

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:

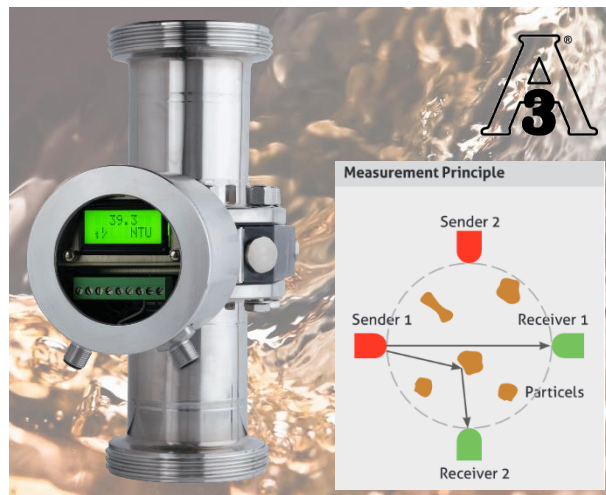
- **Phase separation:** immediate detection of transitions of different products, e.g. skimmed milk to whole milk; shorter transition phases without time buffer mean less product loss and thus cost savings
- **Filter monitoring:** Immediate reporting of possible malfunctions for reliable quality management
- **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 $\leq 2\%$ 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 DN25; process connection dairy flange DN25 acc. to DIN11851)
- GG40 (diameter DN40; process connection dairy flange DN40 acc. to DIN11851)
- GG50 (diameter DN50; process connection dairy flange DN50 acc. to DIN11851)
- GG65 (diameter DN65; process connection dairy flange DN65 acc. to DIN11851)
- GG80 (diameter DN80; process connection dairy flange DN80 acc. to DIN11851)
- GG100 (diameter DN100; process connection dairy flange DN100 acc. to DIN11851)
- HH25 (diameter DN25; process connection hygienic thread DN25 acc. to DIN11864-1)
- HH40 (diameter DN40; process connection hygienic thread DN40 acc. to DIN11864-1)
- HH50 (diameter DN50; process connection hygienic thread DN50 acc. to DIN11864-1)
- HH65 (diameter DN65; process connection hygienic thread DN65 acc. to DIN11864-1)
- HH80 (diameter DN80; process connection hygienic thread DN80 acc. to DIN11864-1)
- HH100 (diameter DN100; process connection hygienic thread DN100 acc. to DIN11864-1)
- TC25 (diameter DN25; process connection Tri-Clamp)
- TC40 (diameter DN40; process connection Tri-Clamp)
- TC50 (diameter DN50; process connection Tri-Clamp)
- TC65 (diameter DN65; process connection Tri-Clamp)
- TC80 (diameter DN80; process connection Tri-Clamp)
- TC100 (diameter DN100; process connection Tri-Clamp)
- TC1" (diameter ASME 1"; process connection Tri-Clamp)
- TC1,5" (diameter ASME 1,5"; process connection Tri-Clamp)
- TC2" (diameter ASME 2"; process connection Tri-Clamp)
- TC2,5" (diameter ASME 2,5"; process connection Tri-Clamp)
- TC3" (diameter ASME 3"; process connection Tri-Clamp)
- TC4" (diameter ASME 4"; process connection Tri-Clamp)
- DF25 (diameter DN25; process connection DIN flange acc. to DIN2632/33)
- DF40 (diameter DN40; process connection DIN flange acc. to DIN2632/33)
- DF50 (diameter DN50; process connection DIN flange acc. to DIN2632/33)
- DF65 (diameter DN65; process connection DIN flange acc. to DIN2632/33)
- DF80 (diameter DN80; process connection DIN flange acc. to DIN2632/33)
- DF100 (diameter DN100; process connection DIN flange acc. to DIN2632/33)

Note:
Version with special approval for process and drinking water (not suitable for food such as milk, beer, juice...) see separate product

Electrical Connection

- X (2 x cable gland M16 x 1,5)
- M12 (2 x M12 plug; 1.4305)

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 version A		DIN Flange (-DF) acc. to DIN 2632/33	
	Length	Weight	Length	Weight	Length	Weight
DIN DN25	356 mm	4 kg	350 mm	4 kg	374 mm	8 kg
DIN DN40	298 mm	4 kg	294 mm	4 kg	316 mm	9 kg
DIN DN50	236 mm	4 kg	228 mm	4 kg	256 mm	10 kg
DIN DN65	250 mm	5 kg	236 mm	5 kg	290 mm	11 kg
DIN DN80	250 mm	5 kg	244 mm	5 kg	260 mm	12 kg
DIN DN100	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	DN25	TCØ	Weight	DN40	TCØ	Weight	DN50	TCØ	Weight
		341 mm	50,5 mm	4 kg	275 mm	50,5 mm	4 kg	209 mm	64 mm
Diameter ASME	DN 1"	TCØ	Weight	DN 1,5"	TCØ	Weight	DN 2"	TCØ	Weight
		355 mm	50,5 mm	4 kg	290 mm	50,5 mm	4 kg	223 mm	64 mm
Diameter DIN	DN65	TCØ	Weight	DN80	TCØ	Weight	DN100	TCØ	Weight
		256 mm	91 mm	5 kg	216 mm	106 mm	5 kg	321 mm	119 mm
Diameter ASME	DN 2,5"	TCØ	Weight	DN 3"	TCØ	Weight	DN 4"	TCØ	Weight
		166 mm	77,5 mm	4 kg	172 mm	91 mm	5 kg	308 mm	119 mm

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