

HCX/E

ELESA Original design

Column level indicators with MIN level electrical sensor



• 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 50 mm from the centre of the lower nut (in presence of mineral oil type CB68, according to ISO 3498, at 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 (see page 503) 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 (see page 1040).

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 $R_a = 3 \mu\text{m}$.

• Maximum continuous working temperature

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

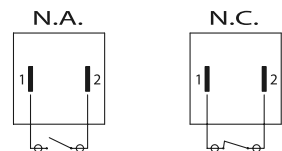
In laboratory tests carried out with mineral oil for hydraulic systems, type CB68 (according to ISO 3498) with gradually increasing pressure, at 23°C, the weld stood up to 13 bar.

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.



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 resistive 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.

15

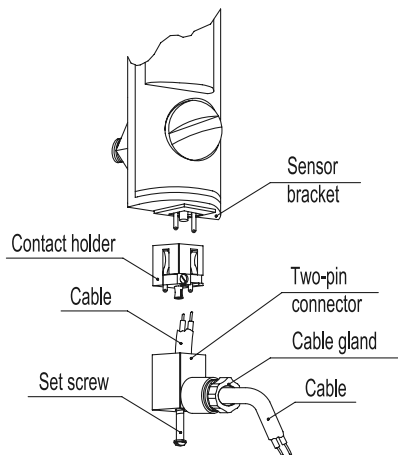
1024

Accessories for hydraulic systems



ELESA and GANTER models all rights reserved in accordance with the law. Always mention the source when reproducing our drawings.

Assembly instructions

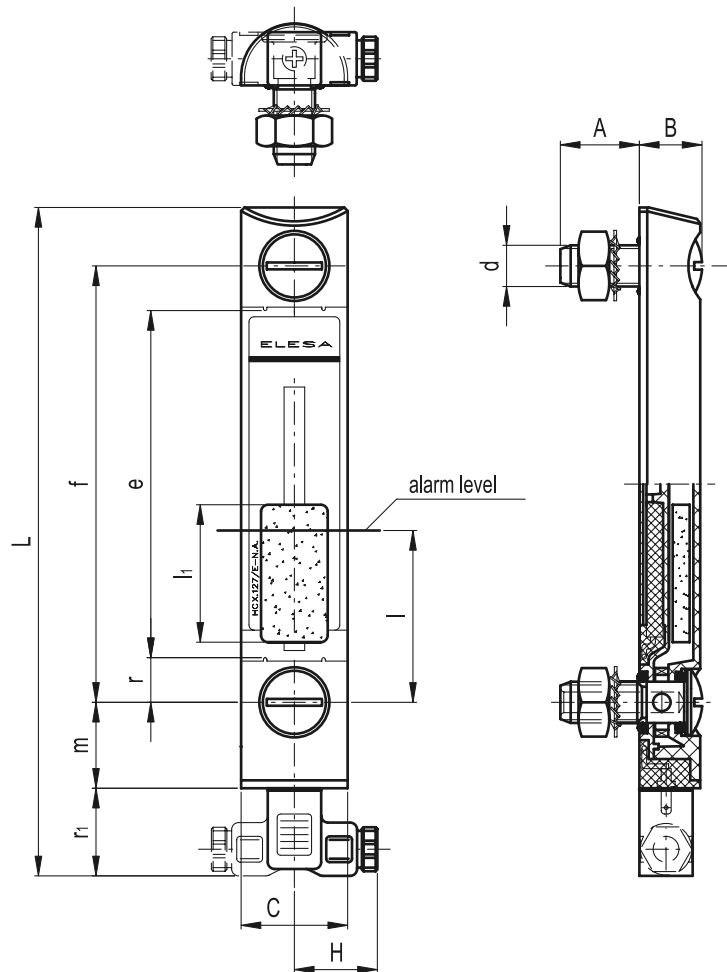


Two-pin connector assembly instructions

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.

Drilling and installation data

Code	d'-0.2	f'±0.2	Maximum tightening torque
HCX.127	12.5	127	12



Standard Elements		Main dimensions													⚖
Code	Description	f	d	A	B	C	H	L	e	l	h1	m	r	r1	g
11141	HCX.127-E-N.A.-M12	127	M12	23	18	31	27	195	101	50	40	25	13	26	150
11142	HCX.127-E-N.C.-M12	127	M12	23	18	31	27	195	101	50	40	25	13	26	150