

VOLTAGE CONTROL RELAYS, WITH SEPARATE AUXILIARY SUPPLY



TYPE: YWRU, 11WRU (spco)

FEATURES

- Din rail or 11 pin plug in
- Suitable for both AC & DC voltage control
- Selectable auto or manual reset
- Three selectable control ranges from:
0.1 to 400VDC
0.1 to 283VAC
- Special high voltage versions 700VDC, 1000VDC, 1500VDC
- Dual LED indication

DESCRIPTION & MODE OF OPERATION

Voltage control relays suitable for both AC and DC voltage control, available in both din rail and 11 pin plug in. The standard units have three selectable via terminal taps voltage ranges from 0.1 to 400VDC (0.1 to 283VAC). Also available only in the din rail housing are dedicated range "high voltage" control units which are most suitable for "railway traction voltage" monitoring.

"Auto Reset" without latching mode. This mode is determined by EC & B1 or pin 9 & 11 left open. The output relay is energised when the monitored voltage rises above the level selected via the front potentiometer. The output relay will de-energise when the voltage falls back below the level selected less the set hysteresis adjustable 5 to 50% set via a second potentiometer. If the separate auxiliary supply is lost at any time the relay will also de-energise.

"Manual Reset" latching mode. This mode is determined by a wired link between terminals EC & B1 or pins 9 & 11. The output relay energises when the monitored voltage rises above the level selected via the front potentiometer. Once energised the output relay will remain latched even if the monitored voltage falls below the set level less any selected hysteresis. Resetting is achieved by opening the link between terminals EC & B1 or pins 9 & 11 or by removing the auxiliary supply. If whilst resetting the monitored voltage is still above the set level a reset will not be achieved. It is normally preferable in the latching mode to have the adjustable hysteresis set at minimum.

OTHER APPLICATION NOTES

DC Auxiliary Supply Versions

DC auxiliary supply versions are as standard non isolated. For these versions the supply and the measured current must be isolated from each other and must not exceed 50V DC. On request at extra cost isolated versions can be manufactured utilising internally a DC to DC converter.



SPECIFICATIONS

Supply & Measuring

Nominal supply tolerance:	± 15%
Isolation AC versions:	Via transformer
Isolation DC versions:	No as standard or:- Yes via optional internal DC to DC converter
Power consumption:	3VA max
Hysteresis:	Adjustable 5-50% of Ue
Repeat accuracy:	± 2% at constant ambient ± 5% across temperature range
Response time:	100 mSec on make 200mSec on break

Relay output

Output contacts:	SPCO 10Amps/250V AC1
Mechanical life:	30 Million ops
Electrical life:	200K ops at max rated load

General

Operating temperature:	-20°C to +65°C
Storage temperature:	-20°C to +65°C
Max cable size:	4mm
CE marked	Yes
In accordance with:	EN61000-6-3: 2007 EN61010-1: 2002
Housing material	Polycarbonate, Auto extinguishable to UL 94 V-0

Control range Ue	Input DC Volts	AC Volts	Resistance	Permanent Over Volts	Peak Volts (10mSec)
0.1 to 10V	0.1 to 7.07V		10 KOhms	15VDC	20VDC
0.4 to 40V	0.3 to 28.3V		40 KOhms	150VDC	250VDC
4 to 400V	2.9 to 283V		400 KOhms	500VDC	1500VDC
7-700V	5 to 495V		710 KOhms	1000VDC	2100VDC
10-1000V	7 to 707V		1.01 MOhms	1750VDC	3500VDC
15-1500V	11 to 1060V		1.51 MOhms	1750VDC	3500VDC

ORDERING INFORMATION

TYPE	COIL VOLTAGE		
YWRU (Din rail)	440VAC	230VAC	*48VDC
11WRU (11 pin plug in)	415VAC	110VAC	*24VDC
YWRU/700V (Din rail)	400VAC	48VAC	
YWRU/1000V (Din rail)	380VAC	24VAC	
YWRU/1500V (Din rail)			

* No isolation on DC versions as standard, on request at extra cost isolated versions are available

