

**Emergency-stop head for hygienic applications
for 9.2 mm mounting depth**



| General Data | |
|------------------------------|---|
| Type reference | FR(P)VK(Y1)(P)(L)(R)(O)(OO)(OI)(S)(OOO)(OOI)(OII)(Z)(LZ)(P)(L_A U)(_RO) |
| Description | Emergency-stop head, foolproof |
| Approvals | CCC, CE, cURus, TÜV_Süd, UKCA |
| Contact type | 1 NC / 2 NC / 3 NC / 1 NC+1 NO / 2 NC+1 NO / 1 NC+2 NO |
| Degree of protection | IP65 / IP67 |
| Connection type | Faston terminals 2.8 x 0.8 mm / PCB-mount terminals |
| Contact material | AgNi / AgNi, gold-plated 5µm (L_AU) |
| Max. storage temperature | -40°C ... 80°C |
| Max. operating temperature | -25°C ... 70°C |
| Mechanical life | 50,000 switching cycles |
| Electrical life (rated load) | 50,000 switching cycles at rated load |
| Contact resistance NO | < 50 mOhm (new state) |
| Contact resistance NC | < 50 mOhm (new state) |
| Bouncing time NO | < 10ms |
| Bouncing time NC | < 10ms |
| Positive opening contact | acc. to EN60947-5-1, appendix K |

| Electrical data acc. to IEC/EN 60947-5-1 (VDE 0660 Sect. 200) | | |
|---|-------------------|-----------------------------|
| | alternate current | direct current |
| Utilisation category | AC15 B300 | DC13 Q300 |
| Rated insulation voltage Ui | 250 V | 250 V |
| Rated operating voltage Ue | 240 V / 120 V | 250 V / 125 V / 60 V / 24 V |
| Rated operating current Ie | 1.5 A / 3 A | 0.27 A / 0.55 A / 1 A / 2 A |
| Breaking capacity | 10Ie | 1,1Ie |
| Continuous thermal current | 5 A | - |

Technical Data - Lamp



| | |
|-------------------|--------------------------------|
| Lamp socket | none, with integrated 3 mm LED |
| Max. lamp voltage | 30 V AC/DC |
| Max. lamp output | 4 mA at 24 V DC) |
| Definition | X1...anode, X2...cathode |

Additional data

| | |
|----------------------------------|--|
| Mounting aperture | 22.3 mm |
| Tightening torque (mounting nut) | 1.3 ... 1.9 Nm |
| Release | twist release, left or right |
| Mounting position | any |
| Standards | EN 60947-5-1, EN 60947-5-5, EN ISO 13850 |
| Ld | 20% (NC) |
| B10d [cycles] | 250,000 |
| Pollution degree | 3 |

Note

O = NC contact; I = NO contact
With switching position indicator

Electrical features for 5µm gold-plating, type addition ...AU
Switching voltage 20mV ... 42V AC/DC
Switching current 1mA ... 250mA

Versions with Faston terminals: use partially or all-insulated Faston clamps

Overvoltage category II (2.5kV), pollution degree 2 for:
- illuminated versions (24 V LED)
- versions with 3rd contact
- versions with NO contacts (I, II, OI)

FRVKP... emergency-stop for hygienic areas
Tightening torque (fixing nut): 1.0 ... 1.7 Nm
Degree of protection: IP66/IP67/IP69k*1)
Approvals: CE, DGUV-Test
Mechanical life: 20.000 (20°C)
>6050 (-25°C)
>6050 (+70°C)
B10d/Ld: 150.000

*1) Limitation: nozzle distance > 250 mm. Standard requirement acc. to ISO 20653:2013-02 (IPX9K) 100 – 150 mm

Use in hygienic areas:

- Permanently suitable from -30°C to +50°C and with food contact temporarily up to +70°C
- Migration testing (OML) according to EU regulation no.10/2011 using ethanol (50%) and acetic acid (3%) at 40°C/1h, ethanol (95%) at 40°C/0.5h
- The emergency stop should be installed in a way to exclude a deposit of residues in its active and non-active state

FRVK...Z ...emergency-stop for base-plate mounting
FRVK...LZ ...emergency-stop for base-plate mounting with height compensation for Shortron
Approvals: CE
The relating contact block (PTS...) is being plugged into the neck of the actuator head.
Spacer sleeves ensure the correct distance between PCB and mounting plate.



The screws must be secured against loosening.

FRVK..R... ..red LED

FRVK...R0 ...0 ohm series resistor, with protective diode (series-connected)

Attention: The LED must not be operated without series resistor.

(Do not connect terminals X1-X2 directly to voltage)

Observe LED data!

LED cut-off voltage: max. 70 V (with protective diode)

If LED, max: 30 mA

UF LED, typical: white: 3.2V (20mA) red: 2.0 V (20mA)

FRPVK... FRPVK(Z), FRPVK(O)(OO)(OI)(LOO) FRPVK(OO)(OO)P

Release: pull to release

Max. traction: 160N

Life time: 30.000

B10d/Ld: 170.000/20%

Data acc. to UL

Rating contact block

Silver: B300, 24 V DC/3 A

Gold: 42 V DC/100 mA

Lamp rating

LED: 30 V AC/DC (4 mA at 24 V)

NEMA TYPE

4x indoor (front face)

