

Universal Display

Flow Rate and Total Displays

Description

The Universal Displays (UD) are used to display flow rate and total from a pulse output of a flowmeter. The UD provides an economical solution for a rate and total display. It can be used directly with an amplifier when operating in the linear flow range of the flowmeter or it can be combined with linearizing electronics to provide an accurate display over the full extended range of the flowmeter.

The Universal Display comes factory-scaled to a specific flowmeter. Simple programming allows the unit to be field-scaled if required. Programming variables include scale factor and decimal point adjustments as well as a reset enable switch.

The compact NEMA 4X design makes the Universal Display convenient for field mount or local panel mount displays. The battery-powered unit is ideal for remote applications or when running power lines is inconvenient. The powered unit can be used when 9–28 VDC power is available. A nonvolatile E²PROM memory retains all programming parameters and the totalizer value when DC power is removed.

Features

- Battery or 9–28 VDC-powered
- 8-digit totalizer, 4/5 or 6-digit rate display
- NEMA 4X enclosure
- Programmable for field scaling
- Display toggle between total and rate
- Easily accessible reset switch
- 0.430" or 0.460" high LCD display
- Front panel sealed to NEMA 4X
- Economical
- Available as option to Flow Technology signal conditioners
- Compact size – 2.95" x 1.57" x 1.25" / 1.71"



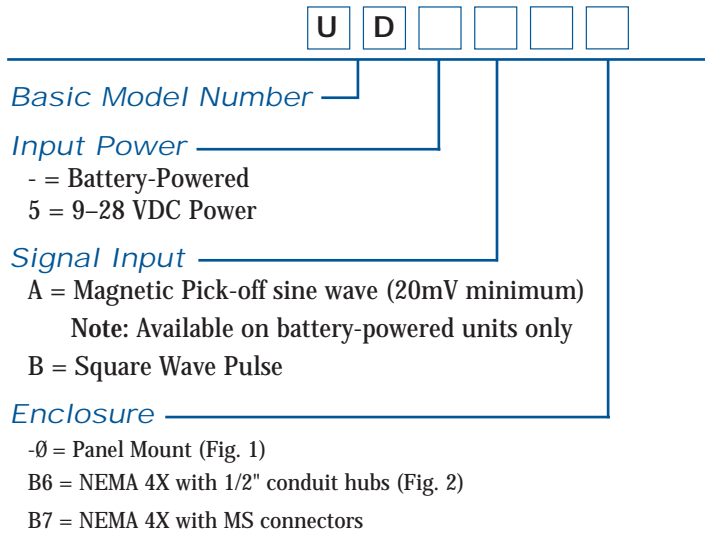
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Specifications

Power	Battery	VDC
Power Source	Internal Battery, 3 VDC, Lithium	9–28 VDC @ 60 mA max
Life Expectancy	5 years +	N/A
Physical		
Operating Temperature	32° F to 131° F (0° C to 55° C)	32° F to 140° F (0° C to 60° C)
Storage Temperature	32° F to 158° F (0° C to 70° C)	-22° F to 185° F (-30° C to 85° C)
Operating Humidity	60% non-condensing	60% non-condensing
Weight	2.2 oz. net	3 oz. net
Display Size	0.43" high LCD	0.46" high LCD with red backlighting
Front Panel Rating	NEMA 4X when mounted with gasket provided	NEMA 4X when mounted with gasket provided
Case Material	Cyclac X-17	High impact plastic

Model Numbering System



The above model numbering system is used when specifying the Universal Display as a stand-alone item. The UD can also be specified to be mounted in the enclosure of the other Flow Technology electronics, e.g. PA03, CA03, Linear Link® and SFT. When combining with other electronics, use the following enclosure codes in conjunction with the other electronics' model numbering system. When combined with other electronics the battery-powered unit will be used.

- BA = NEMA 4X with MS connectors
- BC = NEMA 4X with conduit hubs

Example: Model number of Universal Display mounted in a CA03 with NEMA 4X conduit hubs:



Specifications (cont'd)

	Totalizer	Battery	VDC
Type	UP counting	UP counting	UP counting
Digits	8	8	8
Scaler	0.0001-100.0000	0.0001-99.9999	0.0001-99.9999
Decimal Point	5 positions, programmable	6 positions, programmable	6 positions, programmable
External Reset Input			
Function	Resets totalizer to zero	Resets totalizer to zero	Resets totalizer to zero
Solid State Input			
For use with devices that have a solid state, current sourcing output (0-10 VDC typical)			
Speed	10 kHz @ 50% duty cycle	20 kHz @ 50% duty cycle	20 kHz @ 50% duty cycle
Impedance	27K ohm at 3 VDC	40K ohm typical	40K ohm typical
Voltage Thresholds	High, 2.0-28 VDC Low, 0-1.2 VDC	High, 4.2-28 VDC Low, 0-0.5 VDC	High, 4.2-28 VDC Low, 0-0.5 VDC
Count Accuracy			
Absolute when operated within specifications			
Rate Indicator			
Type	1/Tau	1/Tau	1/Tau
Digits	4/5	6	6
Scaler Range	0.001-9999	00000.1-99999.9	00000.1-99999.9
Decimal Point	5 positions, programmable	6 positions, programmable	6 positions, programmable
Accuracy	±0.2%	±0.01%	±0.01%
Update Time	0.7 seconds	0.1 seconds	0.1 seconds
Zero Time	10 seconds	0.1-99.9 sec., programmable	0.1-99.9 sec., programmable

Specifications are for reference only and are subject to change without notice.

Enclosure Options

Fig. 1 Panel mount IP65/NEMA 4X complete with mounting hardware

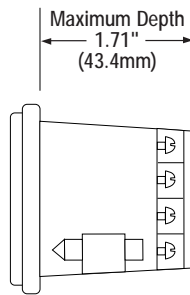
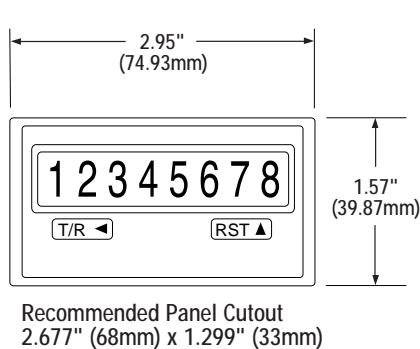
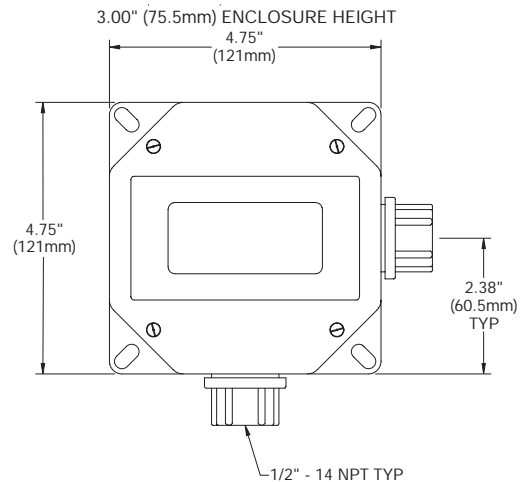


Fig. 2 Field mount enclosures IP65/NEMA 4X



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