

Plastic connector with quick mating feature

Description

The BANTAMATE II cylindrical plastic connector has been designed for use in applications requiring a high number of mating cycles and rapid connections and disconnections.

BANTAMATE II meets minimum durability requirements of **5000 mating/unmating cycles** by using a unique contact wiping system consisting of a lubricant saturated foam pad bonded to a spring loaded stripper plate within the receptacle or plug. On mating, the stripper plate is pushed deep into the connector wiping a thin film of lubricant onto the male contacts. A distinctive shape provides mating ease in blind or difficult to reach applications. Some typical applications would include test equipment, medical diagnostic equipment, or any of the hardware interconnections found in the modern electronic office.

Features and benefits

- 5000 mating / unmating cycles
- Lubricated male contacts with spring actuated foam plate
- Quick and easy installation with latching mechanism
- Easy mating due to the positive polarisation, even in blind spots
- Unmated male contacts are protected by the spring actuated plate
- Available with 4, 12, 19, 30, and 46 contact positions.
- Applicable for front or rear panel mounting as well as free hanging applications
- UL recognized File nr.: E238675
- CSA certified LR54977



Performance characteristics

| Operating | |
|-----------------|----------------------|
| temperature: | -55°C to +125°C |
| Insulation | |
| resistance: | 5000 M Ω min. |
| Test potential: | 2000 VAC |
| Durability: | Min. 5000 matings |
| cycles | |
| Vibration | 5-50Hz, 0,5 dA; 8 |
| resistance: | hours axis |
| Thermal | 5 cycles -55°C to |
| shock: | +105°C |
| Humidity: | 10 days at 85% RH, |
| | +85°C |
| | |

Construction

Glass filled thermoplast UL94-V0
Colour: black

Locking latch
and hook: passivated

Compression
Spring: Music wire, Nickel plated
Lubricating pad: Polyurethane foam
Rivet: Brass, Tin plated

Strain relief screws: Steel, Cadmium plated

Connector body and strain relief:

Contact accommodation

- "MBG" connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered seperately.

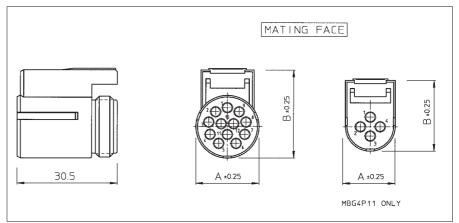
How to order

| Connector family | | MBG | 12 | Р | 1 |
|-------------------|-----------------------------------------------------------------|-----|----|---|---|
| Insert arrangemen | 11: 4, 12, 19, 30, 46 positions | | | | |
| Body variation: | P: Plug body R: Receptacle body S: Strain relief | | | | |
| Design variation: | 1: Standard version with male of the standard version with male | | • | | |



Female plug connector for socket contacts (MBG--P1) - Standard version Male plug connector for pin contacts (MBG--P11) - Reversed version

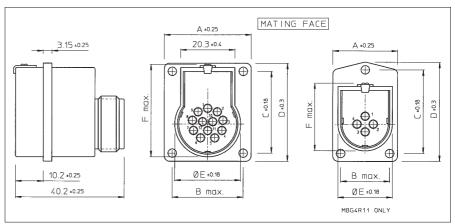




| Part i Female plug | number Male plug | Ø A ±0.25 | B ±0.25 |
|-----------------------|---------------------|-----------|---------|
| MBG4P1 | MBG4P11 | 15.08 | 21.90 |
| MBG12P1 | MBG12P11 | 19.43 | 27.25 |
| MBG19P1 | MBG19P11 | 22.83 | 30.53 |
| MBG30P1 | MBG30P11 | 27.94 | 35.51 |
| MBG46P1 | MBG46P1 | 34.42 | 41.91 |

Panel mounting male receptacle connector for pin contacts (MBG--R1) - Standard version Panel mounting female receptacle connector for socket contacts (MBG--R11) - Reversed version



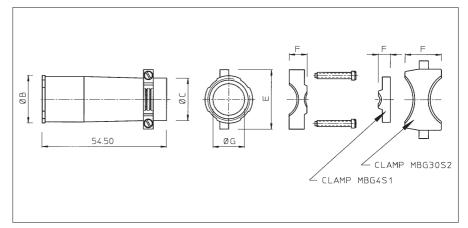


| Part number Male receptacle Famale recentacle | | Ø A ±0.25 | B max. | C ±0.18 | D ±0.30 | Ø E ±0.18 | F max. |
|------------------------------------------------|-------------------|-----------|----------|---------|----------|-----------|----------|
| maie receptacie | Female receptacle | Ø A | D IIIax. | | D | Ø E | r IIIax. |
| MBG4R1 | | | | | | | |
| | MBG4R11 | 23.90 | 18.08 | 31.45 | 37.36 | 20.07 | 29.46 |
| MBG12R1 | | | | | | | |
| | MBG12R11 | 32.49 | 26.54 | 30.76 | 36.86 | 24.64 | 34.93 |
| MBG19R1 | | | | | | | |
| | MBG19R11 | 32.44 | 26.54 | 34.04 | 40.13 | 27.86 | 38.10 |
| MBG30R1 | | | | | | | |
| | MBG30R11 | 35.61 | 28.65 | 38.00 | 44.91 | 33.10 | 43.31 |
| MBG46R1 | | | | | | | |
| | MBG46R11 | 42.24 | 35.13 | 46.94 | 54.05 | 39.70 | 49.61 |



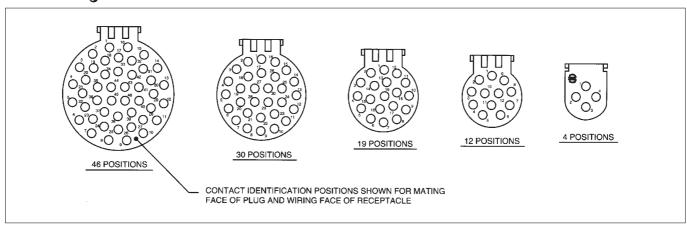
Strain relief (MBG--S1)





| Part number | Ø-C | Ø-D | E | F | Cable range Ø G side A | Cable range Ø G side B |
|-------------|------|------|---------------|------|---------------------------|---------------------------|
| MBG4S1 | 12.2 | 15.0 | 20.1 | 5.3 | 8.51/6.35 | _ |
| MBG12S1 | 18.8 | 21.1 | 26.4 | 7.9 | 11.30/7.65 | 14.99/11.38 |
| MBG19S1 | 21.3 | 24.4 | 29.0 | 9.4 | 13.08/8.66 | 17.53/13.12 |
| MBG30S1 | 26.7 | 29.0 | 34.5 | 16.3 | 19.02/15.88 | 22.86/19.05 |
| MBG30S2 | 26.7 | 29.0 | 34.5 | 15.9 | 12.67/10.01 | 15.85/12.70 |
| MBG46S1 | | | Not available | | | |

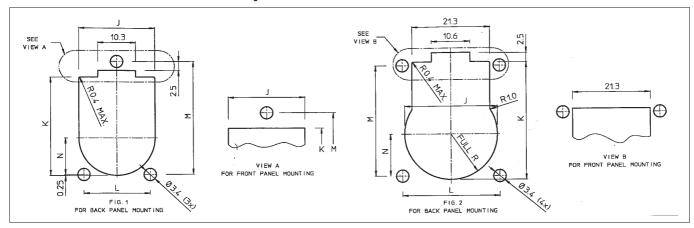
Insert arrangements and moulded-in contact identification



 $\label{thm:contact} \textbf{Contact identification positions shown are for mating face of plug and wiring face of receptacle.}$

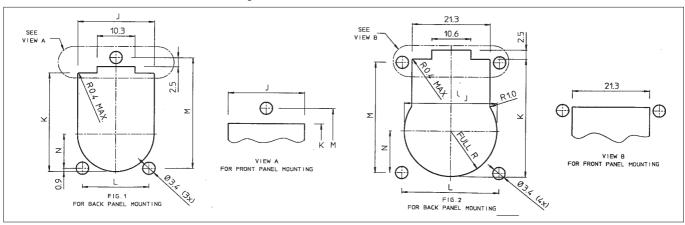


Panel cut-out dimensions for receptacle - Standard version (MBG--R1)



| Part number | Fig. | J | К | L | м | N |
|-------------|------|-------|-------|-------|-------|-------|
| MBG4R1 | 1 | 20.86 | 27.41 | 18.08 | 31.45 | 10.16 |
| MBG12R1 | 2 | 25.30 | 32.74 | 26.54 | 30.76 | 11.65 |
| MBG19R1 | 2 | 28.50 | 35.89 | | 34.04 | 13.32 |
| MBG30R1 | 2 | 33.73 | 40.97 | 28.65 | 38.00 | 15.49 |
| MBG46R1 | 2 | 40.36 | 47.22 | 35.13 | 46.94 | 18.85 |

Panel cut-out dimensions for receptacle - Reversed version (MBG--R11)



| Part number | Fig. | J | К | L | м | N |
|-------------|------|-------|-------|-------|-------|-------|
| MBG4R11 | 1 | 20.86 | 27.41 | 18.08 | 31.45 | 10.16 |
| MBG12R11 | 2 | 25.30 | 32.74 | 26.54 | 30.76 | 11.65 |
| MBG19R11 | 2 | 28.50 | 35.89 | | 34.04 | 13.32 |
| MBG30R11 | 2 | 33.73 | 40.97 | 28.65 | 38.00 | 15.49 |
| MBG46R11 | 2 | 40.36 | 47.22 | 35.13 | 46.94 | 18.85 |