TL/E

LEVEL ELECTRICAL CHARACTERISTICS

The visual level gauges TL series allow the liquid level to be checked in a clear and precise way at any time.

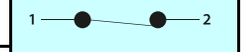
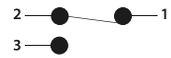
PRINCIPLE OF OPERATION:
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.

OPTIONS:
- C/C distance 76, 127, 254 mm interchangeable with almost every level visual marketing
- Body Transparent polyamide based TR 55 LX (Grilamid™) or polycarbonate.

CHEMICAL RESISTANCE:
The polymer used is a compound based on polyamide 12.

The **Top Level** electric visual level gauge offers visual signalling as well as a **minimum level electric signal** which can be N.O. or N.C. or EXCHANGE.

The many advantages include:
- just one purchase
- just one installation
- savings in costs and work
- total safety: the electrical part is completely separate from the liquid and insulated with respect to the outside.

ELECTRICAL CONTACT	SPST N.C. IN ABSENCE	SPST N.C. IN PRESENCE	SPDT
ELECTRICAL CHARACTERISTICS			
POWER COMMUTABLE IN DC	40 W	20 W	20 W
POWER COMMUTABLE IN AC	40 V.A.	20 V.A.	20 V.A.
CURRENT STRENGTH IN DC - AC	2 A.	1 A.	1 A.
COMMUTABLE VOLTAGE	230 VDC / VAC	150 VDC / VAC	150 VDC / VAC
TEMPERATURE RANGE	- 20°C + 80°C		

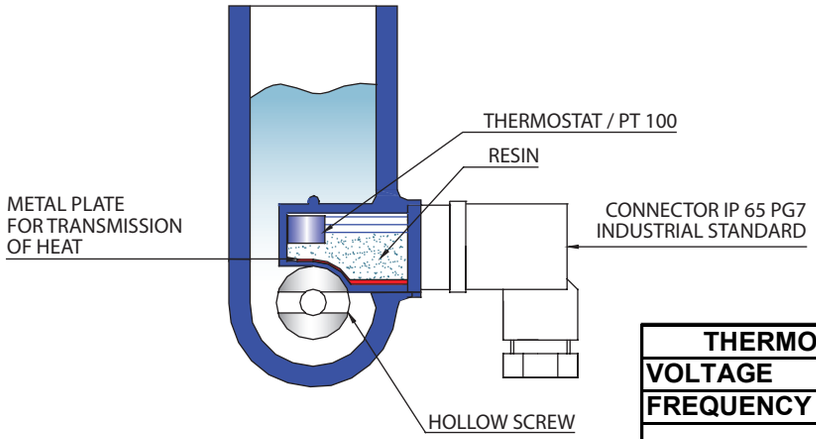
TL/T-TL/P

CHARACTERISTICS OF LEVEL GAUGE WITH THERMOSTAT / PT 100

In addition to the electric level gauge, the Top Level can provide temperature signalling by means of a PT 100 (-50°C +150°C) or the insertion of a preset thermostat.

To facilitate the passage of heat, from the tank through the hollow screw to the thermostat / PT 100, a metal plate is inserted inside the level gauge to conduct the heat of the liquid faster and with less dissipation.

In conjunction with the thermostat / PT 100, a cap is fitted standard on the bottom screw to prevent heat loss to the outside.
Complete resin coating in the cavity containing the thermostat provides better heat and electrical insulation safety.

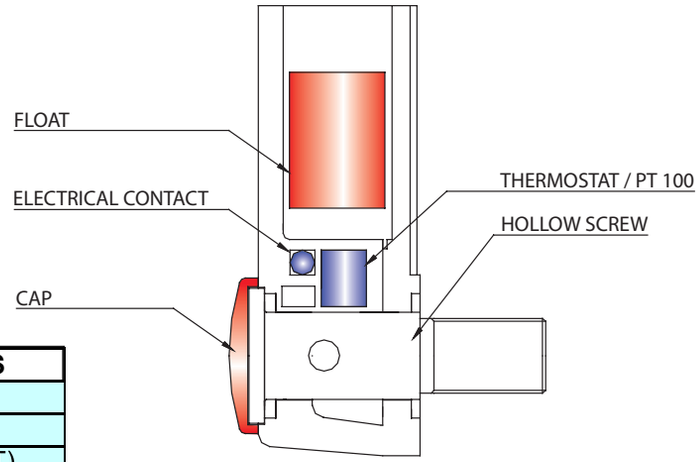


THERMOSTAT ELECTRICAL CHARACTERISTICS	
VOLTAGE	250 V. COMMUTABLE
FREQUENCY	50 Hz
LOAD VALUES	4,0 A. cos φ = 0,6 (I M OT) 6,3 A. cos φ = 1,0 (I N)
MAX. LOAD	10 A. cos φ = 1
COMMUTATING TEMPERATURE	50°C - 60°C - 70°C - 80°C
CONTACTS	N.CH. = NORMALLY CLOSED N.A. = NORMALLY OPEN
TOLERANCE	± 5°C

TL/TE-TL/PE

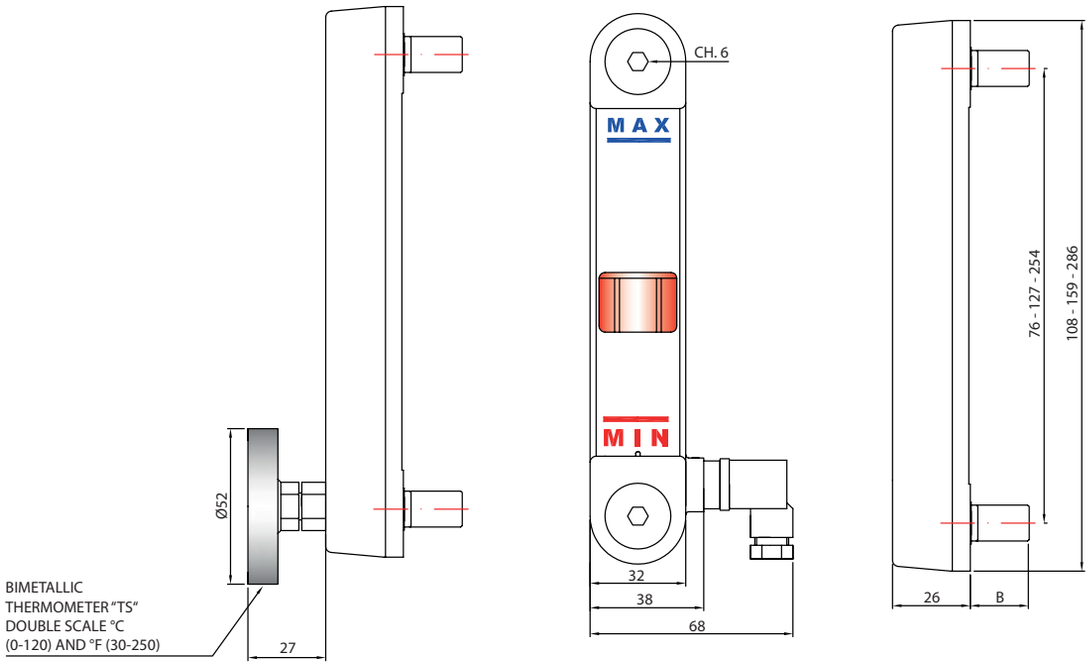
CHARACTERISTICS OF ELECTRIC LEVEL GAUGE WITH THERMOSTAT / PT 100

In addition to the already mentioned qualities of the TOP LEVEL, there is also the possibility of having a minimum electric signal together with the temperature signal of a thermostat or a PT 100, all in a single level gauge, and on a single connector.



TL/E-TL/T-TL/P-TL/TE-TL/PE

SCHEME OF ORDER



Maximum pressure: see page 33
Maximum tightening torque: 10 Nm

MODEL	LEVEL CHARACTERISTICS		C/C DISTANCE	SCREWS MATERIAL		ELECTRICAL CONTACT IN ABSENCE OF LIQUID		COVER		THERMOSTAT CHARACTERISTICS		BODY MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES THERMOMETER		DEVICES LOCKNUT	
TL	E	ELECTRICAL	76	A	NICKEL PLATED BRASS M10 (ONLY FOR E)	0	WITHOUT CONTACT (ONLY P-T)	A	YES	0	WITHOUT THERMOSTAT (SOLO P-T)	A	TR 55	-30...+80	1	NBR	-30...+100	0	NO	S	NO
	T	BIMETALLIC THERMOMETER		B	NICKEL PLATED BRASS M12					1	50° N.O.				2	FKM (VITON)	-25...+200				
	TE	THERMOSTAT + ELECTRICAL	127	C	STAINLESS STEEL M10	1	OPEN			2	60° N.O.				3	SI (SILICONE)	-60...+200			1	GALVANIZED STEEL
	P	PT100		D	STAINLESS STEEL M12	2	CLOSE	B	NO	3	70° N.O.				4	HNBR	-40...+130				
	PE	PT100 + ELECTRICAL	254	E	1/2"GAS INOX S/STAINLESS + NICKEL PLATED BRASS SCREWS	3	EXCHANGE SPDT			4	80° N.O.	B	POLYCARBONATE	-40...+85	5	EPDM	-45...+155	R1	WITH LOWER BIMETALLIC THERMOMETER (WITH NICKEL PLATED BRASS M12)	2	STAINLESS STEEL
				F	1/2"GAS INOX AISI316 + STAINLESS STEEL SCREWS					5	50° N.C.				6	FEP (FKM-SILICONE)	-60...+205				
										6	60° N.C.				7	MFQ (FLUOROSILICONE)	-65...+175				
										7	70° N.C.										
										8	80° N.C.										
TL	TE		127	D		1		B		3		A			1			R1		S	

VISUAL LEVELS: PRESSURE TABLE

MOD.	C/C DISTANTE	MAX PRESSURE OF USE WITH RESPECT TO THE PIPE MATERIAL (Bar)			
		METHACRYLATE	POLYCARBONATE	PYREX	TR55
TL	76		9		11
	127		8		5
	254		8		5
TL/E	76		10		9
	127		7		5
	254		7		5
LV/M	76	35	35	35	
	127	35	35	35	
	254	35	35	35	
LV LVC	127	35	35	35	
	254	35	35	35	
	300	35	35	35	
	400	25	35	35	
	500	15	35	35	
	600	13	35	35	
	700	8	21	35	
	800	5	21	35	
	900	4	21	35	
	1000	3	21	35	
LMU	150	35		35	
	300	35		35	
	400	26		35	
	500	22		35	
	600	20		35	
	700	19		35	
	800	19		35	
	900	19		35	
	1000	16		35	
IN PRESENCE OF FLOATING IN NBR (BLACK) THE PRESSURE OF USE DECADE TO 5 BAR					