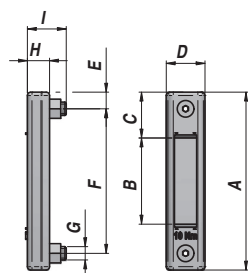
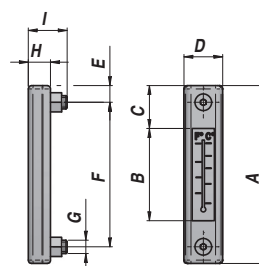


INDICATEUR DE NIVEAU HUILE VERTICAL
VERTICAL OIL LEVEL GAUGE

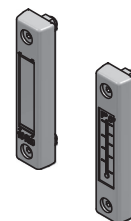
LVO - LVOT



LVO



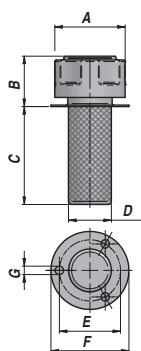
LVOT



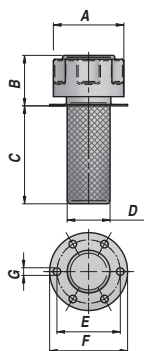
Code Code	Type Type	A	B	C	D	E	F	G	H	I	kg
ALV0007610	LVO 76/10	108	31	39	37	16	76	M10	23	41	0,20
ALV0007612	LVO 76/12	108	31				76	M12			0,20
ALV0012710	LVO 127/10	159	82				127	M10			0,24
ALV0012712	LVO 127/12	159	82				127	M12			0,24
ALV0025412	LVO 254/12	285	209	39	37	16	254	M12	23	41	0,40
ALVOT07610	LVOT 76/10	108	31				76	M10			0,20
ALVOT07612	LVOT 76/12	108	31				76	M12			0,20
ALVOT12710	LVOT 127/10	159	82				127	M10			0,24
ALVOT12712	LVOT 127/12	159	82				127	M12			0,24
ALVOT25412	LVOT 254/12	285	209				254	M12			0,40

BOUCHON DE REMPLISSAGE AVEC RENIFLARD
FILLER CAP WITH BREATHER

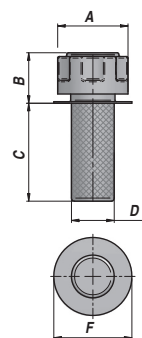
TCO



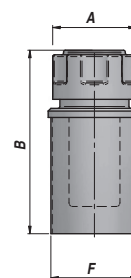
TCO300



TCO500



TCO501



TCO502



Code Code	Type Type	Reniflard - Breather		A	B	C	D	E	F	G	kg
		µm	l/min								
ATC0300000	TCO 300/4	40	300	46	35	63	28	41	51	5.5	0,10
ATC0301000	TCO 300/1	10	270	46	35	63	28	41	51	5.5	0,10
ATC0500000	TCO 500/4	40	500	70	46	100	40	73	84	5.5	0,25
ATC0501000	TCO 500/1	10	470	70	46	100	40	73	84	5.5	0,25
ATC0500100	TCO 501/4	40	500	70	46	100	40	-	84	-	0,25
ATC0501100	TCO 501/1	10	470	70	46	100	40	-	84	-	0,25
ATC0500200	TCO 502/4	40	500	70	180	-	-	-	64	-	0,60
ATC0501200	TCO 502/1	10	470	70	180	-	-	-	64	-	0,60

INDICATORI DI LIVELLO HL 91

CARATTERISTICHE TECNICHE

Gli indicatori di livello HL 91 vengono applicati direttamente sul serbatoio per controllare il livello e la temperatura del fluido idraulico. Sono disponibili in tre altezze con rispettivi interassi di collegamento 76mm, 127mm e 254mm e hanno in dotazione due viti di fissaggio filettate M10 o M12.

Sono disponibili le versioni con o senza termometro.

La protezione esterna, in alluminio anodizzato, rende questi indicatori di livello particolarmente resistenti agli urti, mentre il corpo centrale è in poliammide trasparente.

- Protezione esterna in alluminio anodizzato
- Elevata resistenza agli urti
- Applicabilità a serbatoi pressurizzati fino a 1 bar

MATERIALI

Protezione esterna	Alluminio anodizzato
Terminali	Nylon rinforzato
Corpo centrale	Poliammide trasparente
Piastrina di lettura	Poliammide
Viti di fissaggio	Acciaio zincato
Dadi	Acciaio zincato
Guarnizioni	Buna - Viton

COMPATIBILITÀ CON I FLUIDI

Secondo ISO 2943 (Norma ISO 6743/4)

Oli minerali	HH - HL - HM - HR - HV - HG
Emulsioni acquose	HFAE - HFAS
Fluidi sintetici	HS - HFDR - HFDU - HFDS

PRESSIONE

Massima di lavoro	1 bar
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TEMPERATURA DI ESERCIZIO

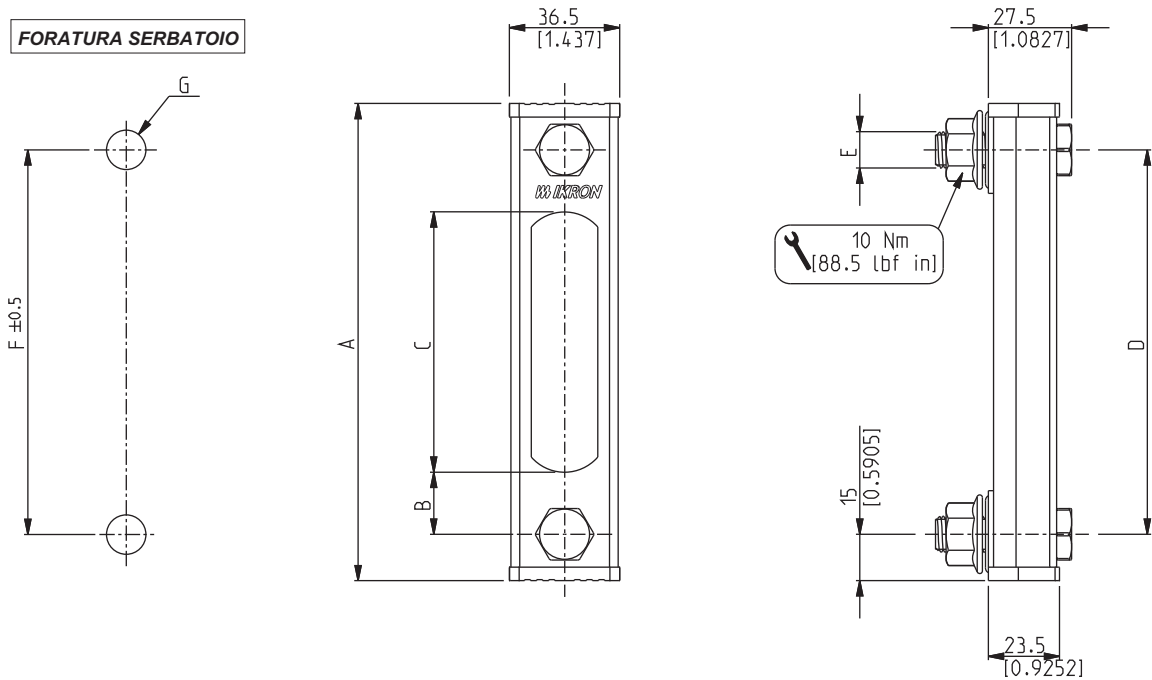
-30 ÷ 90 °C

SCALE TERMOMETRO

HL 91-10	0 ÷ 80 °C
HL 91-20	0 ÷ 100 °C
HL 91-30	0 ÷ 100 °C

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DIMENSIONI



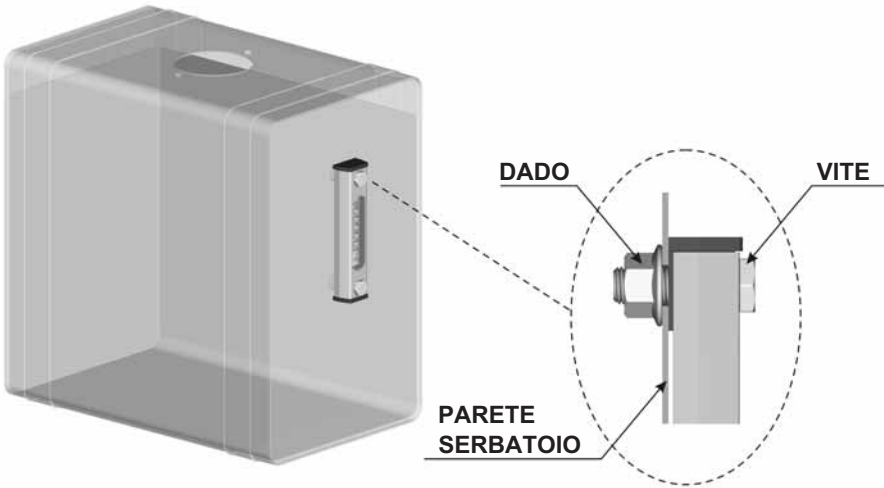
ICAT_024_021_HL91

Indicatore tipo	Peso	A	B	C	D	E	F	G
	Kg	mm	mm	mm	mm	mm	mm	mm
HL 91-10	0,15	106	17,5	41	76	M10	76	11
						M12		13
HL 91-20	0,19	157	20,5	86	127	M10	124	11
						M12		13
HL 91-30	0,23	284	20,5	213	254	M10	254	11
						M12		13

ISTRUZIONI PER IL MONTAGGIO

Il collegamento degli indicatori di livello HL 91, avviene attraverso le viti incorporate, che, dopo aver oltrepassato la parete del serbatoio opportunamente forata, devono essere avvitate ai corrispettivi dadi in dotazione con coppia di serraggio pari a 10 Nm.
Prima del collegamento verificare che non vi siano bave o taglienti in corrispondenza delle sedi per il montaggio degli indicatori.

NOTA
Per evitare che impatti accidentali rilevanti danneggino l'indicatore di livello con il rischio di fuoriuscita del fluido, suggeriamo di predisporre il serbatoio con protezioni supplementari.



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COME ORDINARE UN HL 91

		1			2			3			4
HL 91	-	10	-	T1	-	T	-	B			

1	Indicatore tipo	CODICE
	Interasse 76 mm	HL 91-10
	Interasse 127 mm	HL 91-20
	Interasse 254 mm	HL 91-30

2	Vite di fissaggio	CODICE
	M 10	T1
	M 12	T2

3	Termometro	CODICE
	Senza	N
	Con termometro	T

4	Guarnizioni	CODICE
	Buna	B
	Viton	V

- ☐ Soluzione standard
☐ Soluzione a richiesta

XL - VERTICAL LEVEL GAUGES WITH METAL CASING

XLT - VERTICAL LEVEL GAUGES WITH METAL CASING WITH THERMOMETER

XLT/PLAST - VERTICAL LEVEL GAUGES WITH PLASTIC CASING



XL/05

External protection made from painted steel

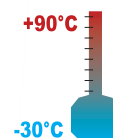


XL/05-VL



XL/05T-PLAST

External protection made from PA66 30% fiberglass



-Vertical level gauges made from transparent polyamide which provides good mechanical resistance to shocks, hydraulic fluids, synthetic and mineral oils, diesel and some unleaded fuel.

-Avoid contact with alcohol based solutions and antifreeze liquids, especially at high temperatures.

-Max working temperature suggested **90°C/194°F** (test made up **1 bar /14,5 PSI** of pressure).

-External protection is provided by a steel casing with black painted finish: also available in version VL with side openings to allow visibility from both sides.

These level gauges are used in oil and fuel tanks of many types, due to their ability to remain clear in the majority of conditions; the transparent body retains its transparency under most environmental conditions.

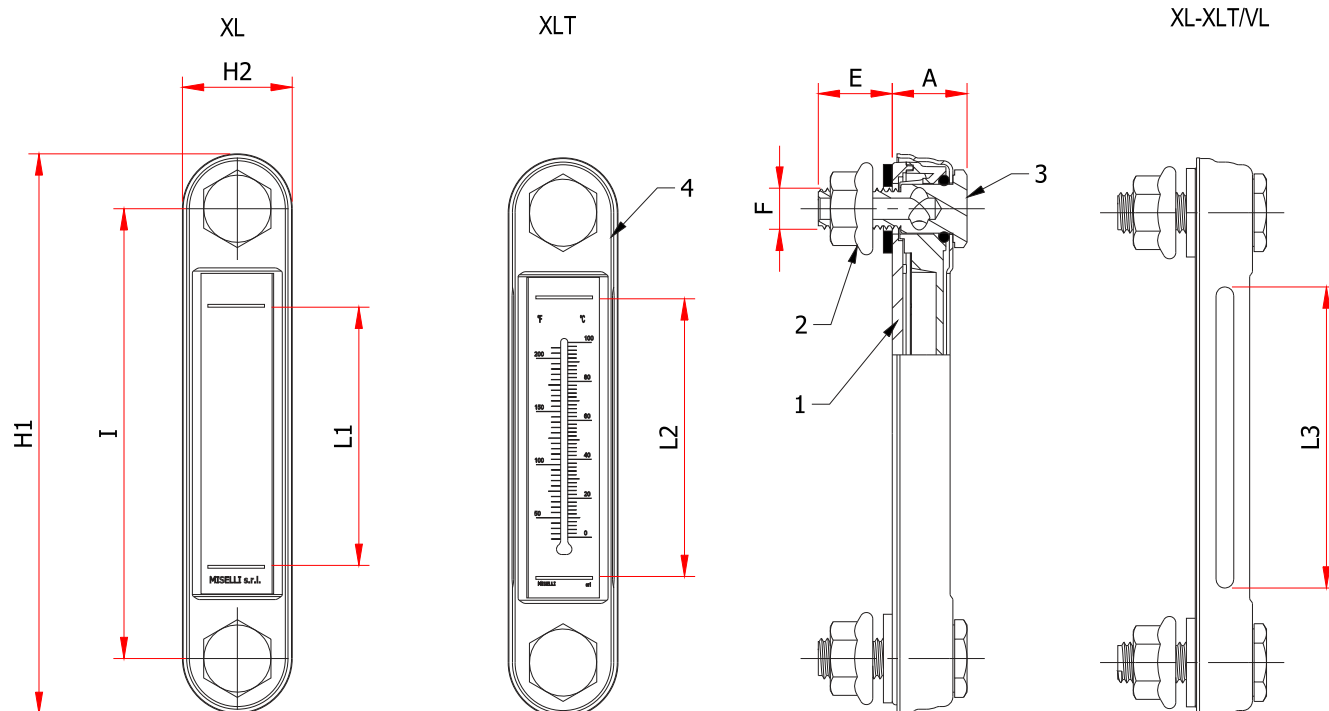
-The body of the level gauges is made by ultrasonically welding two halves together to ensure a leak free seal

around the body. Inside is fitted a white screen with minimum and maximum level indication. External seal is guaranteed by O-Rings and flat rubber washers NBR 80 Shore for each fixing bolt.

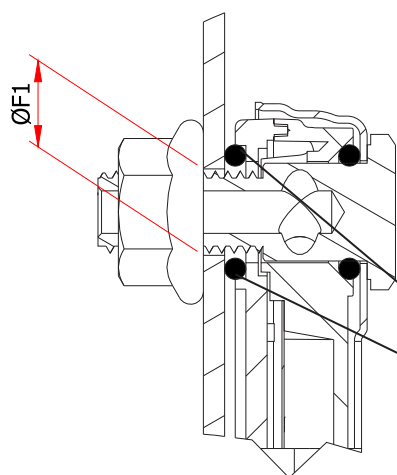
-The mounting of the level gauge can be made externally by providing 2 threaded holes M10 or M12 on 76-127 mm centre distance, tolerance $\pm 0,2\text{mm}$. Alternatively they can be secured internally through 2 plain holes $\varnothing 10,2\text{ mm}$ or $\varnothing 12,2\text{ mm}$ using the flanged nuts provided. Maximum tightening suggested **3 Nm**.

-Model XLT-05 is equipped with an inside thermometer scaled in degree Celsius 0-100° C and Fahrenheit 50-200 °F (Model XL/03T 0-80°C/50-175°F).

-In case of use under pressure and/or temperature conditions other than those indicated or with specific fluids and/or chemical agents, contact the technical service



- 1 = Transparent main body
 2 = Flanged hex nut
 3 = Hollow bolt
 4 = Metal shell



Special Executions

- **Model XL-T/CX** made from special resin resistant to fluid containing alcohol and anti-freeze liquids.
- **Model XL-T/RB** with floating red ball to improve the visibility of the fluid level of light colored liquids.
- **Model XL-T/PLAST:** external casing made from polyamide 66 30% fiberglass reinforced; available model with stainless steel nuts and bolts AISI 304 suitable for applications in corrosive environments such as marine.
- **Model XL-T/OR** back seal provided through O-Ring in NBR synthetic rubber.
- **Model XL-T/V** with O-Ring seal made from FKM VITON®.

Code	I	H1	H2	F	E	A	L1	L2	ØF1	L3	Weight gr
XL/03	76	107	31	M10-M12	17,5	24,5	37		10,2-12,2	34	135
XL/03T	76	107	31	M10-M12	17,5	24,5		37	10,2-12,2	34	135
XL/05	127	158	31	M10-M12	17,5	24,5	73		10,2-12,2	85	187
XL/05T	127	158	31	M10-M12	17,5	24,5		78	10,2-12,2	85	187

Caratteristiche Tecniche:

Temperatura d'impiego: -20°C ÷ +100°C (+5°C ÷ +80°C per LVSE)

Vita Meccanica: 10⁶ cicli a 20°C

Pressione massima di utilizzo: 2 Bar

Fissaggio:

- Verticale, tramite fori filettati M12 o fori passanti Ø13mm

Materiali a contatto:

- Tubo trasparente: in metacrilato perbex

- Terminali di fissaggio: in nylon caricato con fibra di vetro

Materiali non a contatto:

- Protezione: in alluminio anodizzato

- Bulloni di fissaggio: in acciaio zincato

Caratteristiche elettriche per LVSE:

- Connessione elettrica secondo norme DIN43650, M3

- Protezione elettrica secondo norme DIN40050, IP65

- Contatti in scambio (Comune, NA e NC) - SPDT

- Carico Max: 0.5A a 48 Volt

Garanzia: vedi pagina dedicata

Parti di ricambio: vedi pagina dedicata

Disponibile:

- Qualsiasi valore di interasse tra i fori di fissaggio fino a 2.5 m

- Esecuzioni con segnale elettrico di massimo livello

- Pressioni massime speciali

- Connessioni elettriche speciali

- CU-TR per mercato russo

Technical Features:

Working temperature: -20°C ÷ +100°C (+5°C ÷ +80°C for LVSE)

Mechanical life: 10⁶ cycles at 20°C

Maximum working pressure: 2 Bar

Fixing:

- Vertical, by threaded holes M12 or through holes Ø13mm

Wetted parts material:

- Transparent tube: in perbex methacrylate

- Fixing heads: in nylon filled with fibreglass

No-Wetted parts material:

- Protection: in anodised aluminium

- Fixing screws: in zinc-plated carbon steel

Electric features for LVSE:

- Electric connection according to DIN43650, M3

- Electric protection according to DIN40050, IP65

- Exchange contacts (Common, NO and NC) - SPDT

- Maximum load: 0.5A at 48 Volt

Warranty: see dedicated page

Spare parts: see dedicated page

Also available:

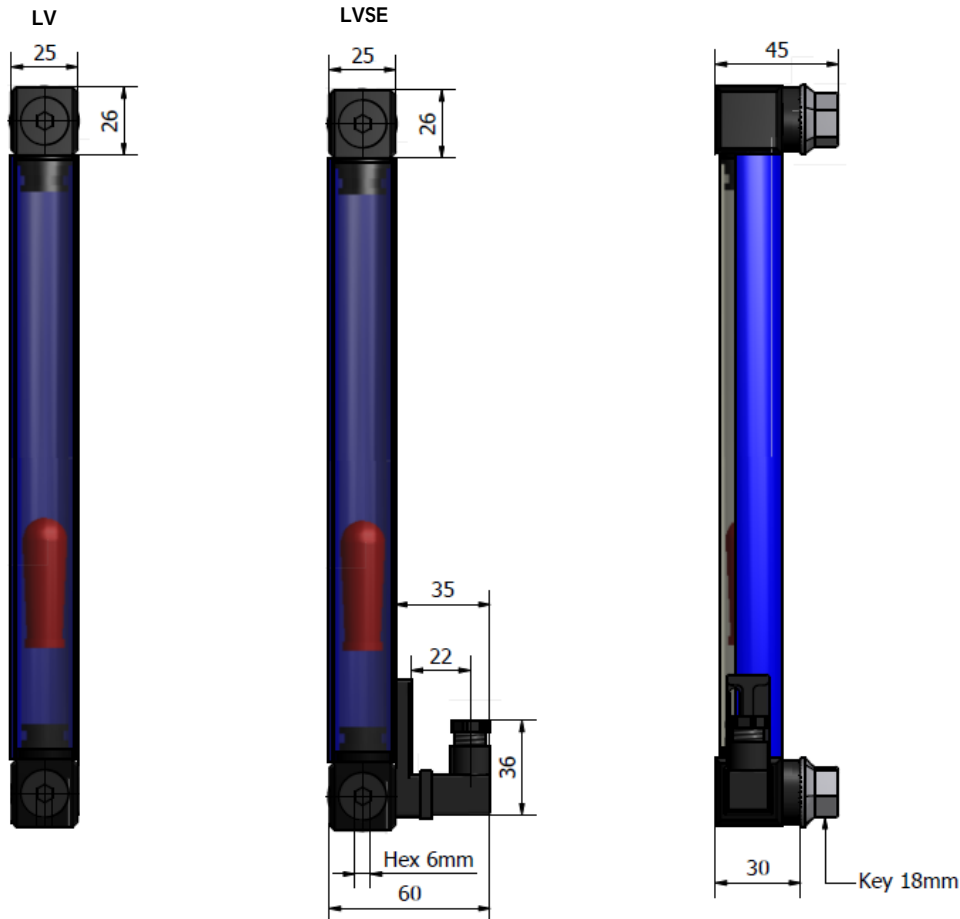
- Any axle base value between the fixing holes until 2.5 m

- Executions with maximum level electric signal

- Special max pressure

- Special electrical connection

- CU-TR for Russian market



LV			...
Tipo	Esecuzione	Interasse fori	Tipologia segnale elettrico
Type	Execution	Axle base of the holes	Type of the electric signal
		mm	
LV	T esecuzione con termometro execution with thermometer	2 indica 127 mm means 127 mm	MAX segnale di massimo livello maximum level signal
	SE esecuzione con contatti in scambio execution with exchange contacts	3 indica 254 mm means 254 mm	se omissio indica esecuzione standard if omitted means standard execution
	se omissio indica solo visivo if omitted means only visual		