

Self Adjusting "Smart" Radar For Liquids and Solids



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FEATURES

Self Adjusting Tracking Radar
Programmable (recommended) and
Simple push-button calibration
Output 4-20 mA / 20-4mA
(Isolated on 4 Wire Model's only)
Optional RS232 OR RS485
For communications with calibration,
diagnostics & data logging software
PL Compatible (Modbus RTU)
Three or four Wire Operation

APPLICATIONS

Food and Beverages
Water / Wastewater
Chemicals with vapors

MECHANICAL

Conduit Entry : 1/2" NPT x 2
Enclosure : Aluminum or S.S. - 94V0
Ingress Protection : NEMA 6 (IP68)

ENVIRONMENTAL

Temperature : - 40 to 140°F (- 40 to 60°C)
Approvals : FCC Part 15 - Low Power
Communication Device

FM(USA)

FM3810 (2005) Electrical Electronic Test, Measuring and
Process Control Equipment

ANSI/NEMA 250 (1991) :Enclosures for Electrical Equipment

FM(CAN.):

CSA C22.2 No. 1010.1 (2004) Safety Requirements for Electrical
Equipment for Measurement, Control and Laboratory Use
- Part 1: General Requirements

CSA C22.2 No. 94 (2011) Special Purpose Enclosures

Installation Category : Class II

PROCESS

Temperature PP Rod : - 40 to 176°F (- 40 to 80°C)
De-coupler & PTFE Rod - 40 to 350°F (- 40 to 177°C) ,c/w bottom flange &
thermal gasket up to 300°C

Material Dielectric : Er >2

Max. Pressure : 5 bar (without De-coupler)

Catalogue # - On the Web return to Home Page & Refer to Catalogue Number
Structure for Ordering information. In Product Documentation Refer to Page 4.

TECHNICAL SPECIFICATIONS

Radar Range	RANGE	RESOLUTION	MOUNTING
017	* - 17 ft. * - 5 m	+/- 3 mm	3",2",1 1/2" NPT **
033	* - 33 ft. * - 10 m	+/- 3 mm	3",2",1 1/2" NPT **
050	* - 50 ft. * - 15 m	+/- 3 mm	3",2",1 1/2" NPT **
100	* - 100 ft. * - 30 m	+/- 3 mm	3",2",1 1/2" NPT **
140	* - 140 ft. * - 42 m	+/- 3 mm	3",2",1 1/2" NPT **
240	* - 240 ft. * - 73 m	+/- 3 mm	3",2",1 1/2" NPT **
340	* - 340 ft. * -103.6m	+/- 3 mm	3",2",1 1/2" NPT **

OPTIONAL

Antenna Extension : 6" or 8" Lengths.

- Use only with Teflon Rod Antenna !
Refer to catalogue numbering Page
for ordering info .

High Temperature Unit :

- Teflon De-coupler threads on to
1 1/2"NPT Mtg. Adaptor with a
2" NPT mtg. Process Connection.



Antenna Extension



OPERATIONAL

Operation : Pulse Radar

Accuracy : +/- 0.1% of max. range in lab using
4-20mA current output

: +/-0.25% of max. range (typically in field)

Response Time : Standard Unit 2 - 3 echo's per sec.

: Std. with less damping 6 echo's / sec.

: Fast Protocol Unit 10 - 30 echo's / sec.

Frequency : 5.8 GHz or 6.3 GHz.

Loss of Echo : Hold 1 min., 22mA or 2 mA. output

Transmit Power : 50 uW average

Calibration : Via communications port (required)

Diagnostics : (Echo Profile) via communications port

Antenna : Dielectric rod PP, & Optional PTFE
Horn 316 S.S. for very low dielectric
constant materials and short blanking

Note - * Minimum Range starts at the lower tip of the antenna or horn
bottom for high dielectric materials (water). For low dielectric
material allow longer Minimum Range.

Note - **Only 2"and 3" NPT Mounting available for High
Temperature Radar.

ELECTRICAL SPECIFICATIONS

Power	115 VAC 60 Hz or 230 VAC 50 Hz
ABM400 AC	(+/-20%) , 1.7 VA
ABM300 DC	12 to 30 VDC , 0.07 A max @ 24 Vdc R load = (Vs - 6) / 24 mA
Output	4-20 mA Output 6.1 uA resolution
	750 Ohms (Isolated on 4 Wire only)
	Optional RS232 or RS485 communications port.