PRODUCT GROUP

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 maual 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.

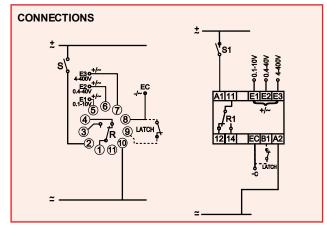
"Auto Reset" without latching mode. This mode is determined by EC & B1 or pin 9 & 11 left open. The output relay is energised when the monitored voltage rises above the level selected via the front potentiometer. The output relay will de-energise when the voltage falls back below the level selected less 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: Isolation AC versions: Via transformer Isolation DC versions: No as standard or:-

Yes via optional internal DC to DC converter

Power consumption: 3VA max

Adjustable 5-50% of Ue Hysteresis: ±2% at constant ambient Repeat accuracy: ±5% across temperature range

Response time: 100 mSec on make 200mSec on break

Relay output

SPC0 10Amps/250V AC1 Output contacts: Mechanical life: 30 Million ops 200K ops at max rated load

Electrical life:

General Operating temperature: -20° C to $+65^{\circ}$ C -20°C to $+65^{\circ}\text{C}$ Storage temperature: Max cable size: 4mm CF marked Yes

In accordance with: EN61000-6-3: 2007

EN61010-1: 2002

Housing material Polycarbonate, Auto extinguishable

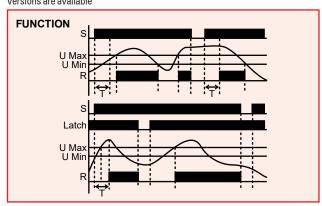
to UL 94 V-0

Control range Ue		Input	Permanent	Peak
DC Volts	AC Volts	Resistance	Over Volts	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 M0hms	1750VDC	3500VDC
15-1500V	11 to 1060V	1.51 M0hms	1750VDC	3500VDC

ORDERING INFORMATION

<u>TYPE</u>	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



Tel: 0161 626 5316 / 01276 25858