

MBG - Bantamate II 5000



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 recognised File number E31151
- CSA certified LR54977



Performance characteristics

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

Construction

| | |
|-----------------------------------|----------------------------------|
| Connector body and strain relief: | Glass filled thermoplast UL94-V0 |
| Colour: | black |
| Locking latch and hook: | Stainless steel, passivated |
| Compression Spring: | Music wire, Nickel plated |
| Lubricating pad: | Polyurethane foam |
| Rivet: | Brass, Tin plated |
| Strain relief screws: | Steel, Cadmium plated |

Contact accommodation

- "MBG" connectors accept Trim-Trio removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

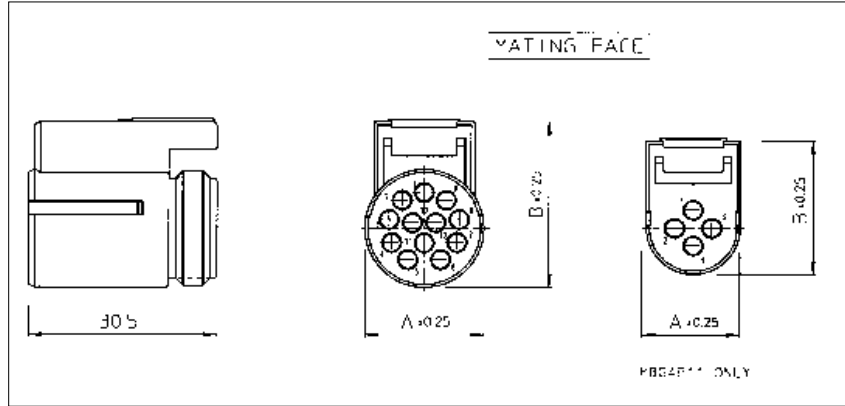
How to order

| Connector family | MBG | 12 | P | 1 |
|---------------------|---|----|---|---|
| Insert arrangement: | 4, 12, 19, 30, 46 positions | | | |
| Body variation: | P: Plug body R: Receptacle body S: Strain relief | | | |
| Design variation: | 1: Standard version with male contacts in receptacle 11: Reversed version with male contacts in plug | | | |

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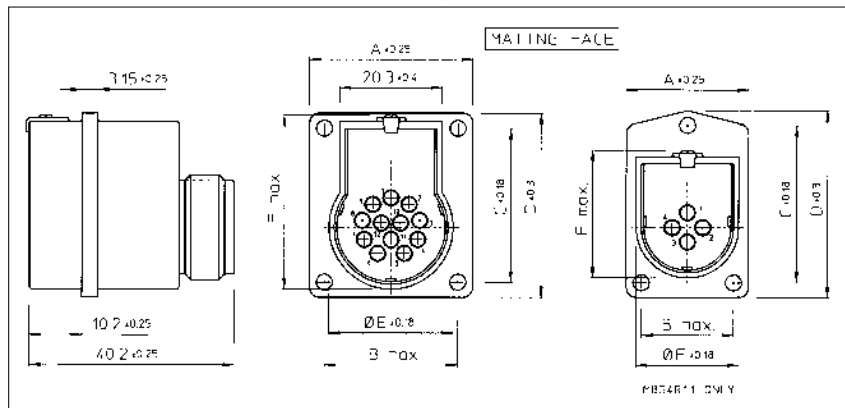


Female plug connector for socket contacts (MBG--P1) - Standard version
 Male plug connector for pin contacts (MBG--P11) - Reversed version



| Female plug | Part number | Male plug | $\varnothing A \pm 0.25$ | $B \pm 0.25$ |
|-------------|-------------|-----------|--------------------------|--------------|
| 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 | | MBG46P11 | 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



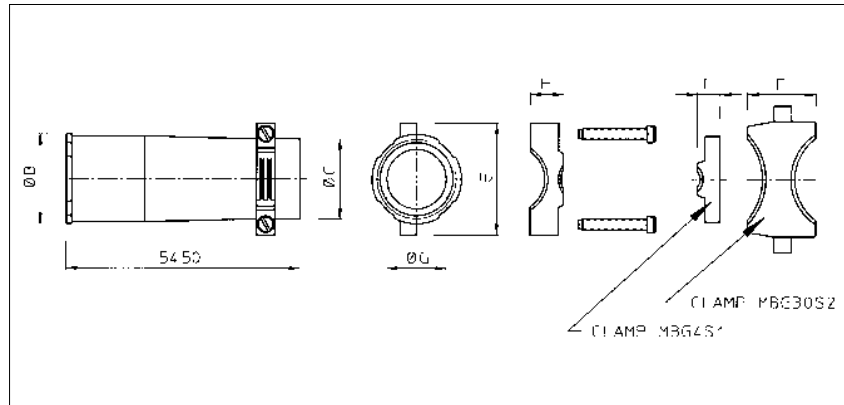
| Female plug | Part number | Male plug | $\varnothing A \pm 0.25$ | B max. | $C \pm 0.18$ | $D \pm 0.30$ | $\varnothing E \pm 0.18$ | F max. |
|-------------|-------------|-----------|--------------------------|--------|--------------|--------------|--------------------------|--------|
| MBG4R1 | | 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 |

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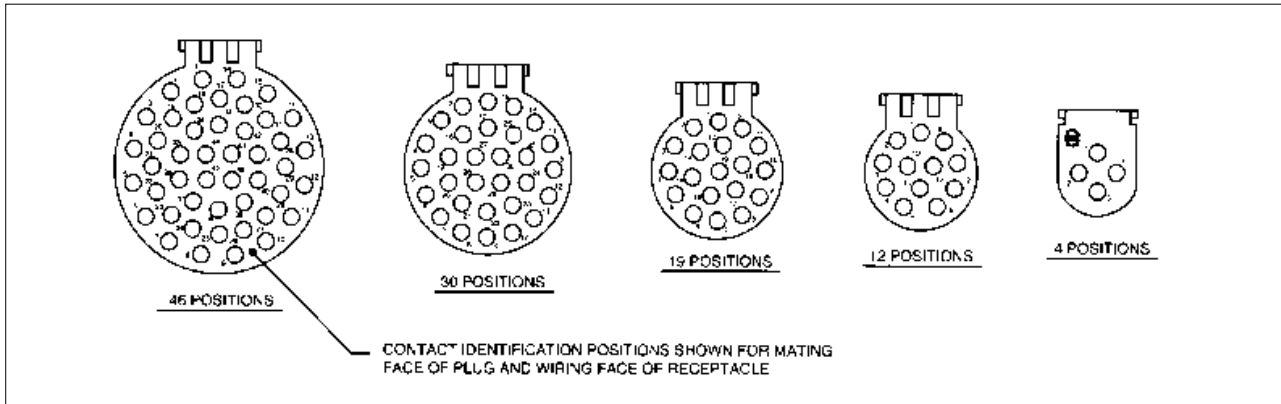


Strain relief (MBG--S1)



| 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

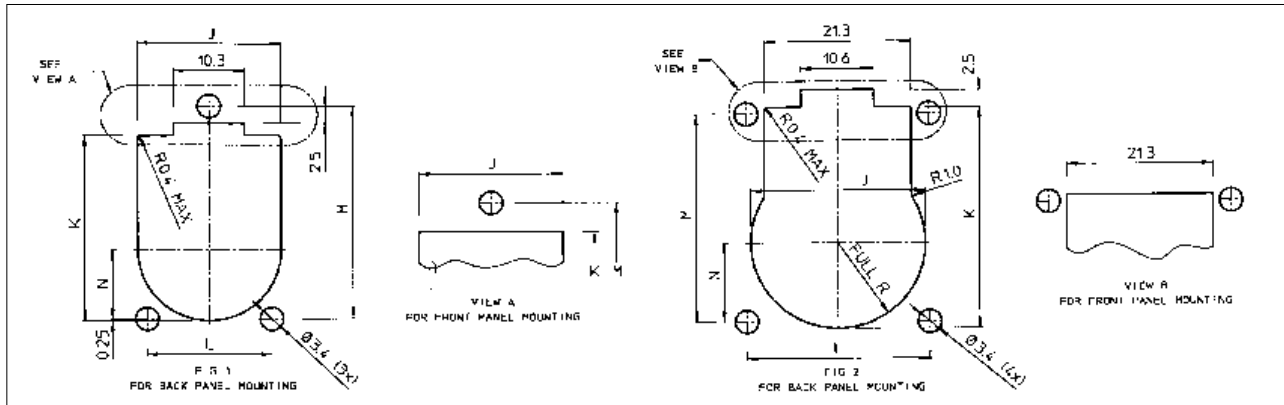


Contact identification positions shown are for mating face of plug and wiring face of receptacle.

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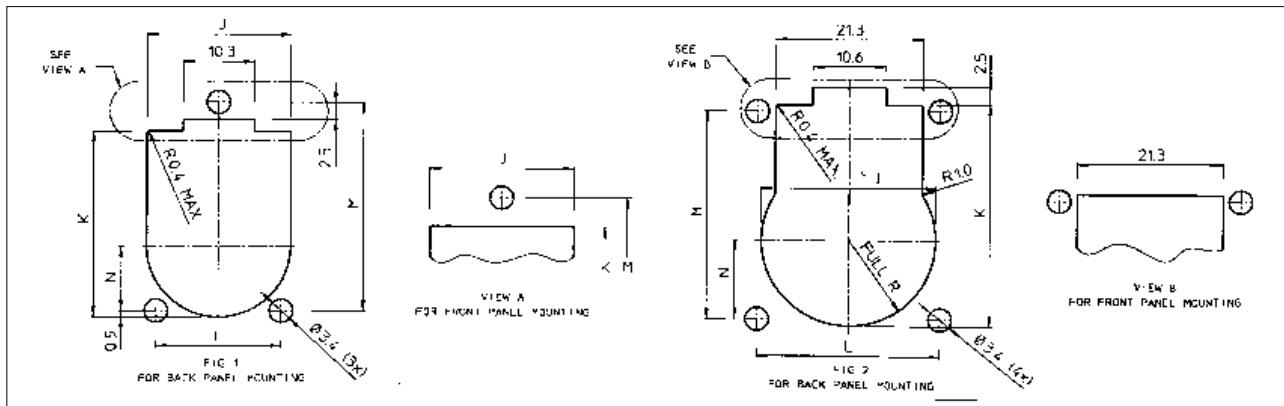


Panel cut-out dimensions for receptacle - Standard version (MBG--R1)



| Part number | Fig. | J | K | L | M | 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 | K | L | M | 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 |

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