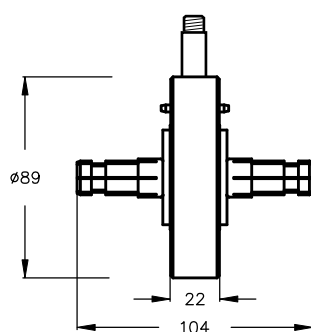
Line size 1 5/8"



Stainless steel hardware set with silicone rubber O-ring.

RL 158.45

Line size 1 5/8"



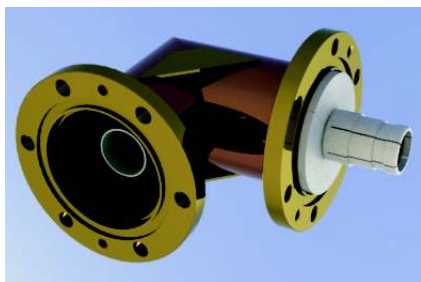
Gas barrier with silicone O-ring and stainless steel hardware set.

RL 158.50

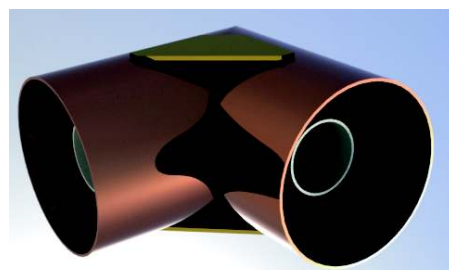


* All dimensions shown are in millimeters.

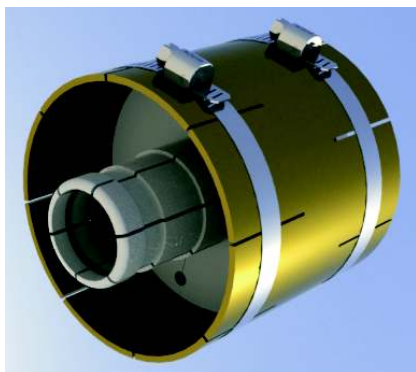
* Drawings not to scale.



RL 318.11



RL 318.22



RL 318.32

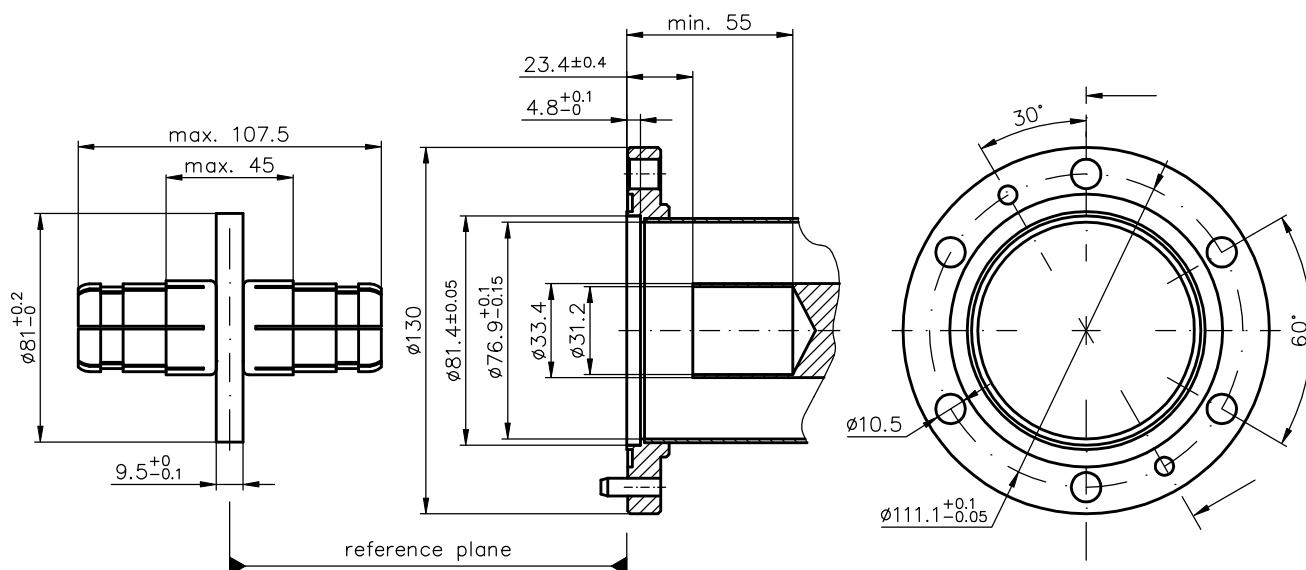


RL 318.35



RL 318.01

Outer Conductor: high conductivity hard drawn copper tubing
(\varnothing 79.4 mm. x \varnothing 76.9 mm.)
Inner Conductor: high conductivity hard drawn copper tubing
(\varnothing 33.4 mm. x \varnothing 31.3 mm.)
Insulation Material: virgin PTFE

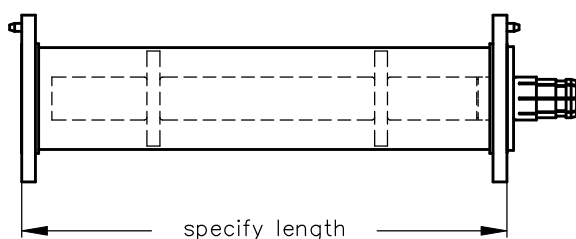


* All dimensions shown are in millimeters.
* Drawings not to scale.

Mating Face Dimension - 3 1/8"
(EIA standard RS-225)



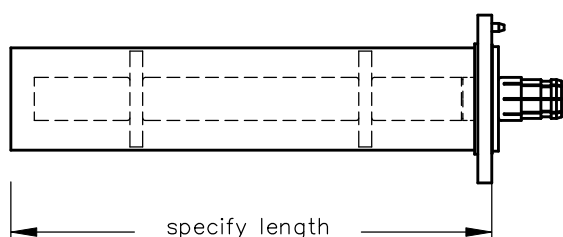
Line size 3 1/8"



Line assembly, flanged with fixed and swivel flange. Brass and copper construction. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 318.01

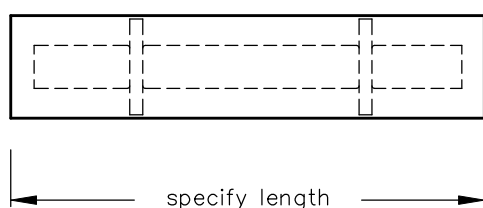
Line size 3 1/8"



Line assembly, one end fixed flanged. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 318.02

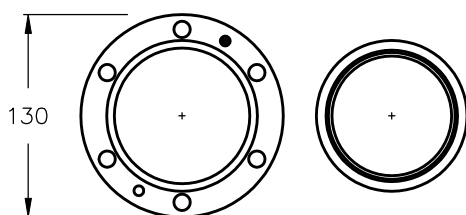
Line size 3 1/8"



Line assembly, unflanged, no insulator conductor connector or hardware.

RL 318.04

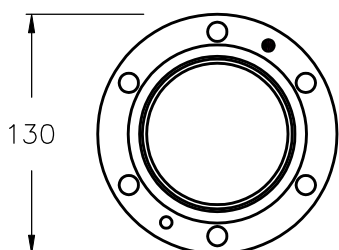
Line size 3 1/8"



Swivel EIA flange, brass. Includes only sliding and fixed ring prepared for silver brazing to outer conducting tubing.

RL 318.06

Line size 3 1/8"



Fixed EIA flange with silver solder ring insert for silver brazing to outer conducting tubing.

RL 318.08

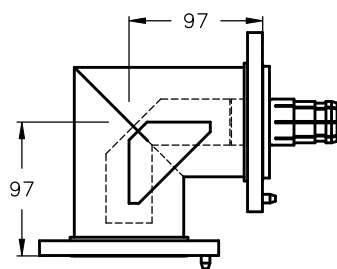


* All dimensions shown are in millimeters.

* Drawings not to scale.



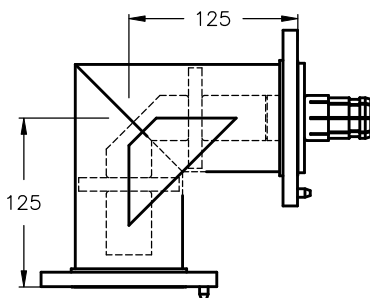
Line size 3 1/8"



Miter elbow 90°, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes unsupported inner conductor, one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 318.11

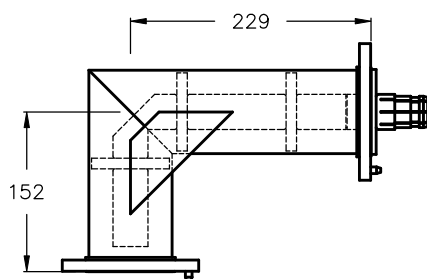
Line size 3 1/8"



Miter elbow 90°, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes supported inner conductor, anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 318.14

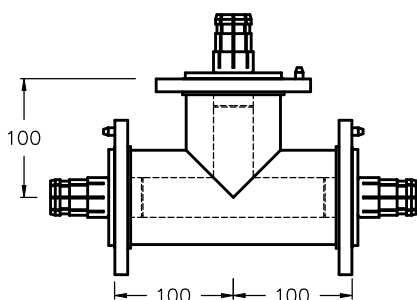
Line size 3 1/8"



Miter elbow 90°-unequal legs, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes supported inner conductor, one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 318.16

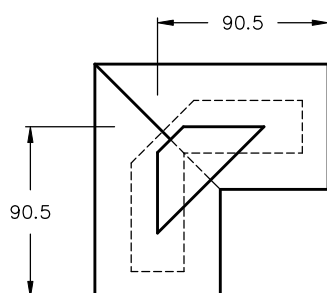
Line size 3 1/8"



Tee assembly, swivel EIA flanges. Includes three anchor insulator connectors, O-rings and hardware sets.

RL 318.19

Line size 3 1/8"



Miter elbow 90°-unflanged, reinforced outside, copper construction. Includes only one unsupported inner conductor.

RL 318.22

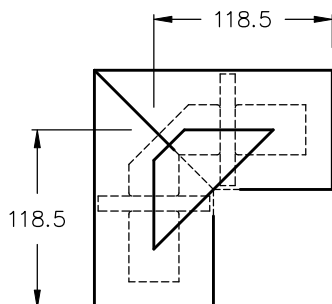


* All dimensions shown are in millimeters.

* Drawings not to scale.



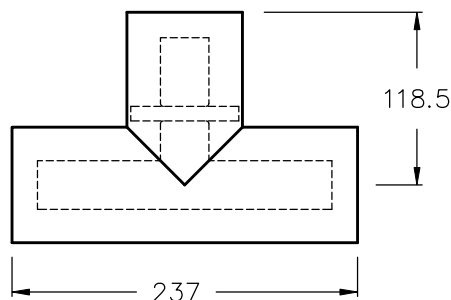
Line size 3 1/8"



Miter elbow 90°-unflanged, long legs, reinforced outside, copper construction. Includes only one supported inner conductor.

RL 318.25

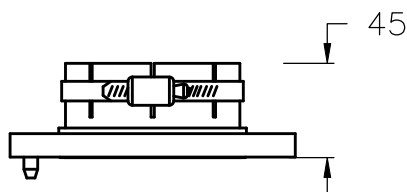
Line size 3 1/8"



Tee assembly, unflanged, copper construction. Includes only supported inner conductor.

RL 318.28

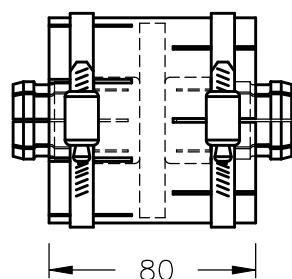
Line size 3 1/8"



Unpressurized EIA field flange for indoor use. Includes one stainless steel hose clamp and hardware set.

RL 318.30

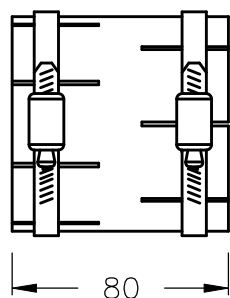
Line size 3 1/8"



Line coupling for connection of unflanged lines. Includes supported inner conductor connector and two stainless steel hose clamps.

RL 318.32

Line size 3 1/8"



Line coupling for connection of unflanged lines. No inner conductor connector. Includes two stainless steel hose clamps (does not increase outer conductor length).

RL 318.33

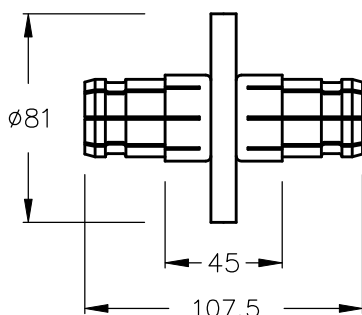


* All dimensions shown are in millimeters.

* Drawings not to scale.



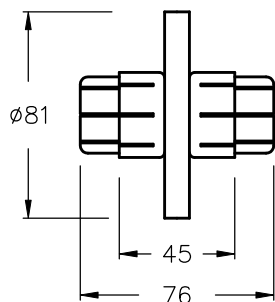
Line size 3 1/8"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Standard length.**

RL 318.35

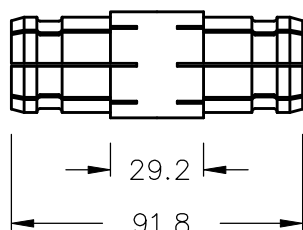
Line size 3 1/8"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Short version.**

RL 318.36

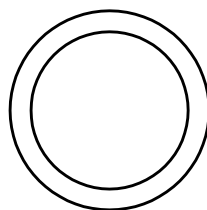
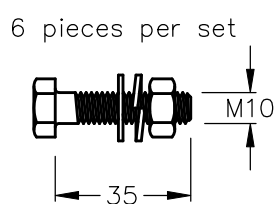
Line size 3 1/8"



Unsupported inner conductor connector.

RL 318. 40

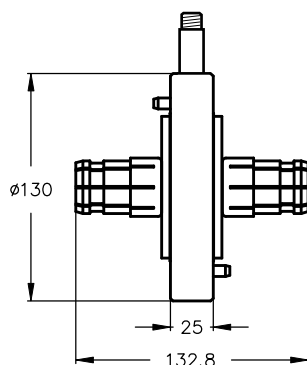
Line size 3 1/8"



Stainless steel hardware set with silicone rubber O-ring.

RL 318.45

Line size 3 1/8"

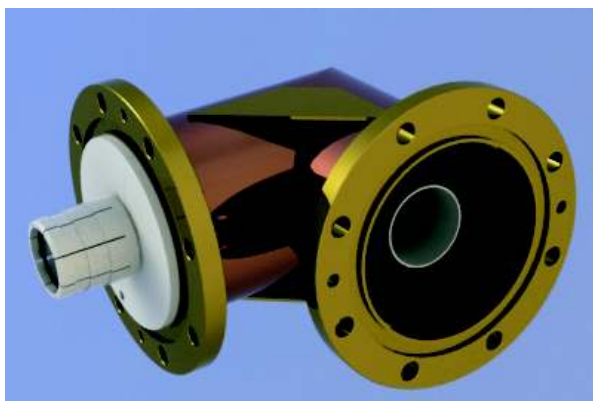


Gas barrier with silicone O-ring and stainless steel hardware set.

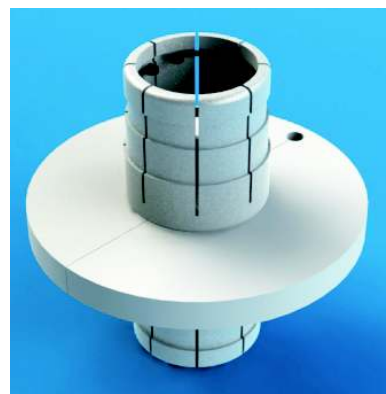
RL 318.50



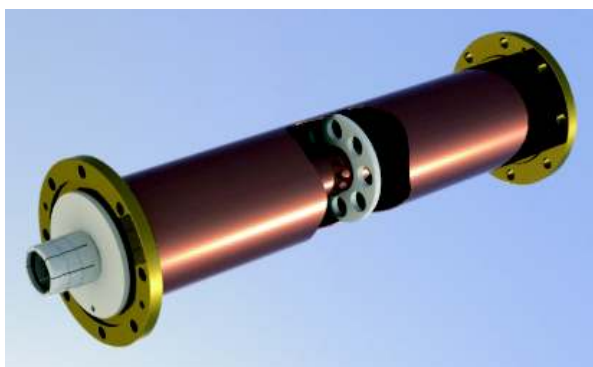
* All dimensions shown are in millimeters.
* Drawings not to scale.



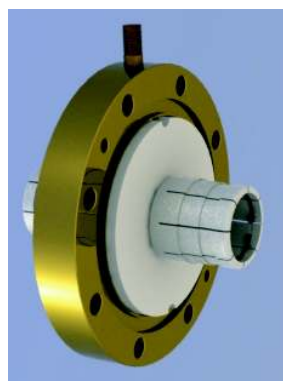
RL 412.11



RL 412.35

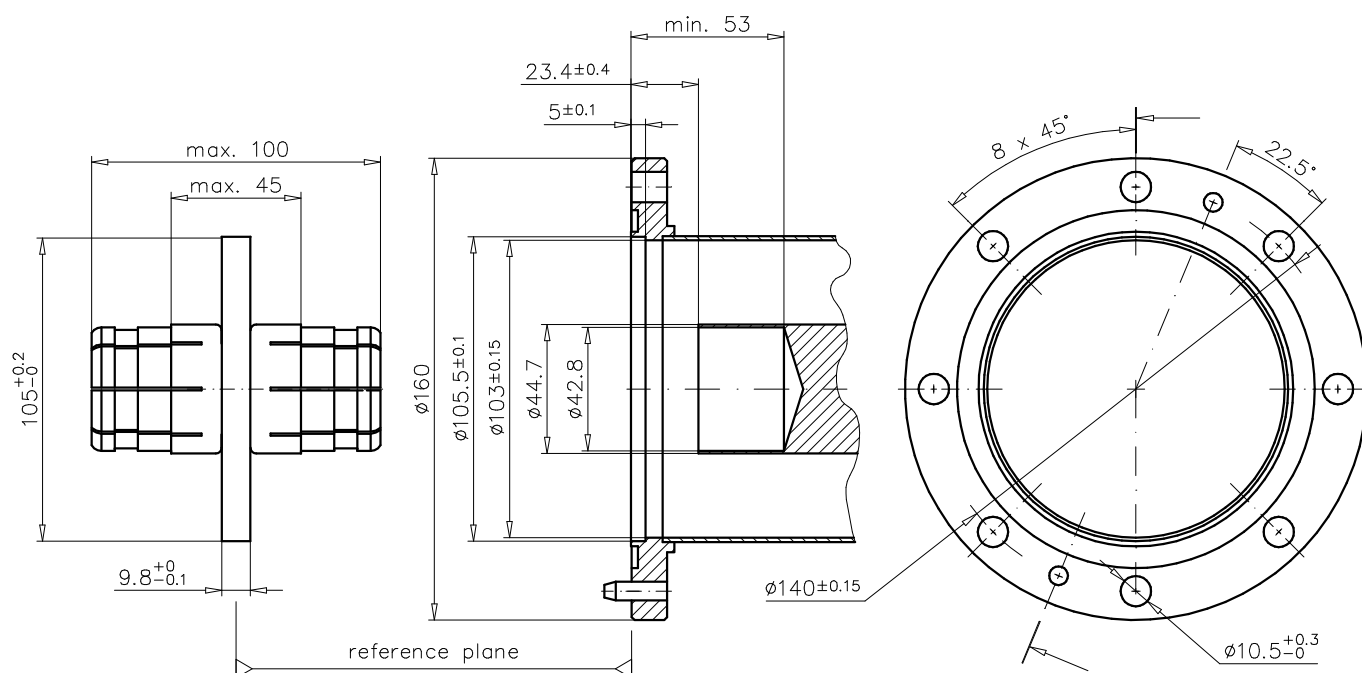


RL 412.01



RL 412.50

Outer Conductor: high conductivity hard drawn copper tubing
(\varnothing 106 mm. x \varnothing 103 mm.)
Inner Conductor: high conductivity hard drawn copper tubing
(\varnothing 44.7 mm. x \varnothing 42.8 mm.)
Insulation Material: virgin PTFE



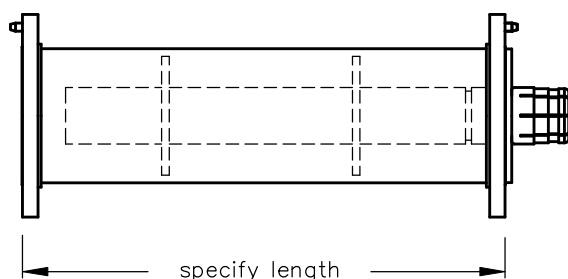
Mating Face Dimension - 4 1/2"



* All dimensions shown are in millimeters.
* Drawings not to scale.



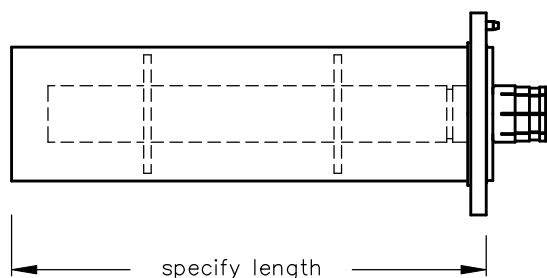
Line size 4 1/2"



Line assembly, flanged with fixed and swivel flange. Brass and copper construction. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 412.01

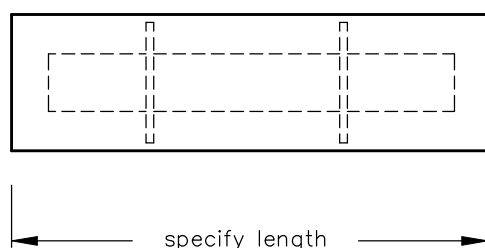
Line size 4 1/2"



Line assembly, one end fixed flanged. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 412.02

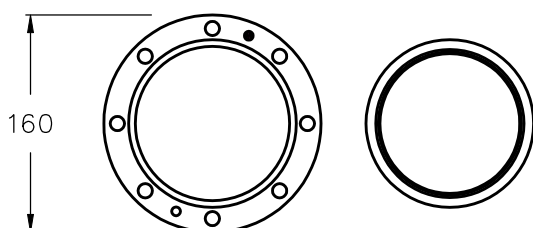
Line size 4 1/2"



Line assembly, unflanged, no insulator conductor connector or hardware.

RL 412.04

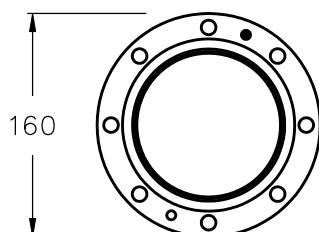
Line size 4 1/2"



Swivel EIA flange, brass. Includes only sliding and fixed ring prepared for silver brazing to outer conducting tubing.

RL 412.06

Line size 4 1/2"



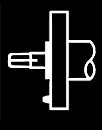
Fixed EIA flange with silver solder ring insert for silver brazing to outer conducting tubing.

RL 412.08

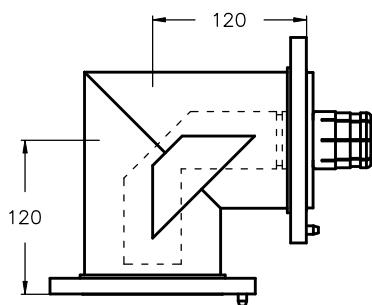


* All dimensions shown are in millimeters.

* Drawings not to scale.



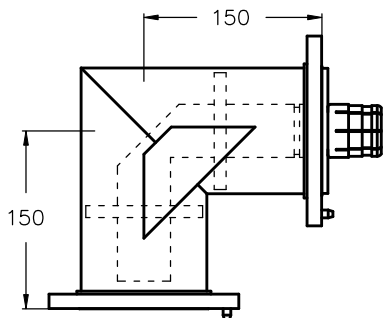
Line size 4 1/2 "



Miter elbow 90°, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes unsupported inner conductor, one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 412.11

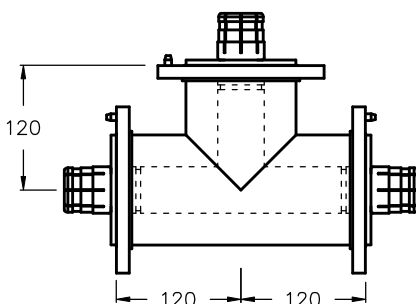
Line size 4 1/2 "



Miter elbow 90°, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes supported inner conductor, anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 412.14

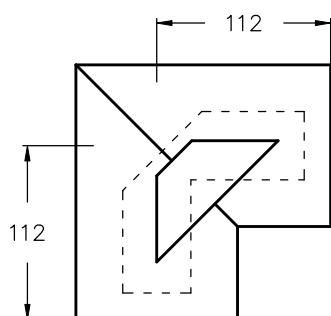
Line size 4 1/2 "



Tee assembly, swivel EIA flanges. Includes three anchor insulator connectors, O-rings and hardware sets.

RL 412.19

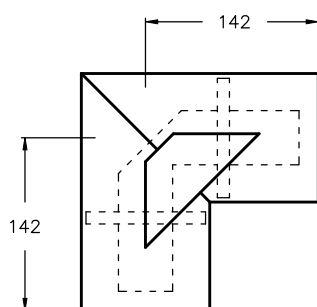
Line size 4 1/2 "



Miter elbow 90°-unflanged, reinforced outside, copper construction. Includes only one unsupported inner conductor.

RL 412.22

Line size 4 1/2 "



Miter elbow 90°-unflanged, long legs, reinforced outside, copper construction. Includes only one supported inner conductor.

RL 412.25

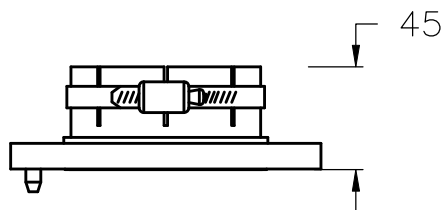


* All dimensions shown are in millimeters.

* Drawings not to scale.



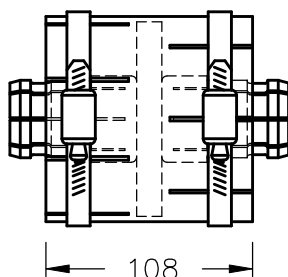
Line size 4 1/2"



Unpressurized EIA field flange for indoor use. Includes one stainless steel hose clamp and hardware set.

RL 412.30

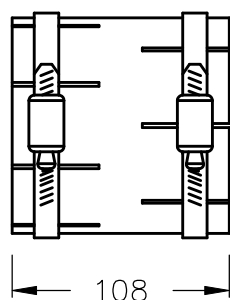
Line size 4 1/2"



Line coupling for connection of unflanged lines. Includes supported inner conductor connector and two stainless steel hose clamps.

RL 412.32

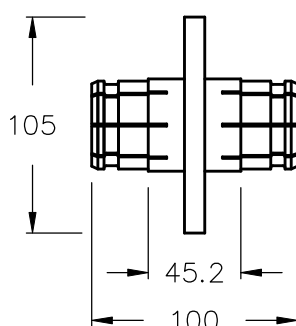
Line size 4 1/2"



Line coupling for connection of unflanged lines. No inner conductor connector. Includes two stainless steel hose clamps (does not increase outer conductor length).

RL 412.33

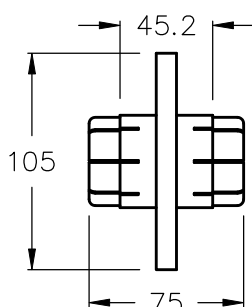
Line size 4 1/2"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Standard lenght.**

RL 412.35

Line size 4 1/2"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Short version.**

RL 412.36

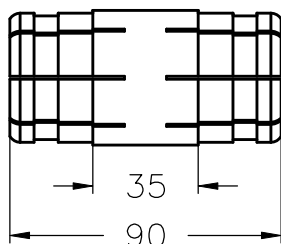


* All dimensions shown are in milimeters.

* Drawings not to scale.



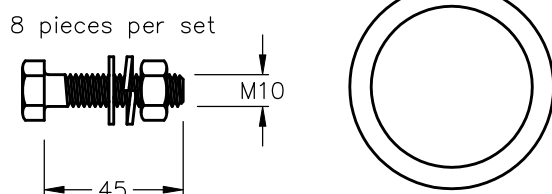
Line size 4 1/2 "



Unsupported inner conductor connector.

RL 412.40

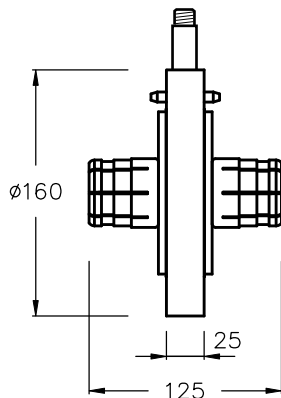
Line size 4 1/2 "



Stainless steel hardware set with silicone rubber O-ring.

RL 412.45

Line size 4 1/2 "

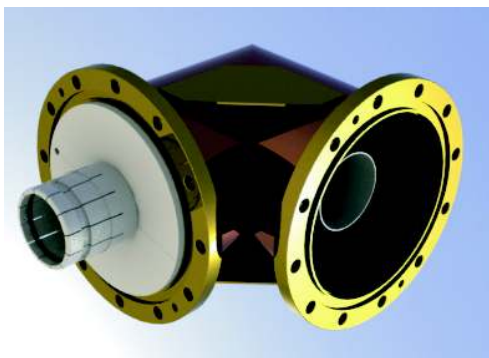


Gas barrier with silicone O-ring and stainless steel hardware set.

RL 412.50



* All dimensions shown are in millimeters.
* Drawings not to scale.



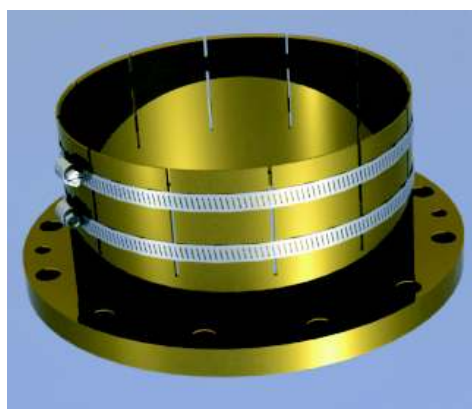
RL 618.11



RL 618.01

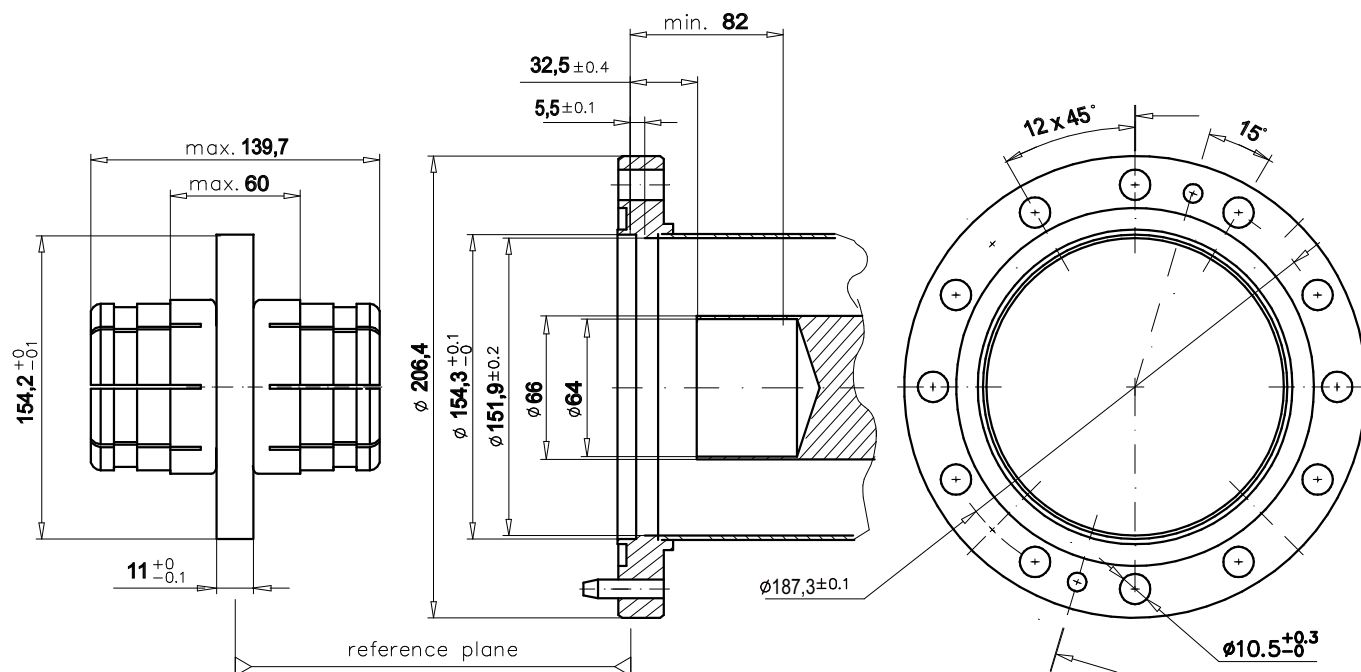


RL 618.35



RL 618.50

- Outer Conductor: high conductivity hard drawn copper tubing
(\varnothing 155,6 mm. x \varnothing 151,9 mm.)
- Inner Conductor: high conductivity hard drawn copper tubing
(\varnothing 66 mm. x \varnothing 64 mm.)
- Insulation Material: virgin PTFE



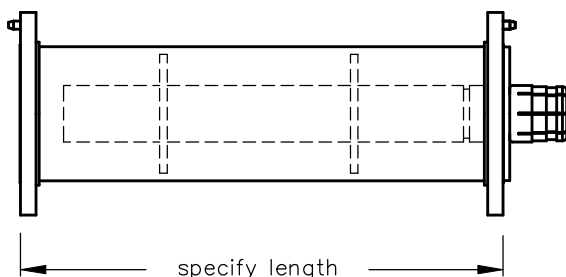
Mating Face Dimension - 6 1/8"



- * All dimensions shown are in millimeters.
- * Drawings not to scale.



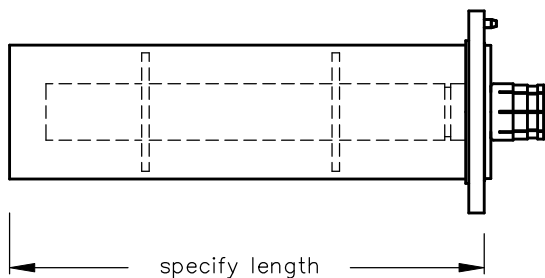
Line size 6 1/8"



Line assembly, flanged with fixed and swivel flange. Brass and copper construction. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 618.01

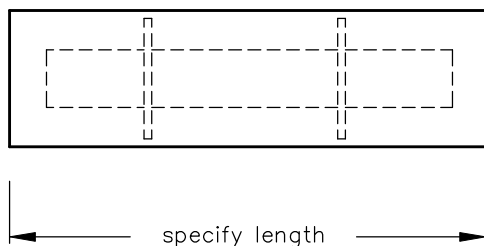
Line size 6 1/8"



Line assembly, one end fixed flanged. Includes one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 618.02

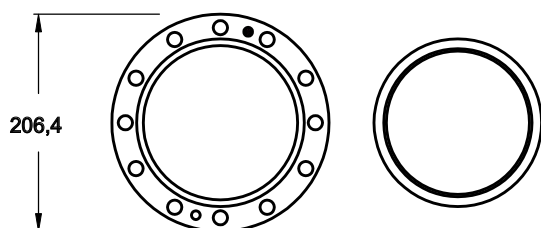
Line size 6 1/8"



Line assembly, unflanged, no insulator conductor connector or hardware.

RL 618.04

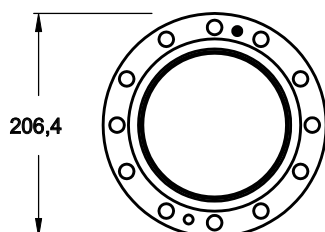
Line size 6 1/8"



Swivel EIA flange, brass. Includes only sliding and fixed ring prepared for silver brazing to outer conducting tubing.

RL 618.06

Line size 6 1/8"

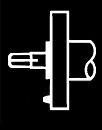


Fixed EIA flange with silver solder ring insert for silver brazing to outer conducting tubing.

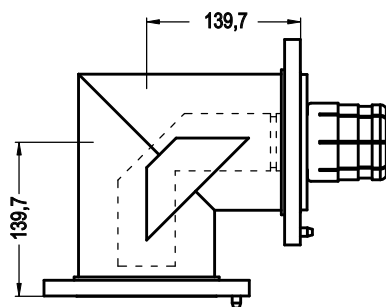
RL 618.08



* All dimensions shown are in millimeters.
* Drawings not to scale.



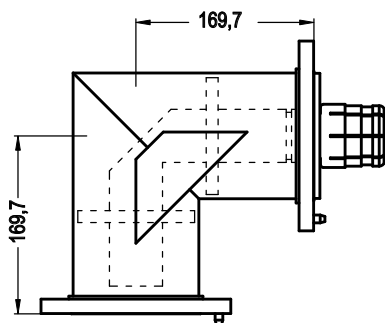
Line size 6 1/8"



Miter elbow 90°, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes unsupported inner conductor, one anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 618.11

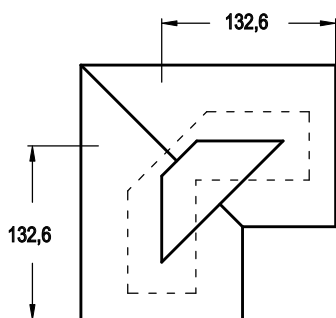
Line size 6 1/8"



Miter elbow 90°, swivel EIA flanges on both ends, reinforced outside, brass and copper construction. Includes supported inner conductor, anchor insulator conductor connector, silicone O-ring and stainless steel hardware set.

RL 618.14

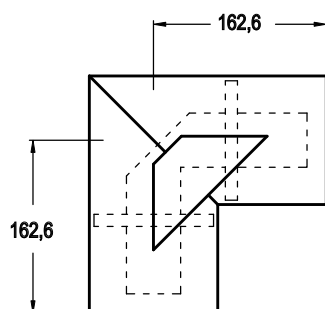
Line size 6 1/8"



Miter elbow 90°-unflanged, reinforced outside, copper construction. Includes only one unsupported inner conductor.

RL 618.22

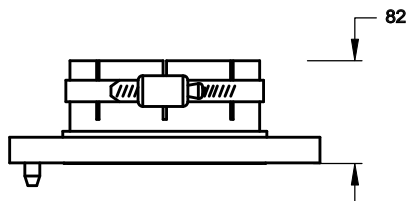
Line size 6 1/8"



Miter elbow 90°-unflanged, long legs, reinforced outside, copper construction. Includes only one supported inner conductor.

RL 618.25

Line size 6 1/8"



Unpressurized EIA field flange for indoor use. Includes one stainless steel hose clamp and hardware set.

RL 618.30

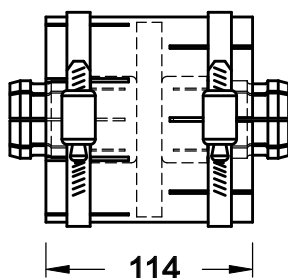


* All dimensions shown are in millimeters.

* Drawings not to scale.



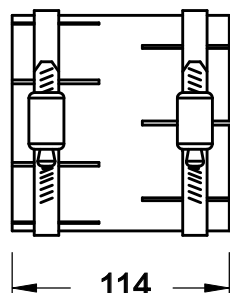
Line size 6 1/8"



Line coupling for connection of unflanged lines. Includes supported inner conductor connector and two stainless steel hose clamps.

RL 618.32

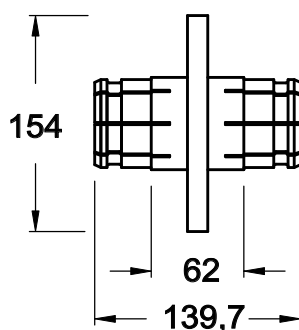
Line size 6 1/8"



Line coupling for connection of unflanged lines. No inner conductor connector. Includes two stainless steel hose clamps (does not increase outer conductor length).

RL 618.33

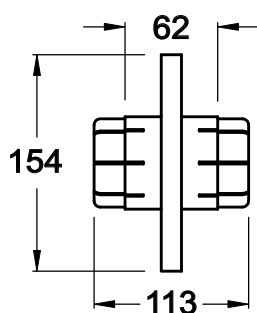
Line size 6 1/8"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Standard lenght.**

RL 618.35

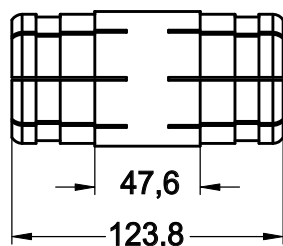
Line size 6 1/8"



Anchor insulator conductor connector, for EIA flange connection, silver plated. **Short version.**

RL 618.36

Line size 6 1/8"



Unsupported inner conductor connector.

RL 618.40



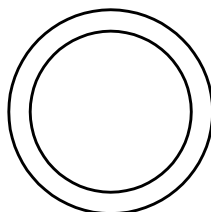
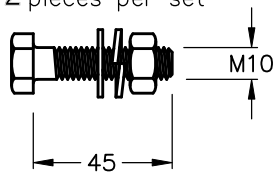
* All dimensions shown are in milimeters.

* Drawings not to scale.



Line size 6 1/8"

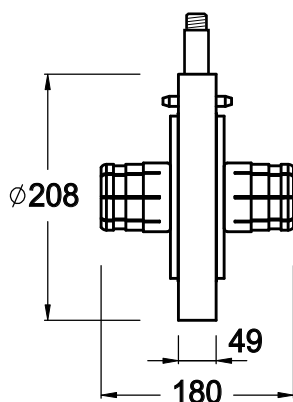
12 pieces per set



Stainless steel hardware set with silicone rubber O-ring.

RL 618.45

Line size 6 1/8"



Gas barrier with silicone O-ring and stainless steel hardware set.

RL 618.50



* All dimensions shown are in millimeters.

* Drawings not to scale.



model	power source
SW 716.01	24 VDC
SW 716.02	110 VAC *
SW 716.03	230 VAC *

* electro motors are 24 VDC (transformers included)

The models SW 716.01, SW 716.02 and SW 716.03 are motor-driven, two-way coaxial transfer switches designed to change coaxial connections with a minimum off-air-time. Mainly they are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminium cavity has four ports terminated with standard 7/16" DIN female interfaces. The assembly is not gas-tight. The switch is equipped with a mechanical position indicator and emergency knob for manual operating.



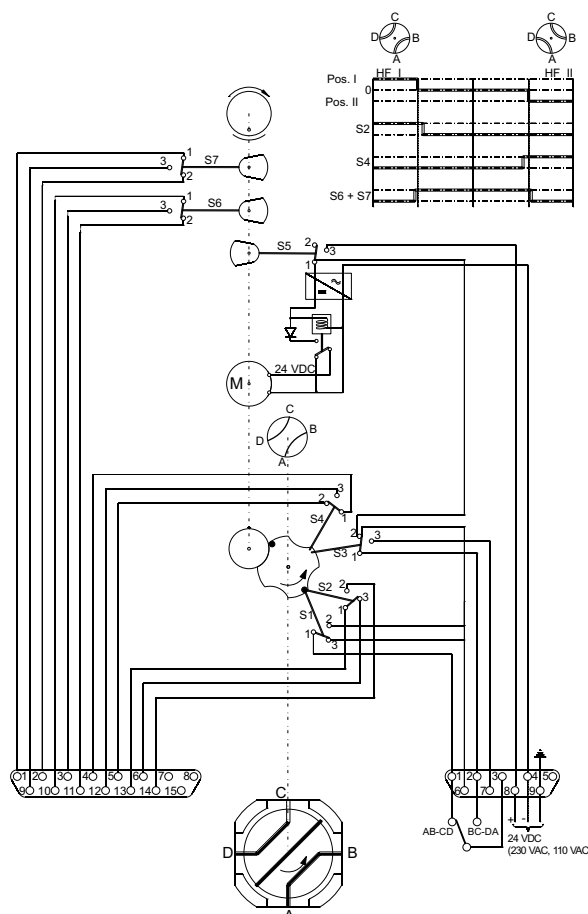
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 1000 MHz
Terminals	four 7/16" DIN female interfaces
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	1000
kW	9	6	4	3	2,2	1,4

Isolation	more than 60 dB
Switching time	1 second
Test voltage AC 50Hz	3 kV peak
Overall dimensions	120x120x180



* All dimensions shown are in millimeters.

* Drawings not to scale.



model	power source
SW 716.04	manual

The model SW 716.04 is two-way coaxial transfer switch designed for easy and reliable manual switching of transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminium cavity has four ports terminated with standard 7/16" DIN female interfaces. The assembly is not gas-tight.

Besides handwheel for manual operating, the switch is equiped with a mechanical position indicator.



Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 1000 MHz
Terminals	four 7/16" DIN female interfaces
VSWR	less than 1.05

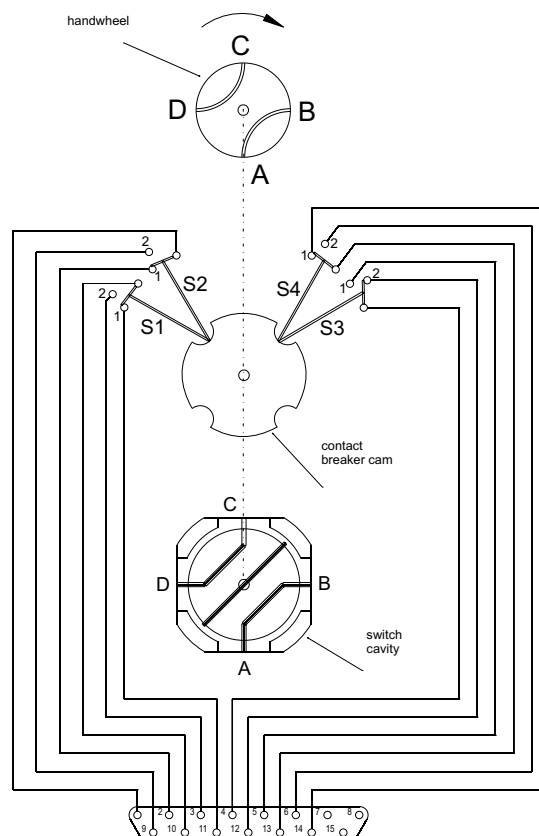
Maximum power rating:

MHz	2	30	100	200	500	1000
kW	9	6	4	3	2,2	1,4

Isolation more than 60 dB

Test voltage AC 50Hz 3 kV peak

Overall dimensions 120x120x105



Legend:

- S1 upper auxiliary micro switch
- S2 lower auxiliary micro switch
- S3 upper auxiliary micro switch
- S4 lower auxiliary micro switch



* All dimensions shown are in milimeters.

* Drawings not to scale.



model	power source
SW 78.01	24 VDC
SW 78.02	110 VAC *
SW 78.03	230 VAC *

* electro motors are 24 VDC (transformers included)

The models SW78.01, SW 78.02 and SW 78.03 are motor-driven, two-way coaxial transfer switches designed to change coaxial connections with a minimum off-air-time. Mainly they are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminium cavity has four ports terminated with standard 7/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. The switch is equipped with a mechanical position indicator and emergency knob for manual operating.



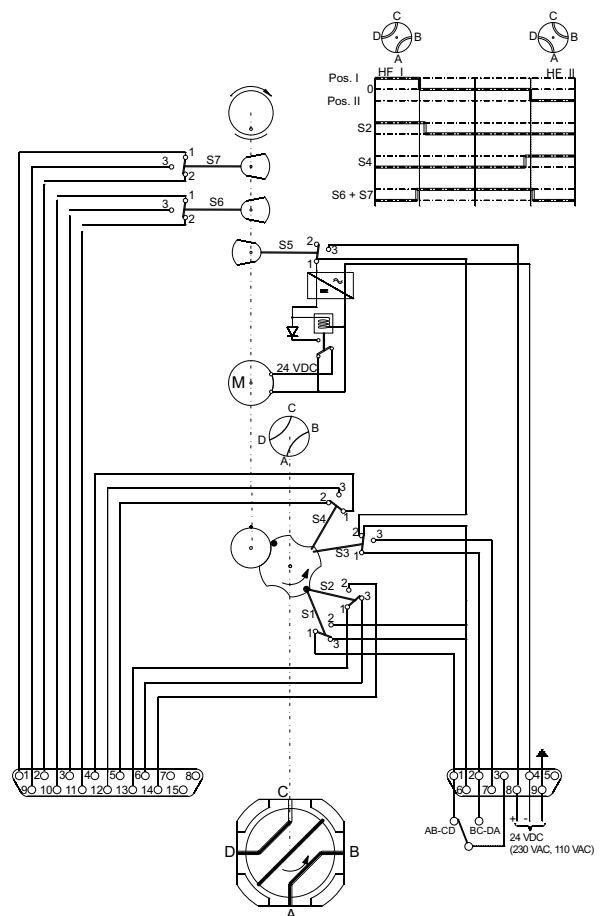
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 1000 MHz
Terminals	four 7/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	1000
kW	14	8	4,5	3,5	2,3	1,7

Isolation	more than 60 dB
Switching time	1 second
Test voltage AC 50Hz	4,5 kV peak
Overall dimensions	140x140x195



* All dimensions shown are in millimeters.

* Drawings not to scale.



model	power source
SW 78.04	manual

The model SW 78.04 is two-way coaxial transfer switch designed for easy and reliable manual switching of transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminium cavity has four ports terminated with standard 7/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. Besides handwheel for manual operating, the switch is equiped with a mechanical position indicator.



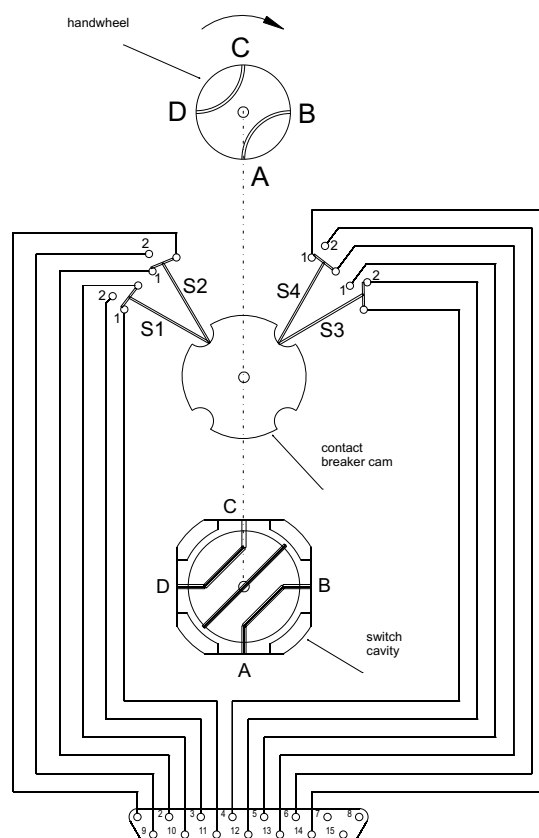
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 1000 MHz
Terminals	four 7/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	1000
kW	14	8	4,5	3,5	2,3	1,7

Isolation	more than 60 dB
Test voltage AC 50Hz	4,5 kV peak
Overall dimensions	140x140x115



Legend:

- S1 upper auxiliary micro switch
- S2 lower auxiliary micro switch
- S3 upper auxiliary micro switch
- S4 lower auxiliary micro switch



* All dimensions shown are in milimeters.

* Drawings not to scale.



model	power source
SW 158.01	24 VDC
SW 158.02	110 VAC *
SW 158.03	230 VAC *

* electro motors are 24 VDC (transformers included)

The models SW 158.01, SW 158.02 and SW 158.03 are motor-driven, two-way coaxial transfer switches designed to change coaxial connections with a minimum off-air-time. Mainly they are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminium cavity has four ports terminated with standard 1 5/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. The switch is equipped with a mechanical position indicator and emergency knob for manual operating.



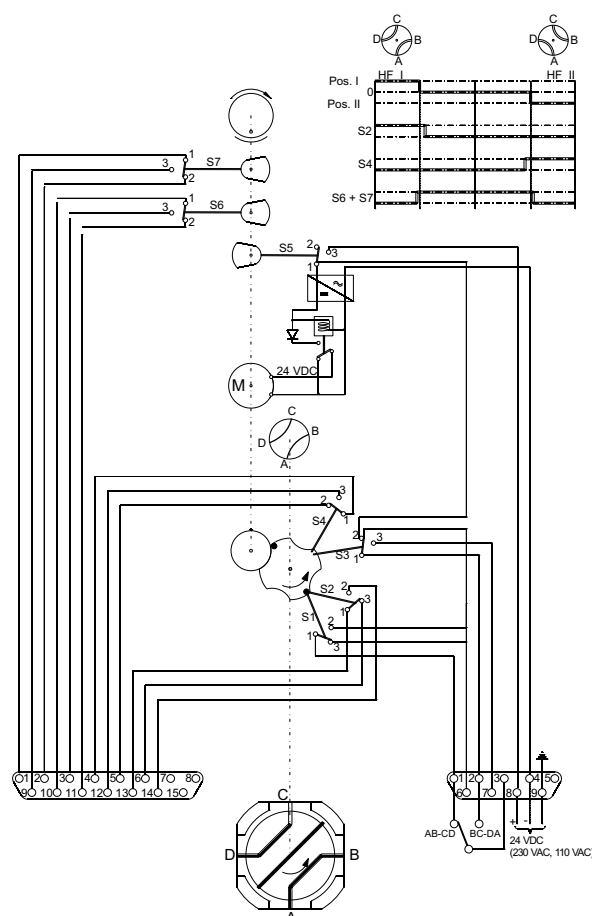
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 1000 MHz
Terminals	four 1 5/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	1000
kW	85	24	13	9,5	5,5	4

Isolation	more than 60 dB
Switching time	1 second
Test voltage AC 50Hz	8 kV peak
Overall dimensions	190x190x230



* All dimensions shown are in millimeters.

* Drawings not to scale.

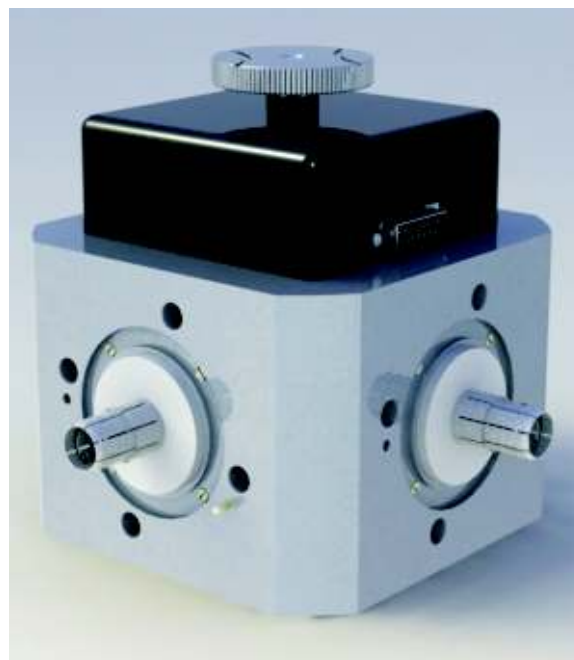


model	power source
SW 158.04	manual

The model SW 158.04 is two-way coaxial transfer switch designed for easy and reliable manual switching of transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminium cavity has four ports terminated with standard 1 5/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. Besides handwheel for manual operating, the switch is equiped with a mechanical position indicator.



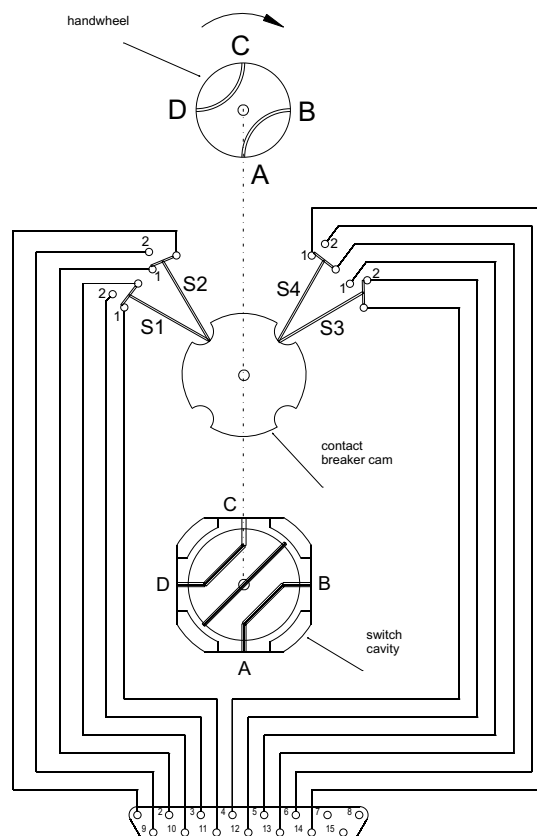
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 1000 MHz
Terminals	four 1 5/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	1000
kW	85	24	13	9,5	5,5	4

Isolation	more than 60 dB
Test voltage AC 50Hz	8 kV peak
Overall dimensions	190x190x150



Legend:

- S1 upper auxiliary micro switch
- S2 lower auxiliary micro switch
- S3 upper auxiliary micro switch
- S4 lower auxiliary micro switch



* All dimensions shown are in milimeters.

* Drawings not to scale.



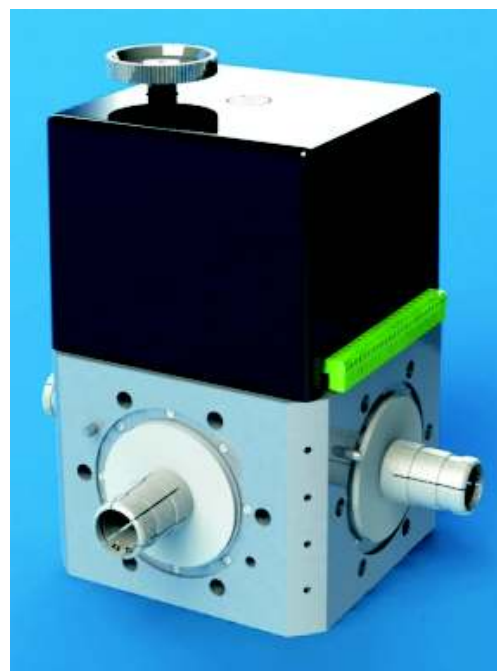
model	power source
SW 318.01	24 VDC
SW 318.02	110 VAC *
SW 318.03	230 VAC *

* electro motors are 24 VDC (transformers included)

The models SW 318.01, SW 318.02 and SW 318.03 are motor-driven two-way coaxial transfer switches designed to change coaxial connections with a minimum off-air-time. Mainly they are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminum RF cavity has four ports terminated with 3 1/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas tight. The switch is equipped with a mechanical position indicator and emergency knob for manual operating.



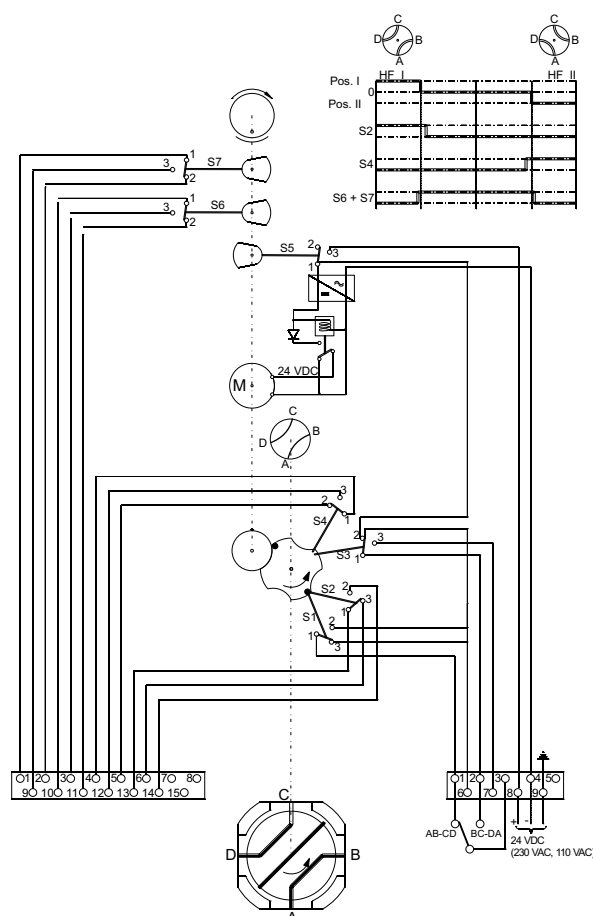
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 900 MHz
Terminals	four 3 1/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	900
kW	140	75	42	30	20	14

Isolation	more than 60 dB
Switching time	2 seconds
Test voltage AC 50Hz	18 kV peak
Overall dimensions	275x275x285



* All dimensions shown are in millimeters.

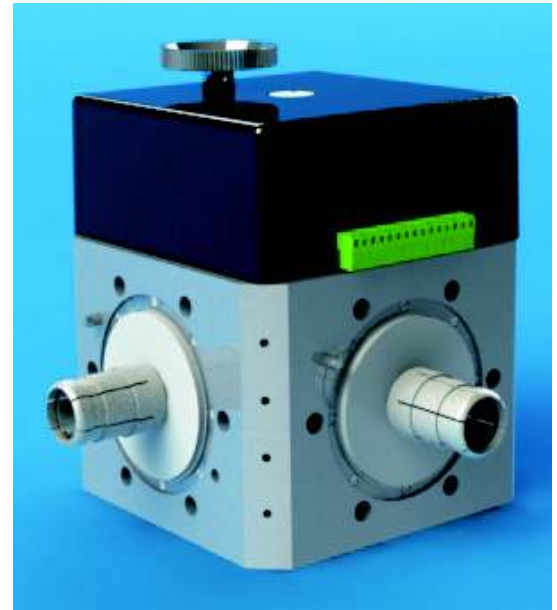
* Drawings not to scale.



model	power source
SW 318.04	manual

The model SW 318.04 is two-way coaxial transfer switch designed for easy and reliable manual switching of transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position. The aluminum RF cavity has four ports terminated with 3 1/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. Besides handwheel for manual operating, the switch is equipped with a mechanical position indicator.



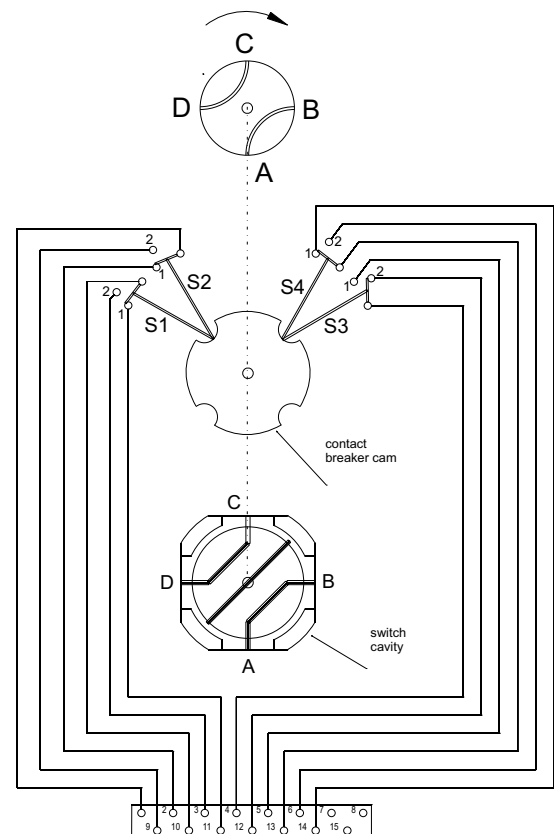
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 900 MHz
Terminals	four 3 1/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	900
kW	140	75	42	30	20	14

Isolation	more than 60 dB
Test voltage AC 50Hz	18 kV peak
Overall dimensions	275x275x285



Legend:

- S1 upper auxiliary micro switch
- S2 lower auxiliary micro switch
- S3 upper auxiliary micro switch
- S4 lower auxiliary micro switch



* All dimensions shown are in millimeters.
* Drawings not to scale.



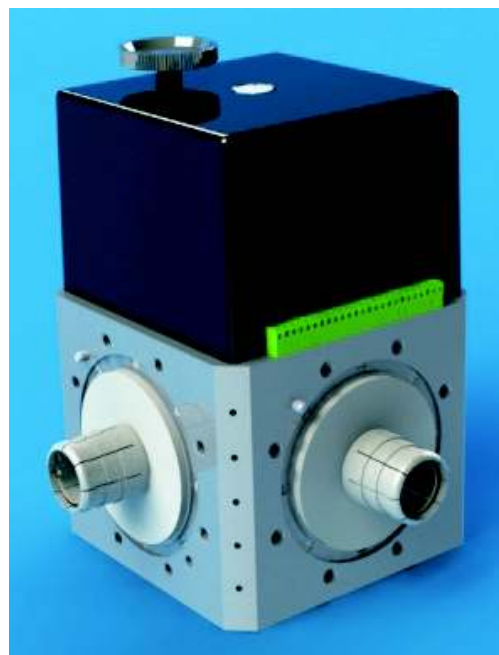
model	power source
SW 412.01	24 VDC
SW 412.02	110 VAC *
SW 412.03	230 VAC *

* electro motors are 24 VDC (transformers included)

The models SW 412.01, SW 412.02 and SW 412.03 are motor-driven two-way coaxial transfer switches designed to change coaxial connections with a minimum off-air-time. Mainly they are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminum RF cavity has four ports terminated with 4 1/2" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. The switch is equipped with a mechanical position indicator and emergency knob for manual operating.



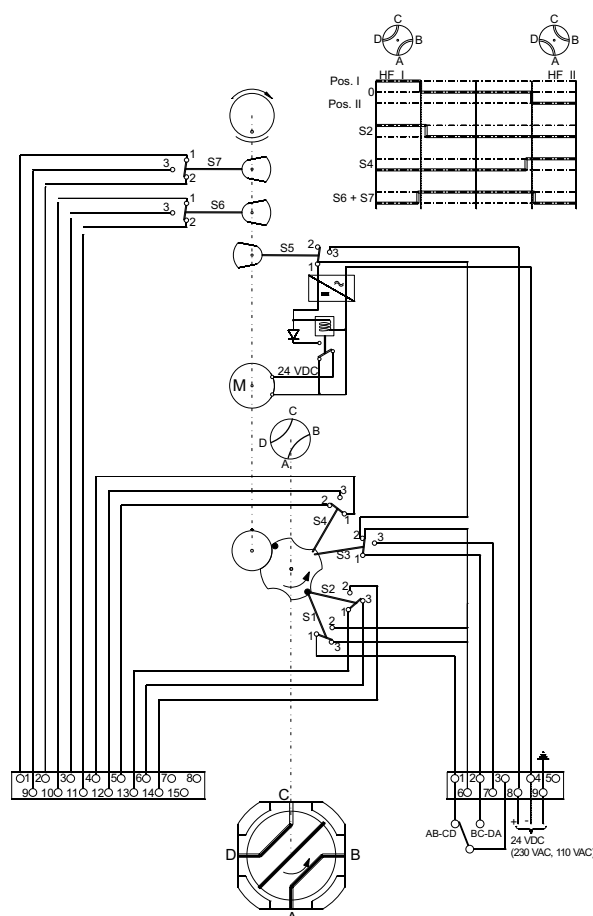
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 800 MHz
Terminals	four 4 1/2" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	800
kW	220	130	70	53	32	25

Isolation	more than 60 dB
Switching time	2 seconds
Test voltage AC 50Hz	35 kV peak
Overall dimensions	290x290x310



* All dimensions shown are in millimeters.

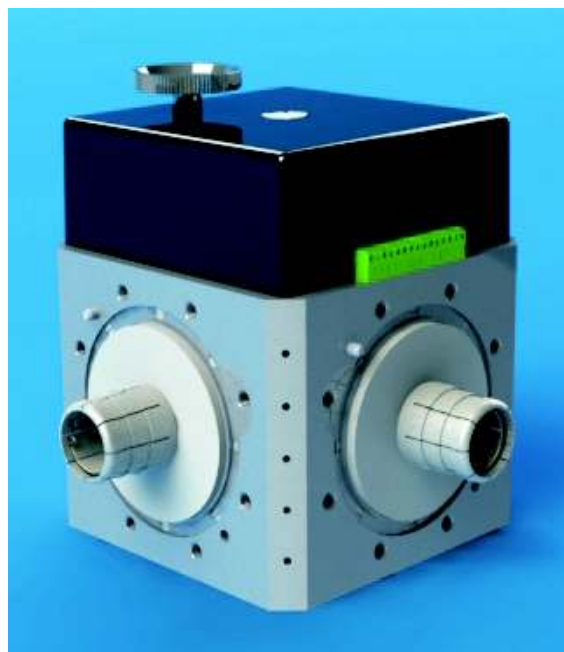
* Drawings not to scale.



model	power source
SW 412.04	manual

The model SW 412.04 is two-way coaxial transfer switch designed for easy and reliable manual switching of transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminum RF cavity has four ports terminated with 4 1/2" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. Besides handwheel for manual operating, the switch is equipped with a mechanical position indicator.



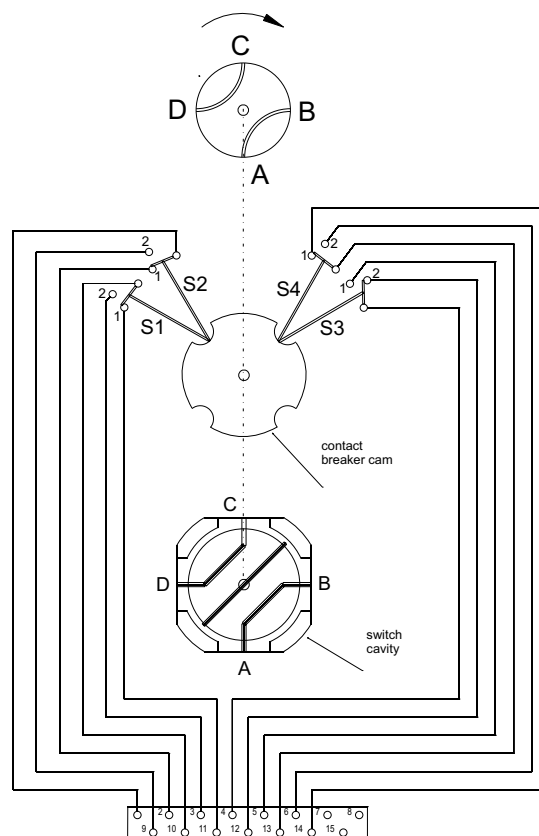
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 800 MHz
Terminals	four 4 1/2" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	800
kW	220	130	70	53	32	25

Isolation	more than 60 dB
Test voltage AC 50Hz	35 kV peak
Overall dimensions	290x290x255



Legend:

- S1 upper auxiliary micro switch
- S2 lower auxiliary micro switch
- S3 upper auxiliary micro switch
- S4 lower auxiliary micro switch



* All dimensions shown are in millimeters.

* Drawings not to scale.



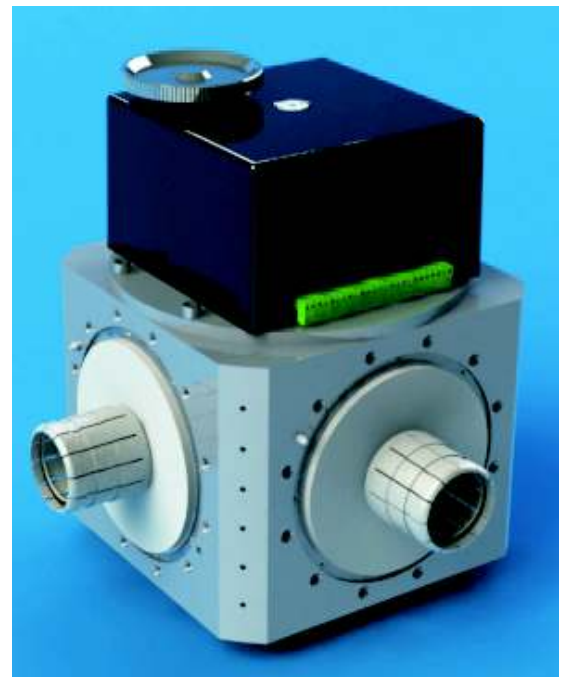
model	power source
SW 618.01	24 VDC
SW 618.02	110 VAC *
SW 618.03	230 VAC *

* electro motors are 24 VDC (transformers included)

The models SW 618.01, SW 618.02 and SW 618.03 are motor-driven two-way coaxial transfer switches designed to change coaxial connections with a minimum off-air-time. Mainly they are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance.

The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminum RF cavity has four ports terminated with 6 1/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. The switch is equipped with a mechanical position indicator and emergency knob for manual operating.



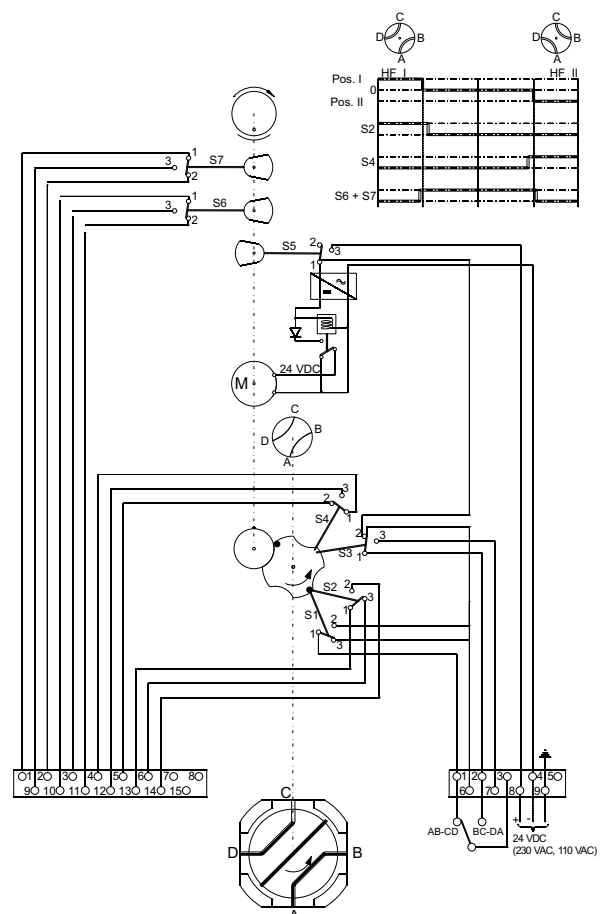
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 700 MHz
Terminals	four 6 1/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	700
kW	600	240	110	90	50	40

Isolation	more than 60 dB
Switching time	2 seconds
Test voltage AC 50Hz	40 kV peak
Overall dimensions	400x400x355



* All dimensions shown are in millimeters.

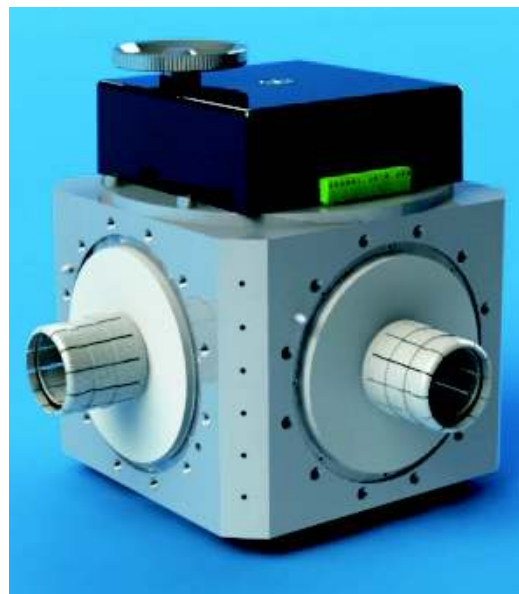
* Drawings not to scale.



model	power source
SW 618.04	manual

The model SW 618.04 is two-way coaxial transfer switch designed for easy and reliable manual switching of transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. The coaxial switch provides two isolated RF paths for each switch connections. For prevention of any damage a couple of auxiliary microswitches are built in, that help the RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position.

The aluminum RF cavity has four ports terminated with 6 1/8" EIA flanges including non-removable inner conductor connectors. The assembly is not gas-tight. Besides handwheel for manual operating, the switch is equipped with a mechanical position indicator.



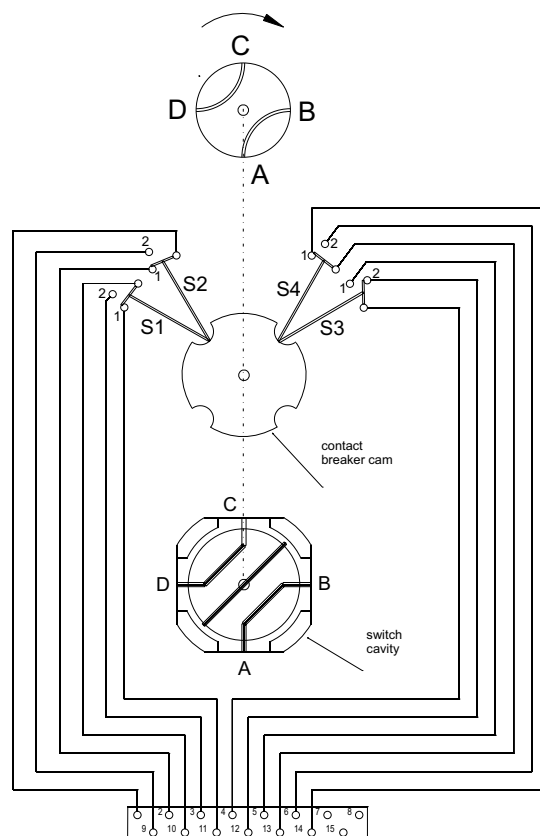
Specifications

Impedance	50 ohms
Frequency range	from 0.3 up to 700 MHz
Terminals	four 6 1/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	200	500	700
kW	600	240	110	90	50	40

Isolation	more than 60 dB
Test voltage AC 50Hz	40 kV peak
Overall dimensions	400x400x310



Legend:

- S1 upper auxiliary micro switch
- S2 lower auxiliary micro switch
- S3 upper auxiliary micro switch
- S4 lower auxiliary micro switch



* All dimensions shown are in millimeters.

* Drawings not to scale.



model	power source
SWU 318.01	24 VDC
SWU 318.03	110 VAC *
SWU 318.05	230 VAC *
SWU 318.07	manual

* electro motors are 24 VDC (transformers included)

The models SWU 318.01, SWU 318.03 and SWU 318.05 are motor driven, SWU 318.07 is manual U-Link type, two-way coaxial switches 3 1/8" EIA. They are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. A couple of auxiliary microswitches are built in, provide RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position. They are designed for easy and reliable switching of coaxial transmission lines and systems, and are suitable for multiplying in matrices.

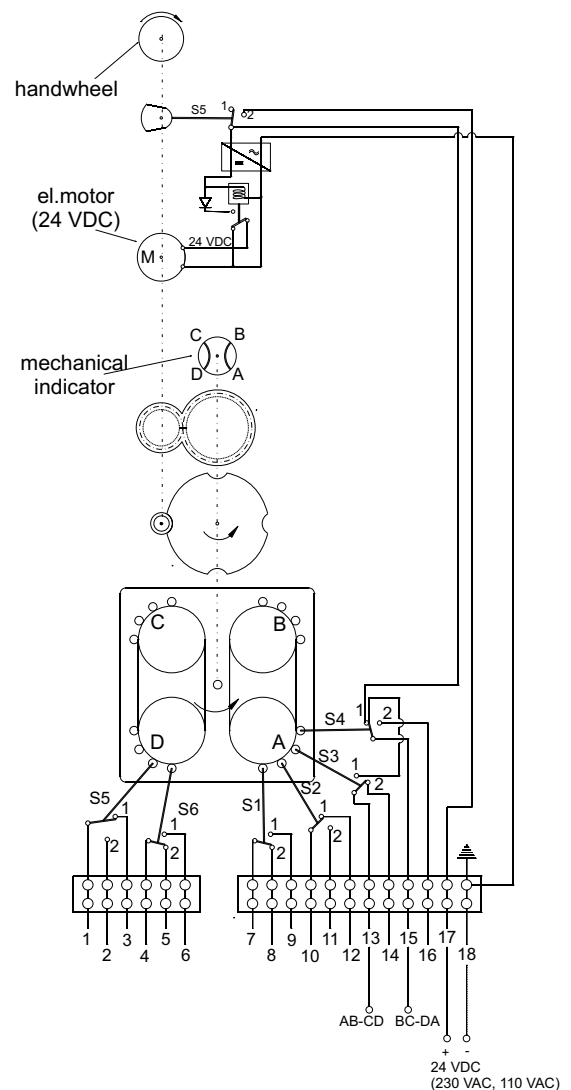
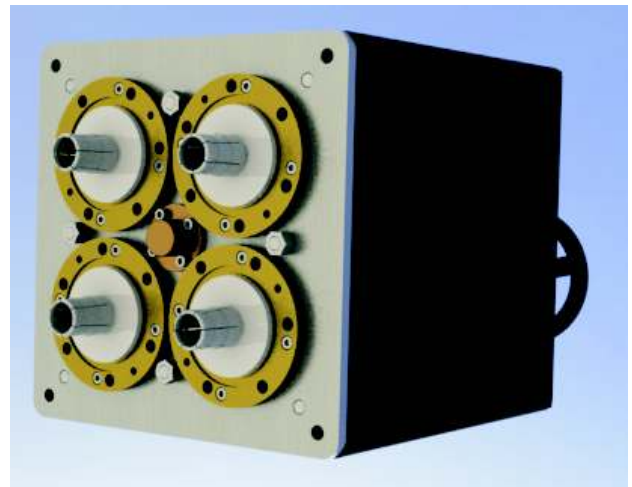
Specifications

Impedance	50 ohms
Frequency range	from 0 up to 1000 MHz
Terminals	four 3 1/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	500	1000
kW	240	85	42	18	15

Isolation	more than 100 dB
Switching time	3 seconds
Test voltage AC 50Hz	20 kV peak
Overall dimensions	330x330x510



* All dimensions shown are in millimeters.

* Drawings not to scale.



model	power source
SWU 412.01	24 VDC
SWU 412.03	110 VAC *
SWU 412.05	230 VAC *
SWU 412.07	manual

* electro motors are 24 VDC (transformers included)

The models SWU 412.01, SWU 412.03 and SWU 412.05 are motor driven, SWU 412.07 is manual U-Link type, two-way coaxial switches 4 1/2"EIA . They are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. A couple of auxiliary microswitches are built in, provide RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position. They are designed for easy and reliable switching of coaxial transmission lines and systems, and are suitable for multiplying in matrices.

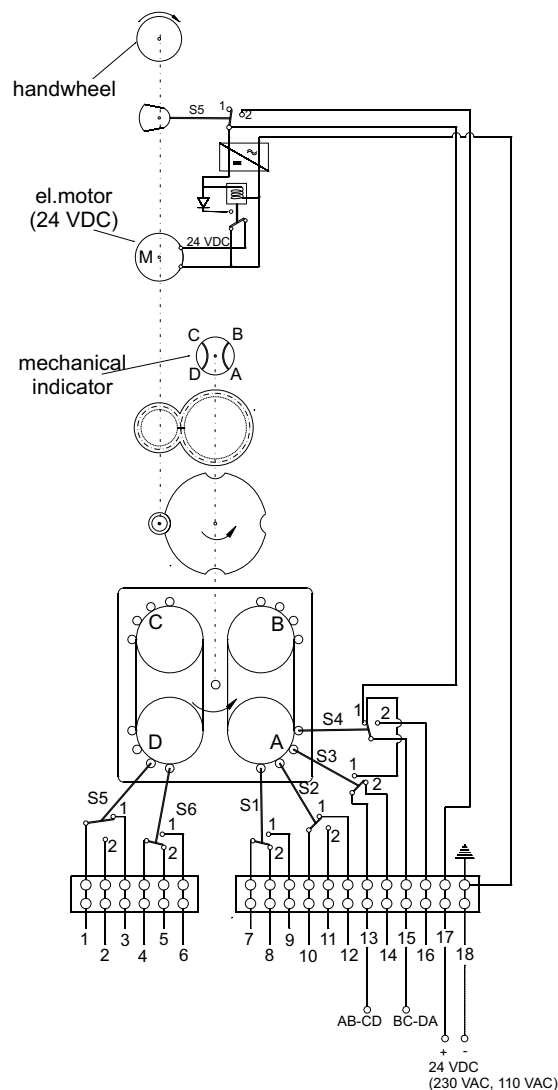
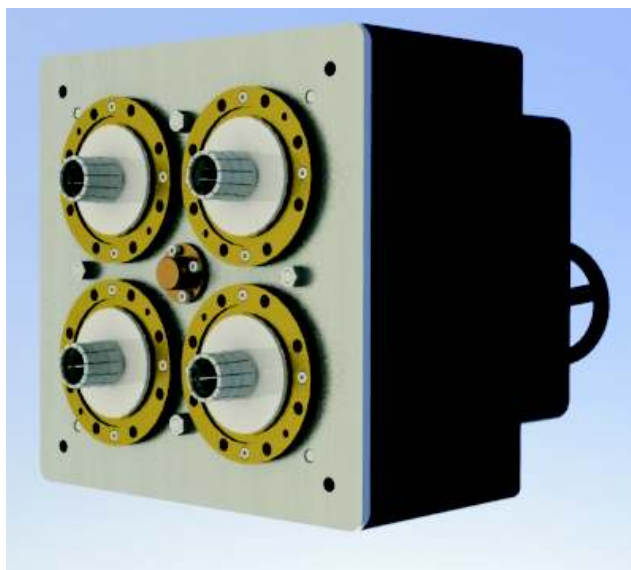
Specifications

Impedance	50 ohms
Frequency range	from 0 up to 900 MHz
Terminals	four 4 1/2" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	500	900
kW	430	150	70	32	23

Isolation	more than 100 dB
Switching time	3 seconds
Test voltage AC 50Hz	30 kV peak
Overall dimensions	430x430x550



* All dimensions shown are in millimeters.
* Drawings not to scale.



model	power source
SWU 4116.01	24 VDC
SWU 4116.03	110 VAC *
SWU 4116.05	230 VAC *
SWU 4116.07	manual

* electro motors are 24 VDC (transformers included)

The models SWU 4116.01, SWU 4116.03 and SWU 4116.05 are motor driven, SWU 4116.07 is manual U-Link type, two-way coaxial switches 4 1/16" EIA. They are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. A couple of auxiliary microswitches are built in, provide RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position. They are designed for easy and reliable switching of coaxial transmission lines and systems, and are suitable for multiplying in matrices.

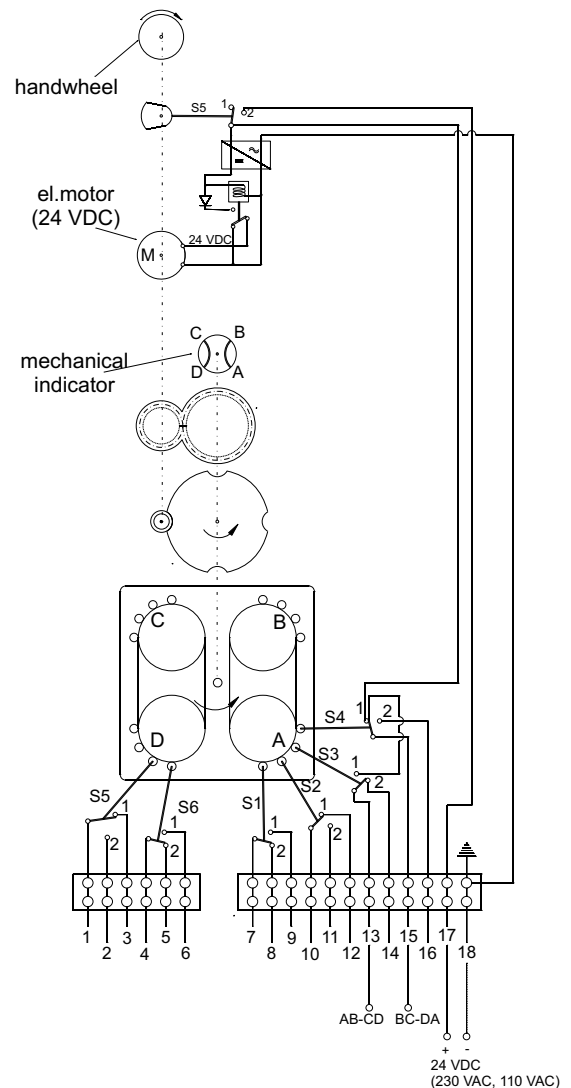
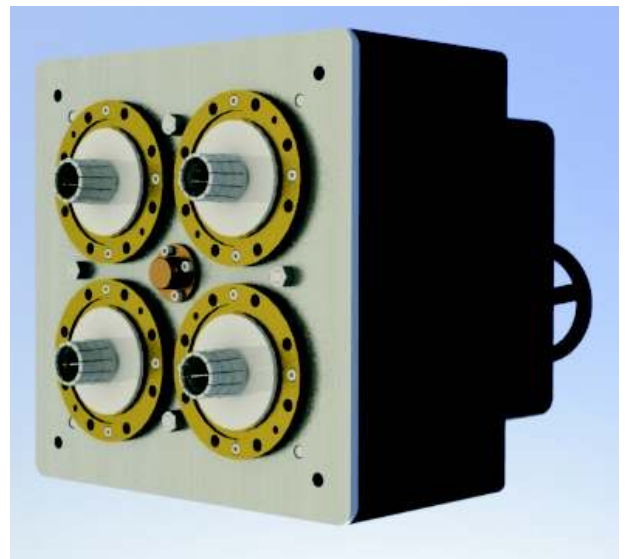
Specifications

Impedance	50 ohms
Frequency range	from 0 up to 900 MHz
Terminals	four 4 1/16" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	500	900
kW	430	150	70	32	23

Isolation	more than 100 dB
Switching time	3 seconds
Test voltage AC 50Hz	30 kV peak
Overall dimensions	430x430x550



* All dimensions shown are in millimeters.
* Drawings not to scale.



model	power source
SWU 618.01	24 VDC
SWU 618.03	110 VAC *
SWU 618.05	230 VAC *
SWU 618.07	manual

* electro motors are 24 VDC (transformers included)

The models SWU 618.01, SWU 618.03 and SWU 618.05 are motor driven, SWU 618.07 is manual U-Link type, two-way coaxial switches 6 1/8" EIA. They are used for switching transmitters, antennas, dummy loads and other peripheral equipment in situations when broadcasting procedures are modified, when there is need for emergency repair, or during scheduled maintenance. A couple of auxiliary microswitches are built in provide RF power throughout the switch to be removed just before the RF spring contacts start to open and also to be established again just after the RF contacts reach their final position. They are designed for easy and reliable switching of coaxial transmission lines and systems, and are suitable for multiplying in matrices.

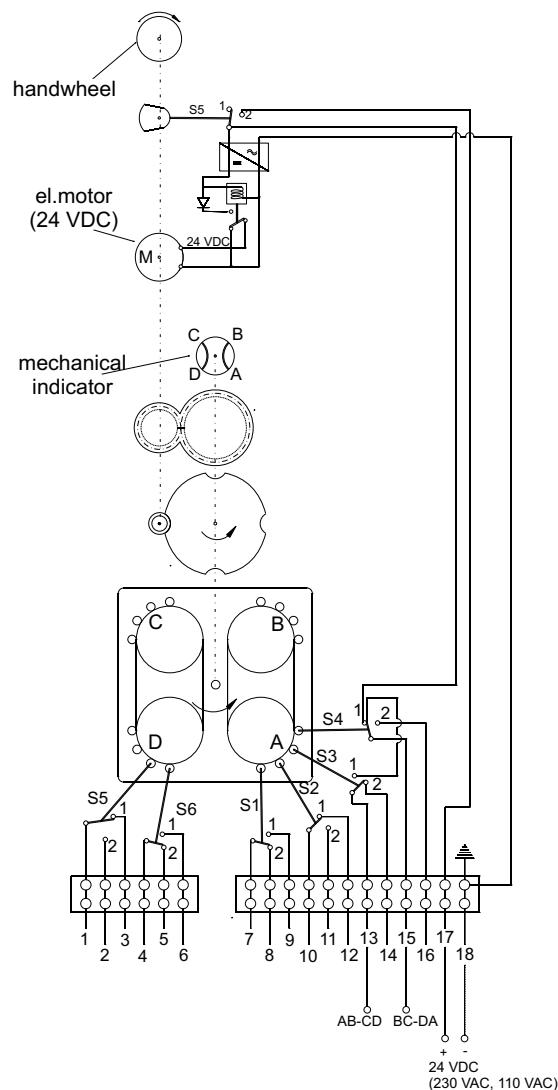
Specifications

Impedance	50 ohms
Frequency range	from 0 up to 700 MHz
Terminals	four 6 1/8" EIA flanges, plug
VSWR	less than 1.05

Maximum power rating:

MHz	2	30	100	500	700
kW	800	250	120	55	42

Isolation	more than 100 dB
Switching time	3,5 seconds
Test voltage AC 50Hz	40 kV peak
Overall dimensions	500x500x610



* All dimensions shown are in milimeters.

* Drawings not to scale.

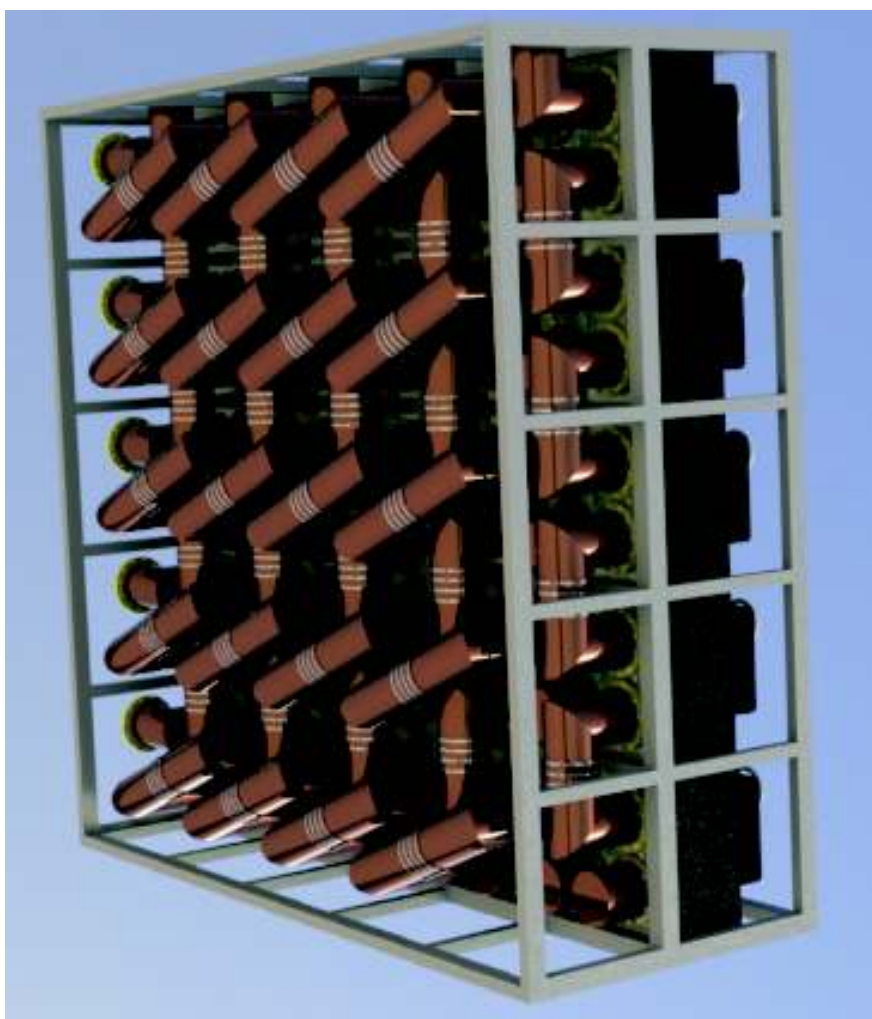
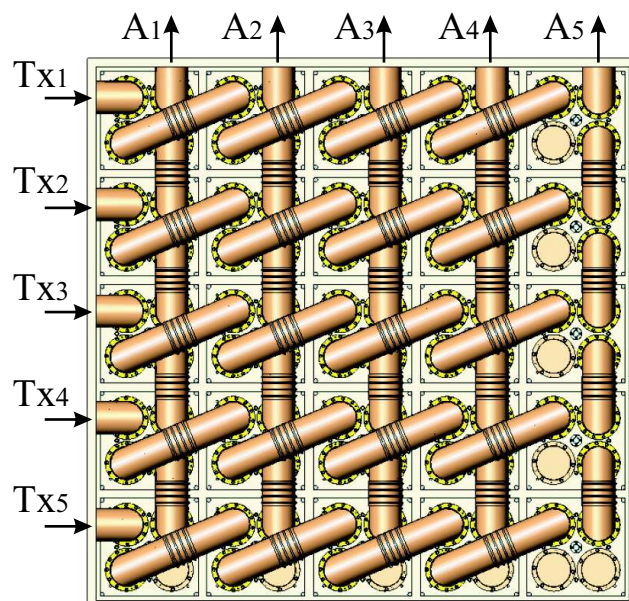


Coaxial Matrix Switching Systems

Coaxial matrix switching system allow connecting any of a number of transmitters to any of a number of antennas. RF Matrix system are ideally suited for applications with high frequency. The design provides a compact system with excellent power rating, low insertion VSWR, low insertion loss, and high isolation characteristics, provides good flexibility and control.

Advantages of these system are that they allow adding of column or row switches. These matrices do not allow connection of two or more transmitters at the same time, or connection of two or more transmitters with one antenna at the same time.

Maintenance of these matrices is very easy because of direct access to any of switches.

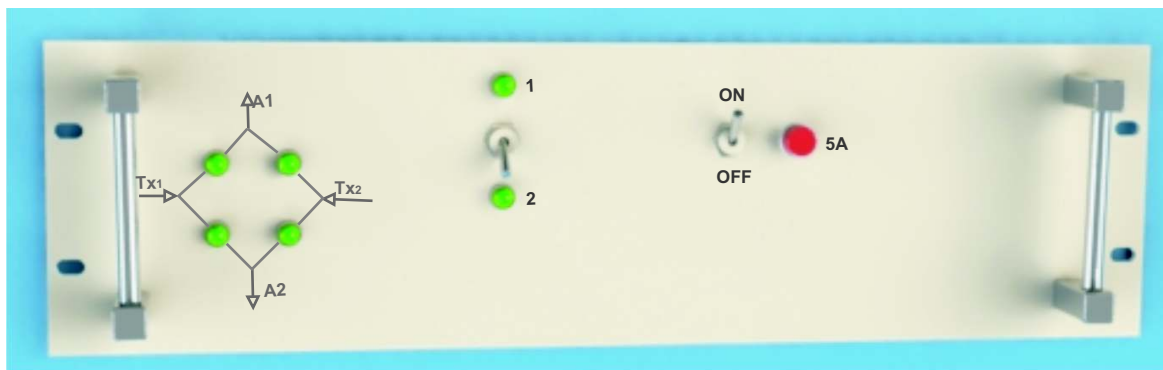


* All dimensions shown are in milimeters.

* Drawings not to scale.



19" Rack Control Panel for Motorized RF Power Switch



model	control panel input / output power
CP 00 01	* 230 VAC / 230 VAC
CP 00 05	* 230 VAC / 24 VDC

* upon request units with voltage of 110VAC
can be supplied instead of 230 VAC

The 19" rack control panel is designed for remote control of the motorized RF power transfer switch. The operating is easily possible using the two-way "operating switch". Each position of the "operating switch" 1 or 2 that is equipped with indication light, activates the electro motor of the RF power transfer switch that shifts the connection between the transmitters and antennas.

Near the "operating switch" there are four lights with square arrangement, connected to each other with printed lines and arrows, that show the appropriate transmitters-antennas path-connection. For each position of the "operating switch", under voltage are only two opposite lights that indicate the active RF path-connection of the RF power transfer switch. After activating the "operating switch" and establishing the other RF power connection in the RF switch, the other two lights, that indicate another transmitters-antennas connection, become active.

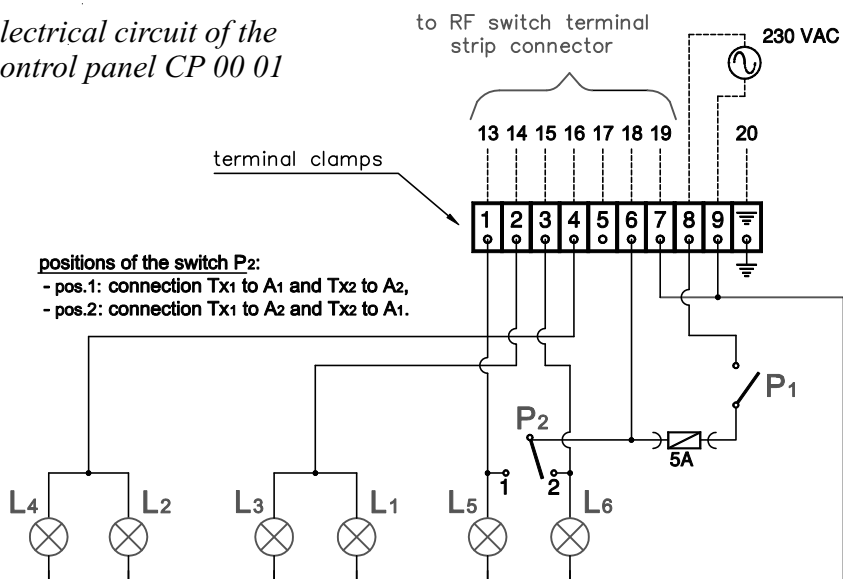


* All dimensions shown are in millimeters.
* Drawings not to scale.

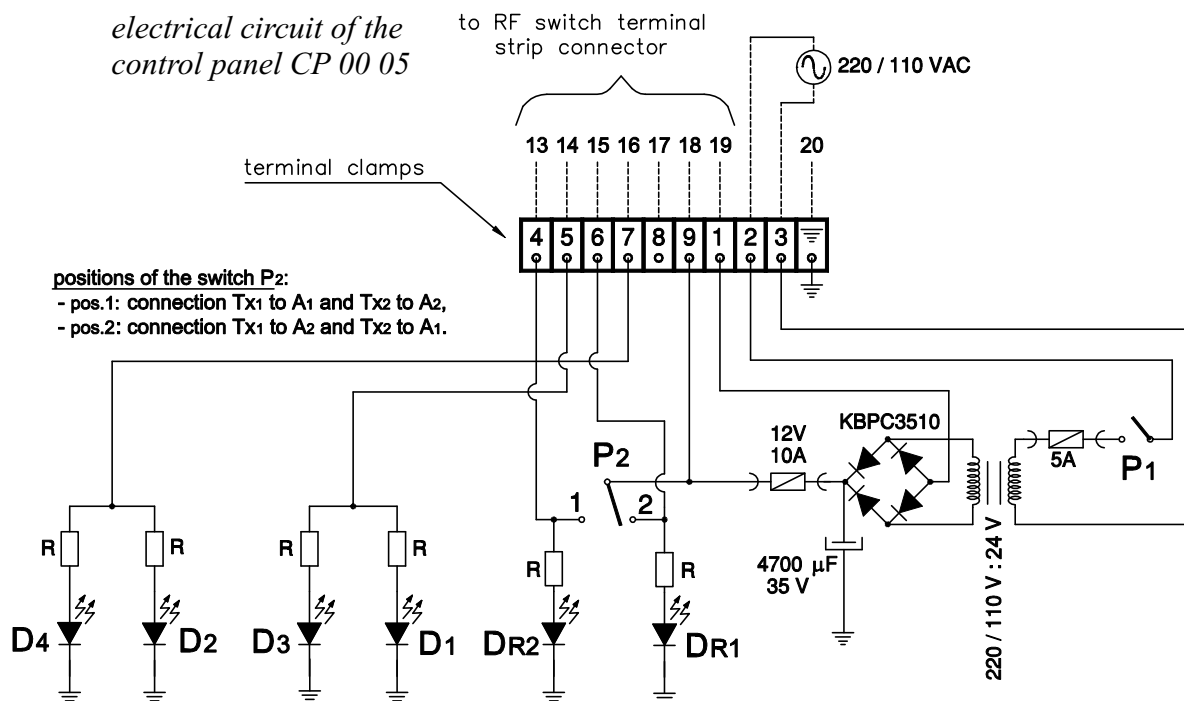


19" Rack Control Panel for Motorized RF Power Switch

electrical circuit of the control panel CP 00 01



electrical circuit of the control panel CP 00 05



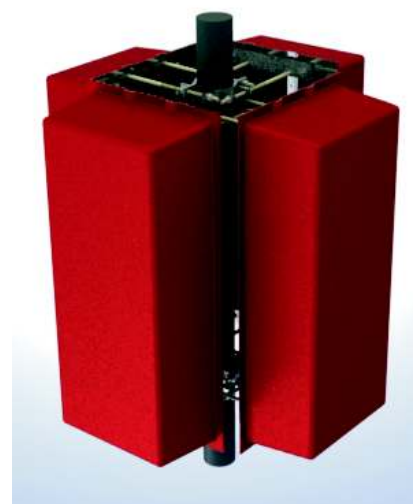
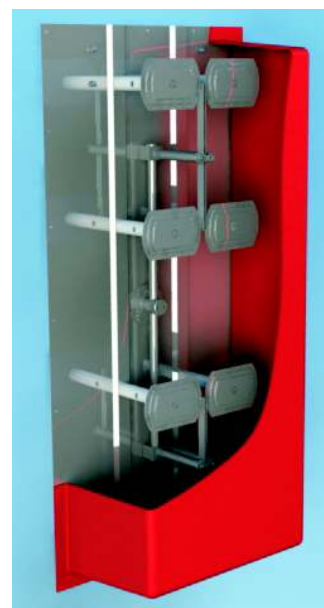
* All dimensions shown are in millimeters.
* Drawings not to scale.



model	input terminal
AN U NF.01	N (female)
AN U 716.03	7/16" DIN (female)
AN U 78.05	7/8" EIA

Specifications

Impedance	50 ohms
Frequency range	from 470 up to 860 MHz
Gain	10 dB (refer to half-wave dipole)
VSWR	less than 1.15 over the whole band
Polarization	horizontal
3 dB beamwidth	<i>H-plane</i> 70° <i>V-plane</i> 24°
Front to back ratio	25 dB
Power rating per panel	0,5 kW max (N female termination) 1 kW max (7/16" DIN termination) 2 kW max (7/8" EIA termination)
Material used	<i>reflector</i> - stainless steel <i>dipoles</i> - brass <i>radome</i> - red or white polyester
Dimensions	1000x460x215
Antenna weight	16 kg. without mounting brackets
Wind surface	0.45 m ²
Antenna mounting	directly on the tower construction or with galvanized mounting brackets supplied with the antenna, designed for pole diameters from 60 up to 140mm.
Packing	in cartoon box
Shipping dimensions	L x W x H (cm) - 102 x 47 x 34 cm.



four panel antennas in one bay quadrant arrangement

mounting brackets



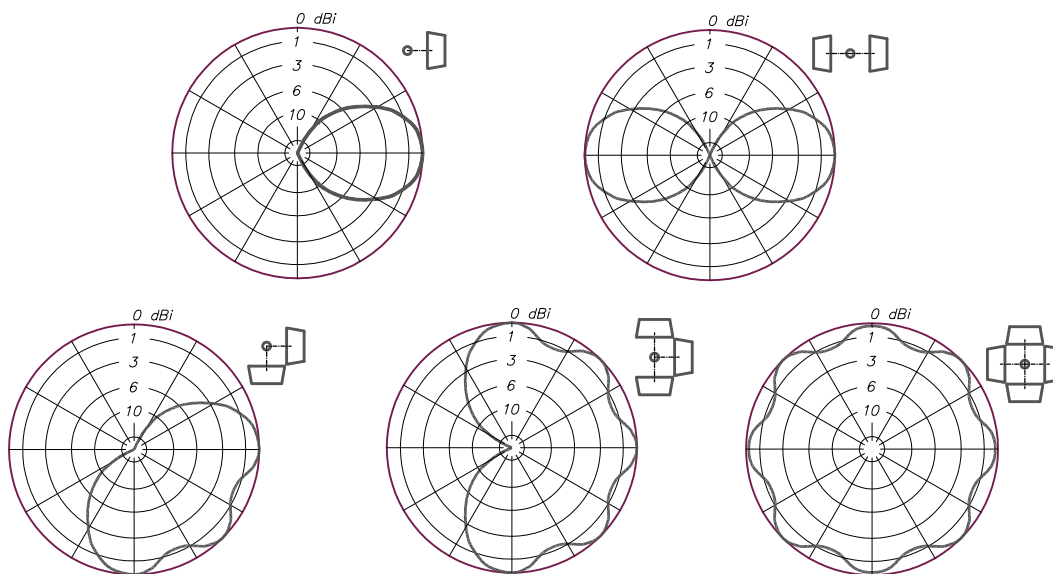
* All dimensions shown are in millimeters.
* Drawings not to scale.



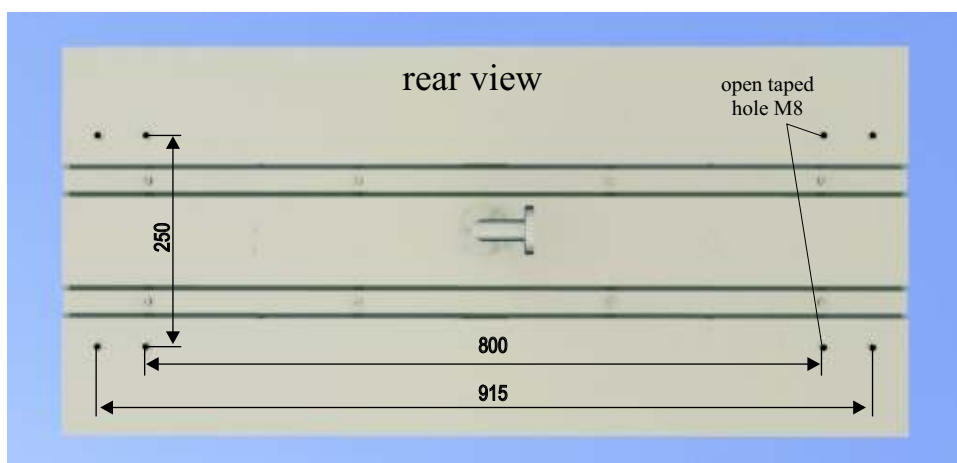


Typical horizontal patterns

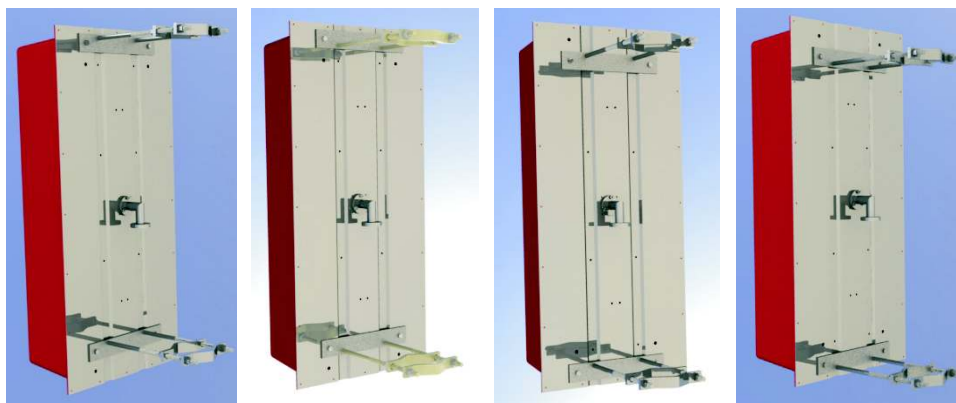
(work test at 35 channel (586MHz) at a distance of 250 mm from a mounting pole axis)



UHF panel antennas with eight elements can produce a wide variety of standard and custom azimuth patterns. For assistance in pattern selection or designing customized patterns we are completely at your disposal.



leveling of the panel antennas in quadrant arrangement



NOTE: each antenna is supplied with two mounting brackets



* All dimensions shown are in millimeters.
* Drawings not to scale.



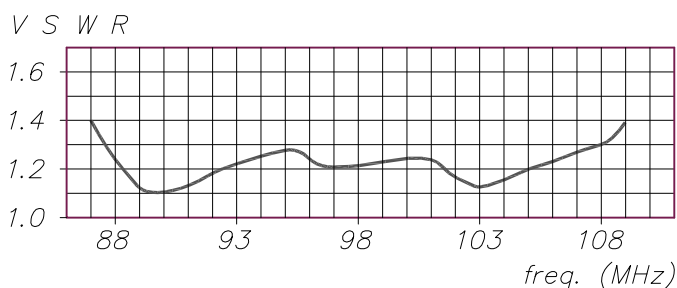
model	input terminal
AN FD NF.01	N (female)
AN FD 716.03	7/16" DIN (female)
AN FD 78.05	7/8" EIA

Specifications

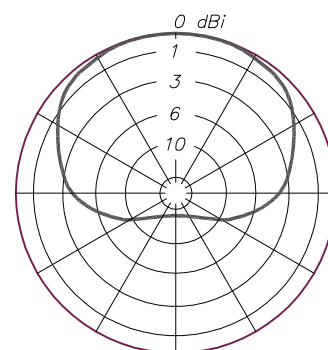
Impedance	50 ohms
Frequency range	from 87.5 up to 108 MHz
Gain	2 dB (refer to half-wave dipole)
VSWR	less than 1.3 over the whole band
Polarization	vertical
Front to back ratio	7.5 dB
Power rating	500 wats max (N type termination) 1.0 kW max (7/16" DIN female termination) 2.0 kW max (7/8" EIA termination)
Material used	<i>outer</i> - stainless steel tube <i>inner</i> - brass <i>insulation</i> - virgin PTFE
Dimensions	1374x814x57
Antenna weight	6.5 kg. without mounting brackets
Wind surface-no icing	0.15 m ²
Antenna mounting	by using galvanized mounting bracket supplied with the antenna, designed for mounting pole diameters from 48 up to 108mm.



mounting bracket



**horizontal
radiation
pattern**



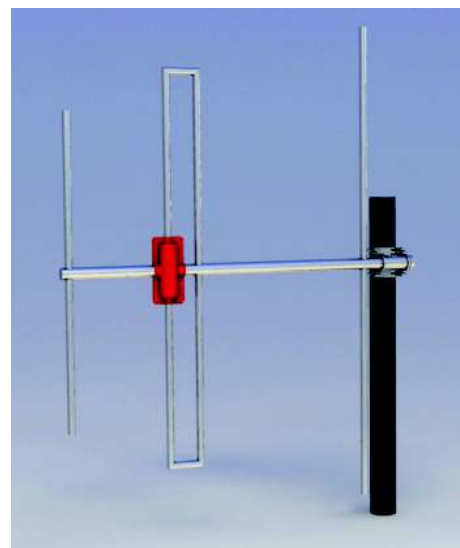
* All dimensions shown are in millimeters.
* Drawings not to scale.



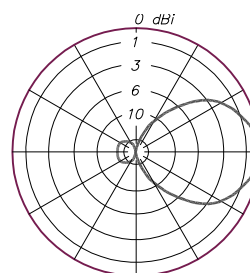
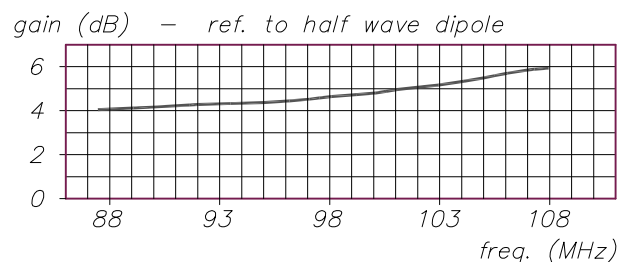
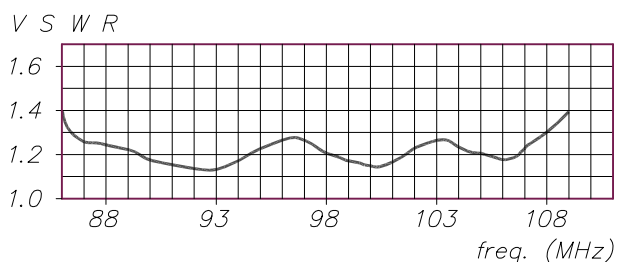
model	input terminal
AN FY NF.11	N (female)
AN FY 716.13	7/16" DIN (female)
AN FY 78.15	7/8" EIA

Specifications

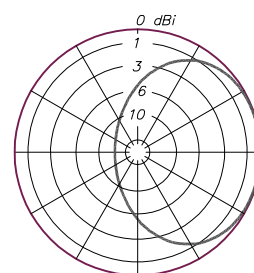
Impedance	50 ohms
Frequency range	from 87.5 up to 108 MHz
Gain	4 dB (refer to half-wave dipole)
VSWR	less than 1.25 over the whole band
Polarization	horizontal or vertical
3 dB beamwidth	<i>H-plane</i> 135° <i>V-plane</i> 70°
Front to back ratio	12 dB
Power rating	500 wats max (N type termination) 1.0 kW max (7/16" DIN female termination) 2.0 kW max (7/8" EIA termination)
Material used	<i>outer</i> - stainless steel <i>inner</i> - brass <i>insulation</i> - virgin PTFE
Dimensions	1860x1446x57
Antenna weight	14 kg. without mounting brackets
Wind surface-no icing	0.25 m ²
Antenna mounting	by using mounting bracket supplied with the antenna, designed for mounting pole diameters from 50 up to 115mm.



mounting bracket



**horizontal
polarization
radiation
pattern**



**vertical
polarization
radiation
pattern**



* All dimensions shown are in milimeters.
* Drawings not to scale.



model	frequency range (Mhz)
AN FC 78.21	87,5 ÷ 99
AN FC 78.25	97 ÷ 108

Specifications

Impedance	50 ohms
Input terminals	7/8" EIA socket
Gain	-2 dB (refer to half-wave dipole)
VSWR	less than 1.3 over the whole band
Polarization	circular
Power rating	2 kW max
Material used	<i>outer</i> - stainless steel <i>inner</i> - brass <i>insulation</i> - virgin PTFE

Antenna weight

(model AN FC 78.21) 16 kg.

(model AN FC 78.25) 15 kg.

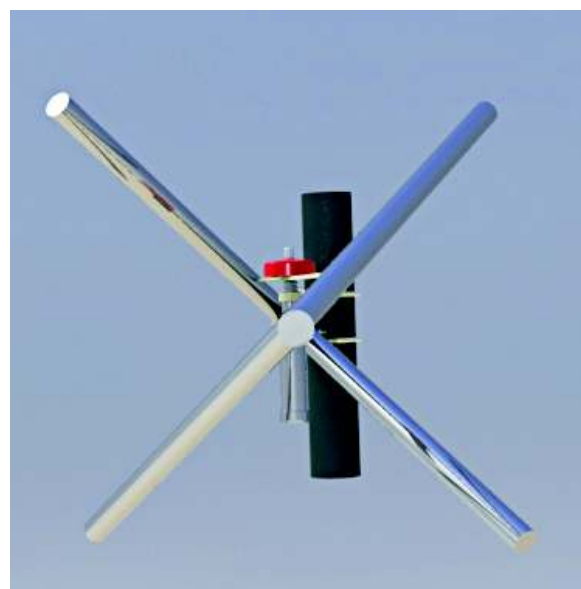
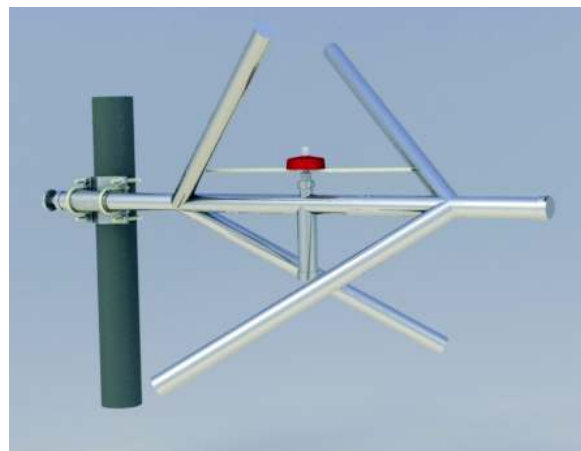
Overall dimensions

(model AN FC 78.21) 1503x1156 (Φ)

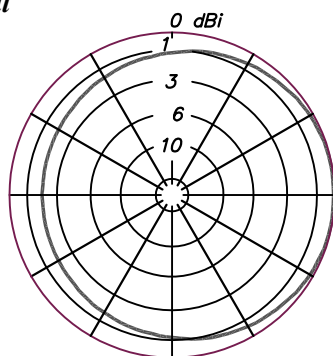
(model AN FC 78.25) 1370x1062 (Φ)

Wind surface 0.24 m²

Antenna mounting by using mounting bracket supplied with the antenna, designed for mounting pole diameters from 50 up to 115mm.



**horizontal
radiation
pattern**



mounting bracket



* All dimensions shown are in milimeters.

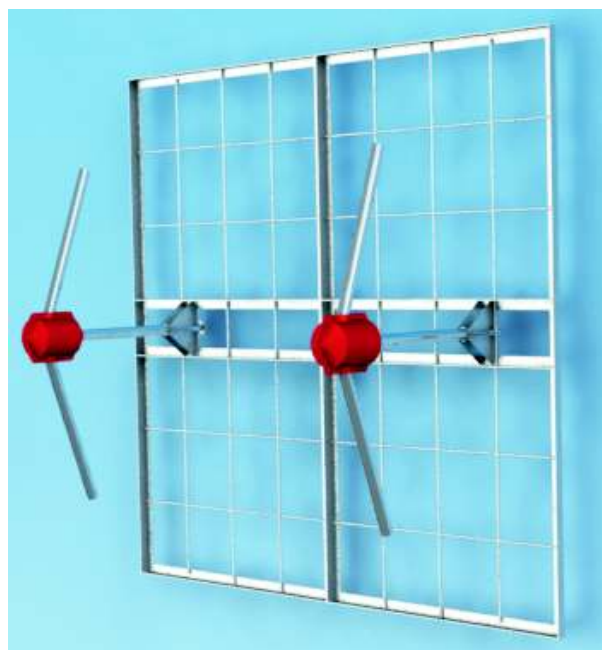
* Drawings not to scale.



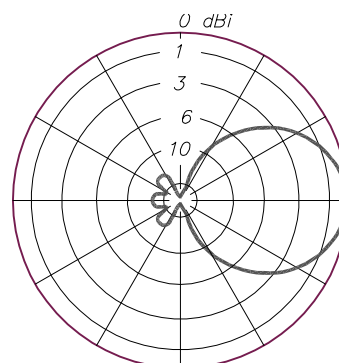
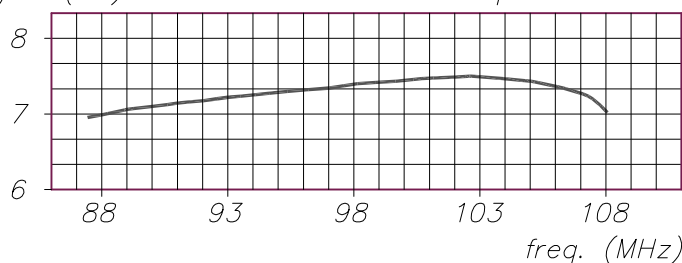
Model AN FP 78.05

Specifications

Impedance	50 ohms
Frequency range	87.5 - 108 MHz
Input terminals	7/8" EIA socket (two terminals)
Gain	7 dB (refer to half-wave dipole)
VSWR	less than 1.2 over the whole band
Polarization	horizontal or vertical
Power rating	5 kW max
Material used	<i>radiating element</i> - stainless steel <i>inner conductors</i> - brass <i>insulation</i> - virgin PTFE <i>reflector</i> - hot-dip galvanized steel <i>dipoles radomes</i> - polyester
Antenna weight	85 kg.
Reflector dimensions	2200x2200

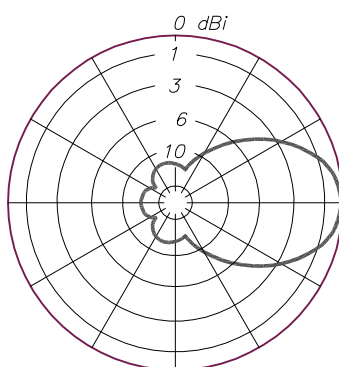
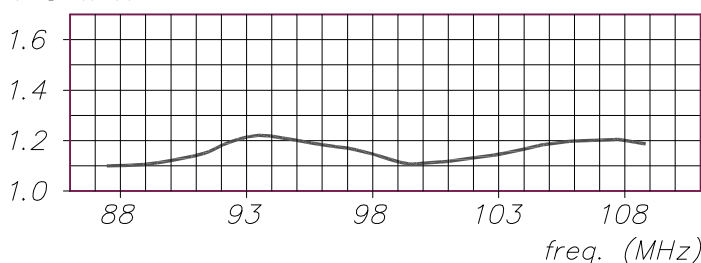


gain (dB) — ref. to half wave dipole



horizontal
polarization
radiation
pattern

V S W R



vertical
polarization
radiation
pattern



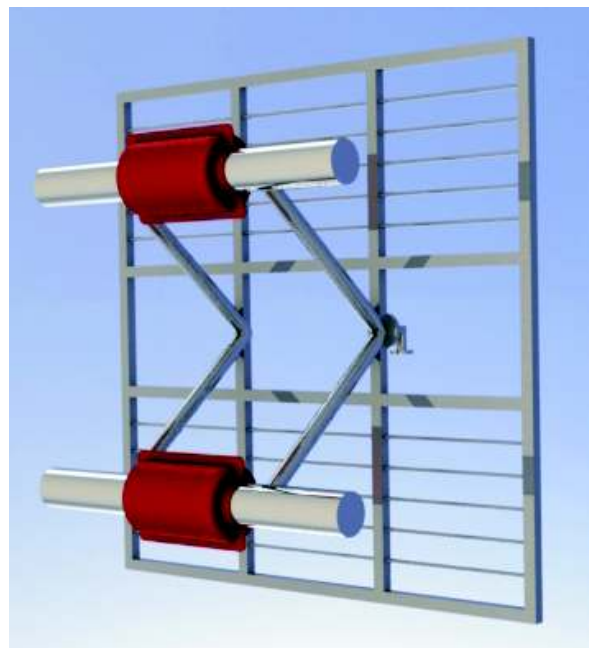
* All dimensions shown are in millimeters.
* Drawings not to scale.



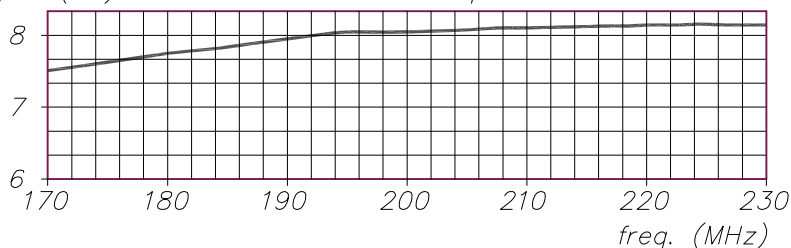
model	input terminal
AN VP 716.03	7/16" DIN (female)
AN VP 78.05	7/8" EIA

Specifications

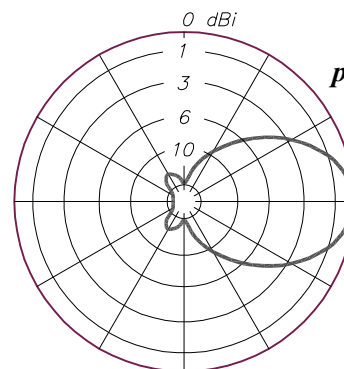
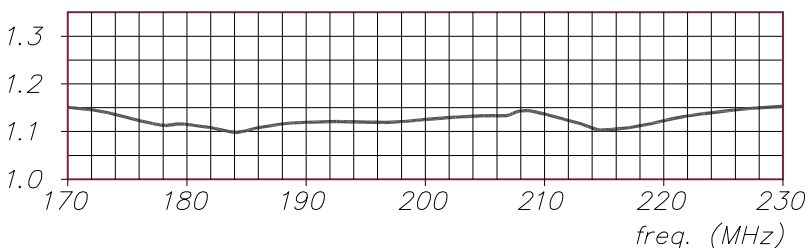
Impedance	50 ohms
Frequency range	from 174 up to 230 MHz
Gain	8 dB (refer to half-wave dipole)
VSWR	less than 1.2 over the whole band
Polarization	horizontal or vertical
Front to back ratio	25 dB
Power rating	2 kW max
Material used	<i>radiating element</i> - aluminum <i>inner conductors</i> - brass <i>insolation</i> - virgin PTFE <i>reflector</i> - aluminum <i>dipoles radomes</i> - red polyester
Reflector dimensions	1320x1320
Antenna weight	18 kg.



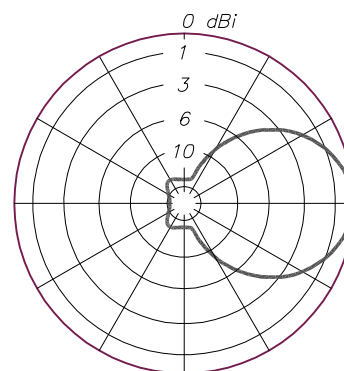
gain (dB) – ref. to half wave dipole



V S W R



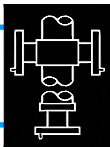
horizontal
polarization
radiation
pattern



vertical
polarization
radiation
pattern



* All dimensions shown are in milimeters.
* Drawings not to scale.



FM Power Splitters (87.5 - 108 MHz)

VHF Power Splitters (174 - 230 MHz)

UHF Power Splitters (470 - 860 MHz)

Specifications:

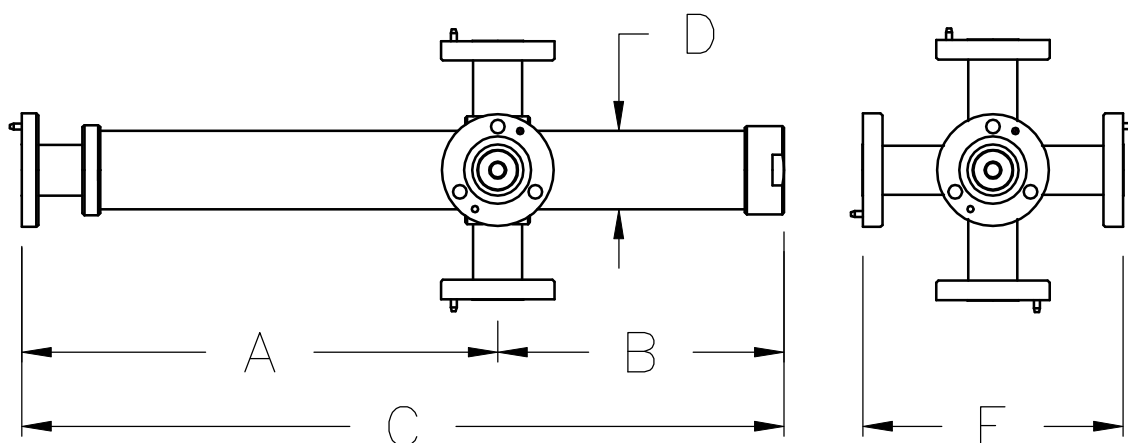
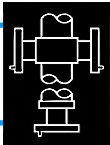
Type of splitting:	balanced,
Impedance:	50 Ohms,
VSWR	less than 1.1 ,
Number of outputs:	2 , 3 or 4 ,
Material used:	brass and PTFE ,
Finish:	dyed with dark gray synthetic paint after electrolytic bath.



*pair of clamps
(supplied upon request)*



* All dimensions shown are in millimeters.
* Drawings not to scale.



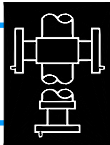
FM Power Splitters (87.5 - 108 MHz) :

Conectors		Ordering Number	Average Power	Dimensions (mm.)				
input	outputs			A	B	C	D	E
7/16 DIN (f)	2 x 7/16 DIN (f)	SPF 716.716.02	4 kW	793	810	1603	□ 40	150
7/16 DIN (f)	3 x 7/16 DIN (f)	SPF 716.716.03	4 kW	793	810	1603	□ 40	150
7/16 DIN (f)	4 x 7/16 DIN (f)	SPF 716.716.04	4 kW	793	810	1603	□ 40	150
7/8EIA (f)	2 x 7/16 DIN (f)	SPF 78.716.02	5 kW	806	810	1616	□ 40	150
7/8EIA (f)	3 x 7/16 DIN (f)	SPF 78.716.03	5 kW	806	810	1616	□ 40	150
7/8EIA (f)	4 x 7/16 DIN (f)	SPF 78.716.04	5 kW	806	810	1616	□ 40	150
7/8EIA (f)	2 x 7/8EIA (f)	SPF 78.78.02	5 kW	806	810	1616	□ 40	133
7/8EIA (f)	3 x 7/8EIA (f)	SPF 78.78.03	5 kW	806	810	1616	□ 40	133
7/8EIA (f)	4 x 7/8EIA (f)	SPF 78.78.04	5 kW	806	810	1616	□ 40	133
1 5/8EIA (f)	2 x 7/8EIA (f)	SPF 158.78.02	10 kW	793	800	1593	□ 80	168
1 5/8EIA (f)	3 x 7/8EIA (f)	SPF 158.78.03	10 kW	793	800	1593	□ 80	168
1 5/8EIA (f)	4 x 7/8EIA (f)	SPF 158.78.04	10 kW	793	800	1593	□ 80	168



* All dimensions shown are in milimeters.

* Drawings not to scale.



VHF Power Splitters (174 - 230 MHz) :

Conectors		Ordering Number	Average Power	Dimensions (mm.)				
input	outputs			A	B	C	D	E
7/16 DIN (f)	2 x 7/16 DIN (f)	SPV 716.716.02	3 kW	400	490	890	□ 40	150
7/16 DIN (f)	3 x 7/16 DIN (f)	SPV 716.716.03	3 kW	400	490	890	□ 40	150
7/16 DIN (f)	4 x 7/16 DIN (f)	SPV 716.716.04	3 kW	400	490	890	□ 40	150
7/8EIA (f)	2 x 7/16 DIN (f)	SPV 78.716.02	4 kW	413	490	903	□ 40	150
7/8EIA (f)	3 x 7/16 DIN (f)	SPV 78.716.03	4 kW	413	490	903	□ 40	150
7/8EIA (f)	4 x 7/16 DIN (f)	SPV 78.716.04	4 kW	413	490	903	□ 40	150
7/8EIA (f)	2 x 7/8EIA (f)	SPV 78.78.02	4 kW	413	490	903	□ 40	133
7/8EIA (f)	3 x 7/8EIA (f)	SPV 78.78.03	4 kW	413	490	903	□ 40	133
7/8EIA (f)	4 x 7/8EIA (f)	SPV 78.78.04	4 kW	413	490	903	□ 40	133
1 5/8EIA (f)	2 x 7/8EIA (f)	SPV 158.78.02	8 kW	397	490	887	□ 80	168
1 5/8EIA (f)	3 x 7/8EIA (f)	SPV 158.78.03	8 kW	397	490	887	□ 80	168
1 5/8EIA (f)	4 x 7/8EIA (f)	SPV 158.78.04	8 kW	397	490	887	□ 80	168

UHF Power Splitters (470 - 860 MHz) :

Conectors		Ordering Number	Average Power	Dimensions (mm.)				
input	outputs			A	B	C	D	E
7/16 DIN (f)	2 x 7/16 DIN (f)	SPU 716.716.02	0.8 kW	257	170	427	□ 40	150
7/16 DIN (f)	3 x 7/16 DIN (f)	SPU 716.716.03	0.8 kW	412	243	655	□ 40	150
7/16 DIN (f)	4 x 7/16 DIN (f)	SPU 716.716.04	0.8 kW	412	243	655	□ 40	150
7/8EIA (f)	2 x 7/16 DIN (f)	SPU 78.716.02	1 kW	287	170	457	□ 40	150
7/8EIA (f)	3 x 7/16 DIN (f)	SPU 78.716.03	1 kW	442	243	685	□ 40	150
7/8EIA (f)	4 x 7/16 DIN (f)	SPU 78.716.04	1 kW	442	243	685	□ 40	150
7/8EIA (f)	2 x 7/8EIA (f)	SPU 78.78.02	1 kW	270	170	440	□ 40	133
7/8EIA (f)	3 x 7/8EIA (f)	SPU 78.78.03	1 kW	426	242	668	□ 40	133
7/8EIA (f)	4 x 7/8EIA (f)	SPU 78.78.04	1 kW	426	242	668	□ 40	133
1 5/8EIA (f)	2 x 7/8EIA (f)	SPU 158.78.02	5 kW	258	176	434	□ 80	168
1 5/8EIA (f)	3 x 7/8EIA (f)	SPU 158.78.03	5 kW	413	243	656	□ 80	168
1 5/8EIA (f)	4 x 7/8EIA (f)	SPU 158.78.04	5 kW	413	243	656	□ 80	168



* All dimensions shown are in millimeters.

* Drawings not to scale.

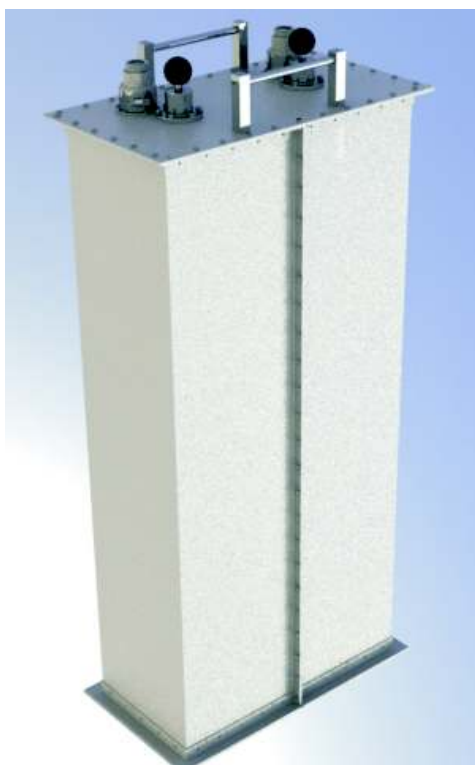


model	connector terminal	max power (input)
FI FM NF.11	N (female)	500 W
FI FM 716.13	7/16" DIN (female)	1,0 KW
FI FM 78.15	7/8" EIA	2,5 KW

Specifications

Frequency	87.5 - 108 MHz (tunable),
Impedance	50 Ohms,
Bandwidth	300 KHz
Temperature range	-10° - +50° C
Material used	aluminum cavity and silver plated brass tuning rods,
Finish	dyed with dark gray synthetic paint,
Weight	18 kg.

Ask for information / quotation for multiplexer (2 x) , (3 x) , (4 x) .



* All dimensions shown are in milimeters.
* Drawings not to scale.



model	connector terminal	max power (input)
FI FM 158.11	1 5/8" EIA	5 KW
FI FM 158.21	1 5/8" EIA	10 KW

Specifications

Frequency	87.5 - 108 MHz (tunable),
Bandwidth (-3dB)	800 KHz,
Impedance	50 Ohms,
Connector terminals	1 5/8" EIA swivel flange-female (input and output),
VSWR	less than 1.05,
Typical insertion loss	0.5 dB,
Cooling	air fan 80 W ; 230 VAC / 50 Hz
Temperature range	-10° - +50° C
Material used	aluminum cavity and silver plated brass tuning rods,
Finish	dyed with dark gray synthetic paint,
Weight	80 kg.

Ask for information / quotation for multiplexer (2 x) , (3 x) , (4 x) .



* All dimensions shown are in millimeters.
* Drawings not to scale.

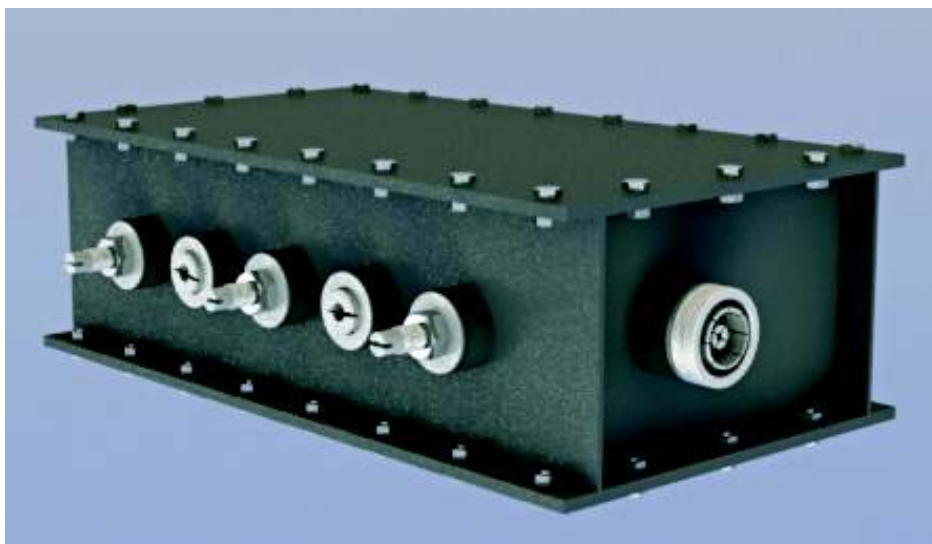


Model FI U 716.51

Specifications

Frequency	470 - 860 MHz (tunable),
Impedance	50 Ohms,
Connector terminals	7/16 DIN - female (input and output),
Power (input)	0.8 kW. Max,
Bandwidth	8 MHz,
Temperature range	-5° - +50° C
Material used	brass cavity and silver plated brass tuning rods,
Finish	dyed with dark gray synthetic paint after electrolytic bath,
Weight	6.5 kg.

Ask for information / quotation for multiplexer (2 x) , (3 x) , (4 x) .



* All dimensions shown are in millimeters.
* Drawings not to scale.



Adapters



Material :

- Resilient contacts are made of thermally treated CuBe and are silver or gold plated.
- Insulation are made of pure PTFE
- Center and outer conductor parts are made of copper alloy, silver-plated
- Outer metal parts are made of copper alloy, nickel-plated
- Gaskets are made of silicone rubber
- Hardware set are made of stainless steel

Impedance : 50 Ω

Straight Adapters

Adapter interfaces	N		7/16 DIN		7/8" EIA	1 5/8" EIA	3 1/8" EIA	4 1/16" EIA	4 1/2 EIA
	male	female	male	female					
7/8" EIA	AD 78.NM	AD 78.NF	AD 78.716M	AD 78.716F					
1 5/8" EIA	AD 158.NM	AD 158.NF	AD 158.716M	AD 158.716F	AD 158.78				
3 1/8" EIA	AD 318.NM	AD 318.NF			AD 318.78	AD 318.158			
4 1/16" EIA	AD 416.NM	AD 416.NF				AD 416.158	AD 416.318		
4 1/2" EIA	AD 412.NM	AD 412.NF				AD 412.158	AD 412.318	AD 412.416	
6 1/8" EIA	AD 618.NM	AD 618.NF					AD 618.318	AD 618.416	AD 618.412

Multipoint adapters

Adapter interfaces		Ordering number
Input	Output	
7/8" EIA	2 x N (F)	MPAD 78.N.2
7/8" EIA	3 x N (F)	MPAD 78.N.3
7/8" EIA	4 x N (F)	MPAD 78.N.4
7/8" EIA	2 x 7/16 DIN (F)	MPAD 78.716.2
7/8" EIA	3 x 7/16 DIN (F)	MPAD 78.716.3
7/8" EIA	4 x 7/16 DIN (F)	MPAD 78.716.4
1 5/8 EIA	2 x 7/8 EIA	MPAD 158.78.2
1 5/8 EIA	3 x 7/8 EIA	MPAD 158.78.3
1 5/8 EIA	4 x 7/8 EIA	MPAD 158.78.4



* All dimensions shown are in millimeters.

* Drawings not to scale.



General information : All connectors for foam dielectric cables feature a self-flaring design .Careful tolerance control during manufacture minimizes imperfections and provides low VSWR performance. These connectors can be easily and quickly attached with ordinary hand tools.

Connectors for air dielectric cables are characterized by very low losses. These connectors have excellent electrical values and provide outstanding performance for the most demanding applications.

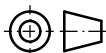
Material :

- Resilient contacts are made of thermally treated CuBe and are silver or gold plated.
- Insulation are made of pure PTFE
- Center and outer conductor parts are made of copper alloy, silver-plated
- Outer metal parts are made of copper alloy, nickel-plated
- Gaskets are made of silicone rubber and are used to prevent moisture and water penetration
- Hardware set are made of stainless steel

Impedance : 50 Ω

VSWR : less than 1.03

Frequency range : 0-1000 Mhz



* All dimensions shown are in milimeters.

* Drawings not to scale.



Connectors

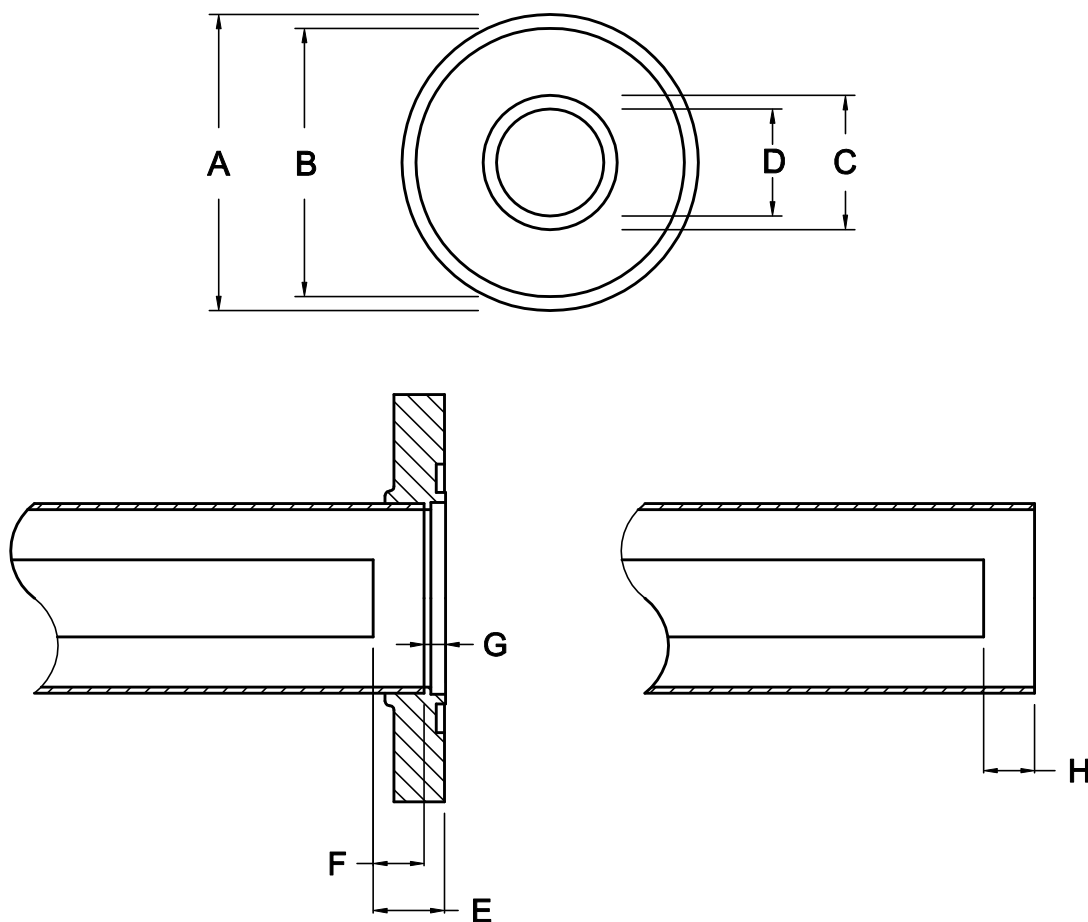
Coaxial cables		1/2 " RFS		1/2 " Andrew	
Connector interfaces		Cellflex(Foam) LCF12-50	Heliflex(Air) HCA12-50	LDF4-50A(Foam)	HJ4-50(Air)
N	male	CO R NM.12.01	CO R NM.12.11	CO A NM.12.21	CO A NM.12.31
	female	CO R NF.12.03	CO R NF.12.13	CO A NF.12.23	CO A NF.12.33
7/16" DIN	male	CO RM 716.12.04	CO RM 716.12.14	CO AM 716.12.24	CO AM 716.12.34
	female	CO RF 716.12.06	CO RF 716.12.16	CO AF 716.12.26	CO AF 716.12.36
7/8" EIA		CO R 78.12.08	CO R 78.12.18	CO A 78.12.28	CO A 78.12.38
Coaxial cables		7/8 " RFS		7/8 " Andrew	
Connector interfaces		Cellflex(Foam) LCF78-50A	Heliflex(Air) HCA78-50	LDF5-50A(Foam)	HJ5-50(Air)
N	male	CO R NM.78.01	CO R NM.78.11	CO A NM.78.21	CO A NM.78.31
	female	CO R NF.78.03	CO R NF.78.13	CO A NF.78.23	CO A NF.78.33
7/16" DIN	male	CO RM 716.78.04	CO RM 716.78.14	CO AM 716.78.24	CO AM 716.78.34
	female	CO RF 716.78.06	CO RF 716.78.16	CO AF 716.78.26	CO AF 716.78.36
7/8" EIA		CO R 78.78.08	CO R 78.78.18	CO A 78.78.28	CO A 78.78.38
1 5/8" EIA		CO R 158.78.09	CO R 158.78.19	CO A 158.78.29	CO A 158.78.39
Coaxial cables		1 5/8 " RFS		1 5/8 " Andrew	
Connector interfaces		Cellflex(Foam) LCF158-50A	Heliflex(Air) HCA158-50	LDF7-50A(Foam)	HJ7-50(Air)
7/8" EIA		CO R 78.158.01	CO R 78.158.11	CO A 78.158.28	CO A 78.158.38
1 5/8" EIA		CO R 158.158.03	CO R 158.158.13	CO A 158.158.21	CO A 158.158.31
3 1/8" EIA		CO R 318.158.04	CO R 318.158.14	CO A 318.158.24	CO A 318.158.34
Coaxial cables		3 1/8 " RFS	3 " Andrew	4 1/8 " RFS	4 " Andrew
Connector interfaces		Heliflex(Air) HCA318-50	HJ8-50B(Air)	Heliflex(Air) HCA418-50	HJ11-50(Air)
3 1/8" EIA		CO R 318.318.01	CO A 318.3.21	CO R 318.418.11	CO A 318.4.31
4 1/8" EIA		CO R 418.318.03	CO A 418.3.23	CO R 418.418.13	CO A 418.4.33
Coaxial cables		RG 213		RG 217	
Connector					
7/16" DIN	male	CO RGM 716.213		CO RGM 716.217	
	female	CO RGF 716.213		CO RGF 716.217	
7/8" EIA		CO RG 78.213		CO RG 78.217	

**CUSTOM DESIGNING AND MANUFACTURING OF ANY
RF CONNECTOR FOR ANY CABLE SIZE IS AVAILABLE BY REQUEST**



* All dimensions shown are in millimeters.

* Drawings not to scale.



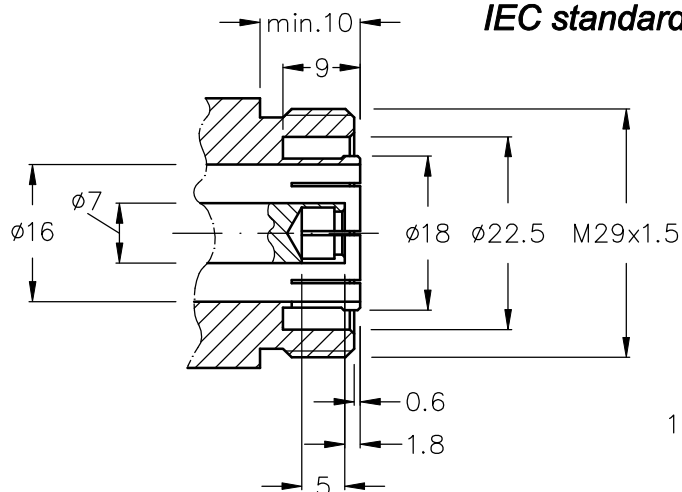
line size	copper rigid line											
	outer conductor				inner conductor				cut back dimensions			
	A		B		C		D		E	F	G	H
	dia.	tol.	dia.	tol.	dia.	tol.	dia.	tol.				
7/8	22.22	±0.06	19.94	±0.06	8.66	±0.05	7.39	±0.05	12.7	8.7	4	8.7
1 5/8	41.27	±0.07	38.78	±0.07	16.87	±0.06	14.93	±0.06	15.8	11.1	4.7	11.1
3 1/8	79.4	±0.12	76.88	±0.12	33.4	±0.07	31.26	±0.07	23.4	17	6.4	17
4 1/2	106	±0.15	103	±0.15	44.7	±0.1	42.8	±0.08	23.4	18	5.4	18
6 1/8	155.6	±0.2	151.9	±0.2	66	±0.1	64	±0.1	32.5	25.4	7.1	25.4



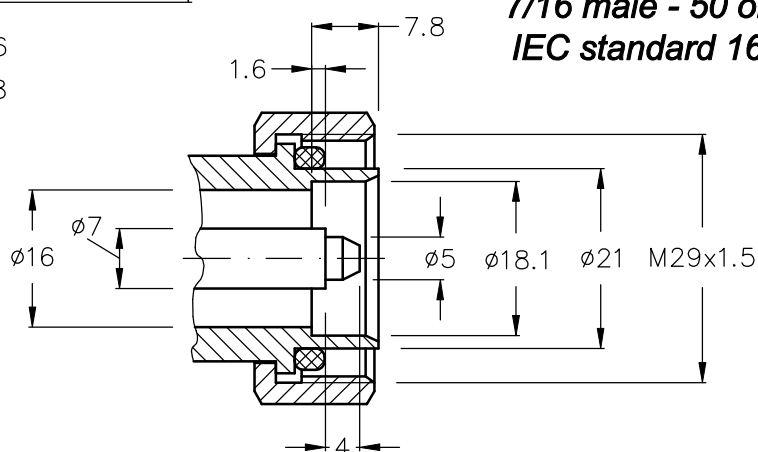
* All dimensions shown are in millimeters.
* Drawings not to scale.



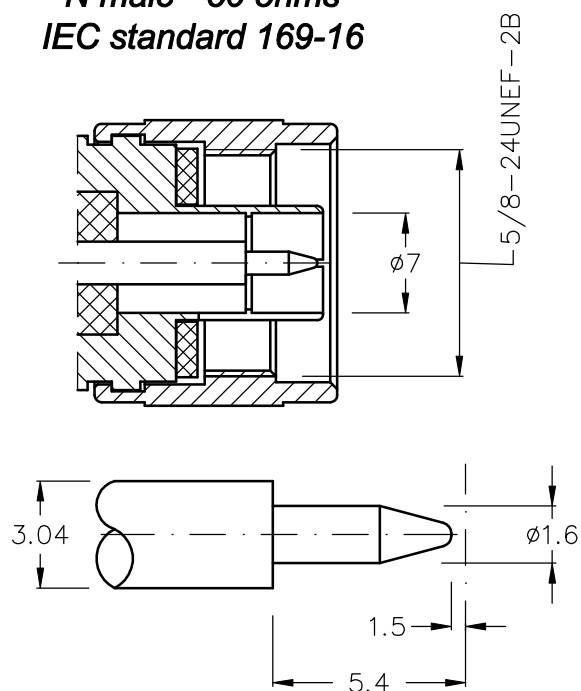
**7/16 female - 50 ohms
IEC standard 169-4**



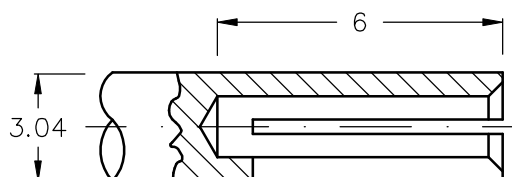
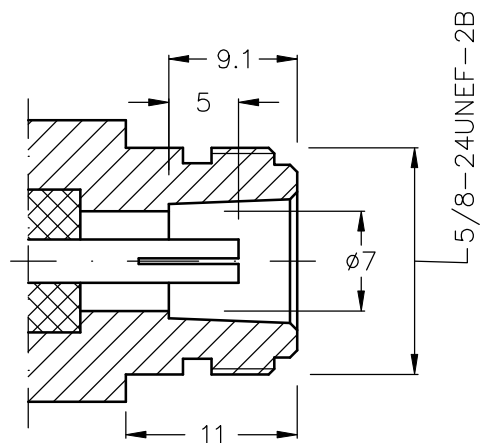
**7/16 male - 50 ohms
IEC standard 169-4**



**N male - 50 ohms
IEC standard 169-16**



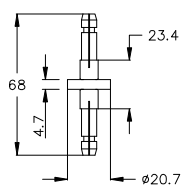
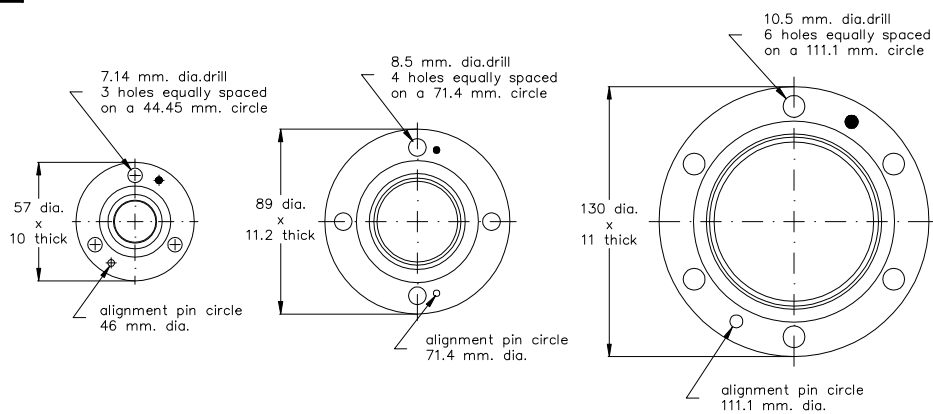
**N female - 50 ohms
IEC standard 169-16**



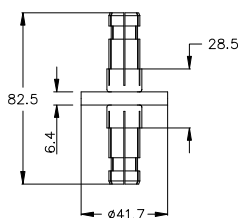
* All dimensions shown are in millimeters.
* Drawings not to scale.



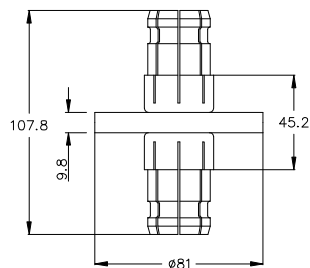
Engineering



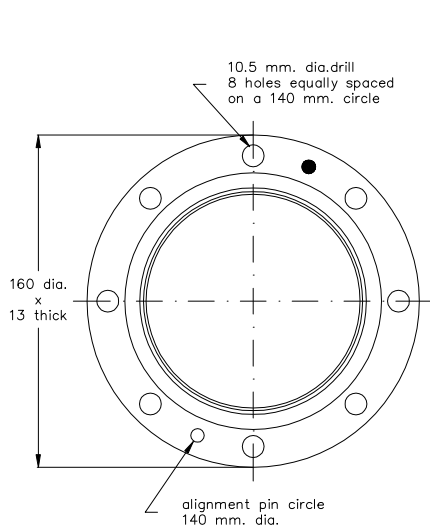
7/8"



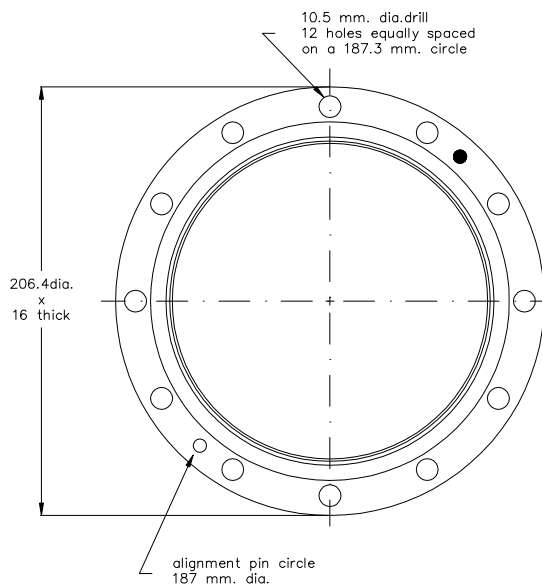
1 5/8"



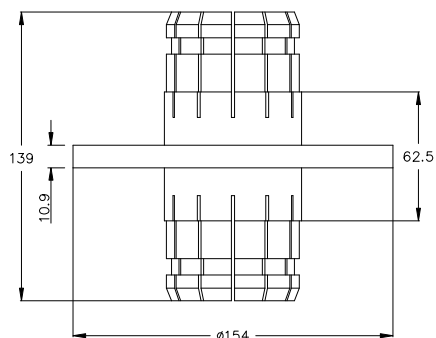
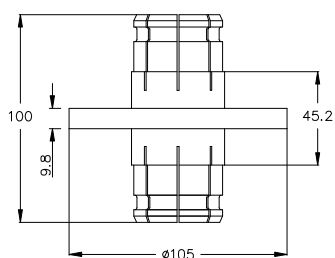
3 1/8"



4 1/2"



6 1/8"



50 ohms - EIA Standard Terminals RS-225



* All dimensions shown are in millimeters.
* Drawings not to scale.



Notes

TRINEKS, Vladimir Komarov 40/2-5, 1000 Skopje, Republic of Macedonia



TRINEKS

Vladimir Komarov 40/2-5, 1000 Skopje, Republic of Macedonia
++389 (0)2 2470 247
info@trineksgroup.com
www.trineksgroup.com