


Intrinsically Safe Optical Liquid Level Switch

Installation and Maintenance Information

Category:  II 1 G

Certification: Ex ia IIC T4 Ga (Tamb -30°C to +80°C)

Certificates: CML 22ATEX2015, IECEx CML 22.0002, CML 22UKEX2016

APPLICATION

This instrument is designed as EPL Ga which is normally suitable for use in hazardous areas of Zones 0, 1, and 2. It is designed for Equipment Groups IIA, IIB, and IIC with a temperature classification of T4 as defined by EN/IEC standards 60079-0, and 60079-11 (latest versions).

It is designed for the ATEX Equipment Directive 2014/34/EU for equipment-group II category 1.

WARNING

Read the instructions and thoroughly understand them before proceeding. Ensure the details on the label comply with the Hazardous Area specified.

GENERAL

No modification should be made to the instrument without reference to the manufacturer, as unauthorised modification to an approved apparatus will invalidate the certificate/approval/warranty. Installation should be carried out only by appropriately trained and suitably qualified technicians in accordance with local regulations valid at the time of installation at that location.

INSTALLATION

1. Connect only to an appropriately selected intrinsically safe circuit, for example the output of a Zener Barrier or other suitable associated apparatus.
2. Do not install the device suspended from the cable. Avoid exerting excessive tensile force on the cable.
3. After ensuring power has been disconnected and locked out, align the pins on the electrical signal connector with the M12 mating connector on the cable. The cable can then be gently pushed into place.
4. Rotate the fastener clockwise until finger tight. The sensor is now connected to the electrical supply.
5. If using a cable with more than two cores, you must ensure that any spare cores are terminated correctly at the connected equipment end by either:
 - a. insulating by the use of suitable terminations or insulation, for example with heat shrink tubing over the wire end; or
 - b. by connected to the earth point used to earth the connected circuit (usually at the barrier).
6. It is now safe to reconnect power.

MAINTENANCE AND INSPECTION

1. Frequent inspection should be made. A schedule for maintenance check should be determined by the environment and frequency of use but should be regular enough to ensure the equipment continues to operate in the designed manner.
2. External parts of the instrument enclosure should be periodically cleaned to ensure dust deposits are not allowed to accumulate.

INTRINSIC SAFETY INPUT PARAMETERS FOR ALL VARIANTS

$$U_i = 12 \text{ VDC}$$

$$I_i = 130 \text{ mA}$$

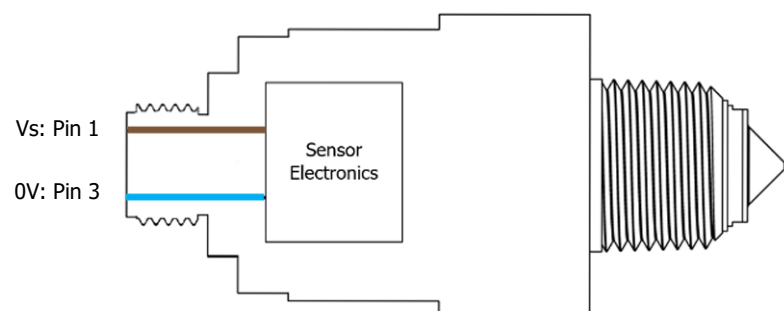
$$P_i = 85 \text{ mW}$$

$$C_i = 1.08 \text{ } \mu\text{F}$$

$$L_i = 0$$

CONNECTIONS

*Pin connection	
Pin	Designation
1	+ Vs
2	NC
3	0 V
4	NC



All statements, technical information and recommendations contained herein are based on information and tests we believed to be reliable, the accuracy or completeness thereof are not guaranteed and since conditions of use are outside our control, the purchaser should determine the suitability of the product for its intended use and assumes all risk and liability whatsoever in connection herewith.

HEALTH AND SAFETY AT WORK ACT

In the UK all equipment must be installed and disposed of (as required) within the legislative requirements of the Health & Safety at Work Act 1974. All other international Health & Safety regulations must be complied with.