

Installation & Maintenance Manual for E501 Miniature Wellglass Light Fitting

Specifications

Types	E501001 (white glass) E501002 (red glass) E501003 (green glass) E501004 (blue glass) E501005 (amber glass)		
Hazardous Area	SIRA02ATEX1058 IECEX SIR 09.0117		
ATEX certificate number	SIRA02ATEX1058		
IECEX certificate number	IECEX SIR 09.0117		
GOST certificate number			
INMETRO certificate number			
CE number	CE 0102		
Certification coding for ATEX/IECEX	Ex II 2 GD	Ex d IIB T* Gb Ex tb IIIC T** Db	
Temperature ratings:	SIRA02ATEX1058 IECEX SIR 09.0117		
	T*	T5 T4	T5
	T**	T100°C T135°C	T100°C
	Ta -40°C to	+50°C +85°C	+40°C
Cable entry point temperature	75°C 110°C	75°C	
IP Rating	IP65		
Mechanical			
Material			
Main body	Cast iron (aluminium for E50100X/AL types)		
Glass dome	Toughened borosilicate glass		
Finish	Painted black		
Entry threadform	M20		
Electrical			
Maximum voltage	250V		
Lamp type	SBC incandescent 15W max		
Terminal capacity	1x2.5mm ² or 2x1mm ²		
Conformity	EN 60079-0: 2006 IEC 60079-0: 2007 EN 60079-1: 2007 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) The unit is designed in three sections – the terminal chamber, the centre ring (with the lampholder) and the glass housing.
- 5) To gain access to the terminal chamber for wiring, the M5 socket head cap screws on each side of the terminal chamber should be removed. The glass housing and centre ring can then be withdrawn as an assembly.
- 6) To gain access to the glass housing for relamping, the M5 grub screws on either side of the glass housing should be removed. The glass housing can then be unscrewed from the centre ring. On refitting, the glass housing should be screwed down sufficiently to compress the annular gasket before the grub screws are tightened.
- 7) 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.
- 8) 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.
- 9) All unused entries should be fitted with suitably approved Ex d / Ex tb stopping plugs.
- 10) 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.



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.