

## FRVK\_ALLE

27.04.2020

### General Data

Type reference:	FR(P)VK(Y1)(P)(L)(R)(O)(OO)(OI)(S)(OOO)(OOI)(OII)(Z)(LZ)(P)(_AU)(_R0)
Description:	Emergency-stop head, foolproof
Approvals:	CCC, CE, cURus, DGUV_Test, TÜV_Süd
Contact type:	1NC / 2NC / 3 NC / 1 NC+1NO / 2NC+1NO / 1NC+2NO
Degree of protection:	IP65 / IP67
Connection type:	Faston terminals 2.8x0.8 mm / PCB-mount terminals
Contact material:	AgNi / AgNi, gold-plated 5µm
Max. storage temperature:	-40°C ... 80°C
Max. operating temperature:	-25°C ... 70°C
Mechanical life:	50.000
Electrical life (rated load):	50.000 at rated load
Contact resistance NO:	< 50 mOhm (new state)
Contact resistance NC:	< 50 mOhm (new state)
Bouncing time NO:	< 10 ms
Bouncing time NC:	< 10 ms
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	240V / 120V	250V / 125V / 60V / 24V
Rated operating current Ie	1.5A / 3A	0.27 A / 0.55 A / 1 A / 2 A
Breaking capacity	10Ie	1,1Ie
Continuous thermal current	5A	

### 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:	250,000
Pollution degree :	3

### Note

NC=NC contact; NO=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)

<b>FRVKP...</b>	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.

<b>FRVK..R...</b>	...red LED
<b>FRVK...R0</b>	...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)
<b>FRPVK...</b>	FRPVK(Z), FRPVK(O)(OO)(OI)(LOO) FRPVK(OO)(OOI)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, 24V DC/3A Gold: 42V DC/100mA
Lamp rating:	LED: 30 Vac/Dc (4 mA at 24 V)
NEMA TYPE:	4x indoor (front face)