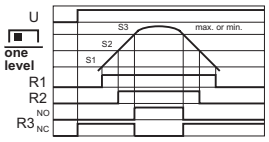
TCL-3

overview

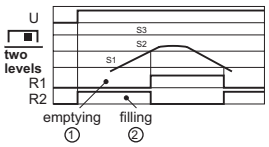
- **monitors two or three levels of conductive liquids**
- **3 x N.O. output max. 6A**
- **programmable filling or emptying mode**
- **programmable sensitivity 250 Ohm - 100 kOhm or 50 kOhm - 1 MOhm**
- **LED indicators for power-supply and all three relays**
- **45mm DIN rail mount housing**

Function

Control relay to monitor the level of conductive liquids
The TCL controls the level of conductive liquids in a conductive or non-conductive container and works by passing a low voltage through the liquid from suitable probes to an earth return which can either be the container or another probe.



① Output relay, function emptying
② Output relay, function filling



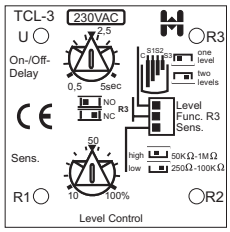
Single point sensing:
The relays R1, R2 and R3 change over each time the liquid contacts C and S1, C and S2 or C and S3. DIP-switch Function R3 inverts relay 3.

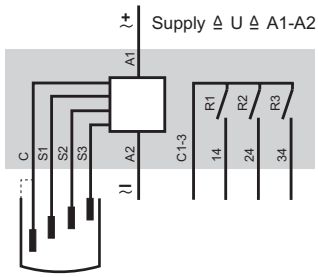
Two point sensing:
The relay changes over each time the liquid contacts C, S1 and S2. The relay resets when the liquid level returns below S1.

R1... emptying
R2... filling

S3 can be used to monitor limits.

Note: Do not make a connection between A2 and C when using TCL without galvanic isolation. (DC supply versions) DC-DC isolation on request





specification

supply voltage variation	nominal voltage +10% / -20%
frequency range	48 - 63 Hz
duty cycle	100%
delay time	0,5 - 5s
reset time	0,5 - 5s
max. measuring voltage	± 5,3V
max. measuring current	~ 5mA
probes	cable length max. 100m
output relay specification	max. 6A 230V~
Ue/Ie AC-15	120V/4A 240V/3A
Ue/Ie DC-13	24V/2A
expected life time	SPNO
mechanical	2 x 10^7 operations
electrical	1 x 10^5 operations
screws	pozidrive 1
screw tightening torque	0,6...0,8Nm
operating conditions	-20 to +60 °C non condensing

* EN 60947-5-1 VDE 0435

ordering information

part no	supply		output	sup. galv. iso*	cULus	housing types
TCL3 230Vac	230V~	2,5VA	3 x NO	yes	-	C
TCL3 115Vac	115V~	2,5VA	3 x NO	yes	-	C
TCL3 24Vac	24V~	2,5VA	3 x NO	yes	-	C
TCL3 24Vdc	24V=	2W	3 x NO	yes	-	C

* The measurement input is galvanically isolated from the power supply

liquid level control, 3 levels

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