

M750 Display Unit

Description

The M750 is an intelligent digital panel display unit that can accept inputs from a wide variety of sensors and digitally process and display the signal. In addition, it has the facility to accept up to two 'Option pods', which can be either isolated 4-20 mA retransmission or two normally open alarm relays. The M750 is fully programmable for any specific application from the front panel.

The M750 totaliser function enables non-volatile storage of the integrated total to be maintained within the unit, even after loss of power. The output option pods can be selected to operate on either Process Variable (rate) or Total.

The M750 is ideally suited as a display unit for use with our flowmeters. It can provide an indication of flowrate and totalized flow for Gilflo, ILVA, DIVA, orifice plates and vortex flowmeters as well as providing a 19 Vdc loop power supply where required.

The unit can be used 'stand-alone' or, utilizing the Modbus serial communications, as part of a larger system.

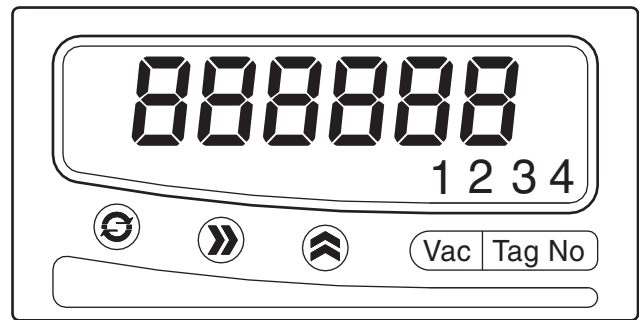
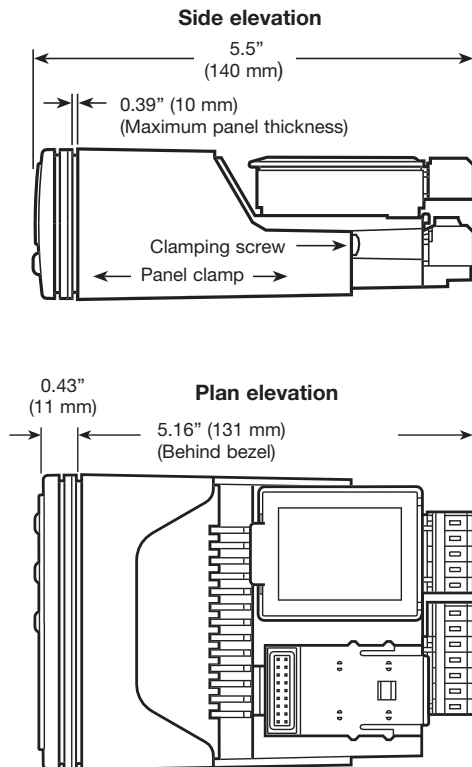
Technical data

See overleaf.

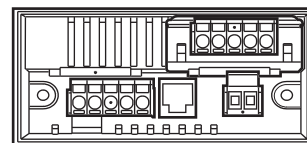
Weight

0.5 lbs (230 grams)

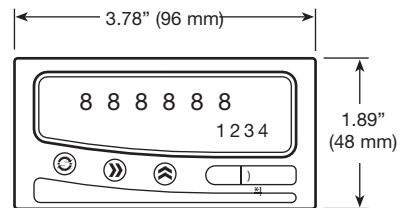
Dimensions approximate in inches (millimeters)



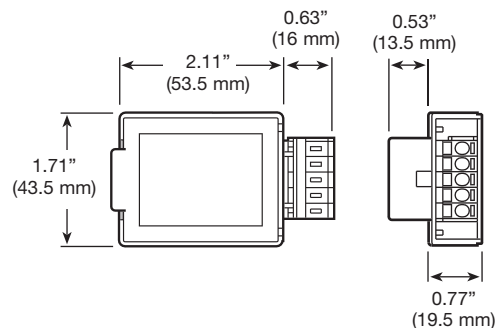
Rear elevation



Front elevation



Option pod



How to specify:

M750 panel mounted digital display unit that accepts all commonly used process signals, designed to allow current retransmission or dual relay output option pods to be easily installed without the need for dismantling or recalibration.

How to order

Example: 1 off M750 display unit complete with dual relay and current retransmission option pods.

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

In the interests of development and improvement of the product, we reserve the right to change the specification.

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Technical data at 68°F (20°C)

Power supply	90-264 Vac 50/60 Hz	
	90-253 Vac 50/60 Hz for compliance with LVD and UL	
	BS EN 61010-1 for connection to an installation over-voltage	
	Category II supply Pollution degree 2	
Power consumption	10 VA (worst case)	
Isolation (tested to)	500 V	
	Supply to I/O 3750 V BS EN 61010-1 for connection to an installation over-voltage	
Relay supply	Category II supply Pollution degree 2	
	Sealing to panel NEMA 4 (IP65)	
Environmental	Ambient operating temperature	-22°F to +140°F (-30 to +60°C)
	Ambient storage	-58°F to +185°F (-50 to +85°C)
	Ambient humidity	10 to 90% RH
	EMC: Emissions and immunity	BS EN 61326
	Safety	BS EN 61010-1
Universal input types	Sensor	Sensor range and linearisation
Sensor and Sensor range and linearisation	mA	4-20 mA, 0-20 mA, 0-10 mA
	RTD	Pt 100, NI 120, custom
	T/C	K, J, T, R, S, B, N, L, B, E, Custom*
	mV	± 100 mV
	Volts	0-10v, 0-5v, 1-5v, 0-1v
	Minimum span	Any span within the range can be selected, but the recommended span is > 10% of range.
Current input	Basic accuracy	0.05% FS plus +/- 0.05% of reading
	Thermal drift	200 ppm/°C
	Input impedance	20 Ω
	Linearity	Linear, X ^{1/2} , X ^{3/2} , X ^{5/2} , Custom*

A 19 V @ 25 mA isolated power supply is provided to power the current loop.

* Custom can be up to 60 co-ordinate pairs or up to 7 segments of 15th order polynomial.

Option pods

The M750 has interchangeable output pods that are automatically recognised by the unit. The dual relay pod has two independent mains rated relays that can be configured for high or low alarms or pulse output. The isolated re-transmission pod provides 0-10 mA, 0-20 mA or 4-20 mA active or passive outputs.

Output options

Dual relay alarm pod

Two independent mains rated relay outputs, which can operate as alarms or pulsed output

Contacts	2 x changeover relays with common	
Ratings	ac	dc
Maximum load	5 A@250 V	5 A@30 V (inductive load 2 A)
Maximum power	1 250 VA	150 W
Maximum switching	253 volts	125 volts
Termination	Standard 5 way tension clamp connector	

Isolated 4-20 mA re-transmission pod

Isolated analogue retransmission for use with chart recorders, Building Management Systems, etc.

Ranges	0-10 mA (Active or Passive),	0-20 mA (Active or Passive),	4-20 mA (Active or Passive)
Minimum current output	0 mA		
Maximum current output	23 mA		
Accuracy	0.07% FS		
Maximum output load	Active 1 K Ω		
	Passive [(Vsupply - 2)/20] K Ω		
Maximum external supply voltage	30 V (Passive mode)		
Isolation	500 Vac		
Termination	5-way tension clamp connector		

Communications

RS485 Modbus communications	The M750 is available with RS485 serial communications using MODBUS RTU protocol as standard.
Physical layer	4 wire or 2 wire half duplex RS485
Protocol	Modbus RTU format
Isolation	500 Vac
Maximum fan out	32 units (this can be increased with repeaters)
Termination standard	RS485