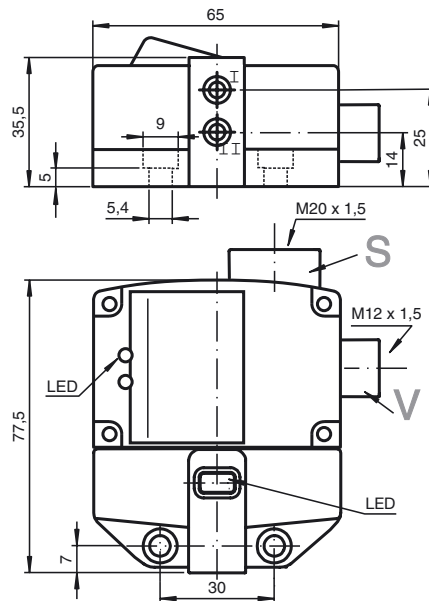
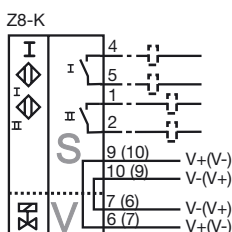


Direct mounting on standard actuators  
 Compact and stable housing  
 Fixed setting  
 Satisfies machinery directive



General specifications	
Switching element function	DC binary NO
Rated operating distance $s_n$	3 mm
Installation	embeddable
Output polarity	DC
Assured operating distance $s_a$	0 ... 2.43 mm
Reduction factor $r_{AI}$	0.5
Reduction factor $r_{Cu}$	0.4
Reduction factor $r_{V2A}$	1
Reduction factor $r_{SI37}$	1.1
Nominal ratings	
Operating voltage $U_B$	6 ... 60 V
Switching frequency $f$	0 ... 500 Hz
Hysteresis $H$	typ. 5 %
Reverse polarity protection	tolerant
Short-circuit protection	no
Voltage drop $U_d$	$\leq 6$ V
Operating current $I_L$	4 ... 100 mA
Off-state current $I_r$	0 ... 1 mA typ. 0.7 mA
Indication of the switching state	LED, yellow
Valve status indication	LED, yellow
Limit data	
Tightening torque, fixing screws	0.4 Nm
Standard conformity	
EMC in accordance with	IEC / EN 60947-5-2:2004
Standards	IEC / EN 60947-5-2:2004
Ambient conditions	
Ambient temperature	-25 ... 70 °C (248 ... 343 K)
Mechanical specifications	
Connection (system side)	Cage clamp terminals
Core cross-section (system side)	1.5/2.5 mm <sup>2</sup> flexible/rigid
Connection (valve side)	Cage clamp terminals
Core cross-section (valve side)	1.5/2.5 mm <sup>2</sup> flexible/rigid
Housing material	PBT
Sensing face	PBT
Protection degree	IP68
General information	
Use in the hazardous area	see instruction manuals
Category	3D

**Connection type:**



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## ATEX 3D

Instruction

### Device category 3D

Directive conformity

Standard conformity

CE symbol

Ex-identification

General

Installation, Commissioning

Maintenance

[Fett]Special conditions

Maximum operating current  $I_L$

Maximum operating voltage  $U_{Bmax}$

Maximum heating (Temperature rise)

at  $U_{Bmax}=60\text{ V}$ ,  $I_L=100\text{ mA}$

at  $U_{Bmax}=60\text{ V}$ ,  $I_L=50\text{ mA}$

Maximum values of the valve circuit

Protection from mechanical danger

Connections for external wire

Lead insertion

## Manual electrical apparatus for hazardous areas

for use in hazardous areas with non-conducting combustible dust

94/9/EG

EN 50281-1-1

Protection via housing

Use is restricted to the following stated conditions

CE

II 3D IP68 T 93 °C X

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual.

The data stated in the data sheet are restricted by this operating instruction! The special conditions must be adhered to!

Laws and/or regulations and standards governing the use or intended usage goal must be observed. Each sensor circuit can be operated at the stated maximum values, with simultaneous operation of the valve circuits. The maximum values of the connected valve circuits, must be observed.

No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.

The maximum permissible load current must be restricted to the values given in the following list.

High load currents and load short-circuits are not permitted.

The maximum permissible operating voltage  $U_{Bmax}$  must be restricted to the values given in the following list. Tolerances are not permitted.

dependant of the load current  $I_L$  and the max. operating voltage  $U_{Bmax}$ .

Information can be taken from the following list. The maximum surface temperature at maximum ambient temperature is given in the Ex identification of the apparatus.

23 °C

18 °C

$U_i = 32\text{ V}$ ;  $I_i = 240\text{ mA}$

The sensor must not be mechanically damaged.

The connection and valve cables must not be disconnected under voltage!

Terminal connection: minimum conductor cross-section:  $0.5\text{ mm}^2$ , maximum conductor cross-section:  $2.5\text{ mm}^2$ .

The cable entry must be such, that no tension load or twist is applied to the cable

The protection category must be in accordance with EN 60529 and as stated in the data sheet. The cable entry must be designed so that there are no sharp edges to damage the cable and impair the level of protection of the sensor. The cable entry must be in accordance with the relevant European standard for industrial cable and lead entries.. In addition, in the case of flexible leads, the points of entry of the cable must be rounded off over an angle of at least  $75^\circ$ , with a radius (R), which is at least one quarter of the maximum permissible cable diameter for the entry, but not greater than 3 mm.