

Remote Meter Assembly

RMA 3000

Specifications

The Remote Meter Assembly RMA 300 functions as an output and status indicator for a compatible Honeywell Smartline Transmitter or as an output indicator for a non-Honeywell transmitter operating in a 4-20mA current loop. The RMA 3000 consists of a meter mounted in an aluminum explosion-proof housing with several protective paint styles available.

Three meter types are available for mounting in the RMA 300 housing: **The Smart Meter (SM 3000), the Digital Meter (DM 3000), and the Analog Meter (ME 3000).**

The **Smart Meter SM 3000** can be used to display either output in % or engineering units appropriate to the transmitter depending on the transmitter type and configuration. The SM 3000 can be used with any one of the following Smartline Transmitters in either analog or DE mode: ST 3000 Smart Pressure Transmitter STT 3000 Smart Temperature Transmitter or the MagneW 3000+ Electromagnetic Flowmeter.

The **Digital Meter DM 3000** is used exclusively with Honeywell transmitters operating in the DE (Digital Enhanced) mode. The DM 3000 features a fan style 25 segment bargraph with digital indication and status displays. The DM 3000 digital indicator gives precise output of the transmitter from -199.9 to +1099.9% of transmitter range. Engineering units are not available on the DM 3000.

The **Analog Meter ME 3000** is used with analog output transmitters to give % output using a needle-type meter movement.

Features and Functions

- **SM 3000:** digital Readout gives precise indication of transmitter output from

-19990 to +19990 in the selected engineering unit. These units vary with transmitter type and can be selected using a button on the meter bottom.

- **SM 3000 and DM 3000:** Status Messages service as on-line diagnostics and operational flags for the various detectable loop conditions and transmitter functions
- **SM 3000:** Engineering Unit Indicators show what the digital readout represents. These eight units are programmable for display on the LCD. A Sheet containing other selectable engineering units as stick-on labels is supplied with the Smart Meter Manual. **In transmitter square root mode, the display is 0 to 100% of span.**

Inches H2O	°C
PSI	GPM
mm Hg	GPH
°F	%



Remote Meter Assembly with Smart Meter SM 3000 installed

- The **SM 3000** will automatically assume the transmitter is configured for analog communications if it doesn't detect DE communications within 10 seconds after transmitter power-up. The user can change the transmitter configuration from analog to DE mode light up momentarily.

but if the transmitter has been configured for the DE mode, and the user configures it back to the analog mode, the meter detects this as a “fault” and displays an error message. Recycle power to the Smart Meter to remove the error code.:

- Each time the power is cycled to the transmitter, the **SM 3000** runs a self-test to check internal operations. The visible indication of this is that all the LED segments

SM 3000 Specifications

Operating Conditions:		
Parameter	Rated	Extreme, Transportation and Storage
Ambient Temperature Degrees F Degrees C	-40 to 185 -40 to 85	-58 to 194 -50 to 90
Relative Humidity % RH	0 to 100	0 to 100
Design		
Accuracy Analog (4-20ma) Mode Honeywell Digital (DE) Mode	+/- 0.5% of span Reproduces the transmitter signal exactly to within its resolution	
Display Resolution Bargraph Digital Readout	+/- 3% reading +/-0.05 for +/-199.9 reading range, +/- 0.5 for +/-1999 reading range, or +/-5% for +/- 19990 reading range	
Maximum Meter Voltage (red lead to yellow lead)	42VDC	
Maximum Loop Voltage Drop (yellow lead to screw terminal)	2.25 VDC	
Maximum Loop Operating Current	3.6 ma	
ATTENTION:	The LCD display will turn black between 80 and 90 C (176 and 194 F), rendering the display unreadable. This effect is temporary.	

DM 3000 Specifications

Operating Conditions		
Parameter	Rated	Extreme, Transportation and Storage
Ambient Temperature Degrees F Degrees C	-40 to 176 -40 to 80	-58 to 194 -50 to 90
Relative Humidity % RH	0 to 100	0 to 100

Design		
Display Resolution Bargraph Digital Readout	+/-4% reading +/-0.1% reading	
ATTENTION:	The LCD display will turn black at some temperature between 80 and 90 C (176 and 194 F), rendering the display unreadable. This effect is temporary, and normally occurs at 90C (194 F)	

ME 3000 Specifications

Operating Conditions		
Parameter	Rated	Extreme, Transportation and Storage
Ambient Temperature Degrees F Degrees C	-40 to 176 -40 to 80	-58 to 194 -50 to 90
Relative Humidity % RH	0 to 100	0 to 100
Design		
Display Resolution	+/-1% reading	

Explosion-Proof Housing Specifications

Material of Construction	Aluminum (SS available)
Number of Conduit Openings	Two ½” NPTF openings
Available Adapters	½” NPT to M-20 316SS conduit adapter ½” NPT to ¾” NPT 316SS conduit adapter
Paint	Beige or Red Epoxy
Certifications Available	FM, CSA, Zone 2 (Europe, SA, INERIS)

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U.S.A.: Honeywell Industrial Control, 16404 North Black Canyon Hwy., Phoenix, AZ 85053 • **Canada:** The Honeywell Centre, 155 Gordon Baker Rd., North York, Ontario M2H 3N7 • **Latin America:** Honeywell Inc., 480 Sawgrass Corporate Parkway, Suite 200, Sunrise, Florida 33325 • **Japan:** Honeywell K.K., 14-6 Shibaura 1-chome, Minato-ku, Tokyo, Japan 105-0023 • **Asia:** Honeywell Pte Ltd., Honeywell Building, 17 Changi Business Park Central 1, Singapore 486073, Republic of Singapore • **Pacific Division:** Honeywell Pty Ltd., 5 Thomas Holt Drive, North Ryde NSW Australia 2113 • **Europe and Africa:** Honeywell S. A., Avenue du Bourget 3, 1140 Brussels, Belgium • **Eastern Europe:** Honeywell Praha, s.r.o. Budejovicka 1, 140 21 Prague 4, Czech Republic • **Middle East:** Honeywell Middle East Ltd., Technology Park, Cert Complex, Block Q, Muroor Rd., Abu Dhabi, U.A.E.