Type STS 11

modular @ analyse

Basic Features

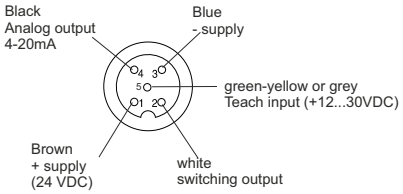
- Safe separation
- Faster product changes
- reduced wastewater costs
- Filter monitoring
- Color-independent concentration measurement
- Compact design with integrated electronics and display for parameterization
- Resistant sapphire lens
- Hygienic design, polymerfree sealing system, CIP / SIP-compatible
- Color graphic display
- LED light source LED life > 100.000 hours
- Integrated digital and analog output
- Simple parameterization

Technical Features

- 180° Transmittet light turbidity measurement*
- Messbereich(OPL) 0-100%
- Light source LED
- Wavelength 880 mm
- Optical pathlength 5, 10, und 20 mm
- Material stainless steel 1.4435 (316L)
- Surface quality electropolished <0,37 µm Ra
- Sapphire optic
- Supply voltage 12...30 VDC
- Output current 4…20mA
- Output PNP 24 V, NC / NO parameterizable / max. 150 mA
- Electrical connection M12 plug 5 - pole
- Process connection G1/2” elastomer-free sealing system
- Ambient temperature -20...70°C
- Process temperature 0…90 ºC, 141 ºC maximum for 2 hours (SIP - cycle)
- Process pressure max. 16 bar (230 psig) at 60 ºC

Optical path lengths (OPL)

Pin assignment



Favoured Fields of applications are:

STS is a sensor used to monitor the optical density of liquids in order to monitor process results or view changes safely. Especially suitable for phase separation, filter monitoring and concentration measurements.

ATTENTION!
At lower deviation of dew points water condensation is possible, that can destroy the sensor. At stress with change of temperatures, e. G. a cold water jet on the hot sensor, it can come to absorption of fluids in to the sensor. (Requirements cf. DIN EN 60068-2-14)
At applications with dew point, temperature shock or thermal shock stresses we recommend to put in the enclosed silikagel-bag into the connecting head. The tightness classification after IP68 does not mean that these parts are suitable! for applications with lower deviation ot dew point or temperature shock. (DIN 60068-2-14)

* DIN/EN27027(ISO7027)

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Technical facts

Supply voltage:	12...30 VDC
Current consumption:	approx. 80 mA (bei 30 VDC and, analog output = 22,5 mA)
Power consumption:	max. 2,4 W
Analog output:	4-20 mA
Current limit:	min. 3,5 mA max. 22,5 mA, adjustable
Tightening torque:	10 - 20 Nm

Burden: <=(Ub-4V)/20mA (max. 400 ohms at 12V, 1000 ohms at 24V, 1300 ohms at 30V)
Switching output: Semiconductor switching, PNP sw.
Switching capacity: max. 150mA, thermally protected against overload
Protection class: IP69K

Measuring range

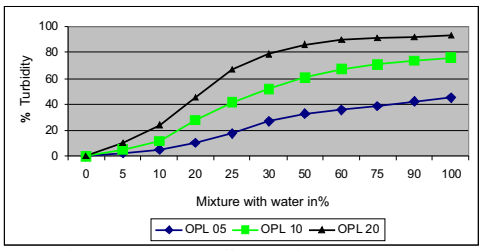
In relation to Formazin, there are the following dependencies:
1FNU = 1FAU = 1 NTU= 0,25 EBC = 2,05 mg/l = 0,00000205% TS

Our measuring range is approx.:

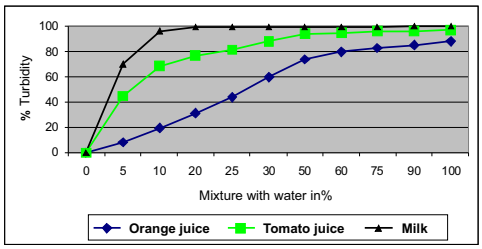
OPL 5mm	0…500 EBC	0…2000 FAU	5,0 g/l	~0,4% TS*
OPL 10mm	0…250 EBC	0…1000 FAU	2,5 g/l	~0,2% TS*
OPL 20mm	0…100 EBC	0… 400 FAU	1,0 g/l	~0,1% TS*

* the values correspond to approx. 80% of the display scope

Typical turbidities

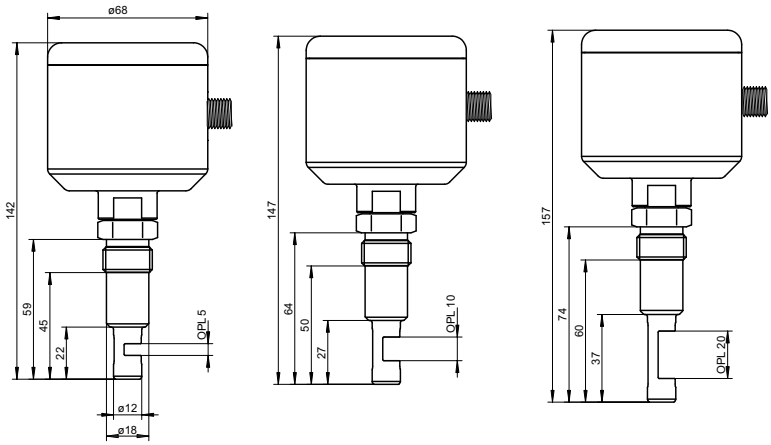


Hefeweizen with different OPLs



Different products with OPL 010

Dimensional drawing



Parameterization

The parameters are set via the touch display

Order code

STS11-
"HygienicConnect" (metallic sealing)
Standard

STS11-E-
"HEC" (elastomer sealing)

Optical path length				
Optical path length 5 mm (OPL)	**005**			
Optical path length 10 mm (OPL)	**010**			
Optical path length 20 mm (OPL)	**020**			
Configuration measuring range				
Measuring range 0...100,0 %		**1**		
Special design on request		**K**		
Interface / parameterization				
4...20 mA / M12 5-polig			**A**	
Special design on request			**K**	
Display / control unit				
with integrated display				**1**
Special design on request				**X**

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