

STAINLESS STEEL SUBMERSIBLE TRANSMITTER

TNS-119/127/200

Desin
Instruments

DESCRIPTION

TNS-119

- DIAMETER 19 mm

TNS-127

- DIAMETER 27 mm

TNS-200

- TRANSMITTER AND CABLE ASSEMBLY PLUGGED
- SUITABLE FOR ALL FLUIDS WHICH ARE COMPATIBLE WITH STAINLESS STEEL

TNS-119, TNS-127 and TNS-200

- SUITABLE FOR ALL FLUIDS WHICH ARE COMPATIBLE WITH STAINLESS STEEL
- PRESSURE RANGES BETWEEN 0 ... 1 mWC AND 0 ... 160 mWC
- SPECIAL PRESSURE RANGES, E.G. 0...55 mWC
- ACCURACY ACC. TO IEC 60770 0.35% / 0.25% FSO (BFSL: 0.175% / 0.125% FSO)
- OUTPUT SIGNAL 4...20 MA / 2-WIRE- SYSTEM
- EXCELLENT REPEATABILITY AND LONG TERM STABILITY
- CABLE WITH INTEGRATED AIR TUBE FOR ATMOSPHERIC REFERENCE
- EXCELLENT LINEARITY
- SMALL THERMAL EFFECT
- LONG OPERATIONAL LIFE
- HIGH RESISTANCE AGAINST ELECTRICAL FAULTS (INCORRECT WIRING, SHORT-CIRCUIT AND OVERVOLTAGE)
- RUGGED AND RELIABLE
- CUSTOMER-DESIGNED APPLICATIONS

TNS-119



TNS-127



TNS-200



FEATURES

TNS-119

The **TNS-119** level transmitter is suited for continuous fluid level measurement with media compatible with stainless steel. Due to the small diameter of **19 mm** the **TNS-119** can be used in restricted space.

TNS-127

The **TNS-127** level transmitter is suited for continuous fluid level measurement.

The **TNS-127** is a level transmitter for use in a wide range of applications.

TNS-200

The **TNS-200** submersible transmitter is suited for continuous level measurement for fluids that are compatible with PVC and stainless steel.

It can be used even in more viscous media by removing the protective cap, thus makes the sensor diaphragm flush.

In order to reduce stockpiling and maintenance, transmitter and cable assembly is plugged together with a

connector. The transmitter can be easily exchanged – if needed – without consuming electrical and mechanical work. Due to the cable protection and the different mounting variants the **TNS-200** is a submersible transmitter for many different fields of application

As complement, we manufacture a wide range of measuring and control instruments to use with these 4-20 mA configurable transmitters.

- Controllers: **BS-1000, LS-3000 and HS-7000 Series**
- Indicators: **BS-1000, LS-3000 and HS-7000 Series**
- Loop-powered field Indicators **PM-3650, PM-6670 and PM-2659 Series**
- 24 Vdc 1 A or 2 A instruments power supply units **FAC-24/1000/S and FAC-24/1000/D Series**
- Data acquisition and control systems **DAS-8000 and HS-7000**



127.63

SPECIFICATIONS

TNS-119 and TNS-127

- Ranges:

Pressure (bar): 0,1 0,25 0,4 0,6 1,0 1,6 2,5 4,0 6,0 10 16

Level mCA: 1,0 2,5 4,0 6,0 10 16 25 40 60 100 160

Overpressure: 1,0 1,0 1,0 3,0 3,0 6,0 10 20 20 60 60

- Accuracy: $\leq \pm 0,35\%$ FSO

- Output signal: 4-20 mA 2 wires

- Electrical connection: Cable PVC/PUR/FEP with integrated air tube

- Voltage: between 12 and 36 Vcc

- Permissible Load: 2 wires (U_b (V) -10 V) / 0,02 A

- Operating Temperature range

Sensor: -10 to +70 °C

Storage: -25 to +70 °C

- Tiempo de respuesta: ≤ 5 ms

- Materials:

Housing Stainless steel 1.4571

Diaphragm Stainless steel 1.4404

Seals FKM

TNS-200

- Ranges:

Pressure (bar): 0,1 0,25 0,4 0,6 1,0 1,6 2,5 4,0 6,0 10

Level mCA: 1,0 2,5 4,0 6,0 10 16 25 40 60 100

Overpressure: 1,0 1,0 1,0 3,0 3,0 6,0 10 20 20 60

- Accuracy: $\leq \pm 0,35\%$ FSO

- Output signal: 4-20 mA 2 wires

- Electrical connection: Cable PVC/PUR/FEP with integrated air tube

- Voltage: between 12 and 36 Vcc

- Permissible Load: 2 wires (U_b (V) -10 V) / 0,02 A

- Operating Temperature range

Sensor: 0 to +50 °C

Storage: -10 to +50 °C

- Tiempo de respuesta: ≤ 5 ms

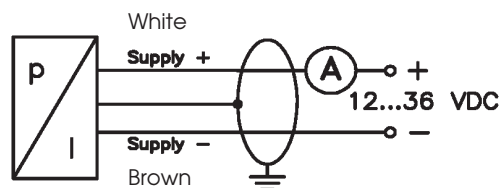
- Materials:

Housing PVC grey

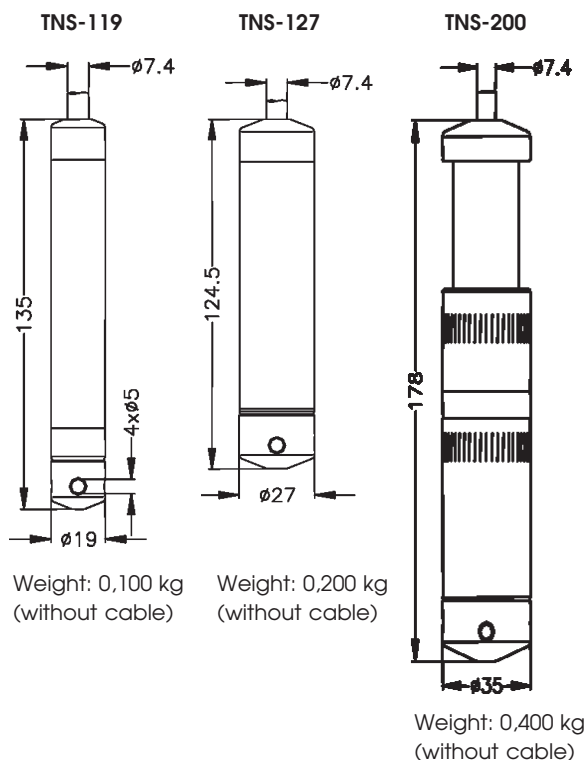
Diaphragm Stainless steel 1.4404

Seals FKM

WIRING DIAGRAM



DIMENSIONS



APPLICATIONS

TNE-119

- Depth or level measurement in wells and open waters
- Ground water level measurement

TNE-127

- Environmental technology: sewage treatment, water supply
- Depth or level measurement in wells and open waters
- Ground water level measurement
- Level monitoring in open tanks.

TNE-200

- Environmental technology, water supply
- Depth or level measurement in wells and open waters
- Ground water level measurement
- Level monitoring in open tanks

HOW TO ORDER

MODELS:

TNS-119 Ranges from 0,6 mH₂O to 160 mH₂O

TNS-127 Ranges from 1 mH₂O to 160 mH₂O

TNS-200 Ranges from 1 mH₂O to 100 mH₂O

Options:

- Special ranges
- PVC cable meter
- PUR cable meter
- FEP cable meter