

POLYTRON SE EX

Dräger

THE DEVICE THAT CAN MONITOR THE RISK OF EXPLOSION OF FLAMMABLE GASES AND VAPOURS IN AMBIENT AIR.

The Polytron SE Ex is a fixed sensing head intended for the continuous monitoring of flammable gas-air or vapour-air mixes at concentrations from 0 to 100% of the lower explosive limit (LEL) or 0 to 10% of the LEL in ambient air.

Equipped with a CatEx catalytic sensor, the measurement is based on an increase in temperature caused by a chemical reaction that takes place in the catalytic combustion chamber (pellistor) inside the sensor. The two catalytic beads, of the exact same size and reference, change in response to the temperature and humidity in the same way. The sensor generates a mV signal proportionate to the gas concentration.

The sensor is connected to a control panel such as the REGARD or UNICARD LT via a three-core shielded cable several metres in length.

All the sensing heads contain sensors with the 'db' f protection rating (pressure resistant enclosure) or the 'tb' protection rating (enclosure protection).

None of the sensing heads or sensors presented in this document are certified and approved for use in oxygen-rich atmospheres. They cannot be used in the presence of high levels of oxygen (> 21 Vol% O2).

There are several types of Polytron SE Ex, which are categorised according to two criteria:

1. The catalytic combustion model:

Polytron SE Ex DQ (Cat Ex DQ 0-100 %LEL):

for detection of up to 100% LEL Increased safety version: d e approved Flameproof version: d approved

Polytron SE Ex HT: for detection of up to 100% LEL Special version for temperatures of up to 150°C

Polytron SE Ex LC (Cat Ex LC 0-10 %LEL): for the detection of very low concentrations in a measurement range of 0 to 10% LEL (leak detection) Increased safety: d e approved Flameproof: d approved

2. And the various types of junction boxes:

M1 - small standard housing

M2 - medium standard housing (for outdoor applications)

M3 - large GRP plastic housing
NPTI - flameproof metal housing

SPECIFICATIONS

- Use in an industrial environment and in zones subject to explosion hazards 1 and 2 as well as zones 21 and 22
- Connexion to a control panel via a three-core cable
- Poison-resistant (PR) sensor: resistant to sulphur, phosphorus, silicone and lead compounds
- Fast response time thanks to wire mesh at the opening to the sensor (quicker diffusion of gas)

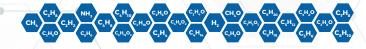
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TECHNICAL DATA

DD AND LC MODELS

Size:

M1 : 3.2 x 5.1 x 2.2 in. (8.0 x 13.0 x 5.6 cm)
M2 : 5.36 x 4.2 x 2.2 in. (13.6 x 10.7 x 5.6 cm)
M3 (platics PRV) : 5.8 x 6.1 x 2.9 in. (14.7 x 15.4 x 7.5 cm)
NPTI (explosion-proof metal) : 4.0 x 6.0 x 2.9 in. (10.1 x 14.2 x 7.5 cm)

Weight:

M1: 1.1 lbs (0.5 kg),

M2 : 1.3 lbs (0.6 kg), M3 : 2.6 (1.2 kg), NPT1 : 1.5 lbs (0.7 kg)

Protection Class: IP66

Cable entry point: cable glands M20 x1,5 (except NPTI)

Humidity: 5 à 95 %RH (non condensing)

Power supply: 30 VCC, 3-wire

Power consumption:

DQ Sensor: 255mA, env. 1W LC Sensor: 276 mA, env. 1 W

Approvals:

M1/M2/M3 ATEX : II 2G Ex de IIC T6/T5/T4 Gb NPTI ATEX : II 2G Ex d IIC T6/T5/T4 Gb

Warranty: 1 year

DQ AND LQ MODELS

Size: 5.9 x 5.9 x 3.4 15.0 in. (15.0 x 15.2 x 8.5 cm)

Weight: 5.7 lbs (2,6 kg)

Temperature:

-58 $^{\circ}F$ to T3 : 302 $^{\circ}F$, T4 : 180 $^{\circ}F$, T5 : 131 $^{\circ}F$, T6 : 104 $^{\circ}F$

Certifications:

ATEX Capteurs : II 2G Ex d IIC T3,

Boîtier : II 2G Ex e II T3