

Operating instructions for ex-coil K25 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 50281-1-2 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: K25 Ex- ...

technical data:

this applies for all nominal voltages:

type of voltage: direct current (suit up to 20 % ripple)
 and two-way rectified alternating current (suit up to 48 % ripple)
 polarity: optional
 temperature class: T4
 single assembly: yes
 battery assembly: not allowed

type of protection

equipment certification: II 2 G EEx em II T4 und II 2D IP 65 T130°C
 EG-prototype test number: PTB 03 ATEX 2022 X
 protection: IP 65 (EN 60529)
 CE certification: CE 0102

nominal voltage and electrical data

type	nominal voltage	pick up voltage	power consumption	type of voltage	max. allowed temperature	
					ambient	media
K25 Ex-230 V	287 V	0,190 A	39,3 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-230 V	287 V	0,170 A	34,2 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-230	260 V	0,190 A	34,4 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-230	260 V	0,170 A	30,0 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-220 V	256 V	0,203 A	37,8 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-220 V	256 V	0,181 A	33,0 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-220	232 V	0,203 A	33,2 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-220	232 V	0,181 A	29,0 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-200 V	244 V	0,215 A	38,6 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-200 V	244 V	0,192 A	33,0 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-200	221 V	0,215 A	33,9 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-200	221 V	0,192 A	29,0 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-110 V	124 V	0,408 A	38,4 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-110 V	124 V	0,364 A	32,0 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-110	112 V	0,408 A	33,7 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-110	112 V	0,364 A	28,1 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-98 V	113 V	0,472 A	38,4 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-98 V	113 V	0,408 A	33,5 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-98 V	102 V	0,472 A	33,7 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-98 V	102 V	0,408 A	29,4 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-48 V	56 V	0,950 A	39,5 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-48 V	56 V	0,780 A	31,5 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-48 V	51 V	0,950 A	34,5 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-48 V	51 V	0,780 A	27,6 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-24 V	28 V	1,790 A	36,5 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-24 V	28 V	1,400 A	28,4 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-24 V	25,5 V	1,790 A	32,0 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-24 V	25,5 V	1,400 A	24,9 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-20 V	24,5 V	2,040 A	38,3 W	direct current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-20 V	24,5 V	1,620 A	29,4 W	two way rectified alternating current	-20 bis +40 °C	-20 bis +40 °C
K25 Ex-HT-20 V	22,0 V	2,040 A	33,6 W	direct current	-20 bis +70 °C	-20 bis +70 °C
K25 Ex-HT-20 V	22,0 V	1,620 A	25,8 W	two way rectified alternating current	-20 bis +70 °C	-20 bis +70 °C

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 I_n nach DIN 41571 oder IEC 127) or an engine-protectionschwitchgear 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 1500A).
- All appropriate measures should be taken in order to avoid a voltage surge that can cause a short circuit.

nominal voltage	turn-off over voltage
30 V	480 V
60 V	800 V
110 V	1200 V
250 V	1600 V

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 prescribed min. protection IP 65 can only be reached if the cable end is mounted correctly. The cable connection is to be fixed carefully. The isolation has to be enough to reach the terminals. All terminal screws are to be tightened. The cable connection must be installed fixed. If the potential balance do not occur by valve installation the balance has to be connected with the outer terminal on the box.

operation

Before start of operation, the correct installation of the valve, the electrical connection and the supply voltage have to be double checked and assured that they are in working order.

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.