

## ANDERSON NEGELE TURBIDITY SENSOR ITM-51

ITM-51 & ITM-51R

ITM-51

- Infrared Backscatter Principle
- Measuring Range > 2000 NTU (> 500 EBC)
- Operating Pressure Max 16 Bar
- Approvals: FDA; 3-A



## Product description

From a diode, infrared light is radiated into the medium. The particles present in the medium reflect the incident light detected by the receiving diode (so-called backscatter method). The electronics calculate from the received signal, the relative turbidity of the medium.

The relative turbidity is given in NTU, or on the Nails calibration standard specified in "% TU" or in the EBC.

Suitable for pipe sizes as small as DN25 the versatility is broad and it has been used in many applications with great success. Not only does it help to optimise systems but the reduction in lost water, cleaning solutions and product allow it to quickly and effectively pay for itself, whilst continuing to streamline and save the end user money from the day that it is installed.

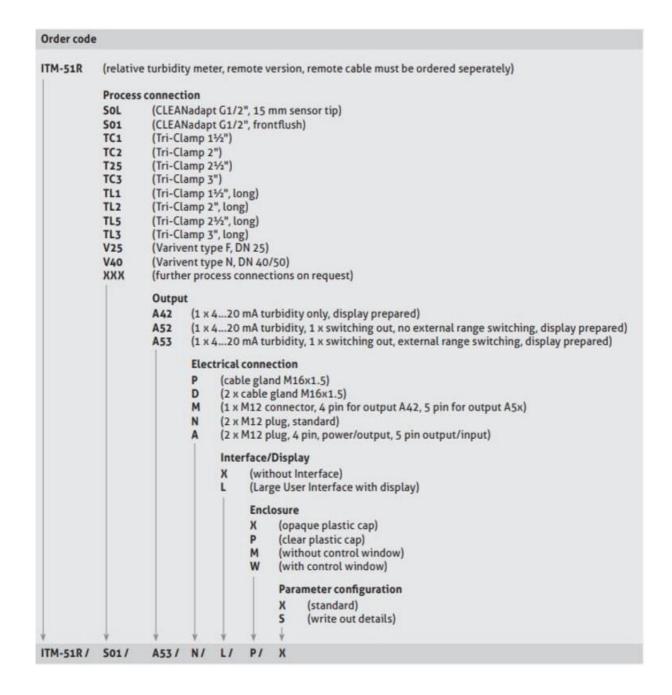
With a complete range of process connections and a remote version available there is a solution for nearly all applications where turbidity monitoring is required.

Application Examples:

- Patented Frontflush sensor
- Infrared back scatter technology
- Independent to reflexions at small diameters or electro-polished surfaces
- No colour dependency (wave length 860 nm)
- Sapphire glass optics
- IP69K
- High reproducibility: ≤ 1 % of full scale
- Switching output (switchpoint and hysteresis freely adjustable)
- CIP/SIP Cleaning up to 140°C for 30 minutes maximum
- FDA and 3A (3A Tri-Clamp only) Certified

Please refer to the images below for ordering information.

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Order code
ITM-51 (relative turbidity meter)
         Process connection
                (CLEANadapt G1/2", 15 mm sensor tip)
         SOL
         501
                 (CLEANadapt G1/2", frontflush)
                 (Tri-Clamp 13/2")
         TC1
         TC2
                 (Tri-Clamp 2")
         T25
                 (Tri-Clamp 21/2")
         TC3
                 (Tri-Clamp 3")
                 (Tri-Clamp 13/2", long)
         TL1
         TL2
                 (Tri-Clamp 2", long)
         TL5
                 (Tri-Clamp 23/2", long)
                 (Tri-Clamp 3", long)
         TL3
                 (Varivent type F, DN 25)
         V25
                 (Varivent type N, DN 40/50)
         V40
         XXX
                (further process connections on request)
                 Enclosure Orientation
                       (horizontal)
                       (vertical)
                       Output
                              (1 x 4...20 mA turbidity only, display prepared)
                       A42
                       A52
                              (1 x 4...20 mA turbidity, 1 x switching out, no external range switching, display prepared)
                              (1 x 4...20 mA turbidity, 1 x switching out, external range switching, display prepared)
                      A53
                              Electrical connection
                                   (cable gland M16x1.5)
                              D
                                    (2 x cable gland M16x1.5)
                                    (1 x M12 connector, 4-pin for output A42, 5-pin for output A5x)
                              N
                                    (2 x M12 plug, standard)
                                    (2 x M12 plug, 4-pin, power/output, 5-pin output/input)
                                    Interface/Display
                                         (without Interface)
                                    X
                                          (Simple User Interface with small display)
                                          (Large User Interface with display)
                                          Enclosure
                                               (opaque plastic cap)
                                          X
                                               (clear plastic cap)
                                               (without control window)
                                          W
                                              (with control window)
                                               Parameter configuration
                                                     (standard)
                                               5
                                                     (write out details)
ITM-51 S01/ V/ A53/ D/ L/ P/
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## Specifications

| Approvals                  | 3-A, EHEDG, FDA        |
|----------------------------|------------------------|
| Area of application        | Food                   |
| Cover material             | Polycarbonate          |
| Detector Materials         | Sapphire               |
| IP Class                   | IP67, IP69K            |
| Material of connection     | Stainless steel 316L   |
| Material of sensor housing | Stainless steel 1.4308 |

| Measurement Accuracy            | +/-3% - 0-999NTU ; +/- 5% > 999NTU |
|---------------------------------|------------------------------------|
| Pressure Range Max              | 20                                 |
| Pressure Range Min              | -1                                 |
| Response Time                   | 750                                |
| Supply Voltage DC Max           | 32                                 |
| Supply Voltage DC Min           | 18                                 |
| Temperature ambient from        | -10                                |
| Temperature ambient to          | 60                                 |
| Temperature range of media from | -10                                |
| Temperature range of media to   | 130                                |
| Weight                          | 750                                |