

Molecular Leakage Detector

For hydrogen applications

H₂

MLD
molecular leakage detector

with NevadaNano MPS™ Technology inside



The MLD is a cost effective, long life flammables gas detector, based on MPS technology, that reduces maintenance needs and allows the customer to have highly reliable product with the latest technology.

This hydrogen version has built-in the “gas selectivity” option: the customer can choose to get alarms only for H₂ or for any flammables gas leaks in the area.

Highly flexible and reliable, this detector combines the Molecular Property Spectrometry technology with a specific electronic to provide the Modbus, the analog 4-20mA and the voltage output.

It is also equipped with two relays (Alarm 1 and Alarm 2/Malfunction) to offer a clean signal that can be managed in an intuitive way. It comes with 1,5 or 3 meters cable, without connector.

Applications

- Fuel cells
- Electrolizers
- Storage tanks
- Piping
- Boilers
- Hydrogen fuelled engines

Part Number Definition

MLD-MN072-3

Part Series

Sensors Type

S4 = NevadaNano Type S4

MN = NevadaNano Type MINI

Gas configuration

7 = Hydrogen

F7 = Hydrogen (Can detect the presence of gas at start-up)

Power Supply

1 = 12VDC

2 = 24VDC

Cable Length

Blank = 1.5m

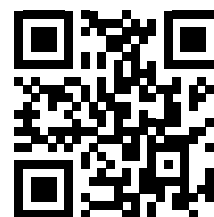
3 = 3.0m

Features & Benefits

- No field calibration needed
- Immunity to poisoning
- No cross sensitivity
- Gas recognition and selectivity
- Fail Safe (built in diagnostic)
- Long life (+15 years without calibration)
- Wide Temperature working range
- High accuracy with built-in Temperature, humidity and pressure sensors
- T - Rh - P values available as signals
- Multiple digital and analog outputs

TECHNICAL FEATURES

Sensor Performances	
Technology	Molecular Property Spectrometry™ by NevadaNano
Gas detected	Hydrogen
Measurement range	0-100% LEL
Accuracy	±5% LEL
Response Time	<12 sec.
Response Time (T90)	<20 sec.
Resolution	0,1% LEL
Lifetime	15+ years
Detector Operating Features	
Signals Output	Gas concentration, Status, Prealarm, Alarm, Fault, Lifetime, Pressure, Humidity, Temperature
Communication Output	Digital: Modbus (RS-485) - Analog: 4-20mA - Analog: 0.4-2V - Dry Contacts: 2x Alarm Relays (LOW conc. - HIGH conc./FAULT)
Visual Information	3 x LED (Status, Prealarm, Alarm/Fault)
Supply Voltage	12-24VDC
Power Consumption	Avg. 50mA - Peak: 60mA (12VDC) 80mA (24VDC)
Operating Temperature	-40° to +70°C (12VDC) -40° to +60°C (24VDC)
Operating Humidity	0 - 100% RH
Operating Pressure	80 to 120 kPa
Protection grade	IP65
Dimensions MLD-MN	13 x 8 x 2,5 cm
Dimensions MLD-S4	13 x 8 x 4,0 cm
Certifications & Approvals	CE, EMC, Rohs, EN60079-0, EN60079-11, ATEX SIL 2 according to IEC61508 / EN50402 / IEC 50271 / IEC 50270 (pending)



More info here