

LEVEL TRANSMITTER

Hydrostatic Level
measurement

TNE-12/LL .../HL .../T /TNE-16

Desin
Instruments

DESCRIPTION

TNE-12/LL .../HL

- PRESSURE RANGES BETWEEN 0 ... 1 mCA AND 0 ... 400 mCA
- SUITABLE FOR WATER AND ALL FLUIDS WHICH ARE COMPATIBLE WITH STAINLESS STEEL

TNE-12/T

- PRESSURE RANGES BETWEEN 0 ... 1 mCA AND 0 ... 10 mCA

TNE-16

- PRESSURE RANGES BETWEEN 0 ... 0,6 mCA AND 0 ... 200 mCA

TNE-12/LL .../HL, TNE-12/T y TNE-16

- CUSTOMER-DESIGNED PRESSURE RANGES E.G. 0 ... 55 mCA
- ACCURACY ACC. TO IEC 60770: 0,35% FSO (BFSL: 0,175% FSO) OPTIONAL: 0,25% FSO (BFSL: 0,125% FSO)
- OUTPUT SIGNALS 4 ... 20 mA / 2W, 0 ... 20 mA / 3W, 0 ... 10 V / 3W AND OTHER VOLTAGE OUTPUTS
- SMALL THERMAL EFFECT
- EXCELLENT LONG TERM STABILITY
- HIGH RESISTANCE AGAINST ELECTRICAL FAULTS CAUSED BY INCORRECT WIRING, SHORT-CIRCUIT AND OVERVOLTAGE
- LONG OPERATING LIFE
- FLUSH DIAPHRAGM
- RUGGED AND RELIABLE UNDER MOST CONDITIONS
- OPTIONAL EX: II 1 G EEX IA IIC T4 (TÜV 99 ATEX 1504 X)
- CUSTOMER-DESIGNED APPLICATIONS

TNE-12/LL .../HL



TNE-12/T



TNE-16



CE

FEATURES

The **TNE** series screw-in level transmitters are suited for continuous level measurement of liquid media in open tanks. The series is also suited for standard measuring low to medium pressure of slurries or viscous media where a flush mounted diaphragm is required.

The liquid column above the submersed transmitter generates pressure, which is being transferred via diaphragm and inert oil filling onto the semiconductor sensor element. An amplifier circuit supplies the sensor and

transforms the temperature compensated sensor output, which is proportional to the liquid level, into standard current and voltage output signals.

The diaphragm is flush with a 3/4" pressure port; a gasket behind the thread provides a seal for the screw-in transmitter.

Our application engineers are waiting to offer a screw-in transmitter with materials meeting your requirements.

TUV
EMPRESA
CERTIFICADA
CERTIFIED
COMPANY
ISO 9001

127.62

SPECIFICATIONS

TNE-12/LL .../HL

- Ranges:

Pressure (bar): 0,1 0,25 0,4 0,6 1,0 1,6 2,5 4 6 10 16 25 40

Level mCA: 1,0 2,5 4 6 10 16 25 40 60 100 160 250 400

Overpressure: 1 1 1 3 3 6 6 20 20 20 50 50 50

- Accuracy: $\leq \pm 0,35\%$ FSO
- Process connection: 3/4" GAS DIN 3852
- Output signal: 4-20 mA 2 wires
(0-20 mA / 0-10 V 3 wires option)
- Electrical connection: connector DIN 43650
- Voltage: between 12 and 36 Vcc
- Permissible Load: 2 wires (U_B (V) -12 V) / 0,02 A
- Operating Temperature range
Sensor: -25 to +125 °C
Ambient: -25 to +85 °C
- Materials:
Housing Stainless steel 1.4571
Diaphragm Stainless steel 1.4404
Seals FKM

TNE-12/T

- Pressure (mCA):

Range: 1,0 2,5 4,0 6,0 10

Overpressure: 40 40 40 70 70

- Accuracy: $\leq \pm 0,35\%$ FSO
- Process connection: 3/4" GAS DIN 3852
- Output signal: 4-20 mA 2 wires
(0-20 mA / 0-10 V 3 wires option)
- Electrical connection: connector DIN 43650
- Voltage: between 12 and 36 Vcc
- Permissible Load: 2 wires (U_B (V) -12 V) / 0,02 A
- Operating Temperature range
Sensor: -25 to +125 °C
Ambient: -25 to +85 °C
- Materials:
Housing Stainless steel 1.4571
Diaphragm Ceramic Al_2O_3 96 %
Seals FKM

TNE-16

- Ranges:

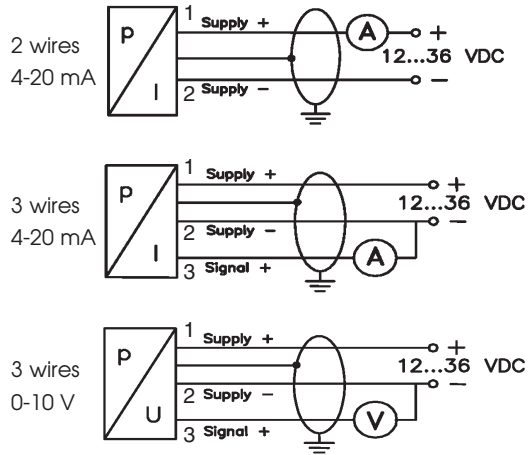
Pressure (bar): 0,06 0,1 0,25 0,4 0,6 1,0 1,6 2,5 4,0 6,0 10 20

Level mCA: 0,6 1,0 2,5 4,0 6,0 10 16 25 40 60 100 200

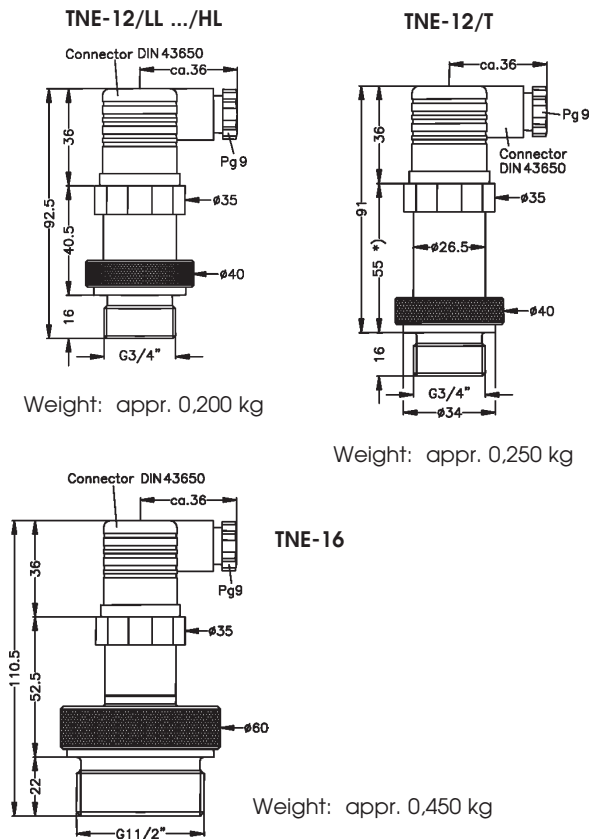
Overpressure: 2 2 2 4 4 7 7 15 25 25 40 60

- Accuracy: $\leq \pm 0,35\%$ FSO
- Process connection: 1 1/2" GAS
- Output signal: 4-20 mA 2 wires
(0-20 mA / 0-10 V 3 wires option)
- Electrical connection: connector DIN 43650
- Voltage: between 12 and 36 Vcc
- Permissible Load: 2 wires (U_B (V) -12 V) / 0,02 A
- Operating Temperature range
Sensor: -25 to +125 °C
Ambient: -25 to +85 °C
- Materials:
Housing Stainless steel 1.4305
Diaphragm Ceramic Al_2O_3 96 %
Seals FKM

WIRING DIAGRAM



DIMENSIONS



HOW TO ORDER

MODELS:

TNE-12/LL 1 to 4 mCA ranges

TNE-12/HL 6 to 400 mCA ranges

TNE-12/T 1 to 10 mCA ranges

TNE-16 0,6 to 200 mCA ranges

Options:

Special Ranges

Absolute pressure

0/10 V and 0-20 mA 3 wires output

APPLICATIONS

- Tank level measurement of neutral and aggressive fluids
- Chemical and Pharmaceutical Industry
- Foodstuff Industry
- Galvanic
- Water- and sewage treatment