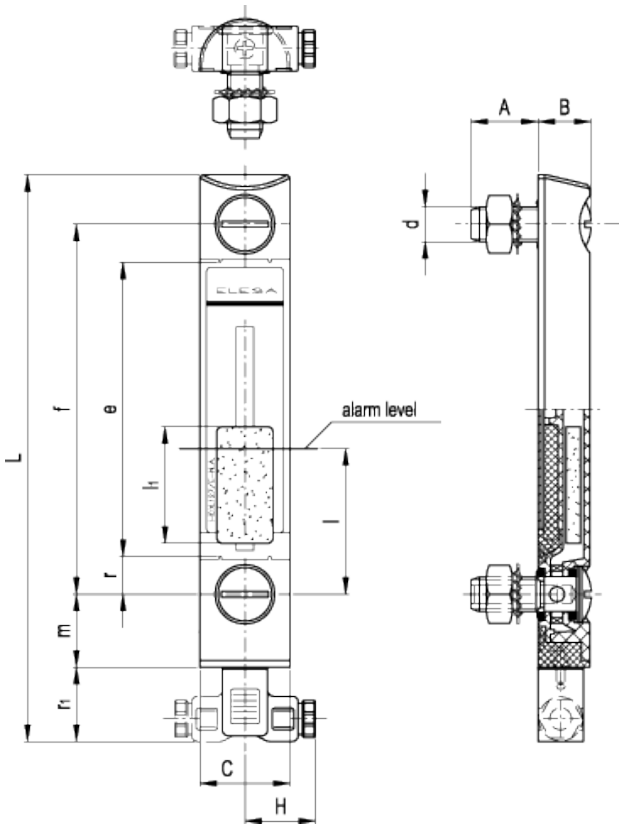
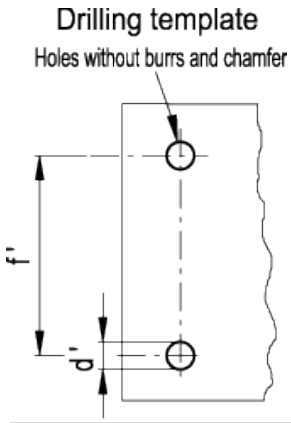
HCX-E

Column level indicators with MIN level electrical sensor



Elesa Standards		Main dimensions													Weight
Code	Description	f	d	A	B	C	H	L	e	l	l_1	m	r	r_1	lbs g
11141	HCX.127-E-NO-M12	5 127	- M12	0.91 23	0.79 20	1.22 31	0.98 25	7.99 203	3.98 101	1.97 50	1.57 40	0.98 25	0.51 13	1.34 34	0.33 150
11142	HCX.127-E-NC-M12	5 127	- M12	0.91 23	0.79 20	1.22 31	0.98 25	7.99 203	3.98 101	1.97 50	1.57 40	0.98 25	0.51 13	1.34 34	0.33 150



Drilling and installation data			
Description	$d'_{-0.008}$	$f'_{\pm 0.008}$	Maximum tightening torque [ft·lbf] [Nm]
HCX.127	0.49 12.5	5 127	9 12

Material
Transparent polyamide based (PA-T) technopolymer. Highly resistant to shocks, solvents, oils with additives, aliphatic and aromatic hydrocarbons, petrol, naphtha, phosphoric esters. Avoid contact with alcohol or detergents containing alcohol.

Screws, nuts and washers
Zinc-plated steel.

Packing rings
NBR synthetic rubber O-Ring.

Float
Polyamide based (PA) expanded technopolymer, black colour, with a built-in magnetic element to activate the electric contact when the oil level drops to a minimum; alarm threshold located at about 2 (50 mm) from the centre of the lower nut (in presence of mineral oil type CB68, according to ISO 3498, at 73°F (23°C)).

Sensor bracket
Watertight in polyamide based (PA) technopolymer, black colour, with a built-in relay (reed) with two conductors wired to the two-pin connector. Two executions available:
- HCX/E-N.A.: with electrical contact normally open.
- HCX/E-N.C.: with electrical contact normally closed.

Swivelling two-pin connector
With built-in cable gland and contact holder. Front or side output (right or left) including protection against water sprays (protection class IP 65 according to IEC 529 table) that can be increased during installation with the necessary adjustments. Flat NBR synthetic rubber packing rings.

Contrast screen
White lacquered aluminium. The housing, in the appropriate external rear slot, guarantees the best protection from direct contact with fluid, avoiding yellowing effect due to the prolonged action of the fluid at high temperatures.
It can be removed before installation to fit marks and words (for example MAX-MIN).

Assembly
- When nuts can be fitted from the inside of the reservoir, by means of the supplied set screws and nuts.
- When nuts cannot be fitted from the inside of the reservoir and the walls are thick enough, by means of the supplied set screws, without nuts, by tapping the two holes in the reservoir walls.
- When nuts cannot be fitted from the inside of the reservoir and the walls are not thick enough, by means of the supplied set screws and the Fast Mounting Kit.

To ensure the best sealing of the O-rings it is recommended to apply the maximum torque on the nuts as reported in the table and a roughness of the gasket application surface Ra = 3 µm.

Maximum continuous working temperature
190°F (90°C) (with oil).

Special executions on request (For sufficient quantities)
Level indicators for use with fluids containing alcohol.

Features and performances
The column level indicator HCX/E, in addition to the visual control, generates an electric signal when the oil level drops to a minimum. Assembled using ultrasound welding to guarantee a perfect seal. Entirely in transparent material: maximum fluid level visibility even from side positions.

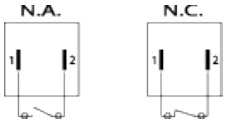
Technical data
In laboratory tests carried out with mineral oil for hydraulic systems, type CB68 (according to ISO 3498) with gradually increasing pressure, at 73°F (23°C), the weld stood up to 13 bar.
In any case we suggest to verify the suitability of the product under the actual working conditions. If you need to use the indicator with other oils or fluids and under different pressure and temperature conditions, please contact ELESA Technical Department or carry out tests in order to guarantee a proper use.

Functioning of the MIN level electrical sensor
Execution HCX/E-N.A.: the electrical circuit is closed when the minimum level is reached.

Execution HCX/E-N.C.: the electrical circuit is open when the minimum level is reached.

Two-pin connector assembly instructions

1. Remove the connector from the indicator by unscrewing the set screw placed in the bottom, take the contact holder out and loosen the cable gland.
2. Slip on the two-pole cable into the connector (standard connector) and connect the wires to the terminals nr. 1 and nr. 2 of the contact holder.
3. Assemble by pressing the contact holder into the connector in the required position.
4. Screw the connector to the indicator and then tighten the cable gland.



Electric characteristics	MIN level sensor
Power supply	AC / DC
Electric contacts	N.A. normally open N.C. normally closed
Maximum applicable voltage	150 Vac, 200 Vdc
Maximum opening current	1 A resisteve loads
Maximum rated capacity	1.5 A (power on contact 10W)
Cable gland	Pg 7 (for cables in sheath with Ø 6 or 7 mm)
Conductors cross-section	Max 1.5 mm^2
Do not mount this indicator in proximity to magnetic fields.	

Assembly instructions