Applications

Explosion-proof display/controller for use with:

- XMO2 thermoparamagnetic oxygen transmitter
- XMTC thermal conductivity hydrogen/gas transmitter
- Any other 4 to 20 mA output transmitter

Features

- Explosion-proof for Class I, Division 1, Group B,C&D hazardous areas
- Flameproof II 2 GD EEx d IIC T6 T85°C
- Infrared (IR) through-the-glass keypad
- Universal AC input
- 24 VDC power supply for XMO2, XMTC or O2X1
- Software for measurement of percent or ppm oxygen or hydrogen
- Three-curve software for hydrogen-cooled generator
- Programmable process relay contacts

XDP Explosion-Proof Display

The XDP explosion-proof display provides the measurement of percent or ppm oxygen or hydrogen gas. The explosion-proof XDP is certified for use in Class I, Division 1, Groups B,D, and II 2 GD EEx d IIC T6 hazardous areas.

The XDP features advanced microprocessor-based electronics, an infrared, through-the-glass keypad, a universal power supply (85 to 264 VAC), one 0/4 to 20 mA or 0 to 2 VDC analog output, four process alarms, and a fault alarm.

Auto-verification/Auto-calibration

The XDP provides long-term, hands-off operation with this optional feature. When initiated, the XDP controls solenoid valves in the sample system to bring zero and span gases to the transmitter. Then the XDP software compares calibration gas readings with factory data to verify proper calibration. If an adjustment is necessary, the XDP makes corrections automatically and notifies the user via the front panel display and alarm contacts.
### XDP Specifications

**Functional**

#### Analog Output
Linearized isolated 4 to 20 mA, 0 to 20 mA or NAMUR user-selectable, field-programmable output for any range from 0 to 100 percent or 0 to 10,000 ppm.

#### Input Power
85 to 264 VAC, 47 to 63 Hz, 40 W

#### Fuse
1.25 A

#### Analog Input
4 to 20 mA

#### Output Power Supply
24 VDC ±2 VDC at 1.2 Amp

#### Ambient Temperature Range
14°F to 140°F (–10°C to 60°C)

#### Keypad
Infrared, through the glass, six keys

#### Display
Four-line, backlit liquid crystal display

#### Display Accuracy
±0.25% of full scale

#### Relay Outputs
- Contact ratings: 2 A, 28 VDC, SPDT
- Programmable as fail-safe or nonfail-safe

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**Front View**
- 8 in (210 mm)
- 6.4 in (163.5 mm)
- Removable side covers for input/output terminations

**Side View**
- 9 in (229.8 mm)
- 3.7 in (96 mm)
- 3/4 in NPT conduit port
- 0.5 in (12.7 mm)
- External ground

**Back View**
- 7 in (180.3 mm)
- 5.6 in (142.2 mm)
- 35°
- 0.53 in (13.4 mm) mounting holes

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**XDP dimensions in inches (mm)**
Standard Software for O₂ Analysis

Measurement Range Examples

- 0 to 10; 100; 1,000; or 10,000 ppm O₂
- 0% to 1%; 10%; 21%; 25%; or 100% O₂

Relays

- Four process alarms
- One fault alarm
- Two automatic calibration contacts
- Two calibration alarms

Hydrogen-Cooled Generator Software

Three Ranges

- 0% to 100% H₂ in air
- 0% to 100% H₂ in CO₂
- 0% to 100% air in CO₂

Relays

- Two process alarms
- One fault alarm
- One normal alarm

Physical

Dimensions (w x h x d)
9 in x 10 in x 9 in. (229 mm x 254 mm x 229 mm)

Weight
15 lb (6.8 kg)

Environmental

- Weatherproof enclosure Type 4X/IP66
- Explosion-proof Type 7 enclosure:
  FM/CSA Class I, Division 1, Group B,C,D
- Flameproof: KEMA 01ATEX2128
  II 2 GD EEx d IIC T6 T85°C

European Compliance

Complies with EMC Directive 89/336/EEC, 73/23/EEC LVD (Installation Category II, Pollution Degree 2)

Conduit Entry
Six 1/2 in NPTF conduit ports

Mounting Holes
Four 3/8 in (10 mm) holes

Order Information

Record selected option in blank indicated at bottom of form.

XDP Explosion-proof Display for Use with XM02, XMTC and O2X1

Package
2 Explosion-proof/weatherproof enclosure

Power
1 100 VAC
2 115 VAC
3 230 VAC
4 240 VAC

Keypad
1 IR keypad

Configuration
1 Standard
2 Hydrogen-cooled generator

XDP __ __ __ Use this number to order product