Technical information

Electric-Drive-Piston ETK 1.x

Information

Follow all instructions. Incorrect mounting can result in serious injuries!

Disregarding this information, non-compliance with the technical data, as well as opening the enclosure will invalidate our warranty!

A minimum distance of 20 cm must be maintained between people with pacemakers or defibrillators and the ETK.

Description of function

The ETK [1] is used to destroy a JOB G5-RWA thermal bulb [2] in our thermal valves with the suffix “-H” (e.g. TAVE 4-H, TAVZ 4-H).

The ETK and the thermal valve are compatible if, in the ready-to-use state (tensioned), the gap [b] between the thermal bulb and the tappet is 7.5±0.5 mm.

Applying the operating voltage to the ETK triggers the tappet [3] held by a magnet and executes a stroke [a] of 10 mm.

After triggering, the tappet can be pushed back into its starting position, thereby tensioning the internal spring.

Mounting / technical details

Before mounting check the scope of supply, check for transport damage and perform the commissioning.

The ETK standard version is screwed into the corresponding bore of the thermal valve via the M16x1.5 thread until the end.

The variant ETK 1.2 for TA4 is attached to the thermal valve using 2x M4 screws.

The ETK [1] is connected to the control centre via the connection cable (white + / black -) [4].

Dimensioning and connection of the supply cable must be performed by a qualified electrician. Observe the technical data.

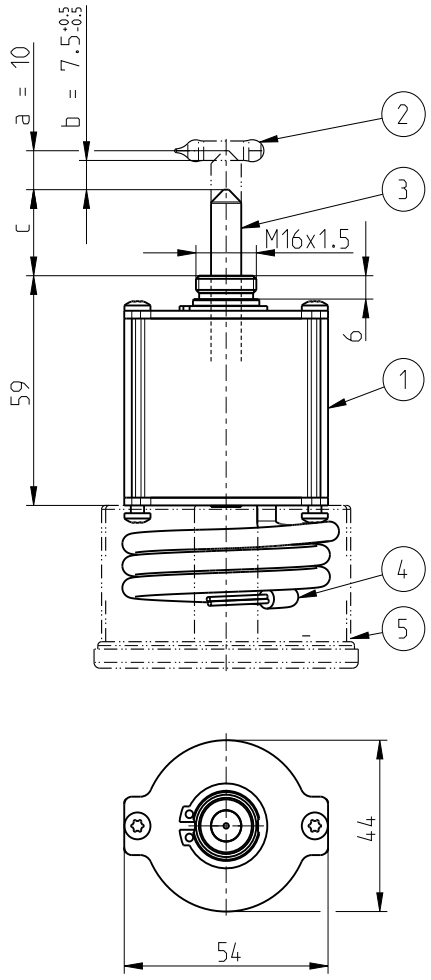

Figure 1: dimensional drawing

Order description / Scope of supply

ETK 1.0 …	excluding junction box [5]
ETK 1.1 ...	including junction box [5]
ETK 1.x for TA2	dimension „c“ = 11.8 mm
ETK 1.x for TA3	dimension „c“ = -1 mm
ETK 1.x for TA4	dimension „c“ = 22.1 mm
ETK 1.x for TAJ	dimension „c“ = 6.6 mm
ETK 1.2 for TA4	see picture 2

The ETK is suitable for connection to K+G / Grasl – control centres. When controlled by third-party control centres or other power supplies, check them for compatibility.

Commissioning

Before mounting check the scope of supply, check for transport damage and perform the commissioning.

1. Disconnect the power supply to ETK.

2. Manually return the tappet to its end stop.

3. The ETK is now ready for operation and can be connected to the control centre.

(This process must be repeated after each use.)

During a test activation, the glass shards must be collected (maintenance device available on request).

Maintenance

When working on the ETK, unintentional remote triggering must be prevented by disconnecting the supply lines.

The following should be checked during annual maintenance:

- Gap measurement [b]: Check between tappet and thermal bulb (7.5±0.5 mm)
- Check the ETK for visible damage or corrosion.
- With the exception of the thermal bulb, no foreign objects may be present in the tappet stroke area [a].
- Check that the mounting and wiring are secure.

In case of defects in current-carrying components, the ETK must be completely replaced.

Disposal

The product consists of electronic components (wires, electromagnet), steel (screws, permanent magnet), non-ferrous metals (aluminum), and plastic. Disposal must comply with all applicable national regulations and laws for these material groups.

Technical data

Operating voltage	24VDC (+15%/-10%)
Max. duty cycle	100% (at 20°C)
Power consumption	3,5 W
Push force	58 N
Tappet stroke	10 mm
Ambient temperature	-25°C to 60°C (up to 95°C for 2 hours)
Housing protection class	IP40
Electromagnet protection class	IP65
Cable end protection class	IP00
Connection cable length	500 mm
Weight	0,32kg

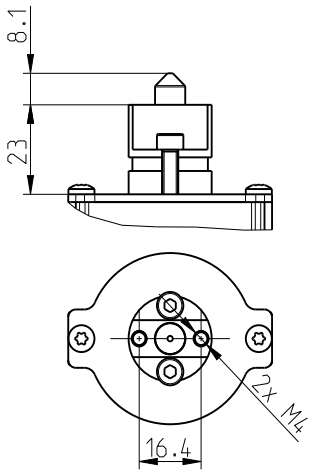

Figure 2: ETK 1.2 for TA4 (incl. 2x M4x6)