

# Model TURBIsmart-F



- Principle of measurement: 12° forward scattered light
- Low maintenance / long service life
- Extended calibration interval: Typical 18 month
- Configuration via PC, Laptop
- Menu - based, intuitive User Interface
- Serial Interface: USB
- Optional backlit LCD
- Outputs: 4-20mA, Relay Setpoint, Relay system fail
- Fitting of measuring Curve
- Measuring Ranges: Programmable
- Measuring Units: EBC, FTU, TEF, ppm (others on request)
- Protection Class: IP65 / Nema 4x
- Light Source: IR-LED
- Steel melted measuring Windows -dead space free, sealless
- Optional: Sapphire measuring Windows available
- Dead space free, hygienic TH-Variline flowcells
- Hygienic Design / Cleaning in place (CIP)

## Description:

The turbidity meter Model TURBIsmart-F uses the principle of 12° forward scattered light to detect suspended particles in liquids. The system has been designed for continuous operation with long life time. A ratio measurement of direct- / scatter light assure highly reliable and repeatable measurement results. Inaccuracies caused by product color, ageing of light source or window coating will be compensated. The forward scatter measuring results are nearly independent of particle size and will correlate to product concentration. The integrated transmitter allows an easy setup and calibration.

## Applications:

- Filtration control
- Product quality
- Water in fuel
- Oil in water / Water in oil

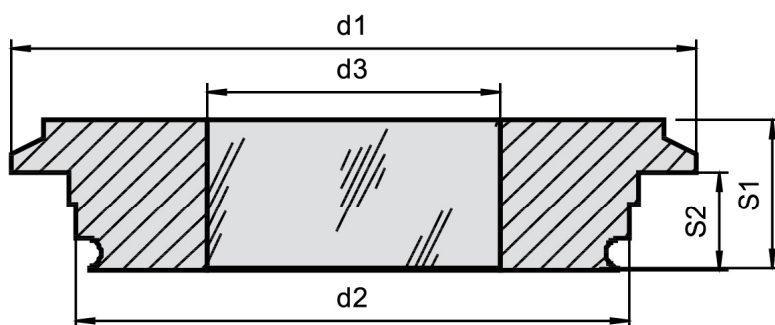
## Operational areas:

- Breweries
- Beverages
- Dairies
- Liquid processing

## Technical Data:

Line sizes:	DN 25 – DN 125 (TH- Variline flow cells)	Reproducibility:	± 1 %
Process pressure:	PN 10 / ANSI class 150	Protection class:	IP65 / NEMA 4X
Temperature range:	maximal 120°C / 140°C short time	Cleaning:	Cleaning in place (CIP)
Sensor material:	1.4404 / 316L	Supply:	24VDC ±10%
Window material:	Metaglas	Analog output:	4-20mA, 500 Ohm (isolated)
Gasket material:	No additional window gaskets required	Relay outputs:	Contact ratings 24VDC/1A
Measuring range:	typical 0-1 ...10 (others on request)	Interface:	USB

## METAGLAS® Sight Glass with Luminaire for VARIVENT®-In-Line Fittings



### Applications

- VARIVENT® In-Line flanges
- VARIVENT® In-Line housings

### Advantages

- Housing free of dead zones, no domes or pools
- Pre-determined distortion of O-Ring by metal contact faces
- Suitable for CIP and SIP treatment
- Security against total failure
- Long operating life
- Crevice free seal

### Technical data

Manufactured and tested to:

- Directive for pressure equipment 2014/68/EU, Module H (DIN/EN/ISO 9001)
- AD2000 Standards W0/TRD 100
- Sight glass fused to metal conforming to DIN 7079
- Materials to VdTÜV specifications and the DIN/EN designated standards
- Glass: Borosilicate to DIN 7080 / DIN 7079

### Material certificates

- Certificate of Conformity EN 10204-3.1 (or 3.2 for extra costs)

### Operating conditions

- Pressure: 25 bar
- Temperature: see table

Ring materials	Operating temperature
1.4462	-30°C to +280°C
2.4602	-60°C to +300°C
2.4605	-60°C to +300°C
2.4610	-60°C to +300°C

Process connections		d1	d2	d3	S1	S2	O-Ring
F	VARIVENT DN 25, 1" OD and 25 ISO	66	49,90	25	19	12,2	42 x 3,0
N	VARIVENT 32 ISO 6" IPS	84	67,95	35	17	12,3	60 x 3,0
G	VARIVENT DN100 and DN 125	142	122,90	65	21	21	113 x 4,0