

Operating instructions for ex-coil K10 ex-...

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General safety instructions:

This instruction is meant for experienced electro-experts acc. to BetrSichV only. The operation of the coil is only allowed as long as the coils is not damaged and in proper operating conditions. Please observe the accident prevention regulations! The EN 60079-0 requirements (electrical equipment for use in areas with combustible dust ... selection, set up and maintenance) e.g. with regards to dust areas and temperatures are to be fulfilled.

Typ: K10 Ex- ...

Technical data:




This applies for all nominal voltages:

type of voltage: universal current polarity: optional
battery assembly: not allowed single assembly: yes
temperature class: T4

For continuous operation ambient temperature: -40 up to +40 °C

For continuous operation media temperature: -40 up to: +40 °C

Type of protection

equipment certification:  II 2 G Ex mb IIC T4 Gb
equipment certification:  II 2 D Ex mb IIIC T130°C Db
EG-prototype test number: PTB 03 ATEX 2045 X
protection: IP 68 (EN 60529)
CE certification:  0102

A higher maximum ambient temperature is permissible for intermitten operation depending on the ON-duration specified below:

ON-duration max. 600 s, energized duty rating ED max. 50%	-40 bis +60°C
ON-duration max. 400 s, energized duty rating ED max. 50%	-40 bis +70°C
ON-duration max. 600 s, energized duty rating ED max. 33%	-40 bis +70°C
ON-duration max. 400 s, energized duty rating ED max. 33%	-40 bis +80°C

Nominal voltage and electrical data

type	nominal voltage	pick up voltage	power consumption
K10 Ex-230 V	233,2 V	0,13 A	25,6 W
K10 Ex-200 V	211,0 V	0,15 A	25,9 W
K10 Ex-125 V	126,3 V	0,24 A	24,8 W
K10 Ex-110 V	117,5 V	0,26 A	25,5 W
K10 Ex-98 V	104,3 V	0,29 A	24,5 W
K10 Ex-48 V	50,8 V	0,58 A	24,5 W
K10 Ex-24 V	24,8 V	1,19 A	22,4 W
K10 Ex-20 V	19,6 V	1,35 A	22,2 W
K10 Ex-20 V-B	20,7 V	1,30 A	22,6 W

Description:

The coil is the actuator of the valve. The valve will be supplied assembled with the coil installed.

Special conditions for installation:

Each coil has to be protected by a fuse that corresponds to its rated current (max. $3 \times I_B$ nach DIN 41571 oder IEC 127) or an engine-protection-switchgear with short circuit and thermal fast-acting release (adjusted to rated current). The "safety rated current" should be the same or higher than the indicated nominal voltage of the coil. The switch-off power capacity of the "Fuse Link" should be the same or higher than the max. expected short-circuit-voltage on the installation place (usually 1500 A).

Installation:

In addition to the general approved technical rules the equipment-safety-law as well as the regulation of BetrSichV have to be considered. The electrical connection is a flying lead which is connected and casted bond with the coil. If the flying leads are connected outside of the explosion proof area a comon electrical connection can be used. If the flying leads will be installed within the explosion proof area, a electrical connection is only allowed with certified equipment e. g. ex-e-terminals. All connection wires and cables are to be protected from mechanical damage. If the potential balance do not occur by valve installation the balance has to be connected with the outer terminal on the box.

Operation

The correct installation of the valve, the connection and the supply voltage must be checked before commissioning.

Repair:

In case of a failure the complete valve has to be sent to the manufacturer for repair. Spare parts for repairs can only be supplied after consultation with the manufacturer.