

Level Sensors Amplifier, Conductive Type ELC (Charging), ELD (Discharging)

CARLO GAVAZZI



- Level control for conductive liquids
- Max./min. control of charging (ELC) or discharging (ELD)
- Adjustable sensitivity: 10 - 100 k Ω
- Output: 5 A SPDT
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 22.5 mm housing
- LED-indication for relay and power supply ON
- AC power supply

Product Description

Level control relay with max./min. control of charging or discharging. The sensitivity is adjustable on ab-

solute scale from 10 to 100 k Ω . When using only the max. level sensor, single level control is possible.

Ordering Key

ELC C 230 100K

Housing _____
 Function _____
 Type _____
 Output _____
 Power supply _____
 Measuring range _____

Type Selection

Mounting	Output	Type	Supply: 24 VAC	Supply: 115 VAC	Supply: 230 VAC
For DIN-rail	SPDT SPDT	Charge (Filling) Discharge (Emptying)	ELC C 024 100K ELD C 024 100K	ELC C 115 100K ELD C 115 100K	ELC C 230 100K ELD C 230 100K

Input Specifications

Input through Y1 & Y2 through Y1 & Y3	Max. level Min. level
Range	10 - 100 k Ω
Reaction time	≤ 3 s
Repeat accuracy	≤ 20 k Ω (typ. 5 k Ω)
Sensor voltage	≤ 25 VAC/250 μ A (rms)

Supply Specifications

Power supply Rated operational volt. through term. A1 & A2	Overvoltage cat. III (IEC 60664) 24 VAC $\pm 15\%$ 115 VAC $\pm 15\%$ 230 VAC $\pm 15\%$
Frequency	50/60 Hz, -5/+5 Hz
Voltage interruption	≤ 40 ms
Dielectric voltage	≥ 2 kVAC (rms)
Rated impulse withstand volt.	4 kV (1.2/50 μ s)
Rated operational power	2.5 VA

Output Specifications

Output	SPDT relay
Rated insulation voltage	250 VAC (contact/elect.)
Contact ratings (AgCdO)	
Resistive loads	AC 1 5 A/250 VAC DC 1 5 A/24 VDC
Small inductive loads	AC 15 2 A/250 VAC DC 13 3 A/24 VDC
Mechanical life	$\geq 40 \times 10^6$ operations
Electrical life	$\geq 10^5$ operations (at max. load)
Operating frequency	≤ 7200 operations/h

ELC/ELD



General Specifications

Power ON delay	≤ 3 s
Accuracy	
Max. level	-20/+50%
Min. level	±50%
Drift	
Temperature	≤ 1 kΩ/°C
Supply voltage	≤ 0.5%/V
Indication for	
Power supply ON	LED, green
Output ON	LED, yellow
Environment	
Degree of protection	IP 20
Pollution degree	3
Operating temperature	-20 to +50°C (-4 to +122°F)
Storage temperature	-50 to +85°C (-58 to +185°F)
Dimensions	100x22.5x91.7 mm (LxWxH)
Weight	170 g
Approvals	UL, CSA (only ELC-type)
CE-marking	Yes

Mode of Operation

ELC

Relay for the control of charging of conductive liquids. The relay operates when the level drops below the min. level sensor. The relay releases if the level rises above the max. level sensor. Single level control is obtained by connecting the max. level sensor only.

ELD

Relay for the control of discharging of conductive liquids. The relay operates when the level rises above the max. level sensor. The relay releases when the level drops below the min. level sensor. Single level control is obtained by connecting the max. level sensor only.

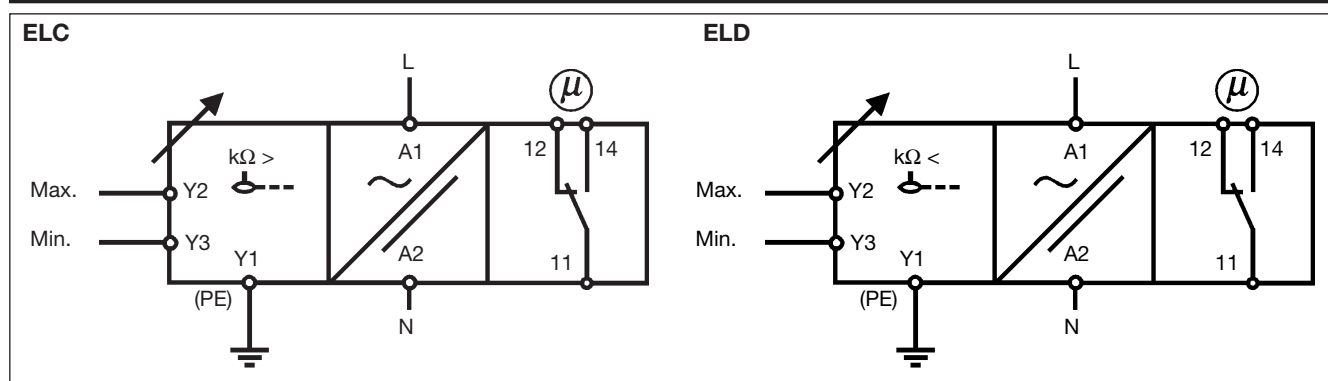
Level Setting

Setting of level on absolute scale, 10-100 kΩ.

Accessories

Conductive level probes: VH, VPC, VPP, VN, VNI, VNY, VNYI, VT, VTI, VS.

Wiring Diagrams



Operation Diagrams

