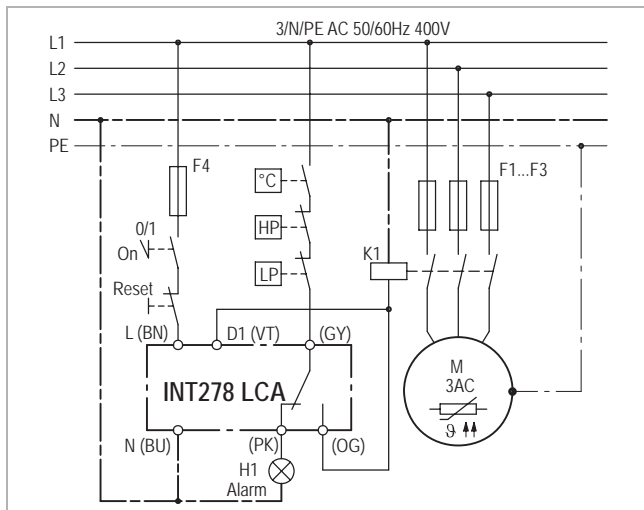


# INT278 LCA<sup>®</sup> Level monitoring

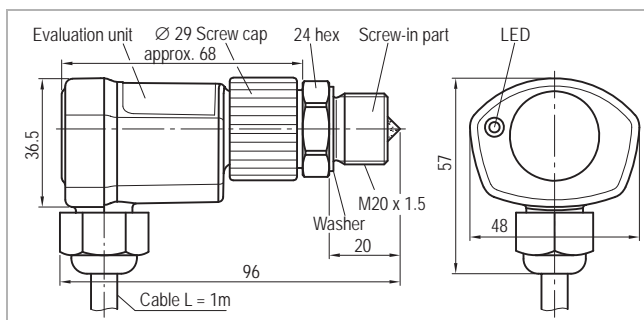
## INT278 LCA<sup>®</sup>



INT278 LCA



Wiring diagram



Dimensions in mm

### Installation instructions

**Mounting:** The maximum torque of the screw-in unit is about 75Nm and has to be ensured by a ring spanner or a socket key. The mounting for the electronics (especially the glass) needs to be checked for cleanliness. After mounting the proper sealing has to be checked. Follow the rules when working on refrigeration systems! Insert the evaluation unit in the screw-in unit and screw tight by hand with the coupling ring (torque about 10Nm). Make sure that the cable outlet points down. The electrical connection needs to be carried out according to the proposal in the wiring diagram.

**!** The mounting, maintenance and operation are to be carried out by an electrician. The valid European and national standards for connecting electrical equipment and cooling installations have to be observed. Connected sensors and connection lines that extend from the terminal box have to feature at least a basic insulation.

### Application

The optical monitoring unit INT278 LCA is used for contactless monitoring of the oil level in the reciprocating compressors. This is accomplished by a screw-in unit installed at the measuring point for optical level scanning as well as an electronic, removable evaluation unit. The evaluation unit can be replaced without opening the circuit of the monitored media.

### Functional description

The relay trips 3 seconds after connecting the supply voltage. A starting transition time is started for a defined time via input D1. After the end of this time, the level status is monitored. If no oil level is detected or if there is a fault, the relay switches off locked after a delay with corresponding LED status display. The built-in LED flashes when there is an error and lights up steadily at missing level. The potential-free, normally open contact can be looped into a safety circuit without an auxiliary relay. An interruption of the supply voltage cancels the locked state again. An installation check monitors the proper assembly.

### Flash code of the red LED:

10Hz flashing:	Internal error
	Voltage supply too low
	Not screwed into screw-in part
Continuous light:	Level missing
Off:	Level good, no fault

### Technical specifications

#### Screw-in unit

Max. medium temperature	+100°C
Operating pressure	42bar
Housing material	Steel nickel-plated
Connection thread	M20x1.5mm
Weight	Approx. 60g

#### Evaluation unit

Supply voltage	AC 50/60Hz 230V ±10% 3VA
Operating recognition (D1)	AC 50/60Hz 230V ±10%
Permitted ambient temperature	-30...+60°C

#### Delays:

- The relay trips after connecting the supply voltage (D1 active)	3s ±1s
- Level monitoring after starting transition time (D1 active)	90s ±5s (time integration)
- Relay off (level missing)	5s ±2s locked
- Relay off (error)	5s ±2s locked
- Reset by interrupting the supply voltage	>3s

Output relay	Max. AC 240V 2.5A C300 Min. AC/DC >24V >20mA
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Mechanical service life	Approx. 1 million switching cycles
Connection type	Cable 6xAWG-18 (0.75mm <sup>2</sup> ), L = 1m, colour coded

Protection class acc. to EN 60529	IP54 in built-in status
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Housing material	PA glass-fibre-reinforced
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Mounting	Union nut
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Weight	Approx. 160g
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Check base	EN 61000-6-2
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	EN 61000-6-3
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	EN 61010-1
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	Overvoltage category II
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	Pollution level 2
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Approval	UL File No. E222056
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### Order data

INT278 LCA Level monitoring	<b>52 K 478 S75</b>
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Consisting of:	
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INT278 LCA Level monitoring	<b>52 S 478 S75</b>
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Screw-in unit M20x1.5 short	<b>02 K 465 S21</b>
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Technical changes reserved