

HCX-E-ST | Column level indicators

with MIN level and MAX temperature electrical sensors, technopolymer



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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.

SCREW, NUTS AND WASHERS

Zinc-plated steel.

PACKING RINGS

NBR synthetic rubber O-Ring.
Roughness of the packing ring application surface Ra = 3 µm.

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 polypropylene based (PP) technopolymer, black colour, with a built-in relay (reed) with two conductors wired to the two-pin connector. For a correct assembly see Warnings (on page 1227).

MAX TEMPERATURE ELECTRICAL SENSOR (80°C)

Zinc-plated screw with built-in sensor.
Temperature of intervention is 80°C.

SWIVELLING TWO-PIN CONNECTORS

With built-in cable glands and contact holders. Front or side output (right or left) including protection against water sprays (protection class IP 65 according to IEC 529 (on page A-19) 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. It can be taken out from the inclined side, before assembly to allow the insertion of level lines or words.

STANDARD EXECUTIONS

- **HCX-E-ST-NO**: with electrical contact normally open.
- **HCX-E-ST-NC**: with electrical contact normally closed.

MOUNTING

When fitting is not possible from the inside of the reservoir and the walls are not thick enough, the screws can be used together with Fast Mounting Kit (see page 1221).

MAXIMUM CONTINUOUS WORKING TEMPERATURE

90°C (with oil).

FEATURES AND PERFORMANCES

This column level indicator generates two electric signals: one when the oil goes down to the minimum level allowed and the other one when the temperature reaches the pre-set degrees (80°C).

TECHNICAL DATA

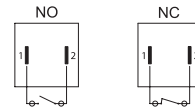
In laboratory tests carried out with mineral oil type CB68 (according to ISO 3498) at 23°C for a limited period of time, the weld stood up to 13 bar. For use with other fluids and under different pressure and temperature conditions, please contact Elesa Technical Department. In any case we suggest to verify the suitability of the product under the actual working conditions.

SPECIAL EXECUTIONS ON REQUEST

- Level indicators for use with fluids containing alcohol.
- UV resistant transparent technopolymer indicators.
- Temperature electrical sensor with pre-set temperatures different from 80°C.



ELESA Original design



Electrical features	MIN level sensor
Tension feed	AC/DC
Electric contacts	NO normally open NC normally closed
Maximum applicable voltage	NO: 150 Vac, 100 Vdc NC: 150Vac, 150 Vdc
Maximum commutable opening capacity	1 A
Maximum bearable opening capacity	NO: 1A NC: 2A
Maximum commutable power	NO: 10 Va NC: 20 Va
Cable gland	Pg 7 (for cables in sheath with Ø 6 or 7 mm)
Conductors cross-section	Max. 1.5 mm ²

Electrical features	MAX temperature sensor
Tension feed	AC/DC
Electric contacts	NO normally open NC normally closed
Voltage / Maximum applicable voltage	250 Vac - 10 A 48 Vdc - 5 A
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.	

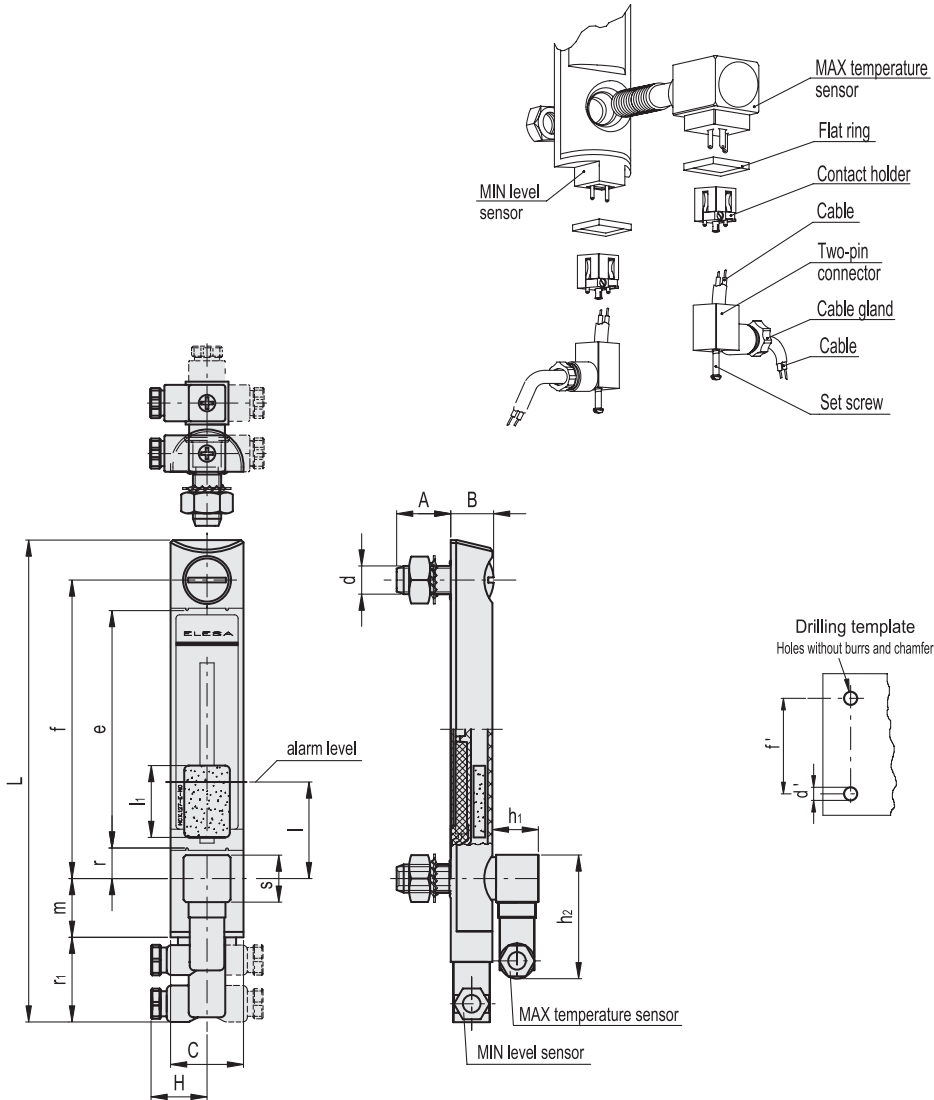
Accessories for hydraulics

FUNCTIONING OF THE ELECTRICAL SENSORS

- HCX-E-ST-NO with electrical contacts normally open.
MIN level electrical sensor: the electrical circuit is closed when the minimum level is reached.
- MAX temperature electrical sensor: the electrical circuit is closed when the pre-set temperature at 80°C is reached.
- HCX-E-ST-NC with electrical contacts normally closed.
MIN level electrical sensor: the electrical circuit is open when the minimum level is reached.
- MAX temperature electrical sensor: the electrical circuit is open when the pre-set temperature at 80°C is reached.

TWO-PIN CONNECTORS 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. Assembly by pressing the contact holders into the relative connectors in the required position.
4. Screw the connectors to the indicator and then tighten the cable glands.



Code	Description	f	d	A	B	C	H	L	e	h1	h2	l	l1	m	r	r1	s	d ¹ -0.2	f ² ±0.2	C#	△
11151	HCX.127-E-ST-NO-M12	127	M12	23	20	31.5	25	202	101	21	54	50	40	25	13	32.5	22	12.5	127	12	235
11152	HCX.127-E-ST-NC-M12	127	M12	23	20	31.5	25	202	101	21	54	50	40	25	13	32.5	22	12.5	127	12	235
11153	HCX.254-E-ST-NO-M12	254	M12	23	20	31	25	328	228	21	54	50	40	25	13	32.5	22	12.5	254	12	262
11154	HCX.254-E-ST-NC-M12	254	M12	23	20	31	25	328	228	21	54	50	40	25	13	32.5	22	12.5	254	12	262

Maximum tightening torque.