

Turbidity Sensors

Wash Process Sensors

APMS-10G Series



FEATURES

- Low-cost infrared turbidity sensing
- Multiple sensors in a single package for simple integration
- Ratio turbidity output to minimize common-mode effects
- Flow-through covers available for hose applications and simple retrofit
- On-board microprocessor for signal conditioning and communications

TYPICAL APPLICATIONS

- Parts washers
- Printed circuit board washers
- Plating rinse baths
- Industrial and coin-operated laundry machines
- Commercial dishwashers
- Mixing tanks
- Water treatment equipment

OPERATION

The APMS-10G Wash Process Sensor provides an integrated package consisting of a microprocessor and three sensing functions:

- Turbidity
- Conductivity
- Temperature

The sensor can monitor and control an application process to improve the quality of the process, minimizing the consumption of energy, water, materials and time.

Each sensor output is conditioned by the internal microprocessor. All data transmitted to the host system is supplied by the microprocessor via a 5 VDC serial communications link. The sensor operates in slave mode, waiting for the host system to request sensor information.

ORDER GUIDE

Catalog Listings*	Sensor Included	Flow-through Cap Installed
APMS-10GRCF	Yes	No
APMS-10GRCF-50	Yes	.5 inch OD
APMS-10GRCF-18	Yes	18 mm OD
APMS-10GRCF-KIT	Yes	Both, not installed Kit includes sensor, flow-through caps, PC interface, and software

GENERAL SPECIFICATIONS

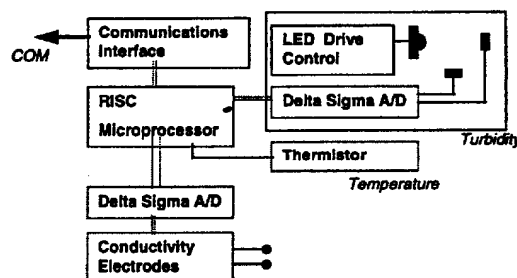
Parameter	Min.	Typ.	Max.	Units
Supply Voltage	8	24	30	Volts DC
Supply Current		16	40	mA
Output Voltage				
Sensor Transmit Low	0		1.1	volts*
Sensor Transmit High	4	5	5.25	volts*
Sensor Receive Low	0		1.7	volts*
Sensor Receive High	3.3		5.25	volts*

* Assumes a sinking output current of 3 mA maximum.

TURBIDITY SPECIFICATIONS

Characteristic	Min.	Typ.	Max.	Units
Ratio Range	0		4000	NTU
	.03		10	units
Response Time			1.3	seconds

WASH PROCESS SENSOR FUNCTIONAL DIAGRAM



Analog

CONDUCTIVITY SPECIFICATIONS

Characteristic	Min.	Typ.	Max.	Units
Range	.0001		15	mSiemens
Range	4		255	units
Response Time			0.85	second

TEMPERATURE SPECIFICATIONS

Characteristic	Min.	Typ.	Max.	Units
Range	68		140	°F
Accuracy	-4		+4	°F
Response Time			0.03	second
Stabilization Time	3		5	minutes

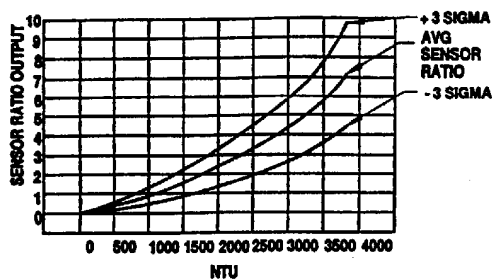
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Solid State Sensors

Turbidity Sensors

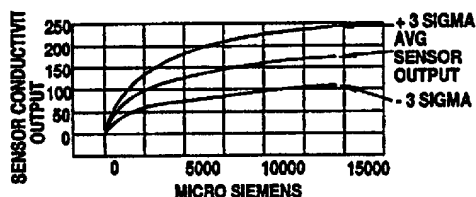
APMS-10G Series

TURBIDITY CHARACTERISTICS

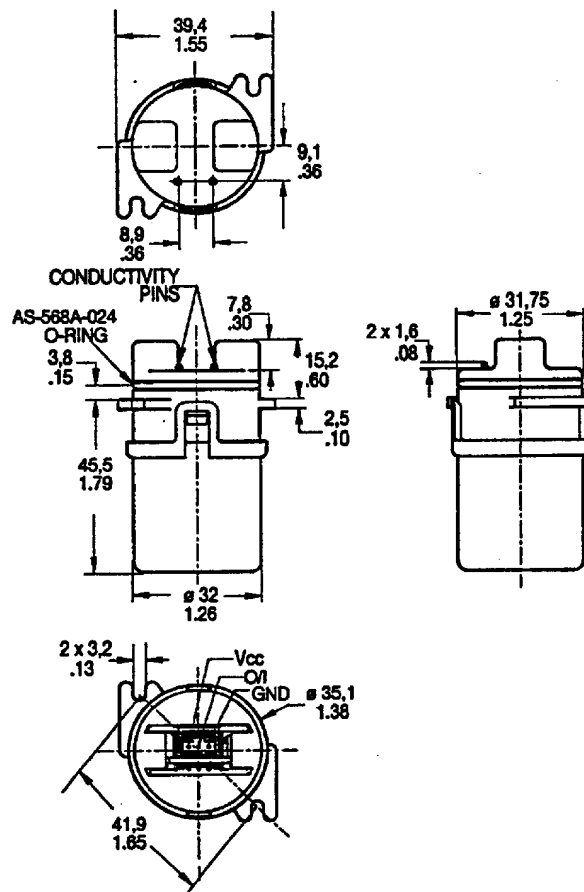


This graph is based on testing using formazin as the medium at room temperature. Characteristics may change when sensor is subjected to media other than formazin.

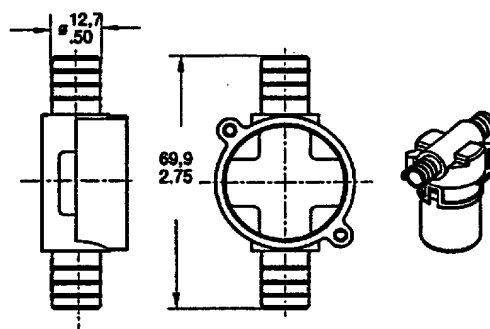
CONDUCTIVITY ACCURACY



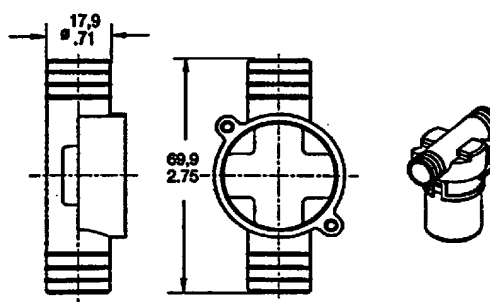
MOUNTING DIMENSIONS (for reference only)



CAP FOR APMS-10GRCF-50



CAP FOR APMS-10GRCF-18



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