

"Smart" Radar Explosion Proof Measurement Sensors"



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FEATURES

Self Adjusting Tracking Radar
 Output 4-20 mA / 20- 4mA
 Recommended RS232 or RS485
 For communications with calibration,
 diagnostics & data logging software
 PLC Compatible (Modbus RTU)
 Three Wire Operation

APPLICATIONS

Water / Wastewater
 Chemicals with vapors

MECHANICAL

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

ENVIRONMENTAL

Approved : FM & CSA for Can. & US Explosion
 Proof Class I, Div.1, Groups B, C, D:
 Dust-Ignition Proof Enclosure for
 Class II/III Div. 1, Groups E, F, G

Approvals : FCC Part 15 - Low
 Power Communication Device, CE

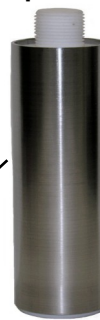
Temperature : - 40 to 140°F (- 40 to 60°C)

Installation Category : Class II

Catalogue # - On the Web return to Home Page & refer to
 Catalogue Number Structure for ordering information. In
 Product Documentation refer to page 5.

OPTIONAL

Antenna Extension : 6" or 8"
 Lengths
 - Use only with Teflon Antenna !
 - Refer to catalogue number Page for
 ordering info.
 High Temperature Unit :
 - 2" / 1 1/2" NPT Process Connection
 - Teflon De-coupler threads on with



Antenna Extension



PROCESS

Material Dielectric : Er >2
 Pressure : 5 bar Max. 15-75 psi
 Temperature : - Std. Sensor
 PP Rod : - 40 to 140°F (- 40 to 60°C)
 High Temp. Optional Sensor
 PTFE Rod : - 40 to 350°F (- 40 to 177°C)
 Teflon Temperature Decoupler Required

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)
 Frequency : 6.3 GHz
 Loss of Echo Hold : up to 3 min., 22mA or 2mA output
 Transmitter Power : 50 uW average
 Calibration : via optional communications port.
 (required)
 Diagnostics: (Echo Profile) via communications port
 Antenna : Dielectric rod PP or Optional PTFE or
 Horn

ELECTRICAL SPECIFICATIONS

Power DC 12 to 30 VDC , 0.07 A max @ 24 Vdc
 ABM300 R load = (Vs - 6) / 24 mA

Output 4-20 mA Output 6.1 uA resolution
 Optional RS232 or RS485
 communications port

Radar Range Code	RANGE In Liquids	RESOLUTION	MOUNTING
017	* - 17 ft. * - 5 m	0.08" 2.0 mm	2.0", 1 1/2" NPT **
033	* - 33 ft.	0.15" 3.9 mm	2.0", 1 1/2" NPT **
050	* - 50 ft. * - 15 m	0.22" 5.7 mm	2.0", 1 1/2" NPT **
100	* - 100 ft. * - 30 m	0.44" 11 mm	2.0", 1 1/2" NPT **
140	* - 140 ft. * - 42 m	0.62" 15.7 mm	2.0", 1 1/2" NPT **
240	* - 240 ft. * - 73 m	1.06" 26 mm	2.0", 1 1/2" NPT **

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

Note - **Only 2" and 3" NPT Mtg. Connection Available on High Temperature Radar.