DURAN® electrónica

DURTEX X HC PRO
Ex-proof detector for explosive gases using catalytic technology

Available formats:

- RS485C addressable 4 wires connection, compatible with EUROSONDELCO & SIEMENS CC62P, and could be installed in parallel up to 16 detectors in the same loop.
- 4-20mA 3 wires connection, compatible with any system provided of 4-20mA inputs.

Detection range from 0 to 100% L.E.L.
Optical indicators of loop and sensor fault
Selecting the gas to be detected by jumper (RS485C)
Optional programmable alarm relay module (4-20mA) and optional output relay (RS485C)
Resistant to silicone vapours (HDMS)

AVAILABLE GASES

Methane – natural gas, hydrogen, butane, propane, heptane, hexane, pentane, methanol, styrene, ethane, ethanol, ethylene, propylene, acetone, ammonia, ciclohexane, ciclopentane, dioxane, butyl acetate, ethyl acetate, acetic acid, isobutyl alcohol, isopropilic alcohol, decane, benzene, octane, methyl ethyl ketone (butanone), nonane, propanol, toluene, xilene. For other gases, please consult availability.

Appropriated 4-20mA detectors calibration at factory requires prior information about the gas to be detected.

APPLICATIONS

Detection of explosive gases in aggressive environments with explosion high risk.

PLACE / HEIGHT OF INSTALLATION

In those areas where the gas is accumulated, at 1,5 meters away from gas appliances and avoiding air flows.

Coverage area is 16m² approx. Recommended height of installation

- 30 cm. from ceiling: Methane, natural gas, ammonia, hydrogen.
- 30 cm. from floor: Butane, propane, acetone, ethyl acetate, butyl acetate, acetic acid, isobutyl alcohol, isopropilic alcohol, benzene, ciclohexane, ciclopentane, decane, dioxane, styrene, ethane, heptane, hexane, iso-butane, iso-pentane, methyl ethyl ketone (butanone), nonane, iso-octane, pentane, propanol, propylene, toluene, xilene.
- 100 cm. from floor: ethane, ethanol, ethylene, methanol.

MAINTENANCE

Durtex X-HC PRO detectors have been calibrated at factory with target gas therefore do not need to be calibrated at installation again. Check Durtex X-HC PRO detectors at least once per year, and follow the instructions of the installation manual for testing and recalibrating operations if required.

Durtex X-HC PRO is automatically recalibrated for the detection of any available gases by protocol assigned using a jumper – RS485C models-

WARNING

Do not use these detectors in presence of hydrogen sulphur, fluorine, methyl chloride, trichloroethylene, sulphur dioxide, silicon vapours or sulphhydric acid, as presence of these gases can inhibit sensor response or been damaged.

Use wire hose of the correct section for the cable input.

Do not immerse the detector in water or any other liquid.

Durtex X-HC PRO has been designed for atmospheres with lower value than 100% L.E.L. of the gas which are calibrated for and with a normal presence of oxygen.
TECHNICAL CHARACTERISTICS

Technology | Catalytic sensor and microprocessor
Voltage supply | 10V – 30V DC
Maximum consumption | 60mA at 12V DC
Max. loop resistance (4–20mA) | 250Ω
Max. current output (4–20mA) | 21.3 mA (Tip)
Fault loop current (4–20mA) | < 2mA
Measurement range | 0–100% L.E.L. Methane -linear full range-
Resolution | ± 1% L.E.L.
Zero deviation | ± 7mV/year
Span deviation | ± 9% L.E.L. / year
Stabilisation time | < 15 min – all specifications-
Response time T50/T90 | 3s & 8s respectively
Useful life (MTBF) | 3 years approx.
Maintenance time | Recommended once per year
Temperature range | -20°C to +70°C
Humidity range | 0 to 95% HR with no condensation
Pressure limits | 1 Atm ± 10%
Connections 4–20mA | 3 wires + earth ground mesh
Connections RS485C | 4 wires
Loop & sensor fault optical indicator | Internal
Communications state optical indicator | Internal – Digital transmission in RS485C Models–
Programmable alarm relay –optional 4–20mA– | 2 programmable alarm levels, instantaneous/delayed disconnection, disconnection retard programming. Starting programming: idle mode relay.
Coverage area | 16 m² approx.
Protection Grade | IP43S
Code of explosive atmosphere | EEx dII C T5
Adapter material & synerized filter | Stainless steel CESI01ATEX 066U
Box material | Aluminium. Certificate LOM 02ATEX2037
Material Gland | Natural brass and santoprene toroidal LOM 03ATEX2031 X
Stopping plugs material | LOM 03ATEX3035U
Cable diameter | 6–10mm²
Cable type (4–20mA) | Shield type cable 3x1,5mm Ø
Cable type (RS485C) | 4 wires 2x1,5mm 2x0,25mm Ø
Installation max distance | 650m (RS485C), 300m (4-20mA)
Dimensions –mm– | 162 x 150 x 90
Weight –gr– | 1.372 approx.

GUARANTEE

Durtex X-HC PRO detectors are guaranteed against any manufacturing defect for 1 year from the date of purchase. Guarantee conditions are gathered in the installation manual of the detector.

ORDERING INFORMATION

When placing the order please be sure about the correct product code according to the description and, check that it complies with your requirements.

Do not forget that for detectors RS485, gas selection is done by protocol assigned by a jumper But, for detectors 4–20mA prior indication of the gas to be detected is required.

<table>
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<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>DPLN4***</td>
<td>Exproof detector for explosive gases in aggressive environments</td>
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<td>DPLN4*** r</td>
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RS485C Detectors

<table>
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<td>DPLNX-HC</td>
<td>Exproof detector for explosive gases in aggressive environments</td>
</tr>
<tr>
<td>DPLNX-HCr</td>
<td>Exproof detector for explosive gases in aggressive environments with relay outputs</td>
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</tbody>
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Natural gas, methane NAT, butane BUP, hydrogen HID, ammonia –exp– AMN, hexane HEX, ethylene ETI, butyl acetate ABT, ethyl acetate AET, acetone ACA, acetic acid ACE, isobutyl alcohol ABU, isoproplic alcohol AIP, benzene BCN, butyl methyl ketone BMC, ciclohexane CHX, ciclopropane CHP, decane DEC, dioxane DIO, ethane ETO, ethanol ETA, heptane HEP, methanol MTI, methyl ethyl ketone (butanone) EMC, nonane NON, octane OCT, pentane PEN, propanol PRL, propylene PRE, styrene EST, toluene TOL, xilene XIL (others, consult).