COMMUTATION DEVICE

☐ **UK–VK**	Two-Channel NO Contacts	☐ **UK–VK/01**	NO Contact
☐ **UK–VK/02**	Two-Channel CO Contacts	☐ **UK–VK/03**	CO Contact
☐ **UK–VK/04**	Two-Channel CO Contacts	☐ **UK–VK/05**	CO Contact

INSTRUCTION MANUAL

GENERAL

1.1 Description

All commutation devices of UK-VK series are designed to be used in fire and intruder alarm systems for switching on/off the system devices as well as for switching such executive devices as lamps, sirens, beacons, electromagnetic locks, discharge circuits in automatic fire extinguishing systems etc. to 220 V ac or 24 V dc power supplies by opening and closing relay contacts.

Following are the characteristics of the controlled executive relays:

Model	Number of Executive Relays	Relay Contact
UK–VK	2	Normally-open, connect the circuit when the relay is activated
UK–VK/01	1	Normally-open, connect the circuit when the relay is activated
UK–VK/02	2	Normally-closed, change-over contact
UK–VK/03	1	Normally-closed, change-over contact
UK–VK/04	2	Normally-closed, change-over contact
UK–VK/05	1	Normally-closed, change-over contact

The device is designed for 24/7 operation.

1.2 Specifications

1) The number of commutation channels:

2 for UK–VK, UK–VK/02, UK–VK/04

1 for UK–VK/01, UK–VK/03, UK–VK/05

2) The characteristics of executive relays:

The number of executive relays:

2 for UK–VK, UK–VK/02, UK–VK/04;

1 for UK–VK/01, UK–VK/03, UK–VK/05.

Model	Maximum Switching Voltage for Each Relay, V		Maximum Switching Current for Each Relay, A	
	ac	dc	ac	dc
UK–VK	250	30	5*	5*
UK–VK/01	250	30	5	5
UK–VK/02	250	30	10*	10*
UK–VK/03	250	30	10	10
UK–VK/04	250	30	10*	10*
UK–VK/05	250	30	10	10

3) The characteristics of a control signal:

Model	Input Voltage, V		Input Current, A	
	min	max	min	max
UK–VK	11,5	14	0,036*	0,053*
UK–VK/01	11,5	14	0,036	0,053
UK–VK/02	11,5	14	0,036*	0,053*
UK–VK/03	11,5	14	0,036	0,053
UK–VK/04	22,1	27,1	0,017*	0,028*
UK–VK/05	22,1	27,1	0,017	0,028

* This value is for a single commutation channel (a single relay).

4) Operating Temperatures: – 30 to +50°C

5) Relative Humidity: 93 % at +40°C

6) Overall Dimensions: 75 mm x 75 mm x 46 mm

7) Weight: 0.1 kg max

1.3 Standard Delivery

Find the following unpacking UK-VK:

- Commutation Device – 1 pc.
- This Instruction Manual – 1 pc.
- Woodscrews 1-3x25.016 – 3 pcs.
- Package – 1 pc.

2 OPERATION

2.1 Connection Diagram.

Figure 1 and Figure 2 show connection diagram for testing the commutation switch.

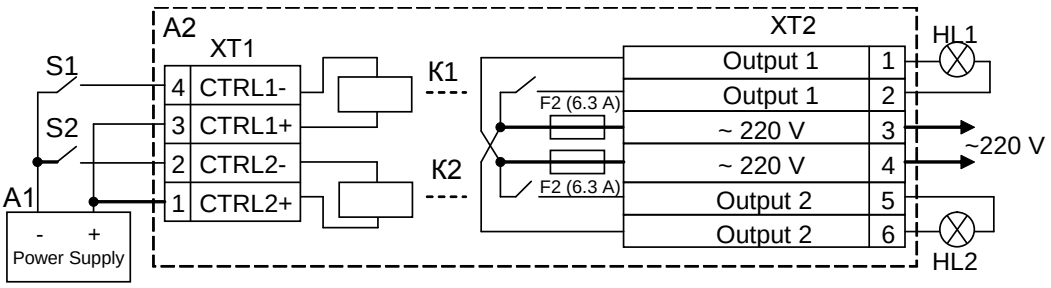


Figure 1. Connection Diagram for UK-VK and UK-VK/01

A1: Power supply 12 V, 0.5 A;
A2: Commutation Device UK-VK or UK-VK /01;
S1, S2: Switch buttons;
HL1, HL2: Lamps

Note: Model UK-VK/01 has only the relay K1

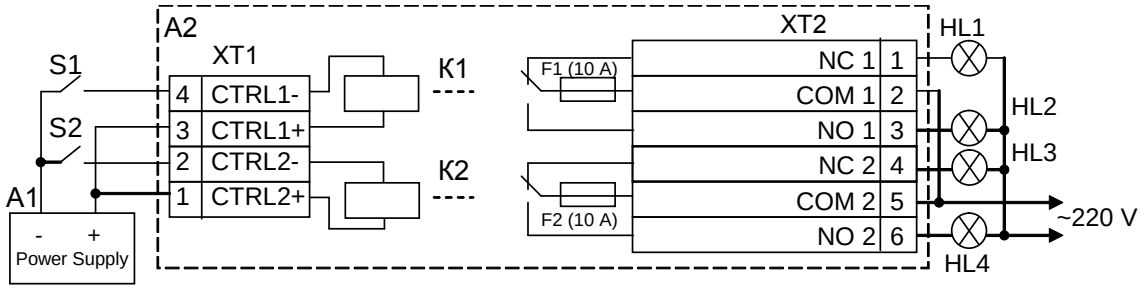
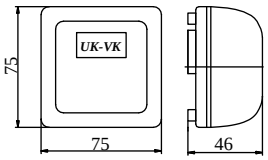


Figure 2. Connection Diagram for UK-VK/02, UK-VK/03, UK-VK/04, UK-VK/05

A1: Power supply 12 V, 0.5 A (for models UK-VK/04 and UK-VK/05 – 24 V, 0.5A);
A2: Commutation Device UK-VK/02; UK-VK/03, UK-VK/04, or UK-VK/05;
S1, S2: Switch buttons;
HL1, HL2, HL3, HL4: Lamps

Note: Models UK-VK/03 and UK-VK/05 each have only the relay K1



2.2 Mounting. Figure 3 shows the drilling pattern to attach the device.

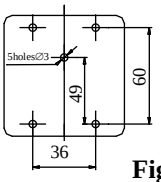


Figure 3

2.3 Testing UK-VK and UK-VK/01 Commutation Switches

Connect the device as shown in Figure 1. HL1 and HL2 lamps shall be turned off. Press and hold S1 and S2 buttons. HL1 and HL2 lamps shall be turned on.

2.4 Testing UK-VK/02, UK-VK/03, UK-VK/04, UK-VK/05 Commutation Switches

Connect the device as shown in Figure 2. HL1 and HL3 shall be turned on while HL2 and HL4 lamps shall be turned off. Press and hold S1 and S2 buttons. HL1 and HL3 lamps shall stop lighting but HL2 and HL4 lamps shall be turned on.

2.5 After testing connect the device to controlling outputs of control and indicating equipment, load circuits and load powering voltage. The device is ready to work.

2.6 Maintenance. Test the device regularly as discussed in Section 2.3 or 2.4.