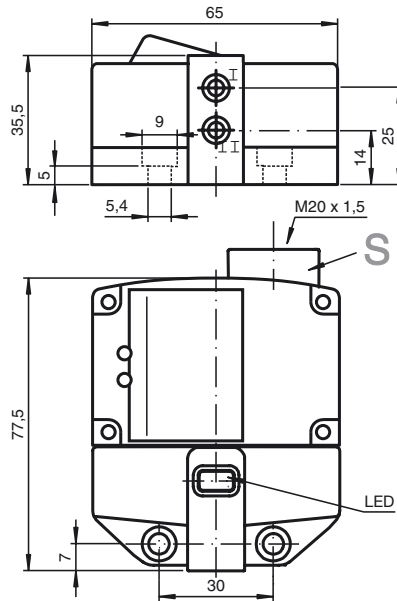


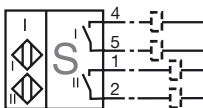
Direct mounting on standard actuators
 Compact and stable housing
 Fixed setting
 Satisfies machinery directive



| 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 | ≤ 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 |
| 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 ² flexible/rigid |
| Housing material | PBT |
| Sensing face | PBT |
| Protection degree | IP65 |
| General information | |
| Use in the hazardous area | see instruction manuals |
| Category | 3G; 3D |

Connection type:

Z8



ATEX 3G (nA)

Instruction

Device category 3G (nA)

Directive conformity

Standard conformity

CE symbol

Ex-identification

General

Installation, Commissioning

Maintenance

Special conditions

Maximum operating current I_L

Maximum operating voltage U_{Bmax}

Maximum permissible ambient temperature T_{Umax}

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

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

at $U_{Bmax}=60\text{ V}$, $I_L=25\text{ mA}$

Protection from mechanical danger

Protection from UV light

Connections for external wire

Lead insertion

Manual electrical apparatus for hazardous areas

for use in hazardous areas with gas, vapour and mist

94/9/EG

EN 60079-15:2003

Ignition protection category "n"

Use is restricted to the following stated conditions

CE

II 3G EEx nA IIC T6 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 observed!

Laws and/or regulations and standards governing the use or intended usage goal 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} is restricted to the values in the following list. Tolerances are not permissible.

dependant of the load current I_L and the max. operating voltage U_{Bmax} . Information can be taken from the following list.

47 °C

54 °C

59 °C

The sensor must not be exposed to **ANY FORM** of mechanical danger.

The sensor and the connection cable must be protected from damaging UV-radiation. This can be achieved when the sensor is used in internal areas.

The connecting cable must not be disconnected under voltage!

Terminal connection: minimum conductor cross-section: 0.5 mm², maximum conductor cross-section: 2.5 mm².

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°, 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.

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

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 I

Ex II 3D IP65 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.

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

15 °C

The sensor must not be mechanically damaged.

The connecting cable must not be disconnected under voltage!

Terminal connection: minimum conductor cross-section: 0.5 mm^2 , maximum conductor cross-section: 2.5 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° , 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.