negele

FLOW
LEVEL
PRESSURE
ANALYTICAL
TEMPERATURE
INSTRUMENTATION
PASTEURIZATION CONTROLS

"ITM-4" 4-Beam Turbidity Meter

- *3-A Compliant; Third party verified*
- *2 units (NTU and EBC) 11 ranges each*
- *Low range down to 0-5 NTU and 0-1 EBC*
- *High range up to 0-5000 NTU and 0-1250 EBC*
- *4 Remote selectable ranges*
- *4-20 mA plus Single switch output*

APPLICATIONS

- Filter monitoring
- Quality control and standardization
- Process control of brewing processes
- Waste water control
- Whey/tower water monitoring
- Yeast monitoring/dosing

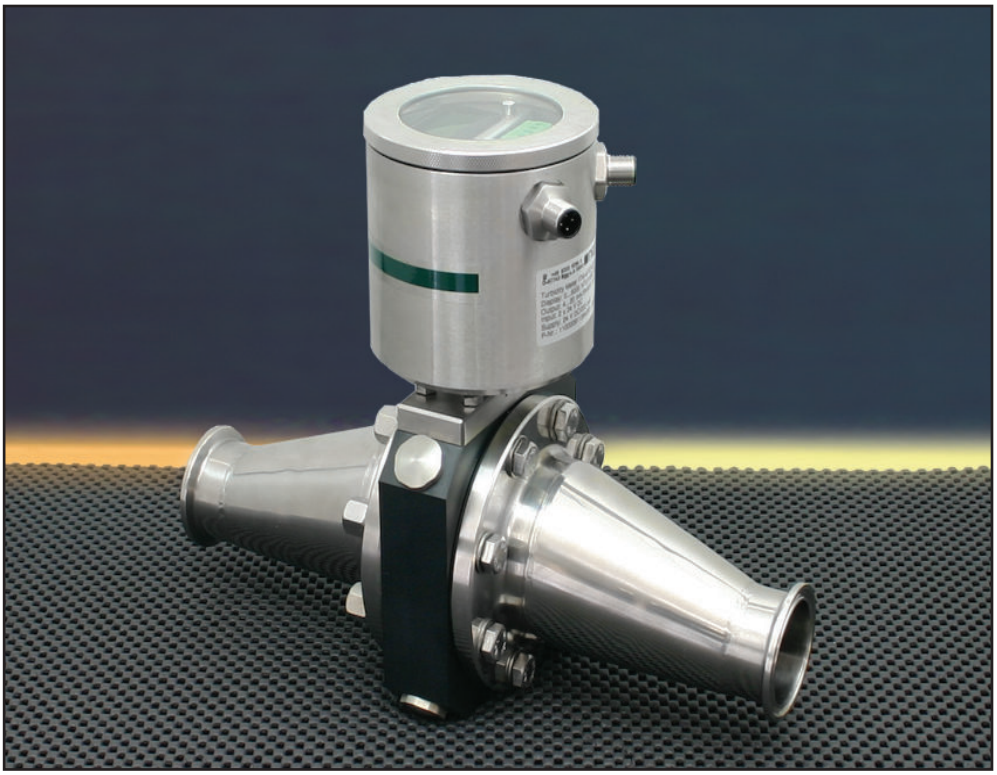
Anderson is pleased to offer select versions of the Negele ITM-4 Turbidity Meter. These products offer benefits to our customers looking to control and standardize suspended solids in their products. They are widely recognized and used by both OEM's and processors in Negele's traditional markets, and can now help our customers as well.

The ITM-4 is a 4 beam turbidity meter that allows the monitoring and controlling of low levels of suspended solids in liquid media. The compact design makes installation and set-up easy but is not short on features. There are switching and analog (4-20mA) outputs standard. Also, 4 remote selectable ranges are available to handle different products on the same process line.

The ITM-4 is easy to spec, the only thing that you need to choose is the connection size. Set-up is also easy with navigation of the on screen menus and selecting the units, analog output range, and switch point for your product.

Most importantly the design is robust and offers a lower cost of ownership than many other turbidity meters. The LED lamp technology provides a longer life than tungsten bulbs. The sapphire glass prevents scratches and fouling of the glass is compensated in the unit. Most importantly, the construction is the same rugged water tight stainless steel construction you have come to expect from Anderson. In fact the unit complies to the German IP69K standard which is more stringent than NEMA 4X.

For more information on this turbidity meter, or any of our Anderson Instrument Company products visit www.andinst.com or call our Customer Service Department at 1-800-833-0081



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www.andinst.com

"ITM-4" Specifications

Process Connection:	1.5", 2", 2.5", 3", 4"
Installation:	5 pipe diameters before and 2 after instrument

Materials

Connection Head:	SS 1.4305 (303 Stainless) 89 mm dia.
Fitting:	SS 1.4404 (316L)
Optical Block:	PEEK
Glass Panes:	sapphire glass

Temperature Ranges

Ambient:	-10-60 °C (14-140°F)
Process:	0-100 °C (32-212°F)
CIP/SIP-Cleaning:	up to 130 °C (266°F) 30 psi max
Operating Pressure:	85 psi maximum
Protection Type:	IP69K
Measurement Principle: acc. to EN 7027	4-beam-altern. light
Wave Length: acc. to EN 7027	860 nm ± 60 nm
LCD-Indicator with Illumination:	2 x 8-digit
Accuracy:	see table below
Electr. Connection:	
Cable Entry:	2 x PG (M16 x 1.5)
Cable Connection:	2 x M12 plug-in(SS 316), (1) 4 pin, (1) 5 pin
Supply Voltage:	18-36 V DC 160 mA maximum

Input

Range Switching:	E1 and E2 (24 VDC) DC decoupled

Output

Analog:	4-20 mA
Short Circuit Proof:	DC decoupled
Switching:	24 V DC 80 mA max.respectively to GND of power supply

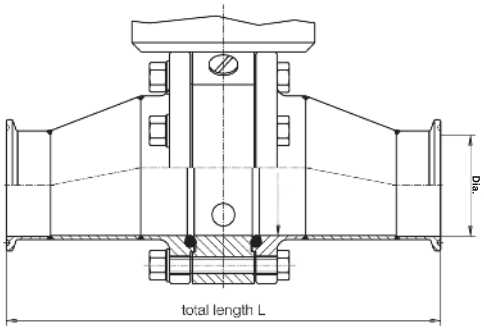
Measurement Ranges

NTU:	0-5; 10; 20; 50; 100; 200; 500; 1000; 2000;4000; 5000
EBC:	0-1; 2; 5; 10; 20; 50;100; 200; 500; 1000;1250
Damping Time:	0; 1; 2; 4; 8; 16; 32; 64; 128 seconds (adjustable)

Total length of fitting(tol.: ±5/64")

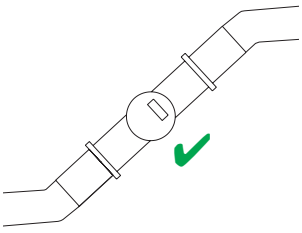
Process connection / nominal width	Tri-Clamp®(-TC) acc. to DIN32676
1.5"	10.83"
2"	8.22"
2.5"	10.08"
3"	8.52"
4"	12.63"

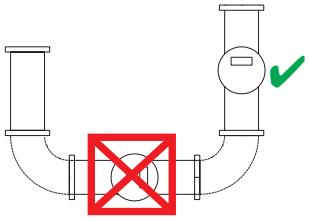
Accuracy	at the calibration points (20; 200; 2000 NTU)		± 2%	
Offset drift				< ± 0.3NTU (± 0.075EBC)
Slope accuracy	Range	0-1000 NTU	(0-250 EBC)	< 3 %
	Range	1001-2000 NTU	(250-500 EBC)	< 4 %
	Range	2001-5000 NTU	(500-1250 EBC)	< 6 %
Reproducibility	Range	0-1000 NTU	(0-250 EBC)	< 2 %
	Range	1001-2000 NTU	(250-500 EBC)	< 3 %
	Range	2001-5000 NTU	(500-1250 EBC)	< 4 %
Resolution	Range	0-100 NTU	(0-25 EBC)	0.1 NTU (0.025 EBC)
	Range	100-1000 NTU	(25-250 EBC)	1 NTU (0.25 EBC)
	Range	1001-5000 NTU	(250-1250 EBC)	10 NTU (2.5 EBC)



The following conditions must be met in order for the ITM-4 to comply with 3-A standard 46-03:

- The sensor must be mounted in a position that ensures it will be self-draining.





HOW TO ORDER

ITM-4 | TC | - | | - | M12

PIPE DIAMETER

15	1.5"
20	2.0"
25	2.5"
30	3.0"
40	4.0"

FORM AIC 5063
Effective: 10/5/10
Supersedes: 7/23/10