Time relays *Series* **VOX R2X/R3V**

- ❑ 14 switchable time-ranges 125 ms-30h
- ❑ remote potentiometer terminal
- ❑ two changeover contacts
- ❑ 19 supply voltages selected via tele plug-in power supplies
- ❑ potential-free control contact

Technical Data:

Supply voltages:
(can be selected with plug-in power supply)
See plug-in mains units below
Nominal consumption:
2X: 12 ... 440 V AC / 2 VA
24 V AC/DC / 1 VA, 36 V AC/DC / 1,5 VA
42 V AC/DC / 1,5 VA, 48 V AC/DC / 1,7 VA
6 ... 110 V DC / 2 W
3V: 12 ... 440 V AC / 4 VA
24 V AC/DC / 2 VA, 36 V AC/DC / 3 VA
42 V AC/DC / 3,5 VA, 48 V AC/DC / 4 VA
6 ... 220 V DC / 3 W
Permissible voltage range 0.85 to 1.1 U_N
Frequency range48-63 Hz
Duty cycle 100% IEC class 1c
Environmental conditions:
Permissible ambient temperature -25°C to +55°C
Class of application HVF to DIN 40040
Accuracy:
Repetition accuracy under constant condition
(as % of full range) ≤ 0.5%
Effect of voltage in the range of 0.85 to 1.1 U_N ≤0.5%
Accuracy of adjustment ≤ 5%
Effect of temperature ≤ 0.1% / °C
Reset time ~ 100ms max.
Mechanical data//specifications:
Enclosure in self-extinguishing plastic with plug-in power supply
Type of protection IP 40
VDE 0435: Test voltage 2000 VAC
VDE 0110: Group B 380 V AC, Group C 250 V AC
Dimensions and standards:
2X: 75 x 22,5 x 98 mm (h x b x d)
3V: 75 x 35 x 109 mm (h x b x d)
X: Mounting on DIN rails to DIN 46277/3 (European standard EN 50 022)
Connection via terminals up to 4 mm^2, with protection against accidental contact. Type of protection IP20 Contact protection to VDE 0106 and VBG 4
Terminal arrangement and connection markings to DIN 46 199
V: Mounting and connection via 11-pin screw or soldered plug.
Fixing via retaining clip BU 351. Pin arrangement and connection markings to IEC 67-1-18a
Output stage:
2-pole changeover

Max. switching voltage:	2X: 250 V AC	3V: 380 V AC, 250 V DC
Continuous current:	2X: max. 5A	3V: max. 8A
Switching capacity:	2X:1000 VA	3V: 1500 VA

Contact life: 230 V AC, 5 A resistive ≥ 3.10^5 switching operations.
Mechanical life > 30.10^6 switching operations.

Plug-in power supply modules for model 2X	Plug-in power supply modules for models 3V and 4X
4 power supplies NT2-...V AC/DC for alternating and direct voltage: 24 V (1 VA), 36 V (1,5 VA), 42 V (1,5 VA), 48 V (1,7 VA)	**4 power supplies NT3-... V AC/DC for alternating and direct voltage:** 24 V (2 VA), 36 V (3 VA), 42 V (3,5 VA), 48 V (4 VA)
9 transformers TR2-...V AC for alternating voltage 12V, 24V, 42V, 48V, 110V, 127V, 230V, 400V, 440V	**9 transformers TR3-...V AC for alternating voltage** 12V, 24V, 42V, 48V, 110V, 127V, 230V, 400V, 440V
4 switched power supplies SN2-...V DC for direct voltage residual ripple 10% permissible voltage range in brackets 6V (4,8-7,8V), 12V (8,5-16V), 60V (40-85V), 110V (75-160V)	**6 switched power supplies SN3-...V DC for direct voltage** max. residual ripple 10% permissible voltage range in brackets 6 V (5,1 - 6,6 V), 12 V (10,2 - 15 V), 60 V (40 - 85 V), 110 V (75 - 145 V) 125 V (85 - 165 V), 220 V (45 -285 V)

Types:

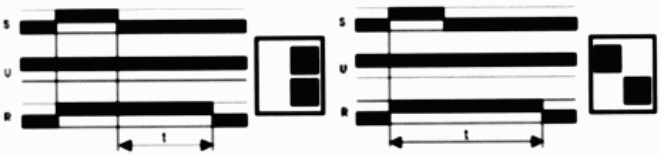
R2X
R3V

Accessories:

Plug-in base TVE12	Remote potentiometer R2
Retaining clip BU 351	Fascia suround FR 35
Mounting plate MP	

R off-delay eW(S)single shot leading edge

Function diagram and Function selection:

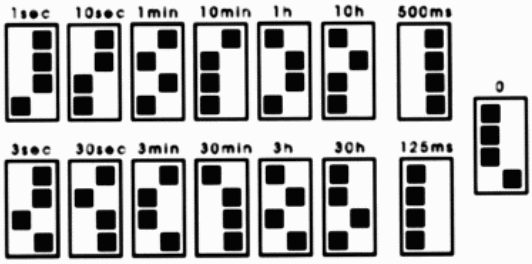


Description of function:

Input voltage U must be applied continuously to the unit. When control contact S is closed, output relay R energises immediately. If control contact S is opened, set time t begins to run.
When time t has elapsed, output relay R returns to the off-position. If control contact S is closed again before time t has elapsed, the time already elapsed is cancelled out, and it re-starts from zero when S is opened again.

(eW(S)) Input voltage U must be applied continuously to the unit. When control contact S is closed, output relay R energises immediately and set time t begins to run.
When time t has elapsed, output relay R returns to the off-position.
Control contact S can be switched at will during time t. Another cycle can only be started when the run-down is completed. Thus this function can be used to lengthen the pulse.
If the input voltage U is removed from the unit before time t has elapsed, the relay is released and the time already elapsed is cancelled and re-starts from zero on the next cycle.

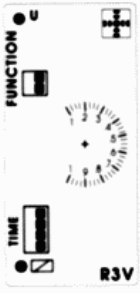
Selection of time ranges:



Front view:

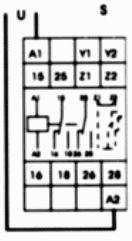
R2X

R3V

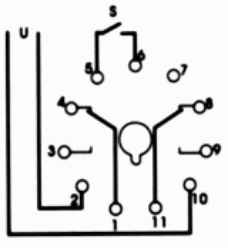


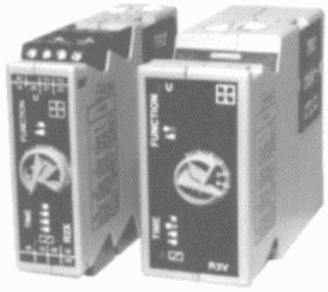
Connections:

R2X



R3V





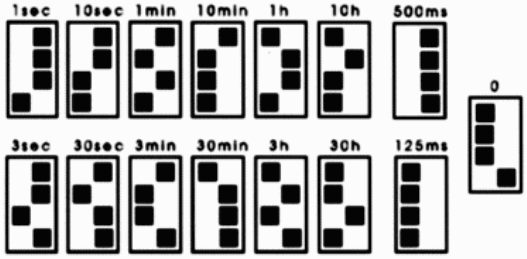
eW(U) single shot leading edge

Function diagram and function selection:

Description of function:

When input voltage U is applied output relay R energises immediately and set time t begins to run.
When time t has elapsed, output relay R returns to the off-position. The input voltage U must be applied for longer than the set time t, for the function to be fully executed.
This function can be used for pulse shortening. If the input voltage U is removed from the unit before time t has elapsed, the relay is released and the time already elapsed is cancelled and re-starts from zero on the next cycle.

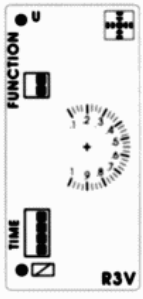
Selection of time ranges:



Front view:

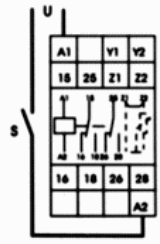
R2X

R3V

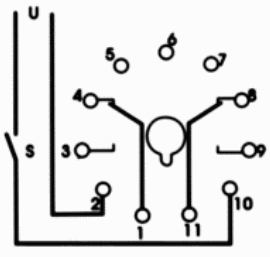


Connections:

R2X

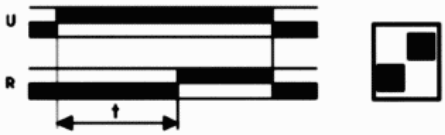


R3V



E on-delay

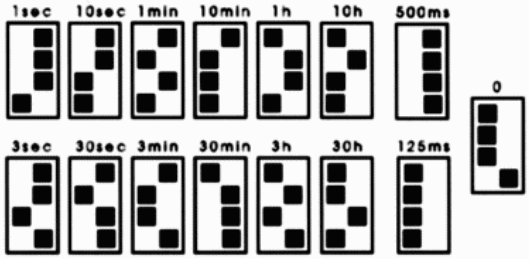
Function diagram and function selection:



Description of function:

When input voltage U is applied, set time t begins to run. When time t has elapsed, the output relay R energises and remains in the operating position until the input voltage U is removed from the unit.
If the input voltage U is removed from the unit before time t has elapsed, the time already elapsed is cancelled and re-starts from zero on the next cycle.

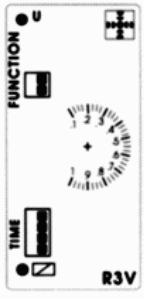
Selection of time ranges:



Front view:

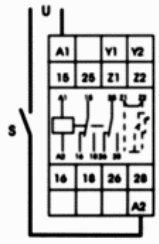
R2X

R3V



Connections:

R2X



R3V