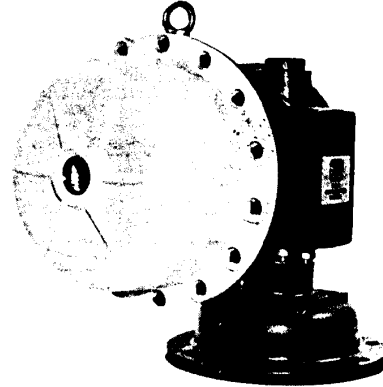
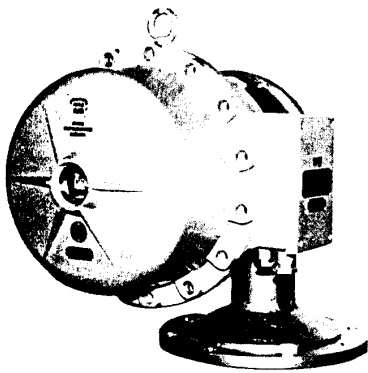


NIVOTRAN

EXPLOSION-PROOF LIQUID-LEVEL AND BOUNDARY-LEVEL METERS



The NIVOTRAN liquid level meters are designed for use in hazardous areas under extreme environmental conditions (for moderate, tropic- and cold climatic conditions). A wide range of sensing elements and mountings will be available to our customers. A "test stand" and LEVEL METER TESTER facilitate the verification and servicing.

In addition to the liquid level measurement, the device also accepts DC signals from the average temperature transmitter mounted in the tank; converts the DC signal into digital form and transfers it to a processing unit (computer) connected. The device also enables the filling and draining operations to be controlled by means of the built-in level indicators, according to a schedule specified by the user.

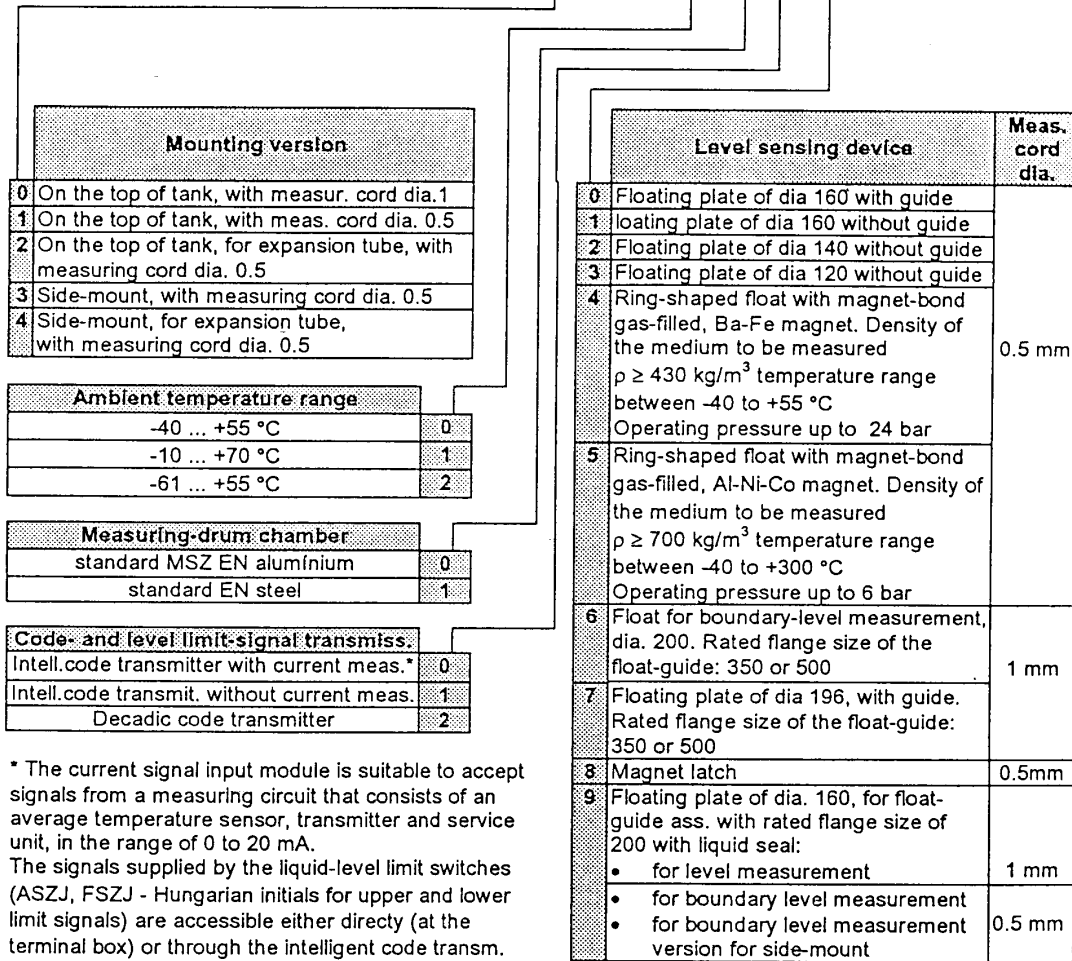
Due to its high measurement accuracy, the NIVOTRAN liquid level meters are suitable to be used for measurements that involve accounting. The necessary approbation certificates are available.

The field of application of NIVOTRAN liquid level meters is further expanded by the fact that their parts are made of stainless steel resistant to the medium to be measured and of carbon filled PTFE (Teflon). Two versions are available: devices to be mounted directly on the top of the tanks, on one hand, and devices mounted next to the tanks with a measuring cord guide assembly added, on the other hand. The high-strength measuring cord (dia. 0.5 and 1 mm, respectively) assures reliable measurement for long time.

Specifications

Type number

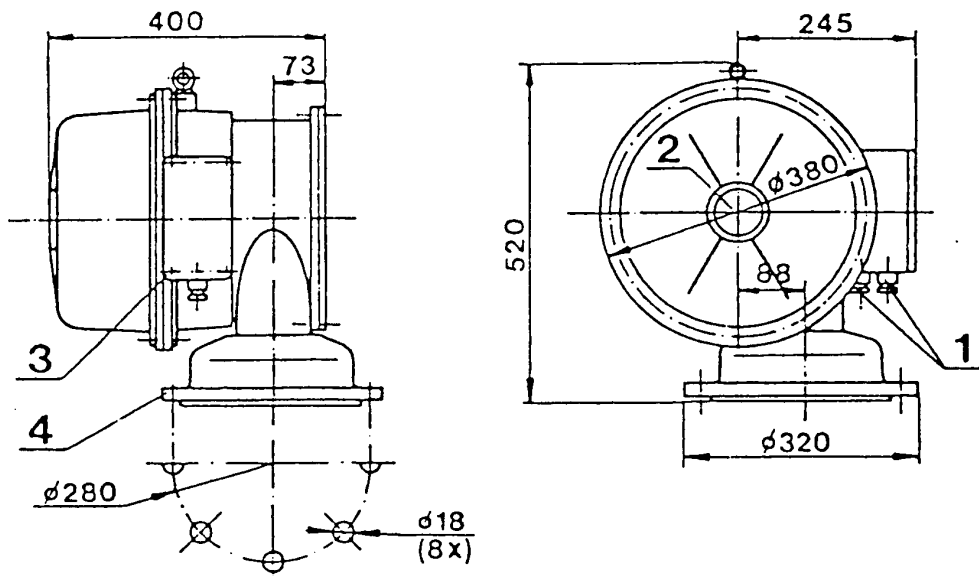
1 1 □ 6 - 0 - □ □ □ - □



* The current signal input module is suitable to accept signals from a measuring circuit that consists of an average temperature sensor, transmitter and service unit, in the range of 0 to 20 mA. The signals supplied by the liquid-level limit switches (ASZJ, FSZJ - Hungarian initials for upper and lower limit signals) are accessible either directly (at the terminal box) or through the intelligent code transm.

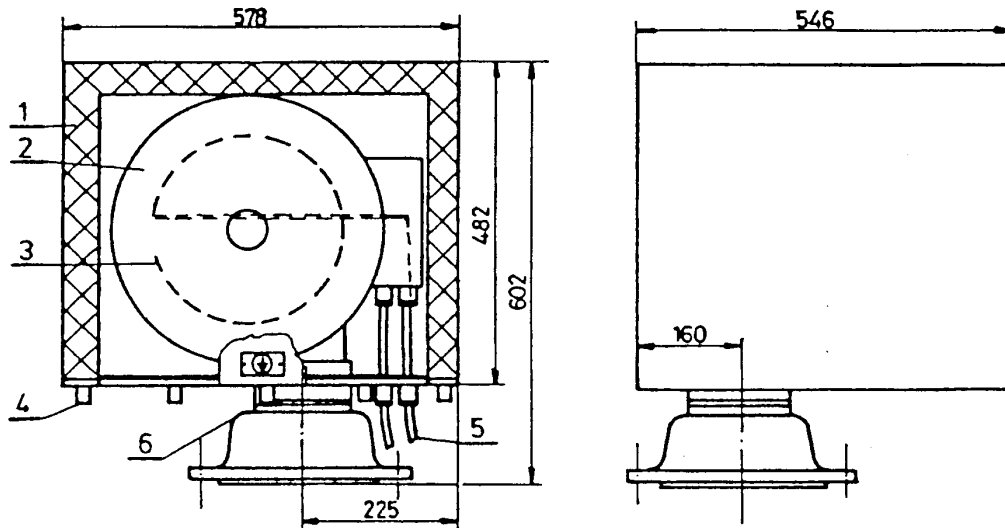
Accuracy of measurement	±1 mm
Sensitivity	less than 0.2 mm
Pressure resistance	
• aluminium casing	1 bar
• steel casing	2 bar
• with expansion tube	24 bar
Supply voltage	48 V $^{+10}_{-15}\%$ 50 Hz
Power dissipation	less than 30 VA
Ambient temperature see table	see table
Data transfer	by means of an intelligent code transmitter, serial, coded, CCITT V23 FSK by using two frequencies
Transfer rate	1200 Baud

Data protection	parity + longitudinal block control
Dielectric strength	500 V _{rms}
Lightning protection	by using active element and isolating transformer
Data transfer distance	10 km (R _{max} up to 400 ohm, C _{max} up to 1 μF) using twisted pair of wires
Receiver	MODEM + PC/AT
Portable indicating instrument	Portable tester 4560-0-800-0
Mass	
• aluminium casing	approx. 40 kg
• steel casing	approx. 54 kg
• with heated protective casing	approx. 42 kg + 10 kg
Safety class	Ex de IIB T6 EEx de IIB T6 (EN 50014 EN 50018, EN 50019,)
Protection	IP 65 (MSZ 806, MSZ IEC 529)



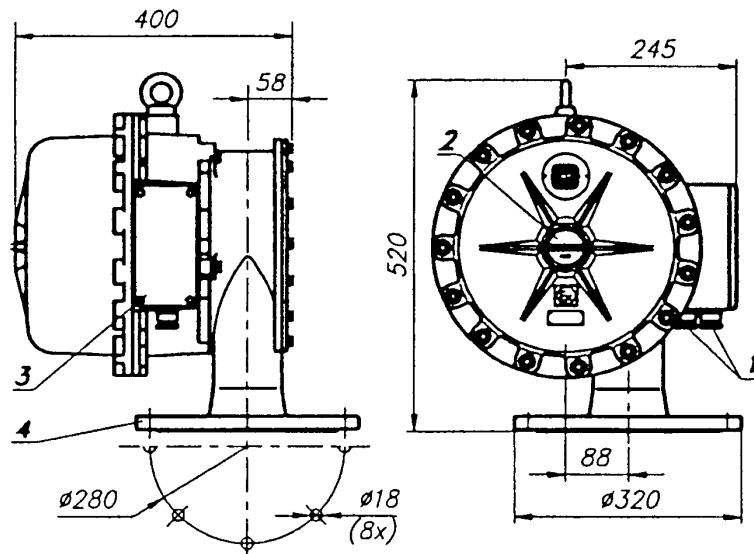
- 1 - Cable inlets(stuffing boxes Pm 16, Pm 21)
- 2 - Cover with the main counter
- 3 - Cable connection box with lightning protection
- 4 - Flange of size 200 mm

Standard design



- 1 - Protective casing with beat insulation (type 2383-0-047-0)
- 2 - Liquid level meter
- 3 - Heating cable
- 4 - Screws fastening the protective casing
- 5 - Cable inlets
- 6 - Earthing screw(M6)

Liquid level meter with heated protective casing



- 1 - Cable inlet stuffing box Pm 16, Pm 21
- 2 - Mechanical counter
- 3 - Junction box cover
- 4 - Connection flange

Outline drawing of the design in conformity with EURONORM