

Reliable measurement even with low turbidity values and variations

4-Beam Turbidity Meter ITM-4

The benchmark for turbidity control

With its very high sensitivity and a response time of <1 sec. the ITM-4 Four-beam turbidimeter it detects and signals any variation immediately. This offers significant advantages in many applications:

- **Phase separation:** immediate detection of transitions of different products, e.g. skimmed milk to whole milk; shorter transition phases without time buffer mean less product loss and thus cost savings
- **Filter monitoring:** Immediate reporting of possible malfunctions for reliable quality management
- **Water control:** monitoring of water and wastewater
- **Damage prevention:** Reliable protection against incorrect transfer of media, e.g. of product into the cooling circuit
- **Process automation:** Continuous in-line monitoring eliminates the need for manual sampling and visual inspection, providing highly accurate compliance with specifications

Advantages of ITM-4

- **Permanent precision:** The colour-independent measurement (860 nm) with 2 transmitters and 2 receivers (90° scattered light and 180° transmitted light) ensures reliable measurement results irrespective of the influence of solids or air bubbles. Contamination on the sapphire optics is automatically compensated
- **Highly accurate, application-specific measurement:** Resolution and measuring range can be selected for easy adaptation to media and processes
- **Simple installation, commissioning and operation:** Nominal pipe widths from DN 25 with various process connections and the complete fitting made of stainless steel ensure trouble-free and durable operation

Applications

- **Breweries:** lauter tun control, CIP systems, filter monitoring, yeast harvesting, separator control, water and waste water control
- **Dairies:** Phase separation during media change (e.g. milk-water), CIP systems, separator control, cooling system monitoring, water / wastewater control
- **Juice or wine production:** quality monitoring, filter monitoring, water and wastewater control
- **Mineral water / soft drinks:** process control during bottling, water and waste water control



Technical specifications at a glance

- **Four-beam turbidimeter** with 2 transmitters and 2 receivers in alternating light technology
- **Measured value setting** in NTU or EBC
- **Adjustable measuring range:** 0...5 NTU to 0...5000 NTU / min. 0...1 EBC to 0...11250 EBC
- **Measuring accuracy:** Resolution from 0.1%
- **High reproducibility:** from ≤ 2 % of end value
- **Flexible use:** process temperature up to 100°C, pressure up to 10 bar
- **CIP-/SIP cleaning** up to 130 °C / max. 30 minutes
- **More economical version** especially for process and drinking water: ITM-4DW



Order Code

ITM-4

Process Connection / Diameter

GG25	diameter DN 25; process connection dairy flange DN 25 acc. to DIN 11851
GG40	diameter DN 40; process connection dairy flange DN 40 acc. to DIN 11851
GG50	diameter DN 50; process connection dairy flange DN 50 acc. to DIN 11851
GG65	diameter DN 65; process connection dairy flange DN 65 acc. to DIN 11851
GG80	diameter DN 80; process connection dairy flange DN 80 acc. to DIN 11851
GG100	diameter DN 100; process connection dairy flange DN 100 acc. to DIN 11851
HH25	diameter DN 25; process connection hygienic thread DN 25 acc. to DIN 11864-1
HH40	diameter DN 40; process connection hygienic thread DN 40 acc. to DIN 11864-1
HH50	diameter DN 50; process connection hygienic thread DN 50 acc. to DIN 11864-1
HH65	diameter DN 65; process connection hygienic thread DN 65 acc. to DIN 11864-1
HH80	diameter DN 80; process connection hygienic thread DN 80 acc. to DIN 11864-1
HH100	diameter DN 100; process connection hygienic thread DN 100 acc. to DIN 11864-1
TC25	diameter DN 25; process connection Tri-Clamp
TC40	diameter DN 40; process connection Tri-Clamp
TC50	diameter DN 50; process connection Tri-Clamp
TC65	diameter DN 65; process connection Tri-Clamp
TC80	diameter DN 80; process connection Tri-Clamp
TC100	diameter DN 100; process connection Tri-Clamp
TC1"	diameter ASME 1"; process connection Tri-Clamp
TC1,5"	diameter ASME 1½"; process connection Tri-Clamp
TC2"	diameter ASME 2"; process connection Tri-Clamp
TC2,5"	diameter ASME 2½"; process connection Tri-Clamp
TC3"	diameter ASME 3"; process connection Tri-Clamp
TC4"	diameter ASME 4"; process connection Tri-Clamp
DF25	diameter DN 25; process connection DIN flange acc. to EN 1092-1
DF40	diameter DN 40; process connection DIN flange acc. to EN 1092-1
DF50	diameter DN 50; process connection DIN flange acc. to EN 1092-1
DF65	diameter DN 65; process connection DIN flange acc. to EN 1092-1
DF80	diameter DN 80; process connection DIN flange acc. to EN 1092-1
DF100	diameter DN 100; process connection DIN flange acc. to EN 1092-1

Note:

Version with special approval for process and drinking water (not suitable for food such as milk, beer, juice...) see separate Product Information ITM-4DW

Electrical Connection

X	2 x cable gland M16 x 1.5
M12	2 x M12 plug

ITM-4 / GG65 / M12

Total length L of the fitting (tolerance ±2 mm) and weight

Process connection / Diameter	Dairy flange (-GG) acc. to DIN 11851		Hygienic thread connection (-HH) acc. to DIN 11864-1 form A		DIN Flange (-DF) acc. to EN 1092-1 type 11 form B	
DIN DN 25	356 mm	4 kg	350 mm	4 kg	377.4 mm	8 kg
DIN DN 40	298 mm	4 kg	294 mm	4 kg	321.4 mm	9 kg
DIN DN 50	236 mm	4 kg	228 mm	4 kg	256 mm	10 kg
DIN DN 65	250 mm	5 kg	236 mm	5 kg	290 mm	11 kg
DIN DN 80	250 mm	5 kg	244 mm	5 kg	260 mm	12 kg
DIN DN 100	373 mm	5 kg	365 mm	5 kg	369 mm	13 kg

Total length L of the fitting with process connection Tri-Clamp (-TC) acc. to DIN 32676 (tolerance ±2 mm) with Tri-Clamp-size and weight

Diameter DIN	DN 25	TC Ø	Weight	DN 40	TC Ø	Weight	DN 50	TC Ø	Weight
	341 mm	50.5 mm	4 kg	275 mm	50.5 mm	4 kg	209 mm	64 mm	5 kg
Diameter ASME	DN 1"	TC Ø	Weight	DN 1½"	TC Ø	Weight	DN 2"	TC Ø	Weight
	360.2 mm	50.5 mm	4 kg	292 mm	50.5 mm	4 kg	223 mm	64 mm	4 kg
Diameter DIN	DN 65	TC Ø	Weight	DN 80	TC Ø	Weight	DN 100	TC Ø	Weight
	256 mm	91 mm	5 kg	216 mm	106 mm	5 kg	321 mm	119 mm	5 kg
Diameter ASME	DN 2½"	TC Ø	Weight	DN 3"	TC Ø	Weight	DN 4"	TC Ø	Weight
	166 mm	77.5 mm	4 kg	172 mm	91 mm	5 kg	305.8 mm	119 mm	5 kg

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ANDERSON INSTRUMENT COMPANY
156 Auriesville Road
Fultonville, NY 12072, USA

Phone 800-833-0081
info@anderson-negele.com
techservice@anderson-negele.com

NEGELE MESSTECHNIK GMBH
Raiffeisenweg 7
87743 Egg an der Guenz, GERMANY

Phone +49 (0) 83 33 . 92 04 - 0
sales@anderson-negele.com
support@anderson-negele.com