



TCV-P

overview

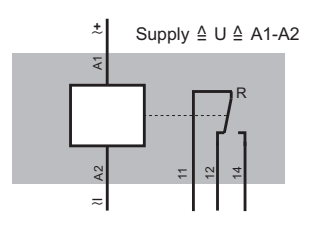
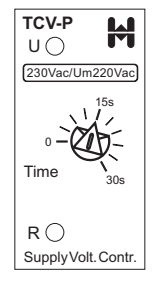
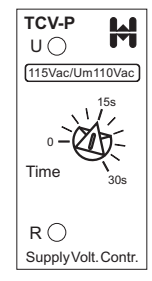
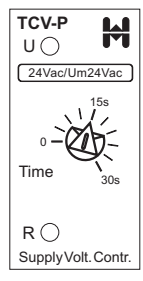
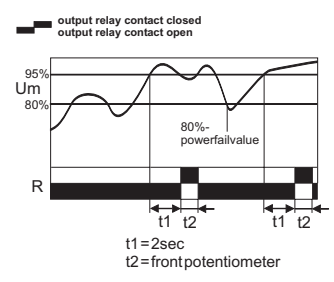


- ◆ supply voltage 'brown-out' monitor for 24V~, 115V~ and 230V~ supplies
- ◆ SPCO output for post brown-out control panel reset
- ◆ LED indicators for power supply and relay
- ◆ 22.5mm DIN rail mount housing

Function

With the introduction of modern multi-voltage electronic devices a common problem exists under supply voltage dip ('brown-out') conditions where electrical devices such as Contactors and Relays can drop out, but multi-voltage electronic devices remain energised, thus the control panel switch sequence is lost. The TCV-P monitors the supply voltage to detect a supply 'brown-out' ($< V_n \times 0.8$) or supply interruption.

When the supply is first established and the supply voltage value increases above 95% of the nominal value (U_n), time t_1 (fixed 2 seconds) starts to run to 'prove' the supply. When t_1 expires the output relay contact closes for time t_2 . Time t_2 can be selected with the potentiometer on the front plate (0-30sec). If the supply voltage decreases below 80% of the nominal value (U_n - 'brown-out' value) or there is a supply voltage interruption of 1 cycle or more the relay 'remembers' this event and when the supply returns above 95% for at least 2 seconds (t_1) the output relay pulses On for the duration of timer t_2 . This pulse is used to initiate a reset of the control panel.



specification

supply voltage variation	nominal voltage +10% / -30%
frequency range	48 - 63 Hz
duty cycle	100%
repeat accuracy	< 1% of the selected range
output relay spec	max. 12A 250V~
Ue/Ie AC-15	120V/2,5A 240V/2,5A
Ue/Ie DC-13	24V/2A
expected life time	DPCO SPCO
mechanical	2 x 10 ⁶ resp. 1 x 10 ⁷ operations
electrical	1 x 10 ⁵ resp. 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*	c _{UL}	housing types
TCV-P 230Vac/Um220Vac	230V~ 6VA	DPCO	yes	-	A
TCV-P 115Vac/Um110Vac	115V~ 6VA	DPCO	yes	-	A
TCV-P 24Vac/Um 24Vac	24V~ 6VA	DPCO	yes	-	A

* The measurement input is galvanic isolated from the power supply