

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

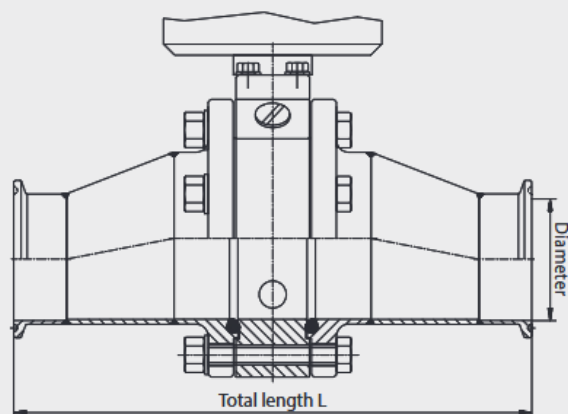


### Technical specifications at a glance

- **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



## Tri-Clamp ITM-4 TC

Total length of fitting (tol.:  $\pm 5/64$ "

Process connection / nominal width	Tri-Clamp® (-TC) acc. to DIN 32676
1.5"	11.33"
2"	8.86"
2.5"	6.75"
3"	6.61"

## Order Information

Pipe diameter		Display	
15	1.5"	D	Display
20	2.0"	B	Blind Cap
25	2.5"		
30	3.0"		

## Accessories

Shielded cordset w/25' cable	42117H0025
Shielded cordset w/50' cable	42117H0050
Shielded cordset w/100' cable	42117H0100
Field Wireable Connector-Straight	42119B0000
Field Wireable Connector-90°	42119A0000

## ITM-4DW (Material PPSU with drinking water certification)

## Process connection for DN40 Optics

TC25	(Nominal width DN25; Tri-Clamp process connection)
TC40	(Nominal width DN40; Tri-Clamp process connection)
TC50	(Nominal width DN50; Tri-Clamp process connection)
TC65	(Nominal width DN65; Tri-Clamp process connection)
TC80	(Nominal width DN80; Tri-Clamp process connection)
TC100	(Nominal width DN100; Tri-Clamp process connection)
TC1	(Nominal width ASME 1"; Tri-Clamp process connection)
TC1.5	(Nominal width ASME 1½"; Tri-Clamp process connection)
TC2	(Nominal width ASME 2"; Tri-Clamp process connection)
TC2.5	(Nominal width ASME 2½"; Tri-Clamp process connection)
TC3	(Nominal width ASME 3"; Tri-Clamp process connection)
TC4	(Nominal width ASME 4"; Tri-Clamp process connection)
GG25	(Nominal width DN25; milk pipe process connection DN25 as per DIN 11851)
GG40	(Nominal width DN40; milk pipe process connection DN40 as per DIN 11851)
GG50	(Nominal width DN50; milk pipe process connection DN50 as per DIN 11851)
GG65	(Nominal width DN65; milk pipe process connection DN65 as per DIN 11851)
GG80	(Nominal width DN80; milk pipe process connection DN80 as per DIN 11851)
GG100	(Nominal width DN100; milk pipe process connection DN100 as per DIN 11851)
DF25	(Nominal width DN25; DIN flange process connection as per DIN 2632/33)
DF40	(Nominal width DN40; DIN flange process connection as per DIN 2632/33)
DF50	(Nominal width DN50; DIN flange process connection as per DIN 2632/33)
DF65	(Nominal width DN65; DIN flange process connection as per DIN 2632/33)
DF80	(Nominal width DN80; DIN flange process connection as per DIN 2632/33)
DF100	(Nominal width DN100; DIN flange process connection as per DIN 2632/33)

## Electrical connection

X	(2 x cable screw fitting M16 x 1.5)
M12	(2 x M12 connector; 1.4305)

ITM-4DW / GG65 / M12

## Note:

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