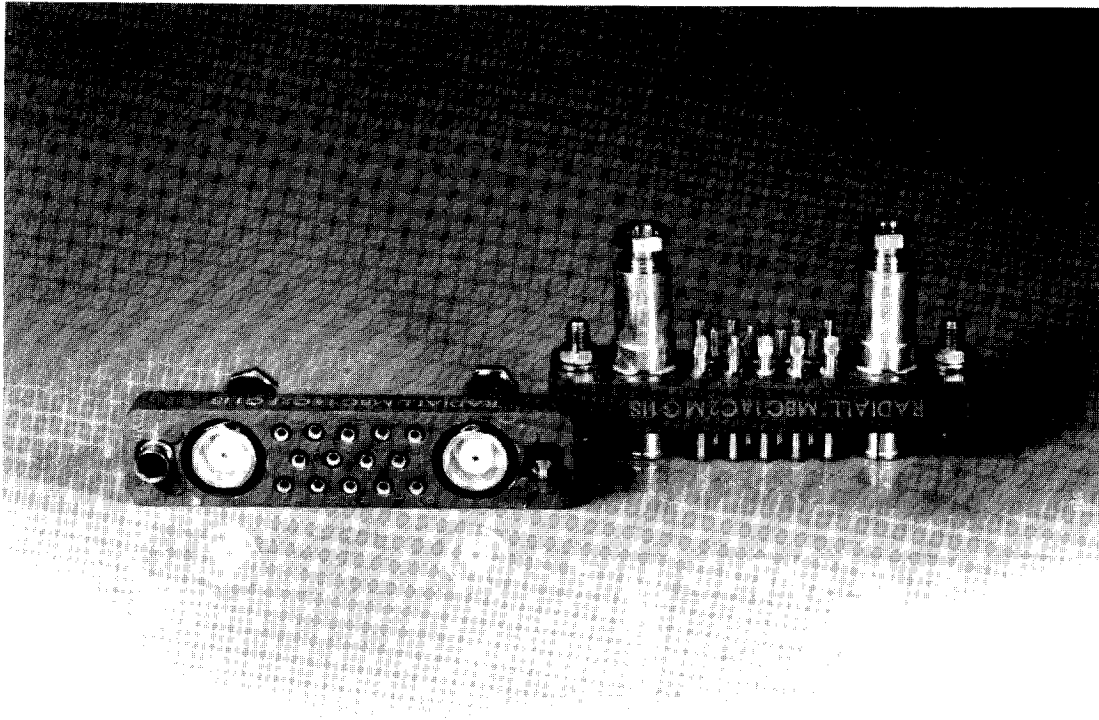


Miniature rectangular multicontact connectors MBC series



The **MBC series** rectangular multicontact connectors are similar to those of the MB series but comprise connectors with 2, 3 or 4 coaxial contacts.

The **MBC series** presents 4 contact arrangements :

- 2 coaxial contacts
- 2 coaxial contacts and 14 wire contacts with solder pot
- 3 coaxial contacts and 6 wire contacts with solder pot
- 4 coaxial contacts for coax wire 2.6mm/50Ω

These connectors can be supplied with :

- rack guides
- fixed jackscrews
- short rotating jackscrews
- long rotating jackscrews

CHARACTERISTICS

ELECTRICAL

Single contacts

- Current rating : 7.5 A
- Test voltage at sea level : 1500 Vrms / 50 Hz
- Operating voltage (sea level) : 500 Vrms / 50 Hz
- Insulation resistance : > 5000 M Ω
- Contact resistance : < 5 m Ω

Coaxial contacts

- Center contact type : solder
- Cable retention : braid clamp
- Impedance : 50 Ω
- Operating frequency range : DC - 1000 MHz
- V.S.W.R. of mated pair : < 1.6 up to 1200 MHz
- Test voltage at sea level : 1200 Vrms / 50 Hz
- Insulation resistance : > 5000 M Ω

MECHANICAL

- Temperature range : -55°C +125°C
- Durability : 500 mating cycles
- Shock : 50 g/11 ms
- Vibration : 20 g / 10-2000 Hz
- Humidity : 21 days

MATERIALS

- Insulator : glass filled diallylphthalate
 Pin contact : brass copper alloy, plating : gold over nickel
 Socket contact : copper alloy plating : gold over nickel
 Guides and jackscrews: stainless steel

CONNECTOR MATED PAIR WEIGHT (g)

| Contact arrangement | 00C2 | 00C4 | 14C2 | 06C3 |
|---------------------|------|------|------|------|
| without guides | 13.9 | 28.6 | 21.2 | 25.2 |
| with rack guides | 16 | 30.7 | 23.3 | 27.3 |
| with jackscrews | 18.7 | 33.4 | 26 | 30 |

MBC 00C4 F G1 IS

SERIES

Contact arrangement (see page 42)

00C2 - 00C4 - 06C3 - 14C2

Contact type

M : pin
F : socket

Guides and jackscrews (see page 43)

00 : without guides and jackscrews
G1 : rack guides
GV : fixed jackscrews
VR : short rotating jackscrews
VL : long rotating jackscrews

Thread, guides or jackscrews

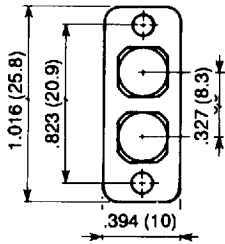
00 : without guides and jackscrews
IS : ISO (M2 x 0.4)
NC : 2-56 UNC

CONNECTOR IDENTIFICATION

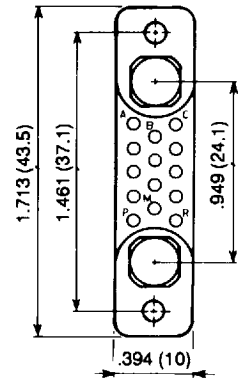
The part number is printed on the insulator side.

MALE CONNECTOR – WIRING SIDE

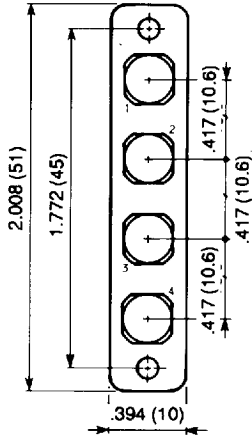
00C2



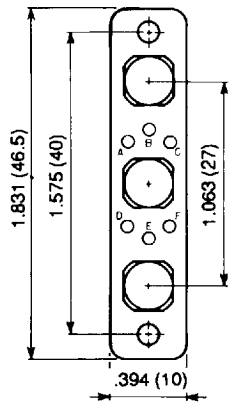
14C2



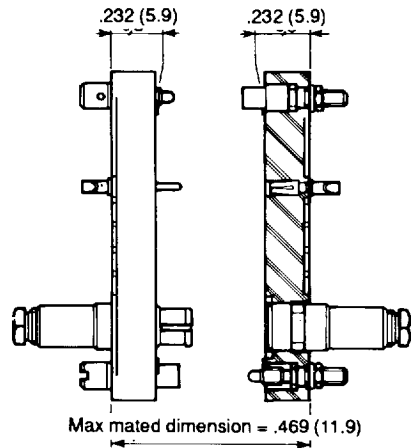
00C4



06C3

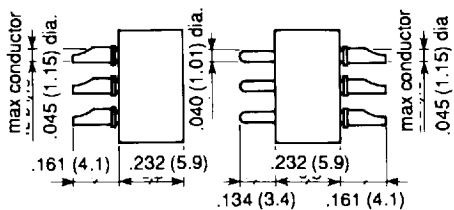


MATING DIMENSIONS

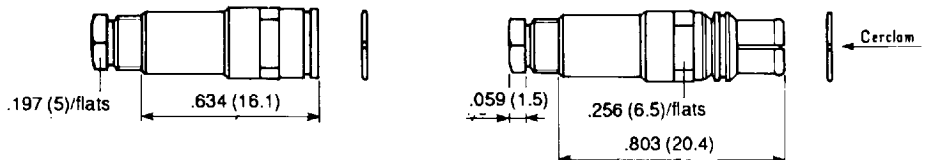


SINGLE CONTACT

solder pot



COAXIAL CONTACT



Guides and jackscrews are made of stainless steel. The jackscrews can be supplied with either ISO (M2 x 0.4) or UNC (2-56 UNC) thread.

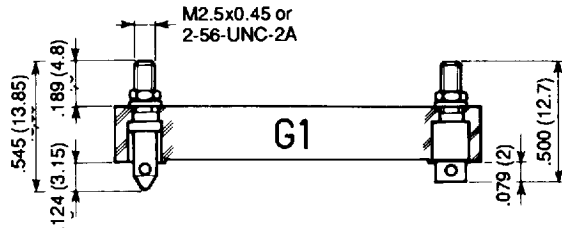
The guides or jackscrews G1 – GV – VL and VR and the type of thread NC or ISO required are to be defined in the part number (see page 41).

The standard configuration of guides and jackscrews is :

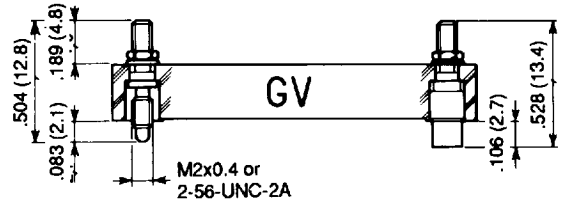
Male guide (or jackscrew) at the end nearest contact A of the female connector.

Female guide (or jackscrew) at the end nearest contact A of the male connector.

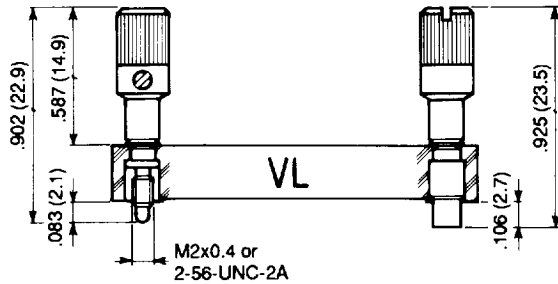
RACK GUIDES TYPE G1



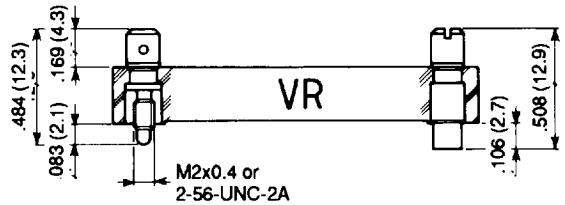
FIXED JACKSCREWS TYPE GV



LONG AND SHORT ROTATING JACKSCREWS TYPE VL-VR



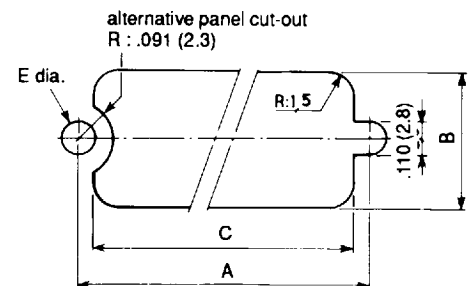
Mating force : 2cm/daN



Mating force : 2cm/daN

DIMENSIONS

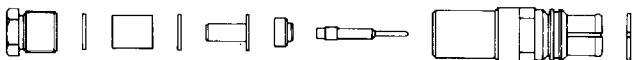
| Contacts arrangements | A | B | C | E dia. ISO M2 | E dia. UNC | E dia. ISO M2.5 |
|-----------------------|--------------|-----------|--------------|---------------|------------|-----------------|
| 00C2 | .823 (20.9) | .394 (10) | .661 (16.8) | .087 (2.2) | .094 (2.4) | .106 (2.7) |
| 00C4 | 1.772 (45) | .394 (10) | 1.594 (40.5) | .087 (2.2) | .094 (2.4) | .106 (2.7) |
| 06C3 | 1.575 (40) | .394 (10) | 1.398 (35.5) | .087 (2.2) | .094 (2.4) | .106 (2.7) |
| 14C2 | 1.461 (37.1) | .394 (10) | 1.280 (32.5) | .087 (2.2) | .094 (2.4) | .106 (2.7) |



COAXIAL CONTACTS ASSEMBLY

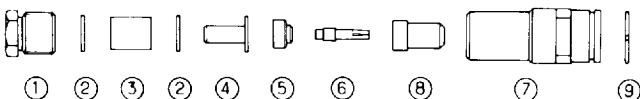
Male contact

625 030 for .102 (2.6) dia/50Ω
 625 031 for .071 (1.8) dia/50Ω



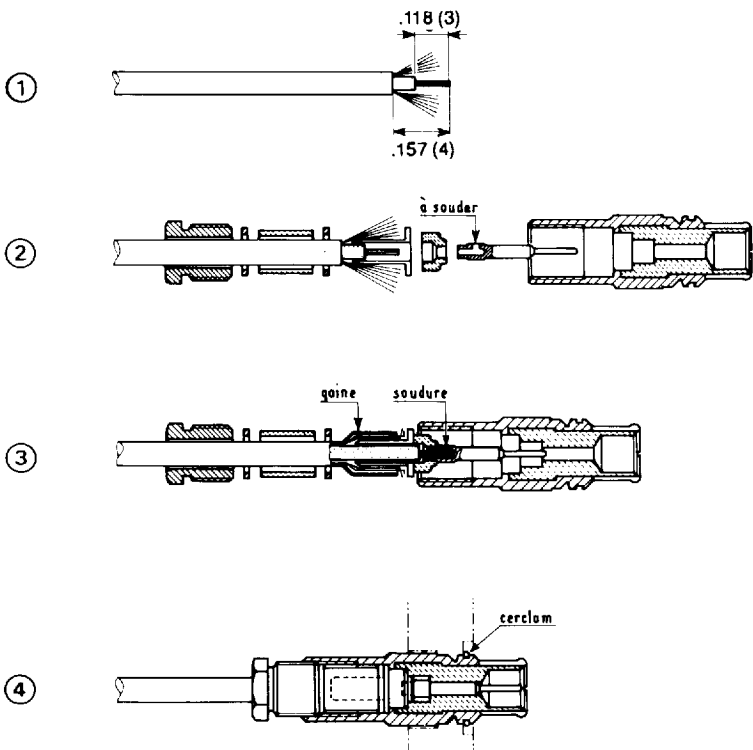
Female contact

625 130 for .102 (2.6) dia/50Ω
 625 131 for .071 (1.8) dia/50Ω



- 1 Backnut
- 2 Metal washers
- 3 Gasket
- 4 Braid clamp
- 5 Rear insulator
- 6 Centre contact
- 7 Body
- 8 Front insulator (female connectors)
- 9 Clip

CABLE ASSEMBLY



- 1 Slide the backnut, washer, gasket over the cable. Strip the cable as shown in diagram.
- 2 Slide the braid clamp between the dielectric and the braid trapping the braid clamp. If it is found to be difficult to push home the braid clamp, make a slit of 3 or 4 mm in the outer sheath.
- 3 Place the rear insulator over the dielectric and solder the center contact.
- 4 In the case of the female connector, place the front insulator over the center contact. Screw the backnut into the body. The clip then has to be positioned into the groove on the interface shown in diagram. To effect this operation see diagram 1 and 2 shown below.

TOOLS

The clip positioner for male contact (282 912) and for female contacts (282 911) is used to fit the clip over the interface in order that it can be used to captivate the coaxial contact in the connector block. Slide the clip 9 onto the 5 mm dia. of the positioner and push the clip over the interface with the help of the plunger (282 913) until it snaps home.

