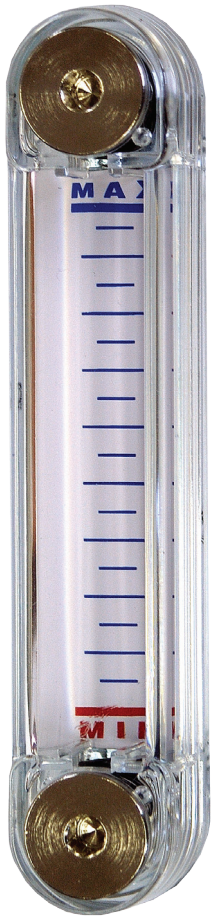
VISUAL LEVEL

The visual level gauges allow the liquid level to be checked in a clear and precise way at any time, in addition to the possibility of having electric signals.

TL

VISUAL LEVEL
C/C DISTANCE 76-127-254 MM



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

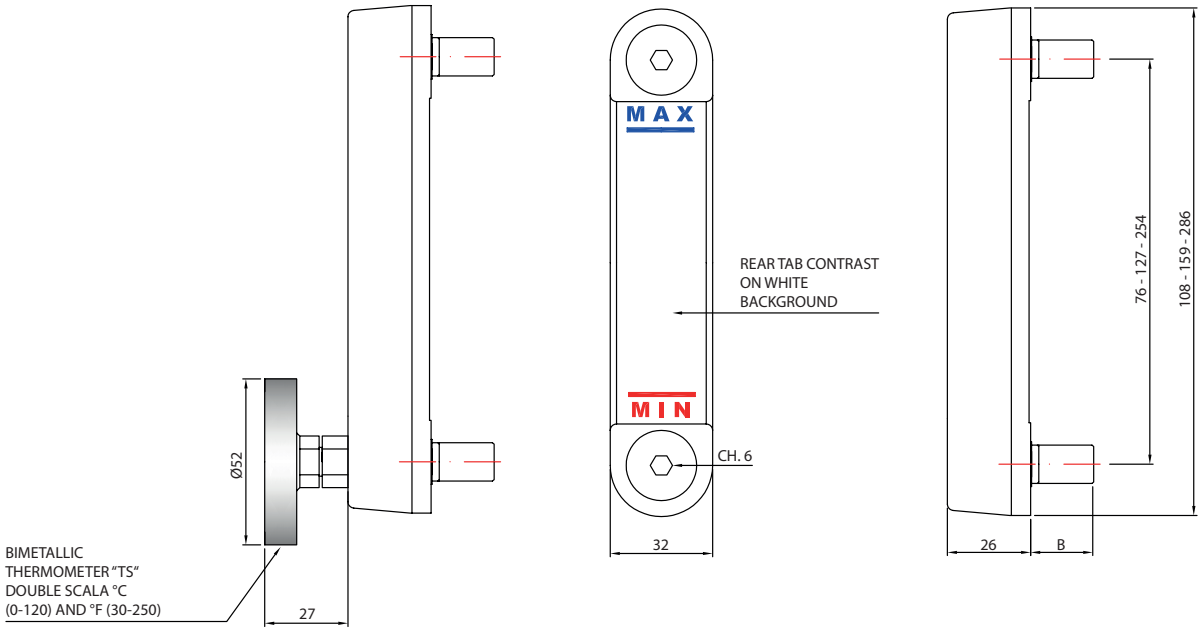
PRINCIPLE OF OPERATION:
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.

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.

TECHNICAL ADVANTAGES:
- Constant and continuous indication of the level of the liquid
- Minimum thickness 4 mm: this means that the level does not need protection
- Total visibility, both front and side
- The special welding allows a perfect fusion, creating a block with high mechanical properties.

CHEMICAL RESISTANCE:
The polymer used is a compound based on polyamide 12.
It 'compatible with water, oils (including brake), petrol and diesel (from distributor), etc..
Not compatible with concentrated acids.

TL



MOD.	C/C DISTANCE	SCREWS MATERIAL		B (mm)	RED FLOAT		COVER		BODY MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES			
															THERMOMETER		LOCKNUT	
TL	76	A	GALVANISED STEEL M10	16	1	YES	A	YES	A	TR 55	-70...+80	1	NBR	-30…+100	0	WITHOUT	S	WITHOUT
		B	GALVANISED STEEL M12	16								2	FKM (VITON)	-25…+200	R1	WITH LOWER BIMETALLIC THERMOMETER (WITH NICKEL PLATED BRASS SCREW M12)	1	WITH TWO M10 GALVANIZED LOCKNUT
	127	C	NICKEL PLATED BRASS M10	16								3	SI (SILICONE)	-60...+200				
		D	NICKEL PLATED BRASS M12	16	2	NO	B	NO				4	HNBR	-40...+130				
	254	E	AISI 316 S/STEEL M10	16					B	POLYCARBONATE	-150…+130	5	EPDM	-45...+155			2	WITH TWO M12 GALVANIZED LOCKNUT
		F	AISI 316 S/STEEL M12	16								6	FEP (FKM-SILICONE)	-60...+205				
												7	MFQ (FLUOROSILICONE)	-65...+175				
												3, 4, 5, 6 e 7 **ON REQUEST FOR QUANTITIES**						
TL	127	A			1		B		A			1			R1		S	

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.

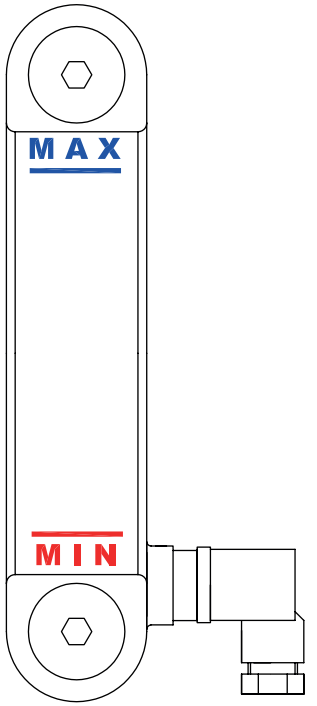
PRINCIPLE OF OPERATION:
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.

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.
It 'compatible with water, oils (including brake), petrol and diesel (from distributor), etc..
Not compatible with concentrated acids.

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	NO IN PRESENCE	NC IN PRESENCE	EXCHANGE
	STANDARD	ON REQUEST	ON REQUEST
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		

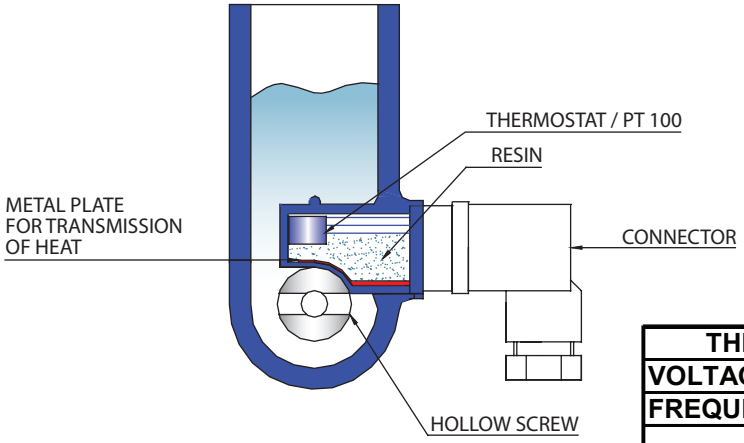
TL/T-TL/P

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
TOLERANCES	± 5°C

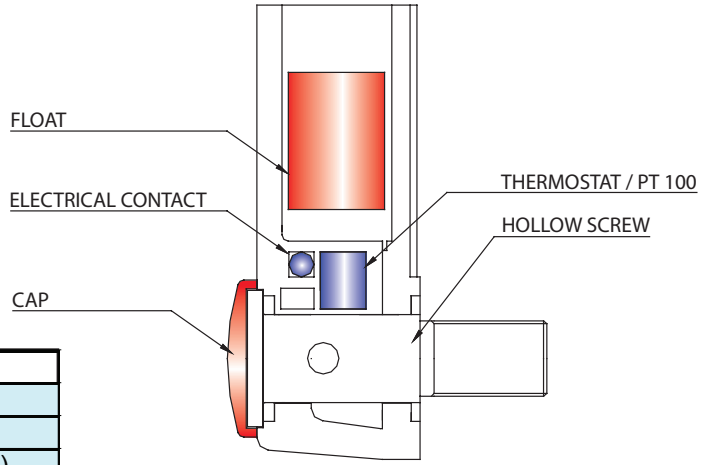
TL/TE-TL/PE

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.

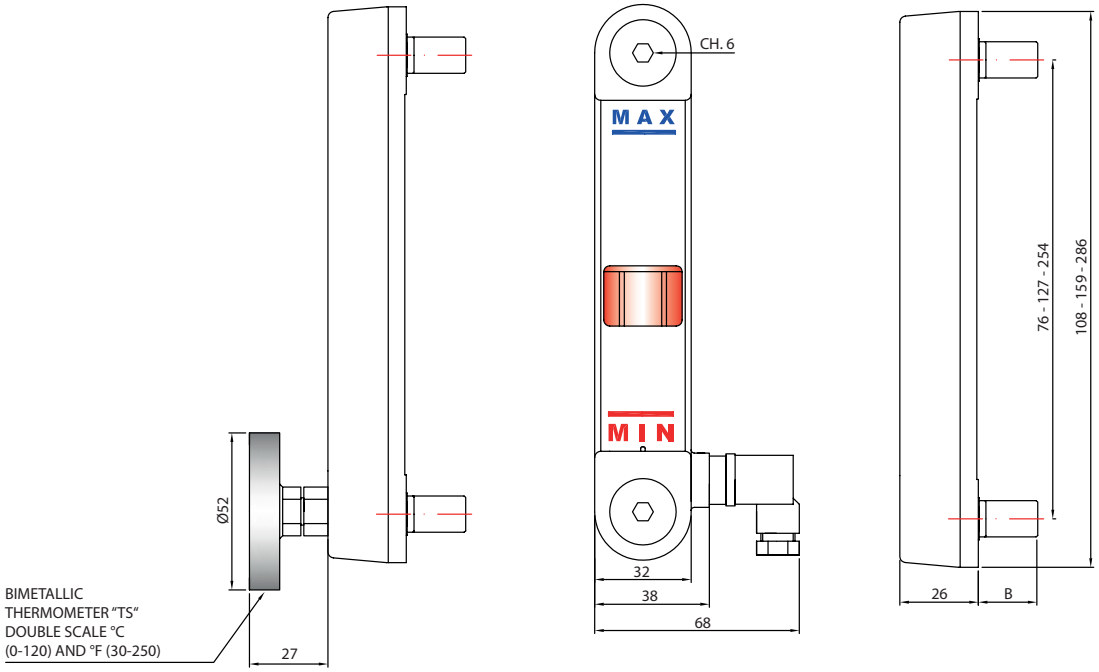
The possibilities for use and saving are many, thanks to
- a visual indication
- an electric indication and
- a temperature indication ...

.... ALL IN A SINGLE LEVEL GAUGE



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

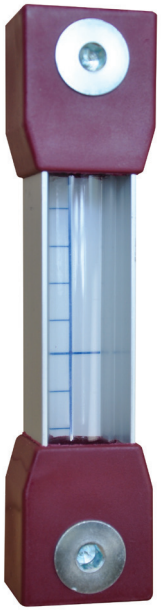
SCHEME OF ORDER

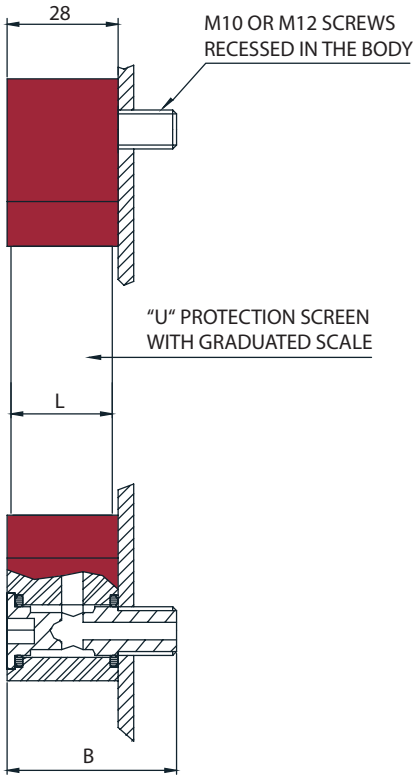


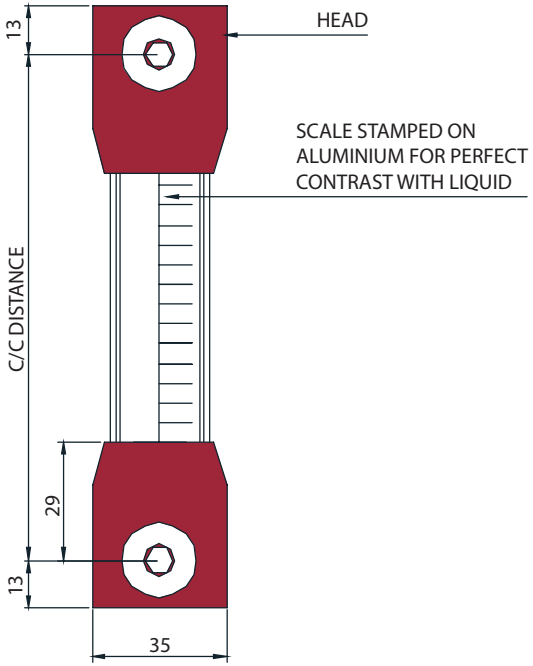
MOD.	LEVEL CHARACTERISTICS		C/C DISTANCE	SCREWS MATERIAL		B (mm)	ELECTRICAL CONTACT IN ABSENCE OF LIQUID		COVER		THERMOSTAT CHARACTERISTICS		BODY MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES			
																			THERMOMETER		LOCKNUT	
TL	E	ELECTRICAL	76	A	NICKEL PLATED BRASS M10 (ONLY FOR E)	16	0	WITHOUT CONTACT (ONLY P -T)	A	YES	0	WITHOUT THERMOSTAT (ONLY E-P-PE)	A	TR 55 LX	-70...+80	1	NBR	-30…+100	0	WITHOUT	S	WITHOUT
	T	BIMETALLIC THERMOMETER									1	50°N.O.				2	FKM (VITON)	-25…+200				
	TE	THERMOSTAT+ELECTRICAL	127	B	NICKEL PLATED BRASS M12	16	1	OPEN			2	60°N.O.				3	SI (SILICONE)	-60...+200	R1	WITH LOWER BIMETALLIC THERMOMETER (WITH NICKEL PLATED BRASS SCREW M12)	1	WITH TWO M10 GALVANIZED LOCKNUT
	P	PT100		C	AISI 316 S/STEEL M10	16	2	CLOSED	B	NO	3	70°N.O.				4	HNBR	-40...+130				
	PE	PT100 + ELECTRICAL	254	D	AISI 316 S/STEEL M12	16	3	SPDT			4	80°N.O.				5	EPDM	-45...+155				
											5	50°N.C.	B	POLICARBONATO	-150…+130	6	FEP (FKM-SILICONE)	-60...+205			2	WITH TWO M12 GALVANIZED LOCKNUT
											6	60°N.C.				7	MFQ (FLUOROSILICONE)	-65...+175				
											7	70°N.C.				3, 4, 5, 6 e 7 ON REQUEST FOR QUANTITIES						
											8	80°N.C.										
TL	TE		127	D			1		B		3		A			1			R1		S	

LV

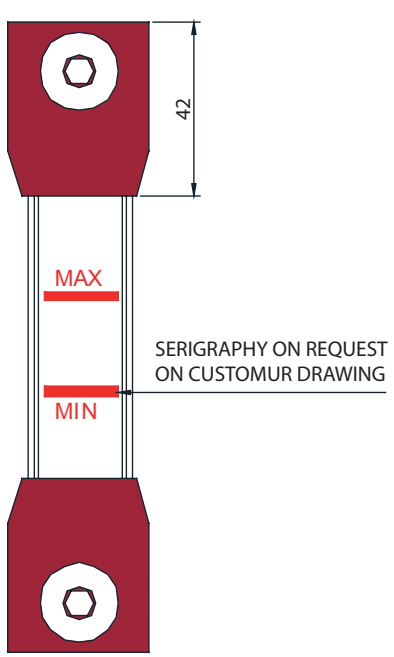
MULTICONTROL RANGE VISUAL LEVEL GAUGES

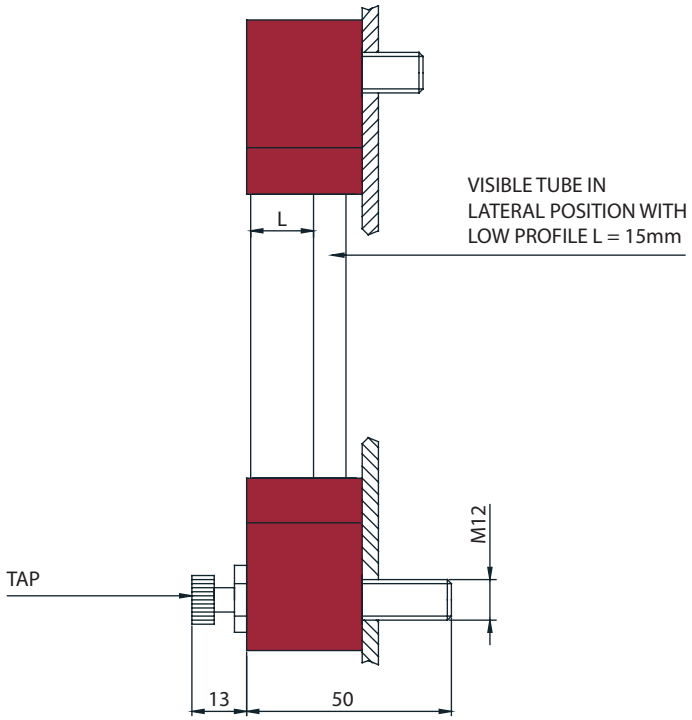






The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost.
The level gauges can be equipped with taps that stop the flow of liquid from the tank to the gauge and with PT100 for continuous monitoring of temperature through PLC.
The C/C distances of 127 ÷ 3000 mm supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain visibility on the right or left.
Max Pressure: 5 Bar

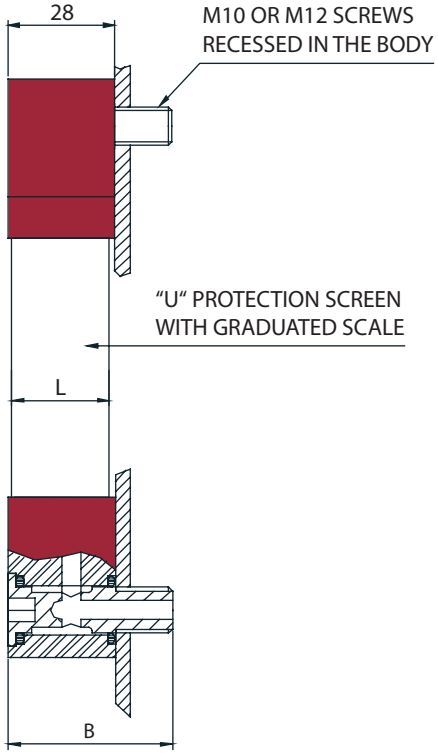


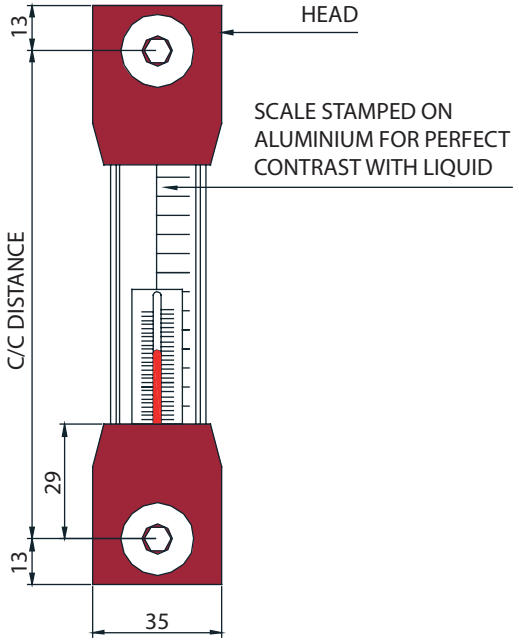


MOD.	C/C DISTANCE	SCREWS	SCREWS MATERIAL		B (mm)	ALUMINIUM PROFILE "L" (mm)	VISUAL		TUBE MATERIAL		TEMP. (°C)	FLOAT		HEAD MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES TAP		SERIGRAPHY		TEMPERATURE SENSOR	
LV	FROM 127 TO 3000	M12	A	GALVANISED STEEL	42	25	F	FRONT	A	METHACRYLATE	-70…+80	0	WITHOUT	A	NYLON-GLASS (RED)	-30…+130	1	NBR	-30…+100	0	WITHOUT	A	WITHOUT	0	WITHOUT
			B	NICKEL PLATED BRASS	42							1	NYLON-GLASS (RED)				2	FKM (VITON)	-25…+200	R1	WITH LOWER TAP NICKEL PLATED BRASS L50 mm			1	PT 100
			C	NICKEL PLATED BRASS	50		D	RIGHT	B	POLYCARBONATE	-150…+130	2	POLYPROPYLENE-GLASS (YELLOW)	B	POLYPROPYLENE-GLASS (YELLOW)	0…+100	3	SI (SILICONE)	-60...+200						
			D	AISI 316 S/STEEL	42	15 SIDE VIEW						3	NBR WITH STAINLESS STEEL SPIRAL (BLACK)				4	HNBR	-40...+130						
																	5	EPDM	-45...+155						
									C	PYREX	-70…+250						6	FEP (FKM-SILICONE)	-60...+205	R2	WITH TWO TAPS NICKEL PLATED BRASS L50 mm	B	WITH SERIGRAPHY ON CUSTOMER'S DESIGN **ON REQUEST FOR QUANTITIES**	2	PT 1000
		M10	E	GALVANISED STEEL	42		S	LEFT				4	POLYPROPYLENE SPHERE (RED)	C	PVDF	-20…+120	7	MFQ (FLUOROSILICONE)	-65...+175						
																	6 e 7 **ON REQUEST FOR QUANTITIES**								
LV	800	M12	A			25	F		C			0		A			A			R1		A		0	

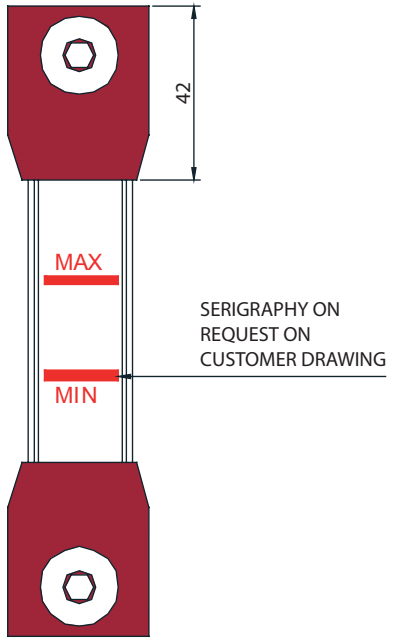
LV-T

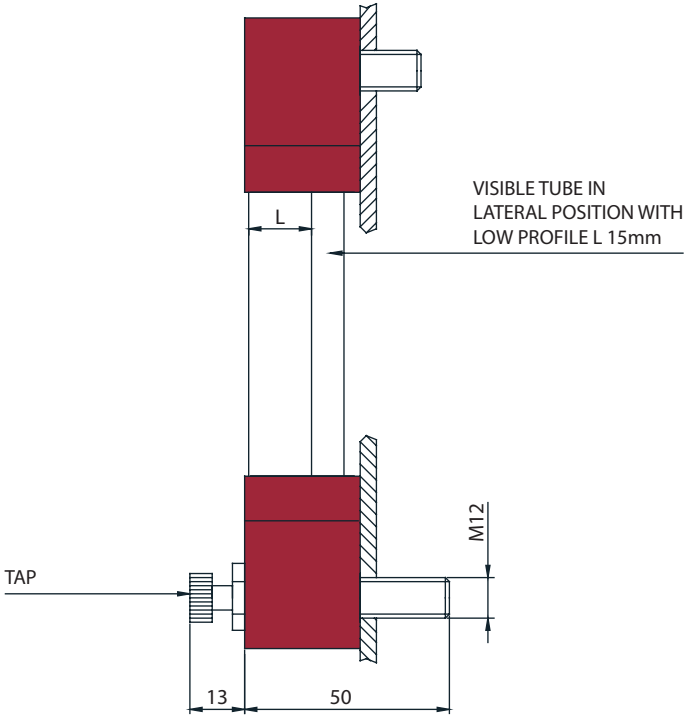
VISUAL LEVEL GAUGES WITH INTERNAL THERMOMETER





The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
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.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost.
The LV/T has a thermometer in the tube located at the bottom of the head. This ensures a continuous display of the temperature inside the tank.
The level gauges can be equipped with taps that stop the flow of liquid from the tank to the gauge .
The C/C distances of 127 ÷ 3000 mm supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain visibility on the right or left.
Max Pressure: 5 Bar

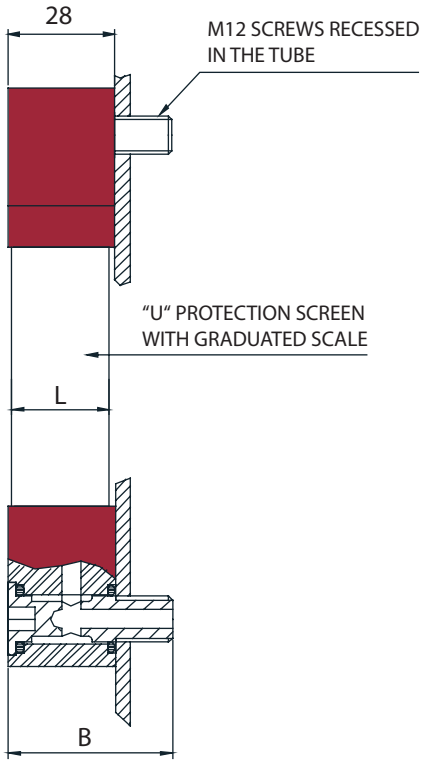


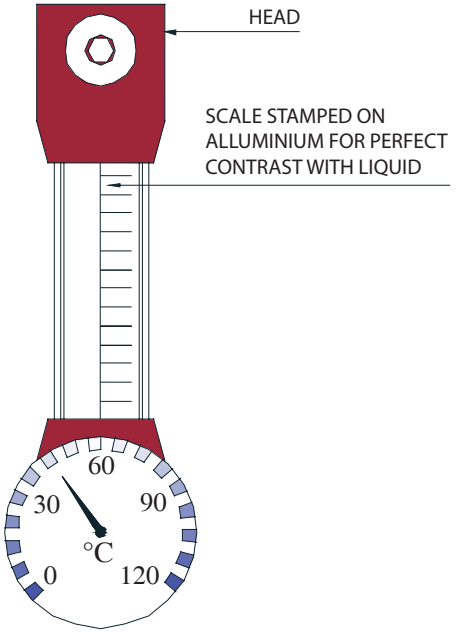


MOD.	C/C DISTANCE	SCREWS	SCREWS MATERIAL		B (mm)	ALUMINIUM PROFILE "L" (mm)	VISUAL		TUBE MATERIAL		TEMP. (°C)	FLOAT		HEAD MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES		SERIGRAPHY	
																				TAP			
LV/T	FROM 127 TO 3000	M12	A	GALVANISED STEEL	42	25	F	FRONT	A	METHACRYLATE	-70...+80	0	WITHOUT	A	NYLON-GLASS (RED)	-30...+130	1	NBR	-30...+100	0	WITHOUT	A	WITHOUT
			B	NICKEL PLATED BRASS	42												2	FKM (VITON)	-25...+200				
			C	NICKEL PLATED BRASS	50		D	RIGHT	B	POLYCARBONATE	-150...+130			B	POLYPROPYLENE-GLASS (YELLOW)	0...+100	3	SI (SILICONE)	-60...+200	R1	WITH LOWER TAP NICKEL PLATED BRASS L50 mm		
			D	AISI 316 S/STEEL	42	15 SIDE VIEW											4	HNBR	-40...+130				
																	5	EPDM	-45...+155				
																	6	FEP (FKM-SILICONE)	-60...+205			B	WITH SERIGRAPHY ON CUSTOMER'S DESIGN **ON REQUEST FOR QUANTITIES**
		M10	E	GALVANISED STEEL	42		S	LEFT	C	PYREX	-70...+250			C	PVDF	-20...+120	7	MFQ (FLUOROSILICONE)	-65...+175	R2	WITH TWO TAPS NICKEL PLATED BRASS L50 mm		
																	6 e 7 **ON REQUEST FOR QUANTITIES**						
LV/T	**800**	**M12**	**A**			**25**	**F**		**C**			**0**		**A**			**A**			**R1**		**A**	

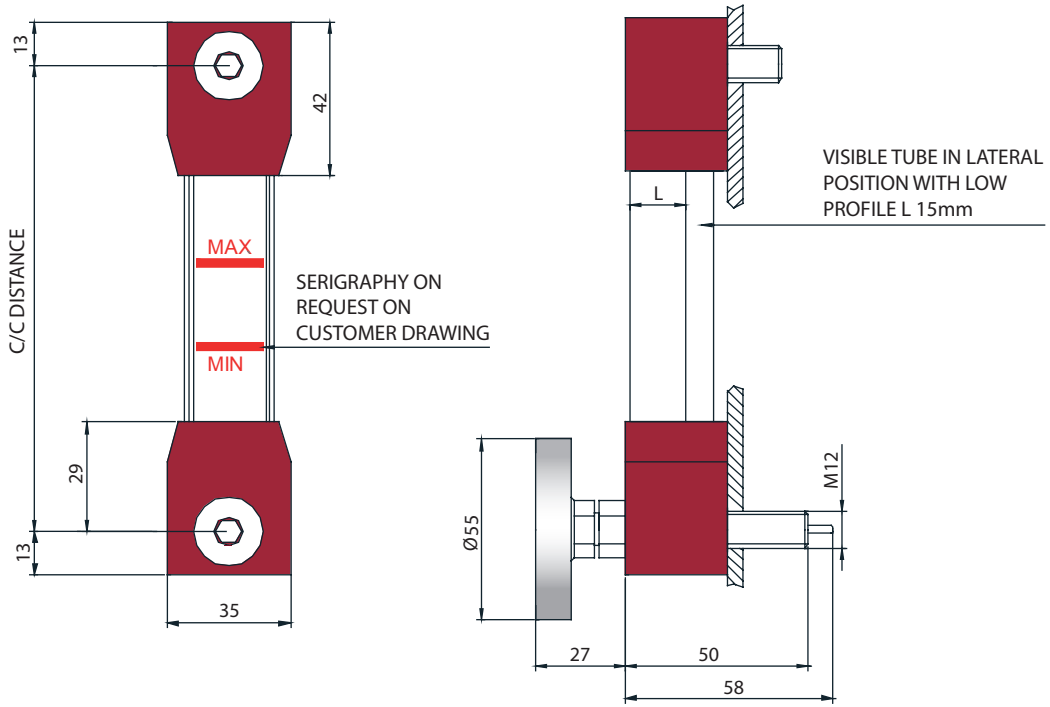
LV/Ts

VISUAL LEVEL GAUGES WITH EXTHERNAL BIMETALLIC THERMOMETER





The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
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.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost.
The **LV/Ts** has an exthernal bimetallic thermometer in the bottom screw. This ensures a continuous display of the temperature inside the tank.
The level gauges can be equipped with PT100 for continuous monitoring of temperature through PLC.
The **C/C distances of 127 ÷ 3000 mm** supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain visibility on the right or left.
Max Pressure: 5 Bar

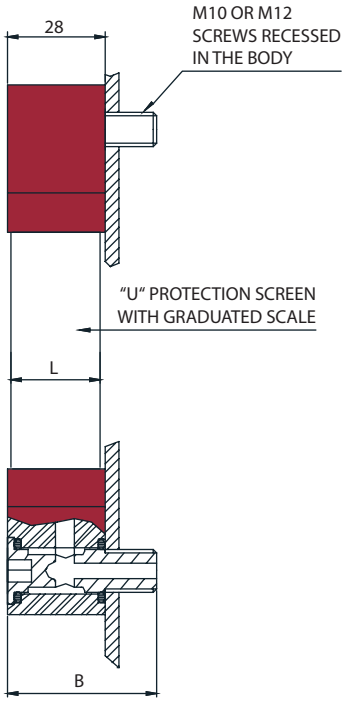


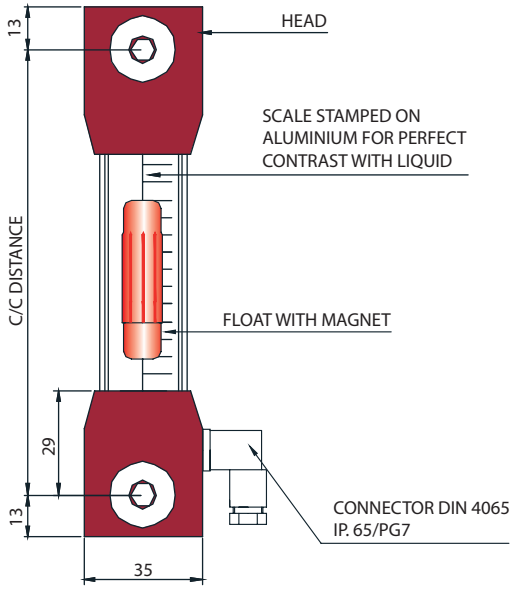
MOD.	C/C DISTANCE	SCREWS	SCREWS MATERIAL		B (mm)	ALUMINIUM PROFILE "L" (mm)	VISUAL		TUBE MATERIAL		TEMP. (°C)	FLOAT		HEAD MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	SERIGRAPHY		TEMPERATURE SENSOR	
LV/Ts	FROM 127 TO 3000	M12	A	NICKEL PLATED BRASS	50	25	F	FRONT	A	METHACRYLATE	-70...+80	0	WITHOUT	A	NYLON-GLASS (RED)	-30...+130	1	NBR	-30…+100	A	WITHOUT	0	WITHOUT
												1	NYLON-GLASS (RED)				2	FKM (VITON)	-25…+200			1	PT 100
							D	RIGHT	B	POLYCARBONATE	-150…+130	2	POLYPROPYLENE-GLASS (YELLOW)	B	POLYPROPYLENE-GLASS (YELLOW)	0…+100	3	SI (SILICONE)-	60...+200				
						15 SIDE VIEW						3	NBR WITH STAINLESS STEEL SPIRAL (BLACK)				4	HNBR	-40...+130	B	WITH SERIGRAPHY ON CUSTOMER'S DESIGN **ON REQUEST FOR QUANTITIES**		
																	5	EPDM	-45...+155				
							S	LEFT	C	PYREX	-70…+250						6	FEP (FKM-SILICONE)	-60...+205			2	PT 1000
												4	POLYPROPYLENE SPHERE (RED)	C	PVDF	-20…+120	7	MFQ (FLUOROSILICONE)	-65...+175				
																	6 e 7 **ON REQUEST FOR QUANTITIES**						
LV/Ts	800	M122	A		5		F		C			0		A			A			A		0	

LV/E1

VISUAL LEVEL GAUGES WITH MINIMUM LEVEL SIGNAL

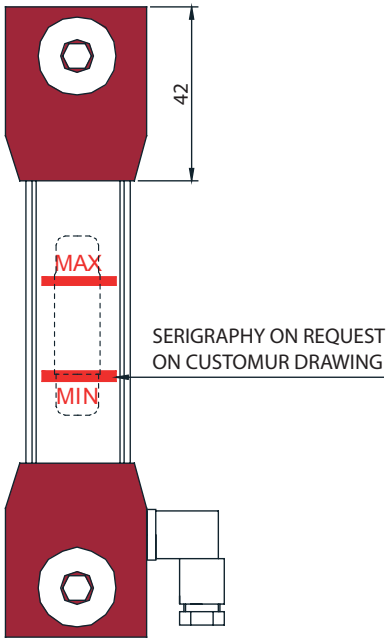
The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost.
The level gauges can be equipped with tap that stop the flow of liquid from the tank to the gauge.
The C/C distances of 127 ÷ 3000 mm supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain visibility on the right or left.
As well as providing a visual indication, the visual level gauge **E1** have a minimum level signal which can be **N.O. or N.C. or EXCHANGE**, on customer request.

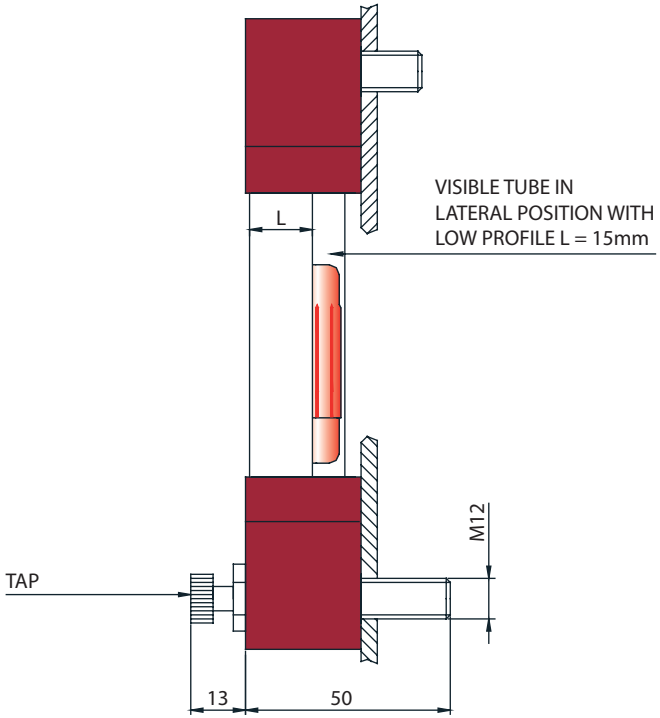


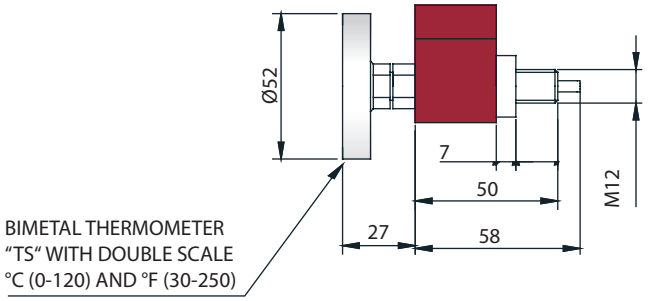


The many advantages include:
- just one purchase
- just one installation
- savings in costs and work
- total safety: the electrical part is completely separate from the liquids and insulated with respect to the outside.

Max Pressure: 5 Bar







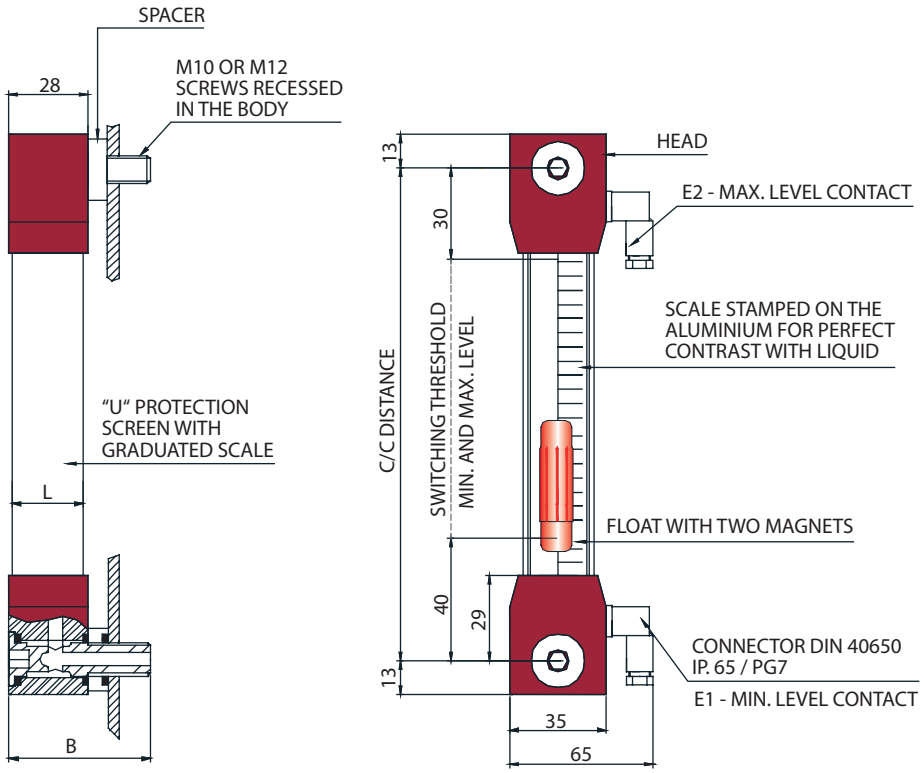
LV / E1	SPST - N.C. IN ABSENCE	SPST - N.C. IN PRESENCE	SPDT
ELECTRICAL CHARACTERISTICS	1 2	1 2	3 2 1
POWER COMMUTABLE IN C.C.	20 W	20 W	20 W
POWER COMMUTABLE IN C.A.		20 VA	20 VA
CURRENT STRENGTH IN C.C. - C.A.	1.A	1.A	1.A
COMMUTABLE VOLTAGE	200 VDC	150 VDC / VAC	150 VDC / VAC

MOD.	C/C DISTANCE	SCREWS	SCREWS MATERIAL		B (mm)	ELECTRICAL CONTACT		POSITION ELECTRICAL CONTACT		TUBE MATERIAL		TEMP. (°C)	FLOAT		HEAD MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES TAP		DEVICES THERMOMETER		SERIGRAFIA	
LV/E1	FROM 127 TO 3000	M12	A	NICKEL PLATED BRASS	42	C	CLOSED IN ABSENCE OF LIQUID	1	RIGHT	A	METHACRYLATE	-70...+80	1	NYLON-GLASS (RED)	A	NYLON-GLASS (RED)	-30...+130	1	NBR	-30...+100	0	WITHOUT	0	WITHOUT	A	WITHOUT
			B	NICKEL PLATED BRASS	50					B	POLYCARBONATE	-150...+130	2	P.P. - GLASS (YELLOW)				2	FKM (VITON)	-25...+200	R1	WITH LOWER TAP NICKEL PLATED BRASS L50 mm	TS	WITH LOWER THERMOMETER external bimetallic **(includes M12-B) (Excludes R1)**		
			C	AISI 316 S/STEEL	42	O	OPEN IN ABSENCE OF LIQUID											3	SI (SILICONE)	-60...+200						
		M10	D	NICKEL PLATED BRASS	42	S	SPDT	2	LEFT	C	PYREX	-70...+250	3	NBR WITH S/STEEL SPIRAL (BLACK)	B	P.P. - GLASS (GREY)	0...+100	4	HNBR	-40...+130					B	WITH SERIGRAPHY ON CUSTOMER'S DESIGN **ON REQUEST FOR QUANTITIES**
			E	AISI 316 S/STEEL	42													5	EPDM	-45...+155						
																		6	FEP (FKM-SILICONE)	-60...+205	R2	WITH TWO TAPS NICKEL PLATED BRASS L50 mm				
																		7	MFQ (FLUOROSILICONE)	-65...+175						
																		6 AND 7 **ON REQUEST FOR QUANTITIES**							
LV/E1	800	M12	1			C		1		A			1		A			1			R1		TS		A	

LV/E2

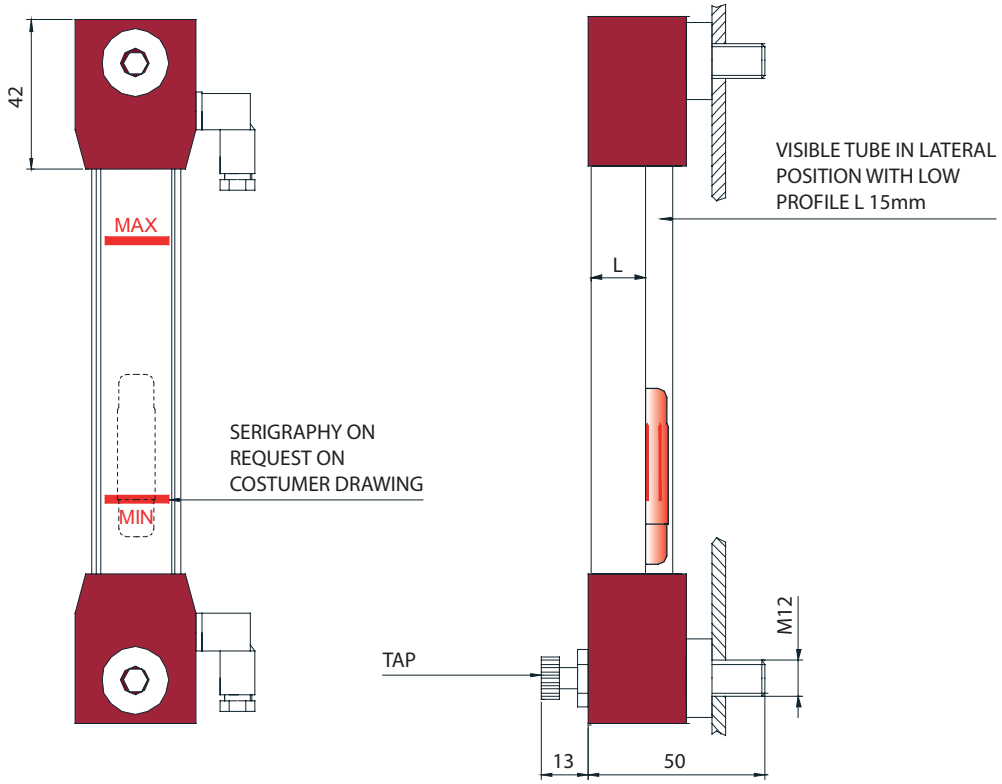
VISUAL LEVEL GAUGES WITH MINIMUN AND MAXIMUN SIGNAL

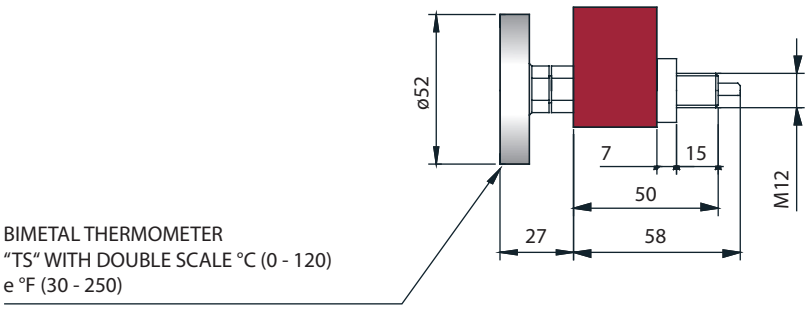
The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost.
The level gauges can be equipped with tap that stop the flow of liquid from the tank to the gauge.
The C/C distances of 127 ÷ 3000 mm supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain
visibility on the right or left. As well as providing a visual indication, the visual level gauge E2 have a minimum and maximum level signal which can be **N.O. or N.C. or EXCHANGE**, on customer request.



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 liquids and insulated with respect to the outside.

Max Pressure: 5 Bar





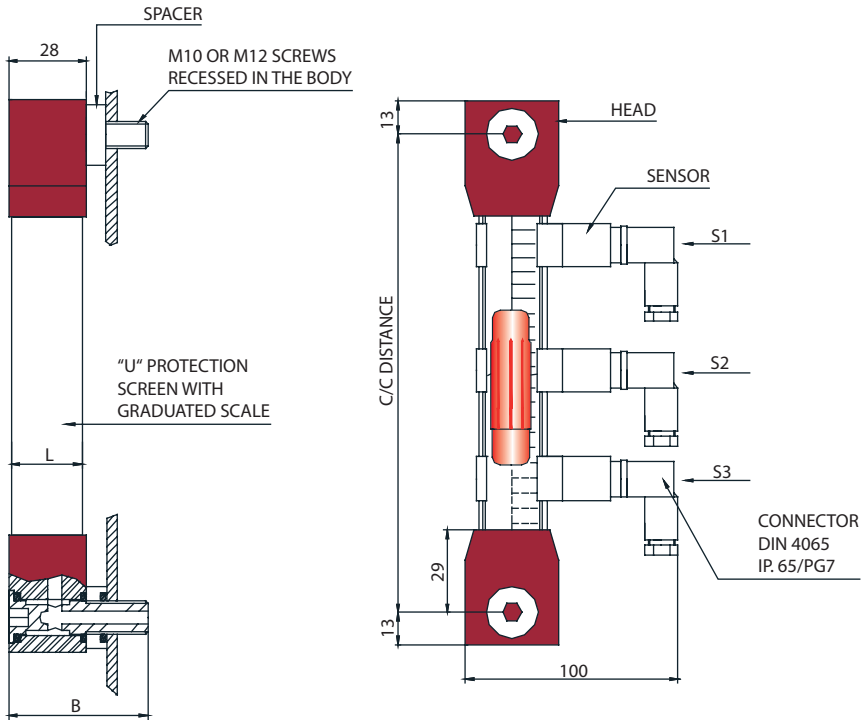
LV / E2	SPST - N.C. IN ABSENCE	SPST - N.C. IN PRESENCE	SPDT
ELETRICAL CHARACTERISTICS	1 2	1 2	3 2 1
POWER COMMUTABLE IN C.C.	20 W	20 W	20 W
POWER COMMUTABLE IN C.A.		20 VA	20 VA
CURRENT STRENGTH IN C.C. - C.A.	1.A	1.A	1.A
COMMUTABLE VOLTAGE	200 VDC	150 VDC / VAC	150 VDC / VAC

MOD.	C/C DISTANCE	SCREWS	SCREWS MATERIAL		B (mm)	ELECTRICAL CONTACT OF MINIMUM - E1		ELECTRICAL CONTACT OF MAXIMUM - E2		POSITION ELECTRICAL CONTACT		TUBE MATERIAL		TEMP. (°C)	FLOAT		HEAD MATERIAL		TEMP. (°C)	OR MATERIAL		TEMP. (°C)	DEVICES				SERIGRAFIA	
																							TAP		THERMOMETER			
LV/E2	FROM 127 TO 3000	M12	A	NICKEL PLATED BRASS	50	C	CLOSED IN ABSENCE OF LIQUID	C	CLOSED IN ABSENCE OF LIQUID	1	RIGHT	A	METHACRYLATE	-70...+80	1	NYLON-GLASS (RED)	A	NYLON-GLASS (RED)	-30...+130	1	NBR	-30...+100	0	WITHOUT	0	WITHOUT	A	WITHOUT
						O	OPEN IN ABSENCE OF LIQUID	O	OPEN IN ABSENCE OF LIQUID			B	POLYCARBONATE	-150...+130						2	FKM (VITON)	-25...+200	R1	WITH LOWER TAP NICKEL PLATED BRASS L50 mm				
			B	AISI 316 S/STEEL	50	S	SPDT	S	SPDT	2	LEFT	C	PYREX	-70...+250	2	NBR WITH S/STEEL SPIRAL (BLACK)	B	P.P. - GLASS (GREY)	0...+100	3	SI (SILICONE)-	60...+200						
																				4	HNBR	-40...+130						
																				5	EPDM	-45...+155						
																				6	FEP (FKM-SILICONE)	-60...+205						
		M10	C	AISI 316 S/STEEL	42															7	MFQ (FLUOROSILICONE)	-65...+175	R2	WITH TWO TAPS NICKEL PLATED BRASS L50 mm				
																				6 AND 7 ON REQUEST FOR QUANTITIES					TS	WITH THERMOMETER external bimetallic (includes M12-B) (Excludes R1)	B	WITH SERIGRAPHY ON CUSTOMER'S DESIGN ON REQUEST FOR QUANTITIES
LV/E2	800	M12	1			C		C		1		A			1		A			1			R1		TS		A	

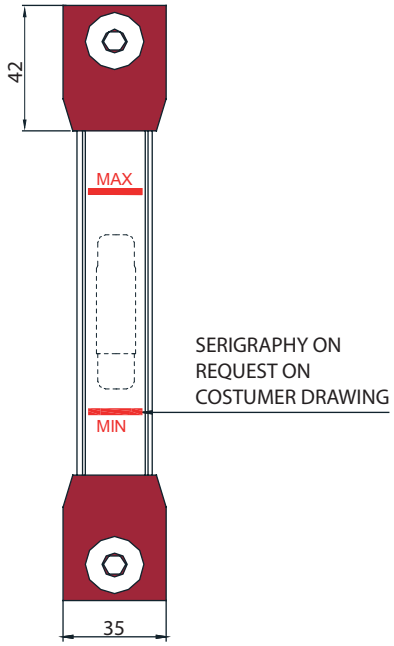
LV/E-S1..S2..S3..

VISUAL LEVEL GAUGES WITH VARIABLE POSITION SENSORS

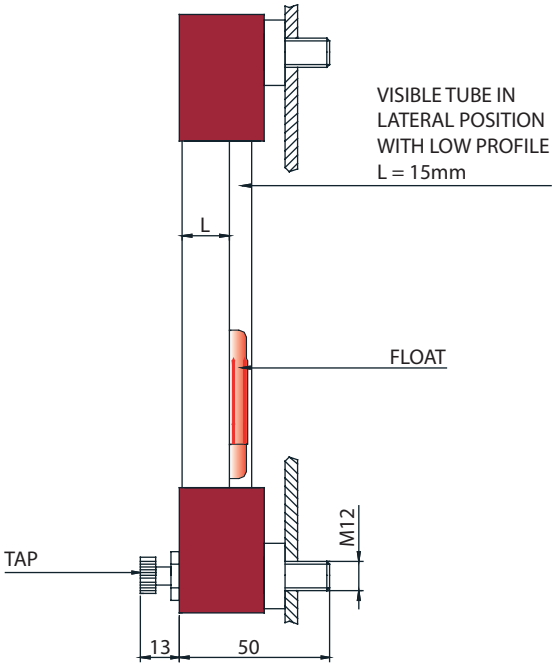
The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost. The level gauges can be equipped with tap that stop the flow of liquid from the tank to the gauge.
The C/C distances of 127 ÷ 3000 mm supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain visibility on the right or left.

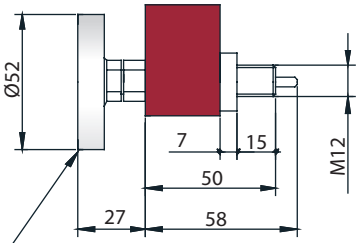


OPERATION:
The float sliding in the tube excites one or more bistable Reeds (or in memory) that close the contact in sequence.
The contact opens again only when the fl oat carries out the reverse path.
Each sensor can be placed as required along the axis of the level gauge.The sensors can be **N.O.** (normally open) in presence of liquid (closed in absence of liquid), **N.C.** (normally closed) in presence of liquid (open in absence of liquid), or **EXCHANGE**.
Max Pressure: 5 Bar



SERIGRAPHY ON
REQUEST ON
COSTUMER DRAWING





BIMETAL THERMOMETER
"TS" WITH DOUBLE SCALE
°C (0-120) AND °F (30-250)

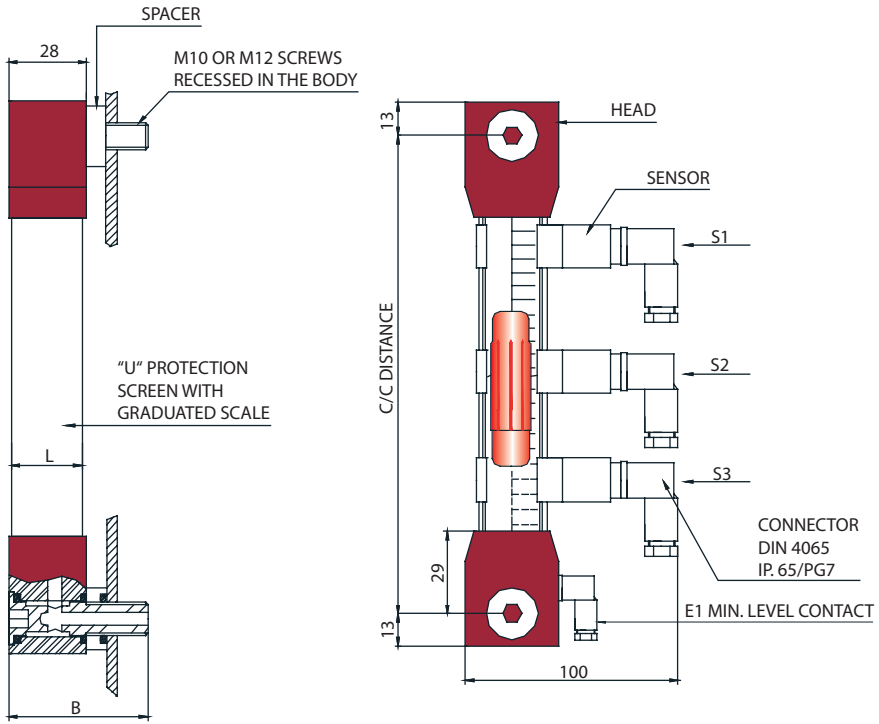
LV / E - S1..S2..S..	SPST CONTACTS	SPDT CONTACTS
ELECTRICAL CHARACTERISTICS	1 2	3 2 1
POWER COMMUTABLE IN C.C.	40 W	20 W
POWER COMMUTABLE IN C.A.	40 VA	20 VA
CURRENT STRENGTH IN C.C. - C.A.	2.A	1.A
COMMUTABLE VOLTAGE	230 VDC / VAC	150 VDC / VAC

MOD.	NUMBER OF SENSORS	C/C DISTANCE	SCREWS	SCREWS MATERIAL	B (mm)	ELECTRICAL CONTACT S1	ELECTRICAL CONTACT S2	ELECTRICAL CONTACT S3	ELECTRICAL CONTACT S4	POSITION ELECTRICAL CONTACT	TUBE MATERIAL	TEMP. (°C)	FLOAT	HEAD MATERIAL	TEMP. (°C)	OR MATERIAL	TEMP. (°C)	DEVICES TAP	DEVICES THERMOMETER	SERIGRAFIA	TEMPERATURE SENSOR
LV/E-S	1 MIN. C/C DISTANCE 127	FROM 127 TO 3000	M12	A NICKEL PLATED BRASS	50	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	1 RIGHT	A METHACRYLATE	-70...+80	1 NYLON-GLASS (RED)	A NYLON-GLASS (RED)	-30...+130	1 NBR	-30...+100	0 WITHOUT	0 WITHOUT	A WITHOUT	0 WITHOUT
	2 MIN. C/C DISTANCE 170					O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID		B POLYCARBONATE	-150...+130		B POLYPROPYLENE-GLASS (GREY)	0...+100	2 FKM (VITON)	-25...+200	R1 WITH LOWER TAP NICKEL PLATED BRASS L50 mm	TS WITH LOWER THERMOMETER external bimetallic(includes M12-A) (Excludes R1)		1 PT 100
	3 MIN. C/C DISTANCE 220			B AISI 316 S/STEEL	50	S SPDT	S SPDT	S SPDT	S SPDT	2 LEFT	C PYREX	-70...+250	2 NBR WITH S/STEEL SPIRAL (BLACK)			3 SI (SILICONE)	-60...+200				
	4 MIN. C/C DISTANCE 260		M10	C AISI 316 S/STEEL	50		N NOTHING	N NOTHING	N NOTHING					C PVDF	-20...+120	4 HNBR	-40...+130				
																5 EPDM	-45...+155				
																6 FEP (FKM-SILICONE)	-60...+205	R2 WITH TWO TAPS NICKEL PLATED BRASS L50 mm		B WITH SERIGRAPHY ON CUSTOMER'S DESIGN ON REQUEST FOR QUANTITIES	2 PT 1000
																7 MFQ (FLUOROSILICONE)	-65...+175				
																6 AND 7 ON REQUEST FOR QUANTITIES					
LV/E-S	3	800	M12	1		C	C	C	N	1	A		1	A		1		R1	TS	A	0

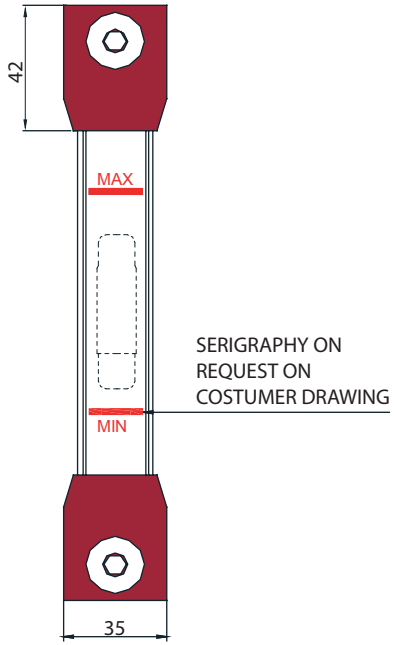
LV/E1+S1..S2..S3..

VISUAL LEVEL GAUGE WITH MINIMUN SIGNAL AND VARIABLE POSITION SENSORS

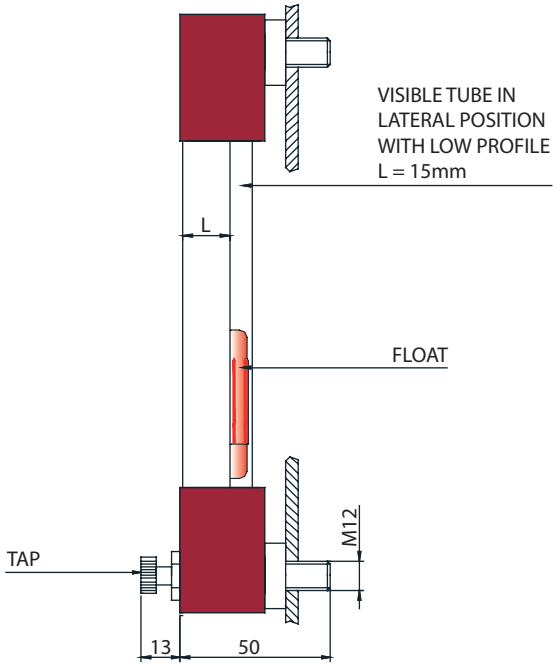
The visual level gauges allow the liquid level to be checked in a clear and precise way at any time.
The principle used is that of communicating vessels: the liquid goes through the level gauge by means of hollow screws, showing the user the exact point inside the tank.
Through a full range of components our level gauges can meet the most particular needs, at a limited cost. The level gauges can be equipped with tap that stop the flow of liquid from the tank to the gauge and with bimetallic thermometer.
The C/C distances of 127 ÷ 3000 mm supplied meet the needs of all customers. In this way they can be interchangeable with the level gauges available on the market and, above all, "custom made" according to needs. The "U" protection screen is normally fitted in order to obtain visibility on the front part of the level gauge, but if necessary it can be turned 90° to obtain visibility on the right or left.



OPERATION:
The float sliding in the tube excites the contacts Reeds.
The sensors **(S1..S2..S3)** can be **SPDT** or **SPST** bistable (or with memory) that close the contacts in sequence. The contacts opens again only when the float carries out the reverse path. Each sensor can be placed as required along the axis of the level gauge.
The contact E1 can be SPDT or SPST **N.O.** (normally open) in presence of liquid (closed in absence of liquid), N.C. (normally closed) in presence of liquid (open in absence of liquid).
Max Pressure: 5 Bar

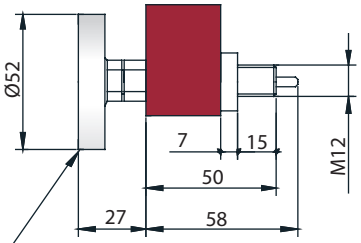


SERIGRAPHY ON REQUEST ON COSTUMER DRAWING



VISIBLE TUBE IN LATERAL POSITION WITH LOW PROFILE L = 15mm

FLOAT



BIMETAL THERMOMETER "TS" WITH DOUBLE SCALE °C (0-120) AND °F (30-250)

LV / E1+S1..S2..S..	MIN. CONTACT			VARIABLE POS. SENSOR	
	SPST - N.C. IN ABSENCE	SPST - N.C. IN PRESENCE	SPDT	SPST CONTACT	SPDT CONTACT
ELECTRICAL CHARACTERISTICS	1 2	1 2	3 2 1	1 2	3 2 1
POWER COMMUTABLE IN C.C.	20 W	20 W	20 W	40 W	20 W
POWER COMMUTABLE IN C.A.		20 VA	20 VA	40 VA	20 VA
CURRENT STRENGTH IN C.C. - C.A.	1.A	1.A	1.A	2.A	1.A
COMMUTABLE VOLTAGE	200 VDC	150 VDC / VAC	150 VDC / VAC	230 VDC / VAC	150 VDC / VAC

MOD.	NUMBER OF SENSORS	C/C DISTANCE	SCREWS	SCREWS MATERIAL	B (mm)	ELECTRICAL CONTACT OF MINIMUM - E1	ELECTRICAL CONTACT S1	ELECTRICAL CONTACT S2	ELECTRICAL CONTACT S3	ELECTRICAL CONTACT S4	POSITION ELECTRICAL CONTACT	TUBE MATERIAL	TEMP. (°C)	FLOAT	HEAD MATERIAL	TEMP. (°C)	OR MATERIAL	TEMP. (°C)	DEVICES: TAP	DEVICES: THERMOMETER	SERIGRAPHY
LV/E1+S	1 MIN. C/C DISTANCE 127	FROM 127 TO 3000	M12	A NICKEL PLATED BRASS	50	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	C CLOSED IN ABSENCE OF LIQUID	1 RIGHT	A METHACRYLATE	-70...+80	1 NYLON-GLASS (RED)	A NYLON-GLASS (RED)	-30...+130	1 NBR	-30...+100	0 WITHOUT	0 WITHOUT	A WITHOUT
	2 MIN. C/C DISTANCE 170																2 FKM (VITON)	-25...+200			
	3 MIN. C/C DISTANCE 220			B AISI 316 S/STEEL	50	O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID	O OPEN IN ABSENCE OF LIQUID		B POLYCARBONATE	-150...+130		B POLYPROPYLENE-GLASS (YELLOW)	0...+100	3 SI (SILICONE)	-60...+200	R1 WITH LOWER TAP NICKEL PLATED BRASS L50 mm	TS WITH LOWER THERMOMETER external bimetallic (includes M12-B) (Excludes R1)	B WITH SERIGRAPHY ON CUSTOMER'S DESIGN ON REQUEST FOR QUANTITIES
	4 MIN. C/C DISTANCE 260		M10	C AISI 316 S/STEEL	42	S SPDT	S SPDT	S SPDT	S SPDT	S SPDT	2 LEFT	C PYREX	-70...+250	2 NBR WITH S/STEEL SPIRAL (BLACK)	C PVDF	-20...+120	4 HNBR	-40...+130			
								N NOTHING	N NOTHING	N NOTHING							5 EPDM	-45...+155			
																	6 FEP (FKM-SILICONE)	-60...+205	R2 WITH TWO TAPS NICKEL PLATED BRASS L50 mm		
																	7 MFQ (FLUOROSILICONE)	-65...+175			
																	6 AND 7 ON REQUEST FOR QUANTITIES				
LV/E1+S	3	800	M12	1		C	C	C	C	N	1	A		1	A		1		R1	TS	A

LV/M

MINIATURE VISUAL LEVEL GAUGES 76- 27-254 mm

Level indicators of **LV / M** series allow to control, at all times, the level of liquid consistently, clearly and precisely.

PRINCIPLE OF OPERATION

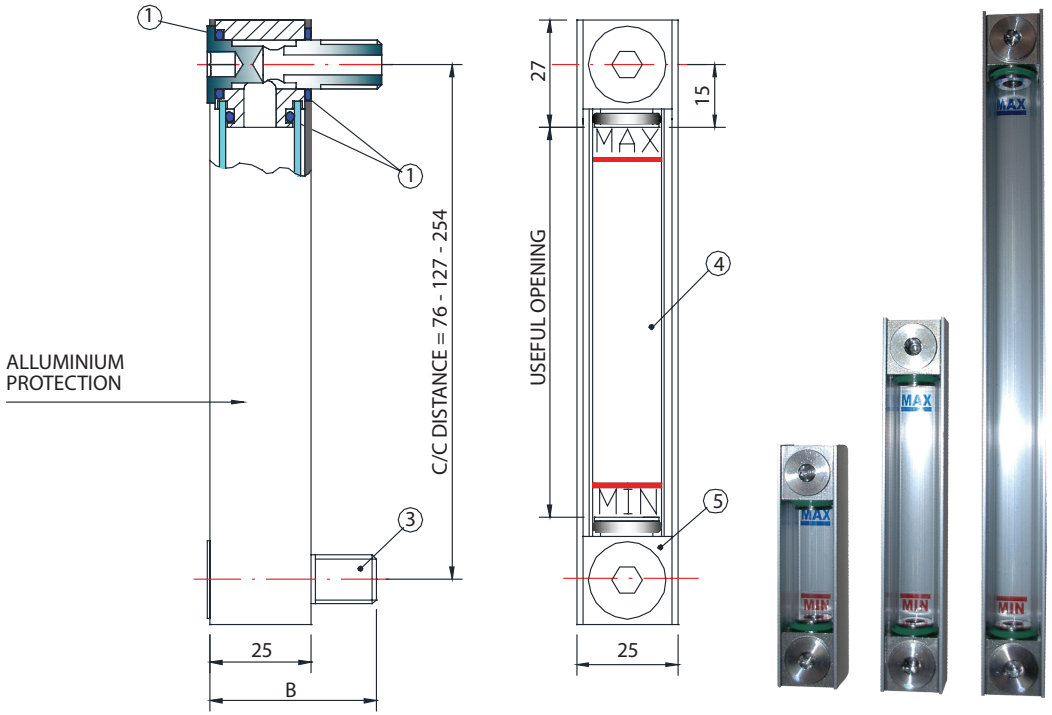
The principle used is that of communicating vessels: the liquid from the container, where the gauge is applied by means of screws, through the hollow transparent tube, revealing the precise point reached within the tank.

OPTIONS

- c/c distances 76,127,254 mm (+ -1), interchangeable with almost every visual levels in the market
- Different polymeric materials used for the transparent tube, blocks and O-ring
- Version of stainless steel AISI 316 in the metallic parts in contact with the liquid

TECHNICAL ADVANTAGES

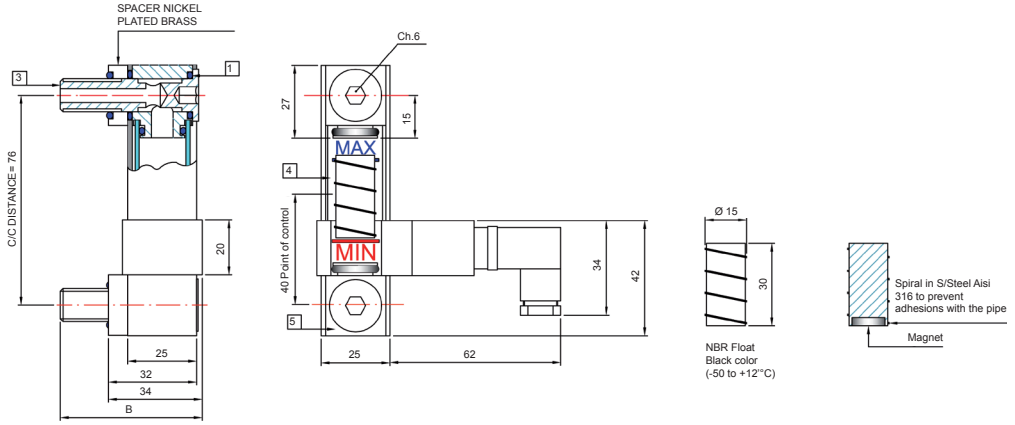
- Constant and continuous indication of the level of the liquid
- All the handmade article is protected from shocks by using a profile "U" anodized aluminium
- Useful light excellent in relation to the c/c distance
- Not being a rigid handmade article, it is possible to correct small defects of implementation (wheelbase + - 1 mm) and small orthogonal errors.



MODEL	C/C DISTANCE	SCREW MATERIAL (3)			B	TUBE MATERIAL (4)		TEMP. (°C)	MATERIAL BLOCKS LOWER AND UPPER (5)		TEMP. (°C)	OR MATERIAL (1)		TEMP. (°C)
LV/M	76	A	M10	Galvanized steel	37	1	methacrylate	-70...+80	A	NYLON	-30…+130	1	NBR	-30…+100
					42							2	FKM (VITON)	-25…+200
		B	M12	Galvanized steel	37							3	SI (SILICONE)	-60...+200
	127				42	2	Polycarbonate	-150…+130	B	Polypropylene	0…+100	4	HNBR	-40...+130
		C	M10	nickel plated brass	37							5	EPDM	-45...+155
					42				C	Anodized Aluminum		6	FEP (FKM-SILICONE) on request for appropriate amounts	-60...+205
		D	M12	nickel plated brass	37									
	254				42	3	pyrex glass	-70…+250	D	Stainless stell AISI 316		7	MFQ (FLUOROSILICONE) on request for appropriate amounts	-65...+175
					50									
		E	M12	Stainless stell AISI 316	42									
LV/M	127	E			42	3			D			2		

LV/M-76-S1

MINIATURE VISUAL LEVEL GAUGES C/C DISTANCE 76 mm WITH MINIMUM ELECTRICAL CONTACT



Level indicators of LV / M series allow to control, at all times, the level of liquid consistently, clearly and precisely.

PRINCIPLE OF OPERATION

The principle used is that of communicating vessels:
the liquid from the container, where the gauge is applied by means of screws, through the hollow transparent tube, revealing the precise point reached within the tank.

OPTIONS

- Different polymeric materials used for the transparent tube, blocks and O-ring
- Version of stainless steel AISI 316 in the metallic parts in contact with the liquid

TECHNICAL ADVANTAGES

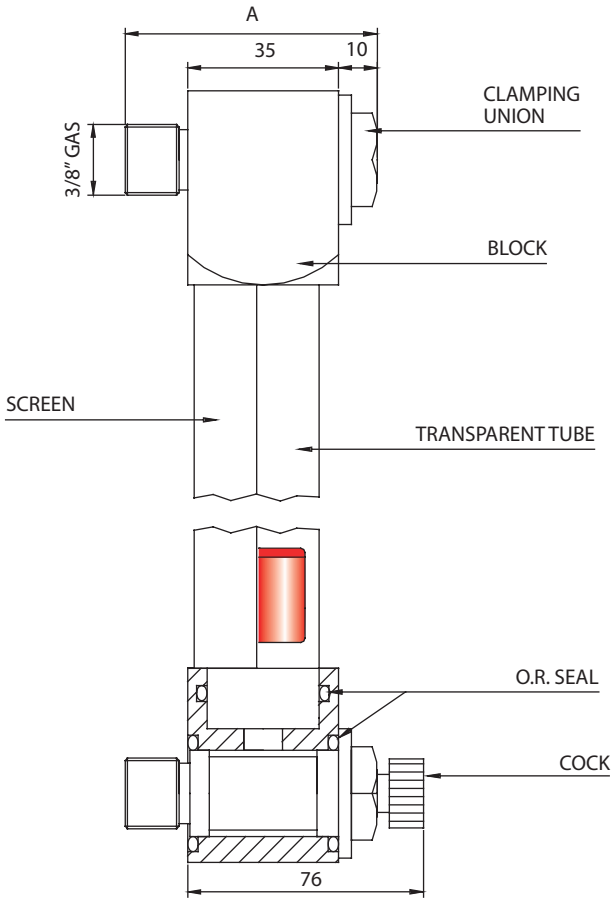
- Constant and continuous indication of the level of the liquid
- All the handmade article is protected from shocks by using a profile "U" anodized aluminium
- Useful light excellent in relation to the c/c distance
- Not being a rigid handmade article, it is possible to correct small defects of implementation (wheelbase + - 1 mm) and small orthogonal errors.
- Electrical signal by bistable sensor

ELECTRICAL CHARACTERISTICS OF THE MINIMUM SENSOR	
POWER COMMUTABLE IN C.C.	40 W
POWER COMMUTABLE IN C.A.	40 VA
CURRENT STRENGTH IN C.C. - C.A.	2.A
COMMUTABLE VOLTAGE	230 VDC / VAC
MAX. PRESSURE	5

MODEL	SCREWS MATERIAL (3)			BT	TUBE MATERIAL (4)		EMP. (°C)T	LOWER AND TOP BLOCK MATERIAL (5)		O-RING MATERIAL (1)		EMP. (°C)	MINIMUM SENSOR (BISTABLE)	
LV/M-76-S1	A	M10	NICHEL PLATED BRASS	42	1	METHACRYLATE	-70...+80	A	NYLON	1	NBR	-30...+100	A	N.O. IN ABSENCE
	B	M12	NICHEL PLATED BRASS	42	2	POLYCARBONATE	-150...+130	B	P.P.	2	FKM (VITON)	-25...+200		
				50						3	SI (SILICONE)-	60...+200		
								C	ANODIZED ALUMINUM	4	HNBR	-40...+130		
	C	M12	S/STEEL AISI 316	42	3	PYREX	-70...+250	D	S/STEEL AISI 316	5	EPDM	-45...+155		
										6	FEP (FKM-SILICONE) ON REQUEST FOR QUANTITY	-60...+205	B	N.C. IN ABSENCE
										7	MFQ (FLUOROSILICONE) ON REQUEST FOR QUANTITY	-65...+175		
LV/M-76-S1	B			42	3			D		2			B	

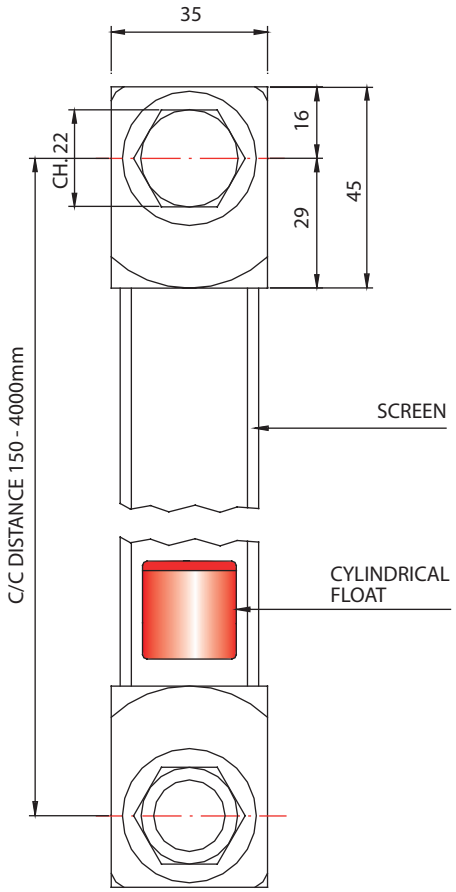
LUN

UNIVERSAL LEVEL INDICATORS WITH VARIABLE LENGTHS IN NYLON-GLASS



LMU

UNIVERSAL LEVEL GAUGES IN ANODISED ALUMINIUM (AISI 316 S/STEEL ON REQUEST)



LUN

UNIVERSAL LEVEL GAUGES WITH VARIABLE LENGTHS IN NYLON-GLASS

LMU

UNIVERSAL LEVEL GAUGES IN ANODISED ALUMINIUM (AISI 316 S/STEEL ON REQUEST)

This type of visual level gauge, of medium size and high strength, normally consists of two bodies which house a transparent tube, reinforced and protected by an anodised aluminium half-round profi le that also acts as a screen.

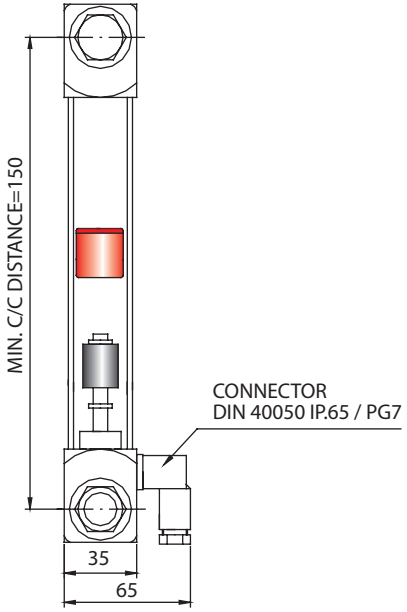
- The bodies can be in glass reinforced nylon, anodised aluminium or AISI 316 stainless steel.
- The tubes are in acrylic or pyrex glass.
- The 3/8" GAS unions, normally supplied in nickel-plated brass, can be ordered in AISI 316; a cock, only available in nickel-plated brass, can be supplied in place of the union.
- The fl oat, normally in nylon (red), can be supplied in spansil (black) for high temperatures.
- On request, all the level gauges can be provided with a bimetal probe thermometer (L= 70mm) with Ø 40 mm body in chromed cast brass and scale of 0° ÷ 120°C (the thermometer is incorporated in the 3/8" GAS clamping union).
- For moderately aggressive liquids, on request the level gauges in nylon can have stainless steel unions; for more aggressive liquids the metal level gauge in s/steel (bodies and screws) can be supplied.
- A plug with breather (in aluminium) can be supplied in place of the upper block.
- Max pressure: 5 Bar.

VERSION	C/C DISTANCE	TUBE		BLOCKS		FLOAT		LOWER TAP		UPPER TAP		THERMOMETER		SCREWS 3/8 GAS		O-RING			NUT	
LUN	150-4000	A	METHACRYLATE (-70..+130°C)	N	NYLON-GLASS (-30..+130°C)	1	NYLON-GLASS (RED)	SS	WITHOUT	SS	WITHOUT	S	WITHOUT	A	BRASS PLATED A=58	1	NBR	(-30..+100°C)	A	WITHOUT
								R0	BRASS PLATED OPEN / DOWNLOAD / CLOSE	R0	BRASS PLATED OPEN / DOWNLOAD / CLOSE					2	FKM	(-25..+200°C)	B	3/8 ALUMINIUM
		P	PYREX (-70..+250°C)			2	NBR (BLACK)	R1	BRASS PLATED OPEN / CLOSE	R1	BRASS PLATED OPEN / CLOSE	T	BIMETALLIC PLACED IN THE LOWER SCREW - EXCLUDES THE COCK	B	BRASS PLATED A=68	3	E.P.D.M.	(-45..+155°C)		
						3	WITHOUT	R2	AISI 316 S/STEEL OPEN / DOWNLOAD / CLOSE	R2	AISI 316 S/STEEL OPEN / DOWNLOAD / CLOSE			C	AISI 316 S/STEEL A=58	4	SILICONE	(-60..+200°C)	C	3/8 AISI 316 S/STEEL
																5	FEP	(-60..+205°C)		
LUN	1000	P		N		1		R2		SS		S		C		2			C	

VERSION	C/C DISTANCE	TUBE		BLOCKS		FLOAT		LOWER TAP		UPPER TAP		THERMOMETER		SCREWS 3/8 GAS		O-RING			NUT	
LMU	150-4000	A	METHACRYLATE (-70..+130°C)	A	ANODISED ALUMINIUM	1	NYLON-GLASS (RED)	SS	WITHOUT	SS	WITHOUT	S	WITHOUT	A	BRASS PLATED A=58	1	NBR	(-30..+100°C)	A	WITHOUT
								R0	BRASS PLATED OPEN / DOWNLOAD / CLOSE	R0	BRASS PLATED OPEN / DOWNLOAD / CLOSE					2	FKM	(-25..+200°C)	B	3/8 ALUMINIUM
		P	PYREX (-70..+250°C)	I	AISI 316 S/STEEL	2	NBR (BLACK)	R1	BRASS PLATED OPEN / CLOSE	R1	BRASS PLATED OPEN / CLOSE	T	BIMETALLIC PLACED IN THE LOWER SCREW - EXCLUDES THE COCK	B	BRASS PLATED A=68	3	E.P.D.M.	(-45..+155°C)		
						3	WITHOUT	R2	AISI 316 S/STEEL OPEN / DOWNLOAD / CLOSE	R2	AISI 316 S/STEEL OPEN / DOWNLOAD / CLOSE			C	AISI 316 S/STEEL A=58	4	SILICONE	(-60..+200°C)	C	3/8 AISI 316 S/STEEL
																5	FEP	(-60..+205°C)		
LMU	1000	P		A		1		R2		SS		S		C		2			C	

LMU + IE1

VISUAL LEVEL GAUGES IN METAL WITH MINIMUM SIGNAL



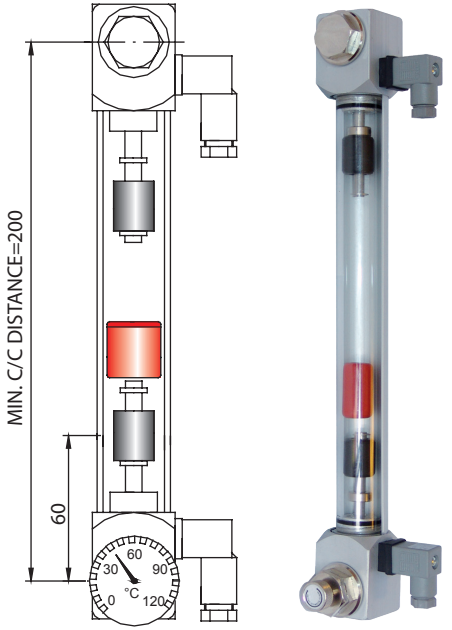
USE:
Designed for a visual and electromagnetic control of liquids in tanks with possibility of sending a luminous/acoustic signal at a distance, or activating or disconnecting the electrical circuit connected to it. The electromagnetic control can be of minimum or maximum (or minimum and maximum). Our electromagnetic Levels are suitable for:
- hydraulic power packs
- tanks containing water, gas oil, mineral oils with viscosity not higher than 80°E and all other liquids except acids or flammable substances.

OPERATION:
When the float of the indicator encounters the Reed switch incorporated in the tube at the pre-established distance, the contact, activated by the magnet housed in the float, opens or closes. S.P.D.T (exchange) contacts are also provided for.

POSSIBILITIES:
The ranges differ in the number of electrical contacts. In the more complete version (LMU + IE/2) there are two contacts, for minimum and maximum level. On request, they can be provided with a 70 mm long bimetal probe thermometer with Ø 40 mm body in chromed cast brass and scale of 0° to 120°C (the thermometer is incorporated in the clamping union).

LMU + IE2

METAL VISUAL LEVEL GAUGES WITH MINIMUM AND MAXIMUM SIGNAL



VISUAL LEVEL GAUGE CHARACTERISTICS:
The electromagnetic level gauge is incorporated in the connection block; the electrical connector on the side of the level gauge lower block is only for minimum, upper if only for maximum, or on both blocks if minimum and maximum. To have the connector in the best position for connection of the wires (left or right side), just turn the screen 180°. Tubes in methacrylate or pyrex glass. Nickel-plated brass 3/8" GAS thread or AISI 316 s/steel clamping screws.

NB:
Make sure to specify in the order if the contacts must be N.O. or N.C. in absence of liquid.
On request, the contacts can be S.P.D.T (exchange).

VERSIONS	TUBE		MAX. PRESSURE 5 BAR	BLOCKS		COCK	BIMETAL THERMOMETER	O - RING			SCREW 3/8" GAS			ELECTRICAL CHARACTERISTICS	1 2	3 2 1
	METHACRYLATE Max. Temp. 70°C	PYREX Max. Temp. 150°C		ANODISED ALUMINIUM	AISI 316 S/STELL			NBR -20...+100	VITON -20...+200	E.P.D.M. -40...+160	NICKEL-PLATED BRASS A= 58	NICKEL-PLATED BRASS A= 68	AISI 316 S/STEEL A= 58	POWER COMMUTABLE IN C.C.	40 W	20 W
														POWER COMMUTABLE IN C.A.	40 V.A.	20 V.A.
LMU + IE1	S	R		S	R	R	R	S	R	R	S	R	R	CURRENT STRENGTH	2A	1A
LMU + IE2	S	R		S	R	R	R	S	R	R	S	R	R	COMMUTABLE VOLTAGE	230 VDC / VAC	150 VDC / VAC
S= STANDARD				R= ON REQUEST				N.D.= NOT AVAILABLE								