

Installation & Maintenance Manual for DOL range of Motor Starters

Specifications

Types	DOL1.1/XXX starter for 1.1kW single phase motor DOL1.5/XXX starter for 1.5kW single phase motor DOL2.2/XXX starter for 2.2kW single phase motor DOL3/XXX starter for 3kW single phase motor DOL4/XXX starter for 4kW three phase motor DOL5.5/XXX starter for 5.5kW three phase motor DOL7.5/XXX starter for 7.5kW three phase motor	
Hazardous Area	SIRA02ATEX1312 IECEX SIR 08.0066X POCC DE.ГБ06.В01008 NCC 6239/10 CE 0102	
Certification coding for ATEX/IECEX	⊕ II 2 GD	Ex d IIB T6 Gb Ex tb IIIC T85°Db
Ambient temperature range	-40°C to +55°C	
IP Rating	IP65	
Mechanical	Cast iron Painted black M20 (M32 for DOLXXX/XXX/32 types)	
Electrical	Maximum voltage DOLXXX/240 240V contactor coil voltage DOLXXX/415 415V contactor coil voltage	
Overload relay range	4-6A 6-10A 6-10A 6-10A 6-10A 6-10A 9-12A 12-16A	
Terminal capacity	2.5mm ²	
Conformity	IEC 60079-0: 2007 EN 60079-1: 2007 EN 13463-1: 2001 EN 61241-0: 2006 EN 61241-1: 2004 EN 60529	

Installation

To minimise the risk of ignition by electrical apparatus in hazardous areas efficient installation, inspection and maintenance of apparatus and systems is essential and the work should be carried out by suitably trained personnel in accordance with the prevailing code of practice.

- 1) The enclosure should be used as a template when marking fixing points. Expanding bolts should be used when mounting on concrete, or suitably sized bolts, nuts and anti-vibration washers when mounting to a steel framework.
- 2) **No metal should be removed from the enclosure i.e. extra cable entries or mounting points should not be made.**
- 3) **No modifications should be made to the fitted equipment without consultation with Pepperl+Fuchs. The fitted equipment has been assessed to produce a heat rise that will maintain the stated gas/dust temperature classes.**
- 4) Cable entries should be made only with suitably approved Ex d / Ex tb glands noting that this equipment is suitable for use with gas group IIB & dust group IIIC. IP ratings should be suitable for the intended area of installation.
- 5) Ensure that the type of cable being used is suitable for the type of gland. Certain types of cable have a hollow centre and must not be used with compression type glands. With these types of cables, barrier or 'stuffing' glands should be used.
- 6) All unused entries should be fitted with suitably approved Ex d / Ex tb stopping plugs.
- 7) A corrosion inhibiting grease may be applied to the surface of the flameproof joints before assembly. If applied, the grease should be of a type that does not harden because of ageing, does not contain any evaporating solvent and does not cause corrosion of the joint surfaces.
- 8) Once the cover is fitted, ensure that all fasteners are fully tightened.



Special conditions for safe use

- 1) The special condition for safe use mentioned in IECEx SIR 08.0066X is not relevant to the models listed in this document.

Maintenance

Electrical apparatus installed in hazardous locations has design features that make it operationally safe under normal conditions. In order to ensure that the apparatus remains serviceable the following points should be attended to on a periodical basis. The period between inspections is not fixed, but should be adjusted to suit the environmental conditions where the equipment is situated. An initial inspection after 12 months of use is suggested.

- 1) Ensure that all fasteners are present and of the correct property class. Refer to the certification label for details.
- 2) Ensure that the enclosure is not damaged or distorted so as to affect the dimensions of the flameproof joints.
- 3) Ensure external earth bonding connections are in place and in good condition.
- 4) Ensure that all entry devices are in good condition and securely tightened.
- 5) Ensure that the certification label is present and legible.

Ensure that the location where the equipment is fitted is free from flammable gas or dust. With the enclosure open:

- 6) If a cover gasket is fitted, ensure that it remains in place and is in good condition. Replacement gaskets are available from Pepperl+Fuchs.
- 7) Look for pitting or damage to the flamepaths of the enclosure body and cover. Surface corrosion may be removed, but abrasive cleaners should not be used.
- 8) Look for wear or damage to the flamepaths of any operating shafts (pushbuttons or rotary switches) that pass through the enclosure.
- 9) The flamepaths of the enclosure should be cleaned, and may optionally be coated in grease to guard against corrosion. If applied, the grease should be of a type that does not harden because of ageing, does not contain any evaporating solvent and does not cause corrosion of the joint surfaces.
- 10) With the cover refitted, ensure that all fixings are fully tightened.