

TURB85 - TURBIDITY CONTROLLER

Turbidity and suspended solids analyzer with dedicated input for pre-amplified turbidity probe. Scale NTU and S.S. selectable with autorange. Self-cleaning functions of the probe that can be set and controlled directly by the instrument.

Alarm: min/max turbidity, set point timing, dirty lens, empty cell, external light too high Check signal of dirty lens.

Dual filter software.

Easy to use software with 3 access levels:
display, calibration and configuration of process parameters.
Manual, automatic operation.

Autoclean relay with programmable cycle repetition, cleaning and holding time.



Applications

- Potabilization and filtration plants
- Controlling and monitoring activated sludge plants
- Spring and mineral waters
- Ultrafiltration and disinfection
- Sedimentation and clariflocculator
- Swimming pools and water parks

TECHNICAL SPECIFICATIONS

Standard Range:	4.000/400.0 NTU - 40.00/4.000 NTU 9.999/999.9 mg/l - 99.99/9.999 mg/l of SiO ₂ 9.999/999.9 ppm - 99.99/9.999 ppm of SiO ₂
Optional Range (OS Version) :	4.000/400.0 NTU - 40.00/4.000 NTU 4.000/400.0 mg/l - 40.00/4.000 mg/l of PSL 9.999/999.9 mg/l - 99.99/9.999 mg/l of SiO ₂
Resolution:	0.05% of scale
Zero of the probe:	0.0/10.0% f.s.
Manual Zero :	+/- 0.4 NTU (OS version)
Sensitivity:	80.0/120.0 %
Temperature:	Input from Pt100 3 wires
Set point A / B:	ON/OFF; Hysteresis: 0/10% of scale; Relay delay: 0/99.9 s
Relay contacts:	220V - 5A Low/high alarm 0 to full scale
Analog Output:	0/20 or 4/20 mA isolated - R max 600 Ohm
Response time:	10 s for 98% of input
Display:	16-character LCD, backlit, with variable contrast
Working Temperature:	0/50 °C
Humidity:	95% without condensate
Power:	110/220 Vac +/-10% 50/60 Hz 5 VA max
Isolation:	4000 V (IEC 348)
terminal blocks:	removable
Net Weight:	850 g
Dimensions:	96x 96x155 mm 1/4 DIN
Options:	- Dual analog output - 9/36 VDC power supply



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TURB82 - SUBMERSIBLE PROBES WITH AUTOCLEAN

Turbidity probes TURB82 has been designed for submersible measures, and it is equipped with a built-in nozzle for autocleaning by means of pressured air blasts.

The high sensitivity of this probe and the meter allow for very low readings in the scale 4.000 NTU.

By selecting the proper scale of the controller, the system can be used for measuring suspended solids up to 9.999 mg/l.



TECHNICAL SPECIFICATIONS

Measuring method:	Nephelometric (ISO 7027 - EN 27027)
Range:	0/4.000 NTU - 0/9.999 mg/l
Resolution:	0.001 on scale 0/4.000 NTU 0.01 on scale 0/40.00 NTU 0.1 on scale 0/400.0 NTU 1 on scale 0/4.000 NTU
Response time:	10 seconds
Light:	LED IR 890 nm
Internal sensor:	for dry cell and dirty lens checking
Preamplifier:	built-in
Power:	±12 Vdc by controller TURB85
Operating Temperature:	0/50 °C
Temperature of the sample:	0/50 °C
Pressure of the sample:	6 Bar max. at 20 °C
Body:	PVC
Optical lens:	Acrylic
Protection:	IP68
Auto clean:	Built-in device
Air line connector:	1/4" I/E 3/8"
Air Pressure:	3 bar
Cable length:	10 m



Submersible sensor, typical installation



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TURB*F - MEASURING PROBES IN FLOW/OVERFLOW

Amplified turbidity probes with PVC or PVDF body (ISO 7027 - EN 27027).

Suitable for turbidity measurements on purified, potable, industrial, and purified waste water.

Nephelometric method EN 27027 - ISO 7027 with infrared source 890 nm, USEPA 180.1.

The PVDF model is specifically designed for applications on samples containing alcohols and ethyl esters (enology) and is applicable on aqueous solutions containing trace hydrocarbons and solvents.

For low turbidity measurements (range 0,000 - 4,000 NTU) it must be used with the TURB91 cell.

Response time: 10 seconds
Internal Sensor: for empty cell and dirty lens checking
Preamplifier: built-in
Power: ± 12 Vdc by TURB85 controller
Ambient Temperature: 0/50 °C
Sample Temperature: 0/50 °C
Sample Pressure: 6 Bar max at 20 °C
Optical window material: Acrylic
Protection: IP67



Models:	TURB100	TURB105	TURB120
Metod:	EN 27027 - ISO 7027		USEPA 180.1
Range:	0/4000 NTU		
Resolution:	0.001 on scale 0/4.000 NTU		
	0.01 on scale 0/40.00 NTU		
	0.1 on scale 0/400.0 NTU		
	1 on scale 0/4.000 NTU		
Accuracy:	$\pm 5\%$ of reading 0/400 NTU		
	$\pm 10\%$ of reading 400/4000 NTU		
Light source:	LED I.R. 890 nm		Tungsten lamp 2200 °K, average life of the lamp 100000 hours
Sensitivity:	890 nm		600 nm
Material:	PVC body, O-ring NBR	PVDF body, O-ring NBR	PVC body, O-ring NBR
Diameter:	40		
Cable:	150 m max - Supplied 10 or 30 meters with IP67 7-pole flying connector		



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TURB9* - OVERFLOW CELL

For flow and turbidity flow measurements, using the TURB100, 105 and 120 probes. The TURB91 model allows to measure very low turbidity values (less than 1,000 NTU) with high precision and reproducibility.

PVC construction, complete with flow regulator, 4 x 6 mm process connections, supplied with 5 meters of 4 x 6 mm black PE pipe for hydraulic connection.

Equipped with a flow regulator that prevents the formation of air bubbles that can be generated in the samples taken from piping under pressure, the cell is also very easy to clean and makes easy a possible calibration operation using Formazina.



Flow of sample:	0.2-25 l/m
Temperature:	0-50 °C
Sample Pressure:	6 bar at 20°C
Material:	PVC
Collar nut thread diameter:	2"1/2
Fittings:	1/4"
Tubing:	PVC 4x6 mm l=5m
Dimensions:	183x107 mm
Horizontal mounting:	with sample flow from bottom to top
Models:	TURB91 for low turbidity values
	TURB92 for standard turbidity values



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