

EU – Declaration of Conformity

In the sense of the guide line 2014/34/EU:
Equipment and protection systems for agreed using in explosive areas.

The Manufacturer:



müller co-ax gmbh
Friedrich-Müller-Straße 1
D-74670 Forchtenberg

Confirms herewith in single responsibility, that the product:

Ex-coil type: **K32 / K40 Ex- ...**

EU-prototype test number:

PTB 03 ATEX 2051 X + 1. Supplement

on which refers this certificate, corresponds with the following norm(s)
or normative documents:

2014/34/EU equipment and protection systems
for agreed using in explosive areas:

DIN EN IEC 60079-0:2019-09
DIN EN 60079-7:2016-08
DIN EN 60079-18:2015-10
DIN EN 60079-31:2014-12

Mentioned institution:



Physikalisch-Technische Bundesanstalt (Physical-Technical Public Institution)
Bundesallee 100
D-38116 Braunschweig

Marked with:

CE 0102

⊕ II 2 G Ex mb e II T4

⊕ II 2 D Ex tD A21 IP65 T130 °C

Furthermore we declare the conformity with the following EU directives:

Electromagnetic Compatibility Directive 2014/30/EU
Applied standards: EN 61000-6-2:2005, EN 61000-6-4:2007 + A1:2011

Low Voltage Directive 2014/35/EU
Applied standards: EN 60947-5-1:2004 + Cor.:2005 + A1:2009

Place / date:

Forchtenberg, 13th July 2021

Manufacturer-signature:

Martin Bogert
Director Quality Management

Operating instructions for ex-electromagnet K32 / K40 ex-...

Manufacturer and service address:

müller co-ax gmbh
Friedrich-Müller-Straße 1
D-74670 Forchtenberg

Fon: 07947-828-0
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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 coil is not damaged and in proper operating conditions. Please observe the accident prevention regulations! The DIN EN 50281-2-1 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: K32 Ex... , K40 Ex- ...



technical data:

this applies for all nominal voltages:

type of voltage: direct current (suit up to 20 % ripple)

polarity: optional
ambient temperature: -40 °C up to +40 °C
media temperature: -40 °C up to +40 °C
temperature class: T4
single assembly: yes
battery assembly: not allowed

type of protection

device marking:  II 2 G Ex mb e II T4
 2 D Ex tD A21 IP65 T130 °C
CE 0102

protection: IP 65 (DIN EN 60529)
EU-prototype test number: PTB 03 ATEX 2051 X

nominal voltage and electrical data

| type | nominal voltage | pick up voltage | power consumption |
|------------------|-----------------|-----------------|-------------------|
| K32/K40 Ex-20 V | 20 V | 3,000 A | 50,0 W |
| K32/K40 Ex-24 V | 24 V | 2,200 A | 45,0 W |
| K32/K40 Ex-48 V | 48 V | 1,180 A | 46,5 W |
| K32/K40 Ex-98 V | 98 V | 0,592 A | 47,5 W |
| K32/K40 Ex-110 V | 110 V | 0,528 A | 48,5 W |
| K32/K40 Ex-200 V | 200 V | 0,316 A | 51,5 W |
| K32/K40 Ex-210 V | 210 V | 0,272 A | 47,0 W |
| K32/K40 Ex-220 V | 220 V | 0,277 A | 49,5 W |
| K32/K40 Ex-230 V | 230 V | 0,236 A | 45,0 W |

description:

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

special conditions for installation:

1.) Each electromagnet 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).

2.) 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.