

# 3 & 4 Wire Self Compensating Ultrasonic Transmitters - Standard Mtg. & Sanitary Ferrule Mtg.



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## FEATURES

S.S. 316L Face Material c/w Tri-Clamp Mtg. Base  
Simple push-button calibration (Accurate)  
Output 4-20 mA / 20-4 mA  
(Isolated on 4 Wire Model's only)  
Built-in temperature compensation  
Optional RS232 and RS485  
Communications with calibration, diagnostics  
and data logging software  
PLC compatible (Modbus RTU)  
Three & Four Wire Operation  
Self cleaning operation of sensor face



## APPLICATIONS

Food and Beverages Pharmaceutical /Water  
Chemical ,Oils , Wastewater ,Solids 025 & 045

## ENVIRONMENTAL

Temperature :  
Electronics Enclosure :- 40 to 140°F (- 40 to 60°C)  
Continuous Operation  
Std.Mtg. & Sanitary Nozzle :- 40 to 140°F(- 40 to 60°C)  
No Steam Cleaning (CIP)  
High Temp.(Teflon Sensor): - 40 to 266°F(- 40 to 130°C)  
(Std. Thread Mounting)  
S.S. Sanitary :- 40 to 266°F(- 40 to 130°C) for 1/2 Hr.  
(Ferrule & Face) Steam Cleaning. Remove sensor for  
longer Cleaning cycle ,recommended.  
Not for Continuous Operation  
Pressure : 5 bar Max. using High Temperature  
& Pressure Sensor  
Approvals CAN/CSA: C22.2 No. 1010.1-M92 +A2,  
CE: IEC 61010-1:90 + A1:92 +A2:95  
UL: 61010A-1(2002)  
Installation Category : Class II

## OPERATIONAL

Accuracy : +/-0.10% of max. range  
(in lab using 4-20 Ma current output)  
+/-0.25% of max. range (typically in field)  
Response Time: Standard Unit 2 - 3 echo's / sec.  
: Fast Protocol \*\*I.R. 10 - 30 echo's / sec.  
\*\* IF Required  
Beam Angle : 10 -12 degree at -3dB  
Loss of Echo : Hold 1 min., 22mA or 2 mA output  
Temp. Comp. : In transducer  
Calibration : Push-button or programmable  
via optional communications port  
Diagnostics : (Echo Profile) via communications port

## MECHANICAL

Conduit Entry : 1/2" NPT Hole (PVC conduit only)  
Enclosure : PVC-94V0 or Aluminum (25 KHz Excluded)  
Ingress Protection: NEMA 6 (IP68)

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ordering Information. In Product Documentation  
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## ELECTRICAL SPECIFICATIONS

<b>Power</b>	115 VAC 60 Hz or 230 VAC 50 Hz (+/-20%), 1.7 VA
<b>ABM400 AC</b>	
<b>ABM300 DC</b>	12 to 30 VDC , 0.07 A max. @ 24 Vdc R load = (Vs - 6) / 24 mA
<b>Output</b>	4-20 mA Output 6.1 uA resolution
	750 Ohms (Isolated on 4 Wire only)
	Optional RS232 or RS485 communications port (3 & 4 Wire Only)

Range Code	Beam Angle	OPERATING RANGE In Liquids	Resolution	Mounting
025 Solids *	6°	1.4 - 90 ft. 0.40 - 27.4 m	0.41" 10 mm	6.0"/1.0" NPT 7.3"Ø x 7.6" H
045 Solids *	9°	1.0 - 60 ft. 0.30 - 18.2 m	0.27" 6.8mm	3.0" NPT 3.0"Ø x 3.0" H
052	12°	0.9 - 50 ft. 0.27 - 15.2 m	0.23" 5.7mm	3.0"/ 2.0" NPT 2.0"Ø x 2.7" H
070	12°	0.8 - 30 ft.	0.13"	3.0"/ 2.0" NPT
080	12°	0.7 - 20 ft. 0.21 - 6.1 m	0.088" 2.2 mm	3.0"/ 2.0" NPT 1.8"Ø x 2.25" H
081	12°	0.6 - 16 ft. 0.18 - 4.9 m	0.07" 1.8 mm	3.0"/ 1.5" NPT 1.5"Ø x 2.1" H
148	12°	0.4 - 9 ft. 0.12 - 2.7 m	0.04" 0.98 mm	3.0"/ 1.0" NPT 1.1"Ø x 2.0" H

\* Note Solids Range 1/2 Liquids Range Stated in Chart above