



GENERAL MONITORS
Protection for life.

FIELD MOUNTED DISPLAY



Features

- Four-digit Backlit LCD Display
- Loop Powered or +24VDC
- Software Selectable Settings
- Program Review
- Optional Relays
- Relay Inhibit Mode

Benefits

- Continuously visible indication of concentration
- Variety of applications
- Ease of operation and enhanced reliability
- Review all option settings
- Application flexibility
- Allows gas checking with outputs disabled



Description

The General Monitors Field Mounted Display (FMD) is a four-digit backlit LCD readout which provides a display value proportional to sensed current. It is designed for use with General Monitors' Models TS400, TS420, IR2100 and IR7000. Four specific hardware configurations are available:

Explosion-Proof Housing

1. *With integral shunt-diode barrier* - for use with TS400 and TS420 in explosion-proof protected installations. Relays are optional. Display range is programmable for the gas range being detected.
2. *Without barrier* - for use with IR2100 and IR7000. Relays are optional.

Polyester Housing

1. *Intrinsically safe loop-powered* - for use with TS400 and TS420 in intrinsically safe protected installations. A safety barrier is required in the control room to maintain approvals.

2. *+24 VDC powered* - for use with the TS400 and TS420 in increased-safety protected installations. Relays are available for general-purpose installations.

Operating Modes -

TS400/TS420

Fault Current	<3.5mA
Start up	3.6mA
Calibration	3.75mA
Operational	4-20mA
Over-range	>21mA

IR2100/IR7000

Fault Current	<1.0mA
Zero/Calibration	1.5mA
Beam Block	2.0mA
Operational	4-20mA
Over-range	>21mA



FIELD MOUNTED DISPLAY

The Field Mounted Display (FMD) is a 4 digit LCD display module designed for use with the Models TS400, TS420, IR2100, and IR7000. The product is available in both the standard explosion-proof (X/P) junction box for explosion-proof and general purpose (GP) installations, and a polyester junction box for intrinsically safe (IS), increased safety (Exe), and general purpose installations. The following variations are available:

Loop Powered	+24VDC Powered	Relays	Classification	Product(s)	Barrier Required
–	Yes	Opt.	X/P, Exe*	IR2100/ IR7000	No
–	Yes	Opt.	X/P, GP	TS400/ TS420	Yes (X/P) No (GP)
–	Zero Switch	–	X/P	IR2100/ IR7000	No
Yes	–	No	IS	TS400/TS420	No**
–	Yes	Opt.	GP, Exe*	TS400/TS420	No

*Relays not available **Barrier required in safe area

System Specifications

Display Ranges: 1.0, 3.0, 5.0, 10.0, 20.0, 25.0, 50.0, 100, 250, 500, 1000, 2000, 5000

Electrical

Classification: Explosion-proof (XP) Housing: Class I, Div. 1 & 2, Groups B, C, & D; Class II, Div. 1 & 2, Groups E, F, & G; Class III; Class 1, Zone 1 & 2, Group IIB + H2, T6

Polyester Housing: Class I, Zone 0, 1, & 2, Group IIC, T6
Eex ia/ Eexe, IIC, T6
Note: Zone 0 approval for IS version only

Warranty: Two Years

Approvals: UL, CUL - IS/GP version only; CSA - XP version only; CENELEC & CE Marking

Environmental Specifications

Operating Temperature Range: -40°F to 167°F (-40°C to +75°C)
Note: Limited by operating temperature of the attached gas detector.

Storage Temperature Range: -40°F to 185°F (-40°C to +85°C)

Operating Humidity Range: 5% to 100% RH, non-condensing

Electrical Specifications

Input Power: 3.5mA-22mA loop powered or 20-36 VDC @ 50mA max. - 24 VDC only
23-26 VDC with barrier @ 70mA max.

Accuracy: ±1% of input signal

Relay Ratings: 2A @ 30 VDC, 0.5A @125 VAC resistive load max.
(3X SPDT) - Fault, Warning, and Alarm

Status Indicators: Four (4) digit backlit LCD

Mechanical Specifications

	Explosion-proof Housing	Polyester Housing
Dimensions:	6.4"L x 4.1"W x 3.4"H (161mm x 104mm x 86mm)	4.72"L x 4.72"W x 3.15"H (120mm x 120mm x 80mm)

Weight:	5.6 lbs. (2.5kg)	2.4 lbs. (1.09kg)
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Mounting Holes:	5 inches (127mm) center to center	4.07 inches (103mm) corner to corner
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Standard Configuration:	FMD-3-2-1-1-06-1-1	FMD-3-2-1-1-06-1-2
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Specifications subject to change without notice.

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