

Technical Sheet

Sliprings Type EXD



ZONE 21 and 22

Main Performances

| | |
|------------------------------|--|
| Housing | In aluminium |
| Positioning | Vertical axis, with the cover assembled on the top |
| Connections | Rings and brushes are wired with 2 m long cable |
| Cable entry | Thanks to a cable clamp for the rings and through the lateral cable clamp entry for the brush holders |
| Anti-condensation | It's possible to use an anti-condensation heater (on demand) |
| Executions | Models with compositions unically with rings 7A, 16A or 34A. Mixed compositions with rings 4A, 7A, 16A and 34A Possible introduction of rings for signals. |
| Armonized rules | Norms: CEI EN 60079-0:2012 / CEI EN 60079-31:2014 UNI EN 1127-1 / CEI EN 60529 / CEI EN 60529/A1 Directives: 2014/34/UE - 2014/35/UE - 2014/30/UE - 2006/42/CE - RoHS 2011/65/UE |
| Certification of type | BVI 09 ATEX 0046 X |
| Quality notification | BVI 17 ATEX 0019 Q |
| Marking | CE |

Electrical Features

| | |
|-----------------------|--|
| Nominal voltage | 400 V ac - dc |
| Nominal current | Ith 4A - 7A - 16A - 34A |
| Protection degree | IP 65 |
| Max rotating speed | 50 revs / min |
| Test voltage | 2,5 kV for 1 min. |
| Operating temperature | T70°C = - 20 °C ÷ + 40 °C T75°C = - 20 °C ÷ + 50 °C |

Availability on demand:

- Signal version with gold or silver rings
- Custom cable output



Single compositions

| Part number | N° rings | H = mm* |
|-------------|---------------|---------|
| G EXD B4 | 4 x 7A + PTC | 260,5 |
| G EXD B6N | 6 x 7A | 260,5 |
| G EXD B10 | 10 x 7A + PTC | 260,5 |
| G EXD B12N | 12 x 7A | 260,5 |
| G EXD B20 | 20 x 7A + PTC | 260,5 |
| G EXD B22N | 22 x 7A | 260,5 |
| G EXD C10N | 10 x 16A | 260,5 |
| G EXD D4 | 4 x 34A + PTC | 260,5 |
| G EXD D4N | 4 x 34A | 260,5 |

Mixed compositions

| Part number | N° rings | H = mm* |
|---------------|------------------------|---------|
| G EXD C4 A16N | 4 x 16A + 16 x 4A | 260,5 |
| G EXD C4 B4 | 4 x 16A + 4 x 7A + PTC | 260,5 |
| G EXD C4 B6N | 4 x 16A + 6 x 7A | 260,5 |
| G EXD C4 B8 | 4 x 16A + 8 x 7A + PTC | 260,5 |
| G EXD C4 B10N | 4 x 16A + 10 x 7A | 260,5 |
| G EXD C8 A6 | 8 x 16A + 6 x 4A + PTC | 260,5 |
| G EXD C8 A8N | 8 x 16A + 8 x 4A | 260,5 |
| G EXD C8 B4N | 8 x 16A + 4 x 7A | 260,5 |
| G EXD D4 A6N | 4 x 34A + 6 x 4A | 260,5 |
| G EXD D4 B2N | 4 x 34A + 2 x 7A | 260,5 |
| G EXD D4 B4N | 4 x 34A + 4 x 7A | 260,5 |

Applications

Proof to areas with potentially explosive dust atmosphere, ZONE 21 and 22



II 2 D Ex tb IIIC T70°C or T75°C Db IP65



Installation and Wiring

The EXD slipping has to be installed only by qualified personnel in compliance with current safety standards. Power to the machine must be switched off before carrying out cabling. Connections are to be made in compliance with the wiring scheme of the controlled equipment. After installation has been completed, the installer is required to check that all commands are working properly. Avoid prolonged contact with oils and acids when using the equipment, as these may damage the products.

- 1) Using the locknuts (Ref. 27), attach the central pipe (Ref. 12) to a minimum 3 mm thick plate with a central hole of $\varnothing 48.5 \div 52.5$ mm (using the reducing cable clip on the nuts). As an alternative the central pipe (Ref. 12) can be attached to a plate with a threaded hole of $\varnothing 48$ mm, 1.5 mm pitch, using the locknuts as jam nuts (Ref. 27).
- 2) Rotation is achieved thanks to 2 $\varnothing 10$ mm pivots (Ref. 24) situated on the base (Ref. 10) at a distance of 160 mm from each other. We recommend the coupling to be made with slack to take up any possible runout during rotation. Rotation can also be achieved by attaching the base (Ref. 10) using the two pivots (Ref. 24) situated on the plate, thus enabling the central pipe to rotate by (Ref. 12) thanks to a suitable coaxial joint.
- 3) Connections are made by using cables passing through glands. Check that cables do not interfere with any moving parts. Minimum radius of curvature is 170 mm. Connect the cables, properly protected through pipes, to the junction boxes in accordance with the ATEX Norm.
- 4) Please check the equipotential of any surfaces not generally recommended to be used under voltage, and the ground connection using the cables provided.
- 5) Provide for appropriate magneto-thermic safety switches, both for power supply and for the optional anti-condensation resistance supply.
- 6) The anti-condensation PTC heater is designed for applications in which temperatures and humidity could cause condensation as a result of humidity in the atmosphere (e.g. when installed outside).

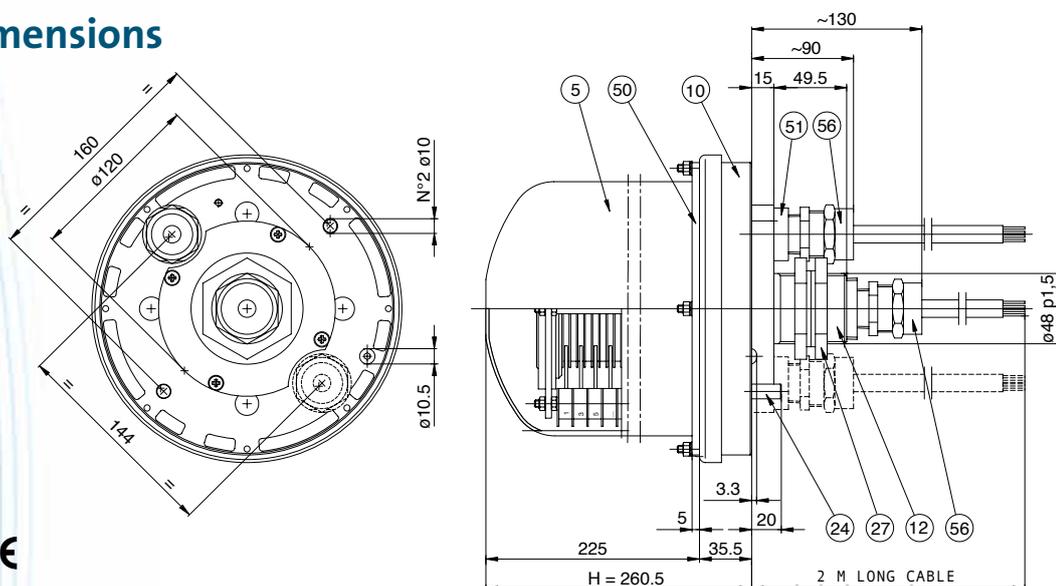
Maintenance

A programme of periodical maintenance is required to be carried out to ensure that the EXD slipping is kept in perfect working order. All maintenance is to be effected by qualified personnel using only original spare parts, always in absence of potentially explosive material (i.e. in reclaimed areas) Any defective or altered parts must be replaced promptly, even outside the maintenance schedule, as they could impact on the safety of the device. The first maintenance is to be carried out within 300 hours rotation (50 revs/min) or 12 months after installation. Successively, maintenance should be carried out every 18 months.

- 1) Disconnect from power source and wait at least 30 minutes, until the internal parts have cooled down.
- 2) Remove the external flange (Ref. 50) and the cover (Ref. 5).
- 3) Check the brushes for wear and tear, and check that they fit properly to the rings.
- 4) Remove copper-graphite dust with de-humidified compressed air or a clean brush.
- 5) Check seal on cable terminals. The torque wrench must be 0.6 Nm.
- 6) Use an ohmmeter to check continuity of connections of anti-condensation resistance.
- 7) Verify the gasket integrity.
- 8) By replacing the cover, make sure that the gasket is placed in its proper position. Check that the external flange is in place (Ref. 50) and the positioning of the screws and their relative flat and threaded washer. Check the continuity of the terminal on the base, identified by the label stuck on the cover (Ref. 5).
- 9) Tighten the closure screws with a 2.2 Nm torque wrench.

Please note that the guarantee does not cover any equipment whose parts have been modified and tampered. RAVIOLI declines any responsibility for damage deriving from incorrect installation or use of the product.

Dimensions



CE

