

## PROCESS MONITOR

**DIGITAL VOLUME DISPLAY AND BARGRAPH % LEVEL**

**COMMUNICATING VIA LINEARISED RETRANSMISSION SIGNALS**

**FLEXIBILITY 1, 2 OR 3 INPUTS FOR AN OPEN OR CLOSED TANK**

**EXPANDABILITY SINGLE TANK TO TANK FARM AND BEYOND**

**CONTROL RELAYS**



**FLUID DENSITY CORRECTION MANUALLY SET OR AUTOMATIC**

**COMPATIBLE WITH MOST LEVEL TRANSMITTER**

**TANK & PRODUCT IN USER UNITS**

This latest Process Monitor PM series from Measurement Resources improves the utility and connectivity of our widely used level transmitters and is ideally suited to bulk storage, day or process tank management.

Additional features provide more detailed tank contents information in the engineering units you use, keeping you fully in the picture with contents and free capacity in your preferred mass or volume units. Tank identification, liquid name, switch point details and percentage of tank occupied are also displayed. Improved connectivity allows the PM series to communicate with other monitors and digital systems building to a complete tank farm or enterprise wide information system.

The monitor provides power to and accepts inputs from 1, 2 or 3 Measurement Resources or proprietary sensors, typically configured to measure level, level and topping pressure or level and density in tanks or vessels. Control/Alarm relays have programmable setpoint, hysteresis and debounce giving full options for control and alarms.

Also programmable are look up tables for tank/vessel shape and liquid process variables be it for a vented, pressurised with or without density or temperature input. For simple fuel storage tanks the Specific Gravity can be manually entered and varied as the fluid is changed.

Programming is normally carried out in factory, but calibration may easily be adjusted on site by the use of the four front fascia push buttons, which access menu driven prompts.

Programmed data and settings security is via two stage operator and technician passwords and a nonvolatile memory. Outputs 4 x S.P.C.O. 5 AMP 240VAC rated relays together with a Linearised 4 - 20mA and RS485 port for connection to control/supervisory systems together with a RS232 local port.

Several Process Monitors can by serial multidrop communicate data on a large number of tanks and other process variables to P.C. software.

## SPECIFICATION

### Power Supply

110/240VAC optional 24 V.D.C.

### Fuse

0.5 amp.

### Sensor Inputs

1, 2 or 3 off 4-20mA inputs can be powered from monitor.

### Communication Outputs

Isolated 4-20mA into 500 ohms max. load  
optional RS 485 network and RS 232 local.

### Relay Outputs

2 or 4 single pole change over S.P.C.O. 5A, 240VAC

### Packaging

Panel mounting DIN 96mm IP 54.

Wall mounting IP 65, metal or plastic enclosure.

### Display Contents

6 decade 14.2mm L.E.D.

Brightness adjustable.

### Display Tank Data

% bargraph and tank data 2 line x 16 character alphanumeric.

### Data Security

Two level password and non volatile memory.

### Operating Temperature

-10 to +50°C

### Humidity

Up to 95% non-condensating

### Weight

Panel mounting 0.75kg

Wall mounting 2.5kg

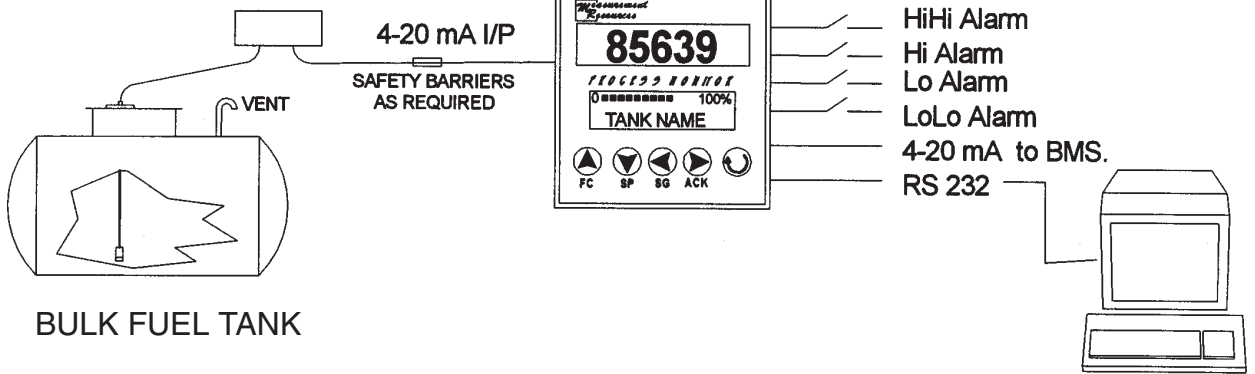
## ORDER CODE

CODE	MOUNTING							
PM	Single channel panel mounting 96 x 96mm							
PMW	Single channel unit mounted in an IP wall mounting enclosure							
	CODE	SUPPLY VOLTAGE						
	240	240 Volts 50/60Hz						
	110	110 Volts 50/60Hz						
	24	24 Volts d.c. power supply						
		CODE	INPUT FROM TANK MOUNTED TRANSMITTERS					
		IN1	1 x 4-20mA d.c. signal input (function SIN only)					
		IN2	2 x 4-20mA d.c. signal inputs (functions A,B,D only)					
		IN3	3 x 4-20mA d.c. signal inputs (function AB only)					
			} see below } SECOND INPUT					
		CODE	ADJUSTABLE ALARM/CONTROL RELAY OUTPUTS					
		0R	No relay outputs					
		2R	Two independently adjustable alarm/control relay outputs					
		4R	Four independently adjustable alarm/control relay outputs					
		CODE	SIGNAL OUTPUTS					
		0	No signal output					
		42	4-20mA linearised output					
		CODE	SERIAL COMMUNICATIONS					
		NSC	No serial communications					
		232	RS232 output enabled					
		485	RS485 output enabled					
		ALL	RS232 and RS485 outputs enabled					
		CODE	SECOND INPUT					
		SIN	For vented tanks					
		A	For pressurised tanks. Input 2 measures top pressure.					
		B	For vented tanks with input 2 as SG signal					
		D	For vented tanks with input 2 from second level transmitter Unit calculates SG from the inputs					
		AB	A & B functions combined, top pressure to input 2					
		CODE	CONFIGURATION					
		N	Not factory configured					
		C	Factory configured					
PM	240	IN1	2R	42	NSC	SIN	C	TYPICAL ORDER CODE

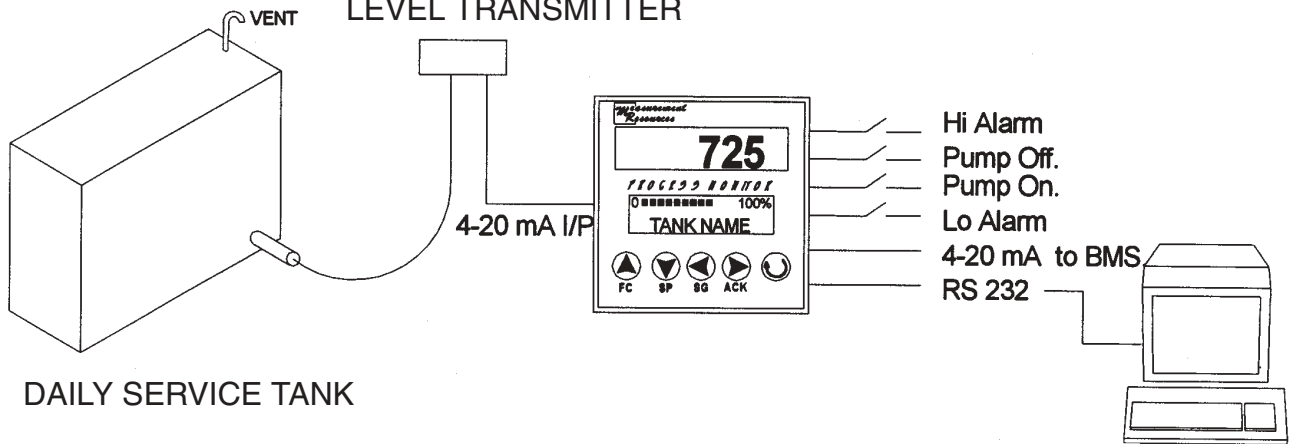
**WHEN ORDERING PLEASE ADVISE SENSOR TYPE REQUIRED, TANK SHAPE AND SIZE AND CALIBRATION UNITS OR COMPLETE OUR QUESTIONNAIRE FORM.**

# TYPICAL APPLICATIONS

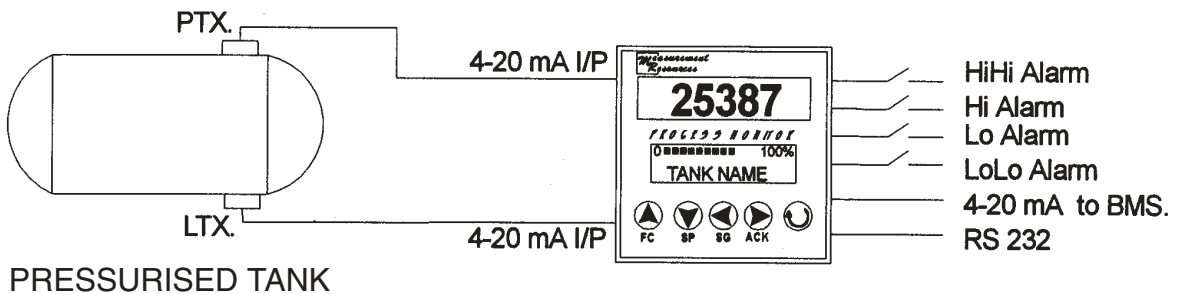
## LEVEL TRANSMITTER



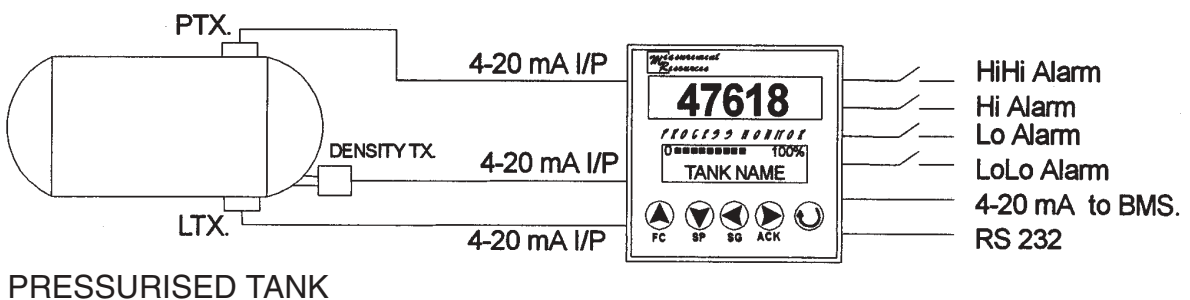
## LEVEL TRANSMITTER



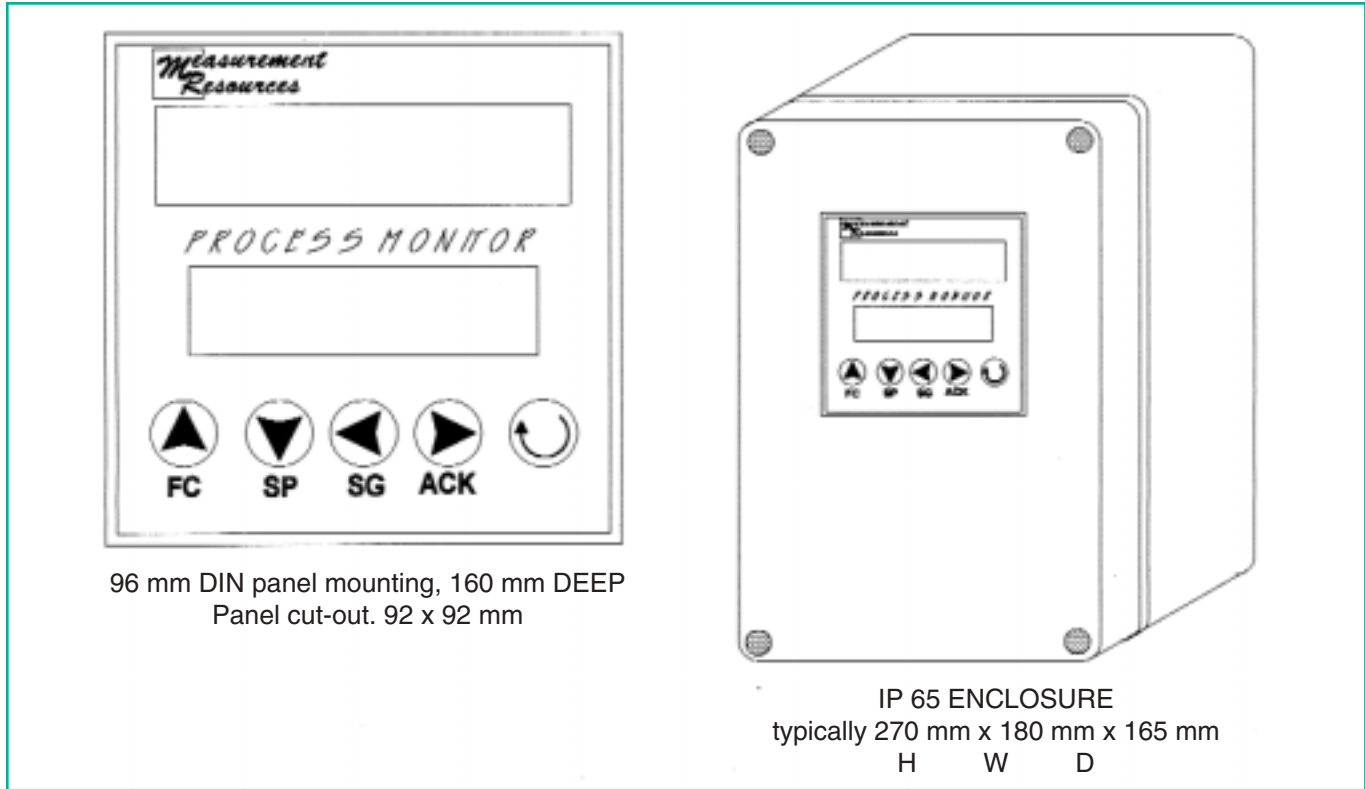
## PRESSURISED TANK WITH TOPPING PRESSURE CORRECTION



## PRESSURISED TANK WITH TOPPING PRESSURE AND DENSITY CORRECTION



## PACKAGING OUTLINE DRAWING



## REPRESENTATIVE LEVEL TRANSMITTERS

Measurement Resources provide an extensive range of 2 wire 4-20mA Level Transmitters



Including Hydrostatic, Ultrasonic and Capacitance with local and international approvals covering intrinsically safe to marine and mine applications.



THE COMPANY RESERVES THE RIGHT TO MODIFY THIS DESIGN WITHOUT NOTIFICATION

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