

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, 34A, 42A Mixed compositions with rings 4A, 7A, 16A, 34A and 42A Possible introduction of rings for signals.
Armonized rules	Norms: EN 60079-0 EN 60079-31 EN 60947-1 EN 60204-1 EN 60529
Directives	2014/34/UE - 2014/35/UE - 2006/42/CE
Certification of type	BVI 09 ATEX 0046 X
Quality notification	BVI 17 ATEX 0019 Q
Marking	CE

Electrical Features

Nominal voltage	440 V ac - dc
Nominal current	Ith 4A - 7A - 16A - 34A - 42A
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
G EXD E4	4 x 42A + PTC	260,5
G EXD E4N	4 x 42A	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
G EXD E4 A4	4 x 42A + 4 x 4A	260,5
G EXD E4 A2	4 x 42A + 2 x 4A + PTC	260,5
G EXD E4 A2N	4 x 42A + 2 x 4A	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) Connect the central pipe (Ref. 12) by using the locknuts (ref. 27) to a minimum 3 mm. thick plate and with a central hole of $\varnothing 48.5 \div 52.5$ mm. (by using the reducing cable clip on the nuts) for versions with pipe M48X1,5; or with central hole $56 \div 57$ mm. for versions with pipe M55X1,5. Alternatively connect the central pipe (ref. 12) to plate with a threaded hole of $\varnothing 48$ mm. and 1,5 mm. pitch, or $\varnothing 55$ mm. and 1,5 mm pitch, by 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).

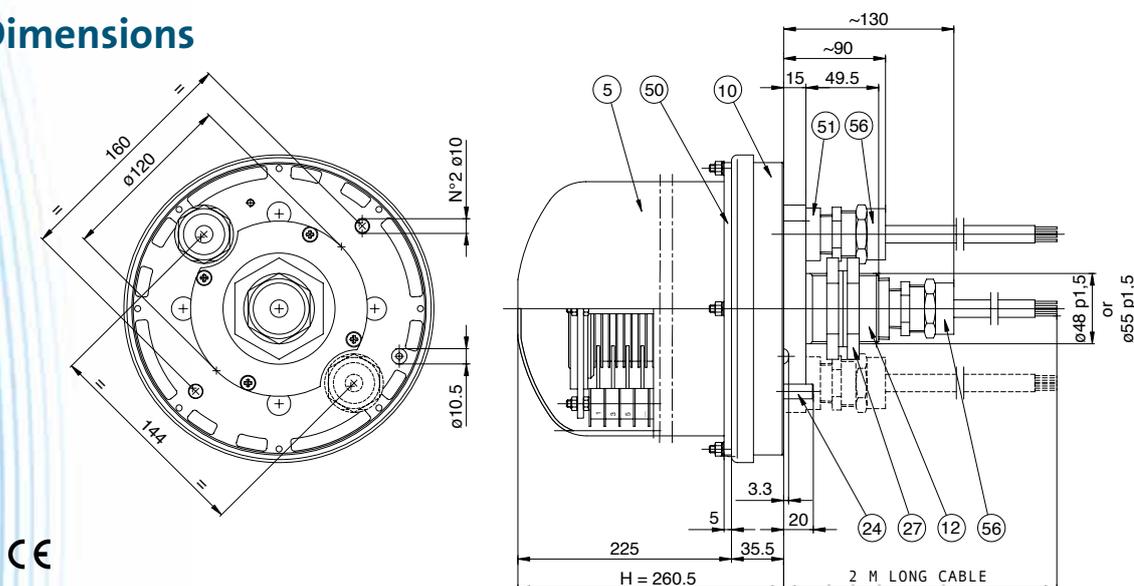
Maintenance

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