



# UDM-MWO

## Universal Display Module Multi Wire Option



Performance Approved  
to CSA Standards

### Features

- Single or Dual Channel display
- Remote sensor separation
- Pass through 4-20 mA signal
- User friendly Universal interface across multiple brands of gas detection
- Epoxy painted explosion-proof 316 stainless steel enclosure
- Operating temperature: -55°C to +75°C
- Dual Display combination of detectors can be LEL/H2S, LEL/LEL H2S/H2S, etc
- Remote calibration of gas sensor
- Toggle channel display on or off
- Field replaceable UV protected OLED display
- Active display to optimize long life OLED's
- Made in Canada built to withstand Canadian weather
- Smart sensor technology (Auto configuration)
- Performance tested and certified to CSA C22.2 No.152
- Certified by INTL to CDN and US Standards
- Conformal coated electronics
- Zone 2 NO SEALS REQUIRED and Zone 1 seals required
- Captive thumb screws for ease of installation
- Digital connection to sensor module
- Low power consumption
- Certified 2 & 3 Wire Retro Fit Solution
- Optional Relays Available

### Applications

The Protek Universal Display Module; Multi-Wire Option is designed as a plug-and-play retrofit solution for any outdated and discontinued 2- and 3-wire gas detector units. This feature enables you to upgrade older infrastructure without extensive rework, saving you time, money, and reducing waste.

- Petrochemical
- Medical
- Semi Conductor
- Mining
- LNG/LPG processing and storage facilities
- Fertilizer
- Pulp and Paper
- Wastewater / Water Treatment
- Compressor stations
- Pharmaceutical
- Refrigeration
- Chemical

### Operation / Description

The Universal Display Module: Multi-Wire Option is a retrofit solution designed to replace old 2- or 3-wire gas detectors that have become outdated or discontinued. It provides compatibility across various gas detection brands, enabling users to work with a consistent interface while selecting the best technology among compatible systems. The UDM-MWO module allows the 4-20 mA signal from the attached 3 wire gas detector to pass through unaltered, without interruption or signal recreation. The UDM-MWO permits you to upgrade your gas detection to modern technology while not requiring you to break seals or pull additional wires in your currently installed conduit.

The UDM-MWO serves as a digital signal master, interfacing with gas detectors to display real-time gas concentration data from remote mounted gas detection sensors. Its user-friendly design also facilitates remote calibration and parameter configuration. This flexibility makes the UDM-MWO an efficient solution for modernizing older gas detection infrastructure.

# Specifications

## Model: Universal Display Module Multi Wire Option | UDM-MWO-001 & UDM-MWO-002

### Inputs:

Sensor Electronics Millenium Series Detectors  
 Sensor Electronics 3000 Series Detectors  
 Detcon Model 700 Gas Detectors

\*Detector Models to be verified for functionality at time of quote

### Electrical Classification:

Certified to Canadian and U.S. Standards  
 Class 1, Division 1, Groups B, C, D, T4 (Seals required)  
 Ex db IIB T4 Gb (Seals required)  
 Class 1, Zone 1 AEx db IIB T4 Gb (Seal required)  
 Class 1, Division 2, Group A, B, C, D, T4 (No seals required)  
 Conforms to CSA C22.2 No.152 M(1984) R2016  
 Conforms to CSA C22.2 No. 60079-29-1:17A1:22 (R2022)  
 Conforms to UL 60079-29-1 Ed: 2



### Environment Enclosure Classification:

NEMA 4X, IP66/67

### Outputs:

Single Channel: 4-20mA (3 wire device configuration)  
 Dual Channel: 2x 4-20mA (4 wire device configuration)  
 Optional Relays Rated for 5 A @ 30 VDC / 250 VAC:  
 Single Channel: 3 x Form C (Alarm, SD & Fault)  
 Dual Channel: 4 x Form C (Alarm 1, Alarm 2, SD & Fault)

### Input Voltage:

10.5-30 VDC (Determined by voltage of attached detectors)

### Operating Voltage:

24 VDC - Operating range: 8 to 32 VDC measured at the detector head

### Power Consumption:

<0.5 Watts at 24 VDC (normal)  
 (excluding attached gas sensors)

Display Type	Channels	Part Number	Operating Temp	Warranty Period
Single Channel Analog Only	1	UDM-MWO-001-A	-55°C to 75°C	2 Year
Dual Channel Analog Only	2	UDM-MWO-002-A	-55°C to 75°C	2 Year
Single Channel Analog & Relay	1	UDM-MWO-001-AR	-55°C to 75°C	2 Year
Dual Channel Analog & Relay	2	UDM-MWO-002-AR	-55°C to 75°C	2 Year
2-3 Wire Retro Fit Sensor Separation Kit	N/A	UDM-MWO-SEPKIT	-55°C to 75°C	2 Year
Sensor Separation Kit	N/A	UNV-SEPKIT-004	-55°C to 75°C	2 Year

