Switches with external parts in **stainless steel**

Description



Pizzato Elettrica offers a wide range of products suitable for places where chemical and corrosive agents are used and for aseptic places where particular attention must be paid to cleanliness and hygiene.
The technopolymer housings and external metal parts in stainless steel allow these devices to be used for a variety of applications, ranging from the food and pharmaceutical sectors to the chemical and marine sectors.
The following corrosion-resistance table is provided solely for reference purposes and values are not guaranteed. Many other factors can affect corrosion-resistance levels, including temperature, the presence of other chemicals and environmental factors.

Main features:

- Technopolymer housings
- External metallic parts exclusively in stainless steel
- Protection degree IP67 (FW, FP series switches)
- Protection degrees IP67 and IP69K (FR, FX, FK series switches)
- Protection degree IP67 and IP69K (SR, ST, HX series sensors)

Resistance against corrosion

Substance	Stainless steel	Technopolymer
Acetylene	■	■
Vinegar	■	■
Acetone	■	■
Acetic acid	■	□
Boric acid	■	■
Citric acid	■	■
Hydrochloric acid 100%	□	□
Chromic acid 5%	■	□
Hydrofluoric acid 100%	■	□
Formic acid	■	□
Phosphoric acid (<40%)	◘	■
Lactic acid	■	■
Nitric acid (concentrated)	■	□
Oleic acid	■	■
Sulphuric acid (<10%)	■	◘
Sulphuric acid (10-75%)	□	□
Sulphuric acid (75-100%)	□	□
Stearic acid	■	■
Tartaric acid	◘	■
White water	■	■
Sea water	◘	■
Distilled water	■	■
White spirit	■	■
Ethyl alcohol	■	■
Methyl alcohol	■	■
Liquid ammonia	■	■
Ammonium acetate	■	■
Ammonium carbonate	■	■
Ammonium sulfate	■	■
Leaded petrol	■	■
Unleaded petrol	■	■
Benzol	■	□
Beer	■	■
Butane	■	■
Butanol	■	■
Quicklime	■	■
Calcium chloride	■	■
Calcium hydroxide	■	■
Chloroform	■	■
Aluminium chloride	■	■
Ferrous chloride	□	□
Chrome plating	◘	◘
Diesel	■	■
Ether	■	■
Formaldehyde 100%	■	□
Furfural	■	■
Gelatine	■	■
Glycerine	■	■
Glucose	■	■
Shellac (orange)	■	■
Hydrogen (gas)	■	■
Iodine	□	■
Milk	■	■
Magnesium chloride	□	■
Magnesium hydroxide	■	■
Magnesium sulphate (Epsom salt)	■	■
Mayonnaise	■	■

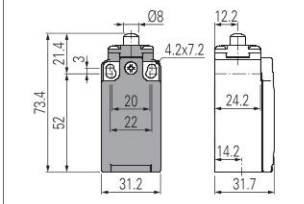
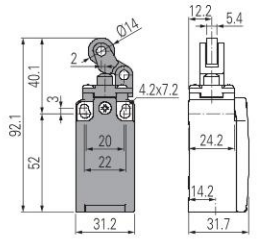
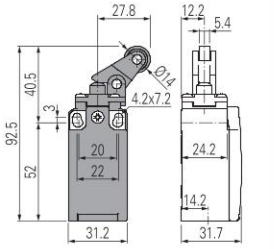
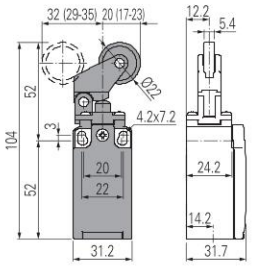
Substance	Stainless steel	Technopolymer
Whisky malt	■	■
Molasses	■	■
Nickel chloride	◘	◘
Aluminium nitrate	■	■
Combustible oils	■	■
Tanning oil	■	-
Linseed oil	■	■
Hydraulic oil (synthetic)	■	■
Mineral Oil	■	■
Motor Oil	■	■
Transformer oil	■	■
Paraffin	■	■
Potassium chloride	■	■
Potassium hydroxide (caustic potash)	■	◘
Potassium sulphate	■	■
Propane (liquid)	■	■
Copper sulphate >5%	■	□
Liquid soaps	■	■
Chocolate syrup	■	■
Milk whey	■	-
Sodium bicarbonate	■	■
Sodium bisulphate	◘	■
Sodium carbonate	■	■
Sodium chloride	■	■
Sodium hydroxide (80%)	■	◘
Sodium hypochlorite (100%)	□	□
Sodium nitrate	■	■
Sodium sulphate	■	■
Sodium sulphide	□	■
Aluminium sulphate	■	■
Ferrous sulphate	■	■
Calcium hydroxide	□	■
Potassium hydroxide	■	■
Sodium hydroxide	-	■
Tanning solutions	■	■
Photographic solutions	-	■
Fruit juice	■	■
Vegetable juice	■	■
Toluene	■	◘
Transparent (paint)	■	-
Trichloroethylene	■	■
Whisky and wine	■	■
Zinc plate	◘	□
Zinc chloride	■	■
Zinc sulphate	-	■
Sulphur chloride	■	■
Sugar (liquid)	■	■
Sugar beet	■	■

Resistance against corrosion

■ No corrosion
◘ Possible corrosion
□ Corrosion
- Data not available

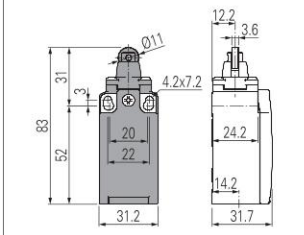
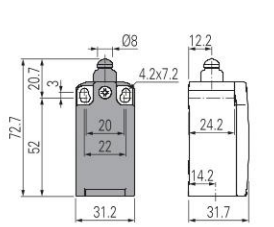
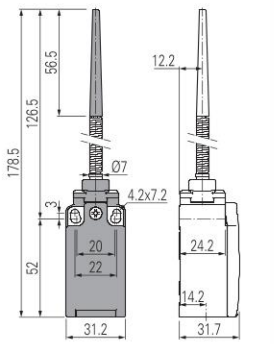
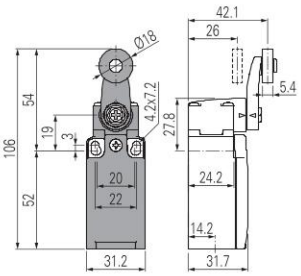
Contact type
R = snap action
L = slow action

Contact block

					
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5	R	FR 501-XM2 ⊖ 1NO+1NC	FR 502-XM2 ⊖ 1NO+1NC	FR 505-XM2 ⊖ 1NO+1NC	FR 507-XM2 ⊖ 1NO+1NC
6	L	FR 601-XM2 ⊖ 1NO+1NC	FR 602-XM2 ⊖ 1NO+1NC	FR 605-XM2 ⊖ 1NO+1NC	FR 607-XM2 ⊖ 1NO+1NC
9	L	FR 901-XM2 ⊖ 2NC	FR 902-XM2 ⊖ 2NC	FR 905-XM2 ⊖ 2NC	FR 907-XM2 ⊖ 2NC
20	L	FR 2001-XM2 ⊖ 1NO+2NC	FR 2002-XM2 ⊖ 1NO+2NC	FR 2005-XM2 ⊖ 1NO+2NC	FR 2007-XM2 ⊖ 1NO+2NC
Max. speed		page 221 - type 4	page 221 - type 3	page 221 - type 3	page 221 - type 3
Actuating force		8 N (25 N ⊖)	6 N (25 N ⊖)	6 N (25 N ⊖)	4 N (25 N ⊖)
Travel diagrams		page 222 - group 1	page 222 - group 2	page 222 - group 2	page 222 - group 3

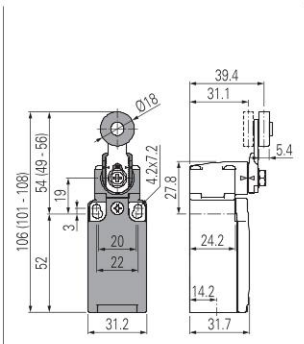
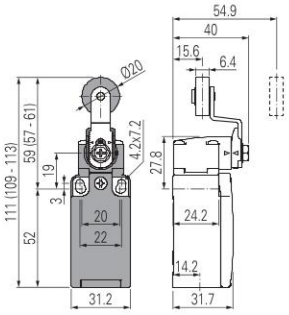
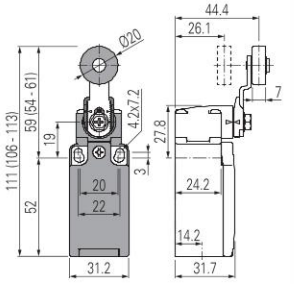
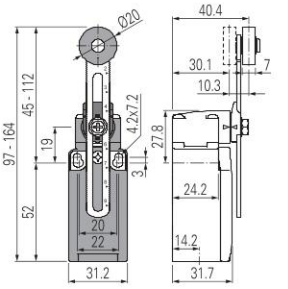
Contact type
R = snap action
L = slow action

Contact block

			External gasket	External gasket	
					
2	R	FR 215-XM2 2x(1NO-1NC)	/	FR 220-XM2 2x(1NO-1NC)	FR 230-XM2V38 2x(1NO-1NC)
5	R	FR 515-XM2 ⊖ 1NO+1NC	FR 5A1-XM2 ⊖ 1NO+1NC	FR 520-XM2 1NO+1NC	FR 530-XM2V38 ⊖ 1NO+1NC
6	L	FR 615-XM2 ⊖ 1NO+1NC	FR 6A1-XM2 ⊖ 1NO+1NC	/	FR 630-XM2V38 ⊖ 1NO+1NC
9	L	FR 915-XM2 ⊖ 2NC	FR 9A1-XM2 ⊖ 2NC	/	FR 930-XM2V38 ⊖ 2NC
20	L	FR 2015-XM2 ⊖ 1NO+2NC	FR 20A1-XM2 ⊖ 1NO+2NC	FR 2020-XM2 1NO+2NC	FR 2030-XM2V38 ⊖ 1NO+2NC
Max. speed		page 221 - type 2	page 221 - type 4	1 m/s	page 221 - type 1
Actuating force		8 N (25 N ⊖)	6 N (25 N ⊖)	0.07 Nm	0.06 Nm (0,25 Nm ⊖)
Travel diagrams		page 222 - group 1	page 222 - group 1	page 222 - group 4	page 222 - group 5

Contact type
R = snap action
L = slow action

Contact block

					
2	R	FR 231-XM2V38 2x(1NO-1NC)	FR 251-XM2V38 2x(1NO-1NC)	FR 254-XM2V38 2x(1NO-1NC)	FR 256-XM2V38 2x(1NO-1NC)
5	R	FR 531-XM2V38 ⊖ 1NO+1NC	FR 551-XM2V38 ⊖ 1NO+1NC	FR 554-XM2V38 ⊖ 1NO+1NC	FR 556-XM2V38 ⊖ 1NO+1NC
6	L	FR 631-XM2V38 ⊖ 1NO+1NC	FR 651-XM2V38 ⊖ 1NO+1NC	FR 654-XM2V38 ⊖ 1NO+1NC	FR 656-XM2V38 ⊖ 1NO+1NC
9	L	FR 931-XM2V38 ⊖ 2NC	FR 951-XM2V38 ⊖ 2NC	FR 954-XM2V38 ⊖ 2NC	FR 956-XM2V38 ⊖ 2NC
20	L	FR 2031-XM2V38 ⊖ 1NO+2NC	FR 2051-XM2V38 ⊖ 1NO+2NC	FR 2054-XM2V38 ⊖ 1NO+2NC	FR 2056-XM2V38 ⊖ 1NO+2NC
Max. speed		page 221 - type 1	page 221 - type 1	page 221 - type 1	page 221 - type 1
Actuating force		0.06 Nm (0.25 Nm ⊖)	0.06 Nm (0.25 Nm ⊖)	0.06 Nm (0.25 Nm ⊖)	0.06 Nm (0.25 Nm ⊖)
Travel diagrams		page 222 - group 5	page 222 - group 5	page 222 - group 5	page 222 - group 5

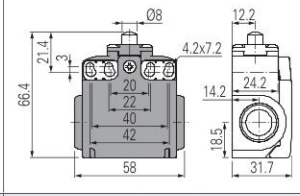
All values in the drawings are in mm

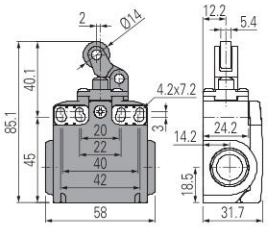
Accessories See page 195

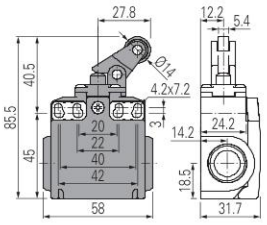
➔ The 2D and 3D files are available at **www.pizzato.com**

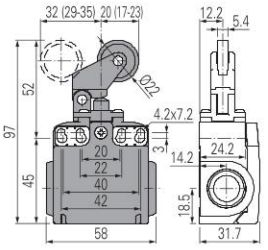
Switches with external parts in **stainless steel**

Contact type
R = snap action
L = slow action



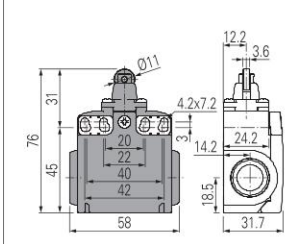




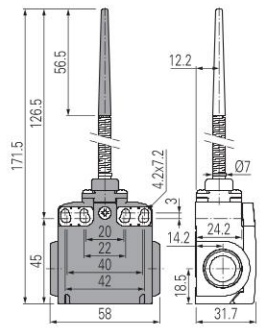


Contact block								
2	R	FX 201-XM2	2x(1NO-1NC)	FX 202-XM2	2x(1NO-1NC)	FX 205-XM2	2x(1NO-1NC)	FX 207-XM2	2x(1NO-1NC)
5	R	FX 501-XM2 →	1NO+1NC	FX 502-XM2 →	1NO+1NC	FX 505-XM2 →	1NO+1NC	FX 507-XM2 →	1NO+1NC
6	L	FX 601-XM2 →	1NO+1NC	FX 602-XM2 →	1NO+1NC	FX 605-XM2 →	1NO+1NC	FX 607-XM2 →	1NO+1NC
9	L	FX 901-XM2 →	2NC	FX 902-XM2 →	2NC	FX 905-XM2 →	2NC	FX 907-XM2 →	2NC
20	L	FX 2001-XM2 →	1NO+2NC	FX 2002-XM2 →	1NO+2NC	FX 2005-XM2 →	1NO+2NC	FX 2007-XM2 →	1NO+2NC
Max. speed		page 221 - type 4		page 221 - type 3		page 221 - type 3		page 221 - type 3	
Actuating force		8 N (25 N →)		6 N (25 N →)		6 N (25 N →)		4 N (25 N →)	
Travel diagrams		page 222 - group 1		page 222 - group 2		page 222 - group 2		page 222 - group 3	

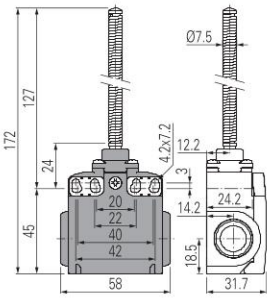
Contact type
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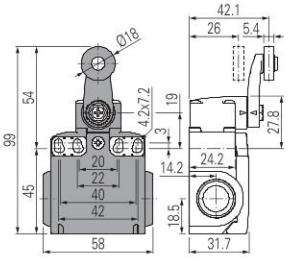


External gasket



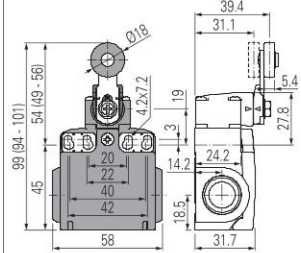
External gasket

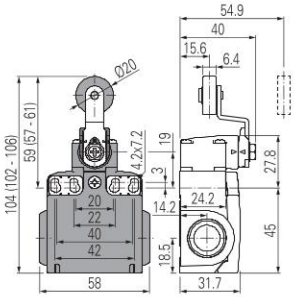


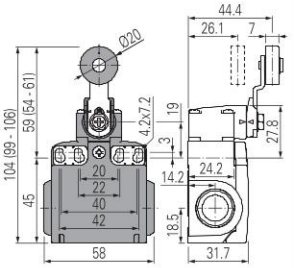


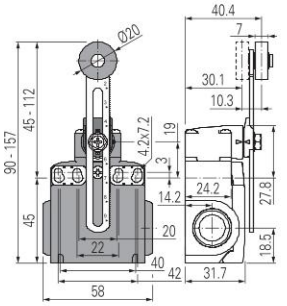
Contact block								
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5	R	FX 515-XM2 →	1NO+1NC	FX 520-XM2	1NO+1NC	FX 525-XM2	1NO+1NC	FX 530-XM2V38 →	1NO+1NC
6	L	FX 615-XM2 →	1NO+1NC	/		/		FX 630-XM2V38 →	1NO+1NC
9	L	FX 915-XM2 →	2NC	/		/		FX 930-XM2V38 →	2NC
20	L	FX 2015-XM2 →	1NO+2NC	FX 2020-XM2	1NO+2NC	FX 2025-XM2	1NO+2NC	FX 2030-XM2V38 →	1NO+2NC
Max. speed		page 221 - type 2		1 m/s		1 m/s		page 221 - type 1	
Actuating force		8 N (25 N →)		0.07 Nm		0.12 Nm		0.06 Nm (0,25 Nm →)	
Travel diagrams		page 222 - group 1		page 222 - group 4		page 222 - group 4		page 222 - group 5	

Contact type
R = snap action
L = slow action









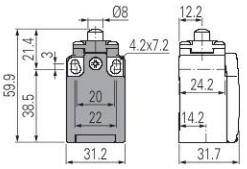
Contact block									
2	R	FX 231-XM2V38	2x(1NO-1NC)	FX 251-XM2V38	2x(1NO-1NC)	FX 254-XM2V38	2x(1NO-1NC)	FX 256-XM2V38	2x(1NO-1NC)
5	R	FX 531-XM2V38 →	1NO+1NC	FX 551-XM2V38 →	1NO+1NC	FX 554-XM2V38 →	1NO+1NC	FX 556-XM2V38 →	1NO+1NC
6	L	FX 631-XM2V38 →	1NO+1NC	FX 651-XM2V38 →	1NO+1NC	FX 654-XM2V38 →	1NO+1NC	FX 656-XM2V38 →	1NO+1NC
9	L	FX 931-XM2V38 →	2NC	FX 951-XM2V38 →	2NC	FX 954-XM2V38 →	2NC	FX 956-XM2V38 →	2NC
20	L	FX 2031-XM2V38 →	1NO+2NC	FX 2051-XM2V38 →	1NO+2NC	FX 2054-XM2V38 →	1NO+2NC	FX 2056-XM2V38 →	1NO+2NC
Max. speed		page 221 - type 1		page 221 - type 1		page 221 - type 1		page 221 - type 1	
Actuating force		0.06 Nm (0.25 Nm →)		0.06 Nm (0.25 Nm →)		0.06 Nm (0.25 Nm →)		0.06 Nm (0.25 Nm →)	
Travel diagrams		page 222 - group 5		page 222 - group 5		page 222 - group 5		page 222 - group 5	

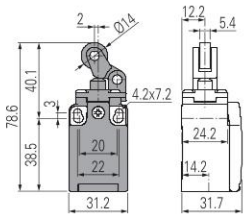
All values in the drawings are in mm

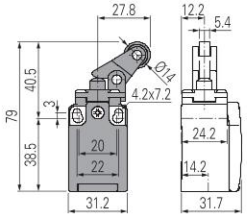
Accessories See page 195

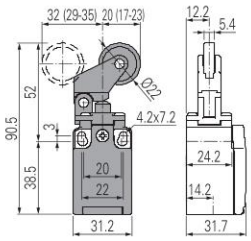
→ The 2D and 3D files are available at **www.pizzato.com**

Contact type
R = snap action
L = slow action





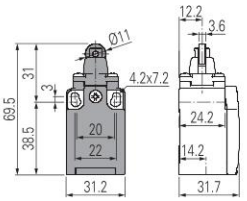




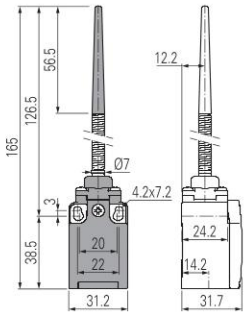
Contact block

3	R	FK 301-XM2	1NO+1NC		FK 302-XM2	1NO+1NC		FK 305-XM2	1NO+1NC		FK 307-XM2	1NO+1NC
33	L	FK 3301-XM2	1NO+1NC		FK 3302-XM2	1NO+1NC		FK 3305-XM2	1NO+1NC		FK 3307-XM2	1NO+1NC
34	L	FK 3401-XM2	2NC		FK 3402-XM2	2NC		FK 3405-XM2	2NC		FK 3407-XM2	2NC
Max. speed		page 221 - type 4			page 221 - type 3			page 221 - type 3			page 221 - type 3	
Actuating force		8 N (25 N →)			6 N (25 N →)			6 N (25 N →)			4 N (25 N →)	
Travel diagrams		page 222 - group 1			page 222 - group 2			page 222 - group 2			page 222 - group 3	

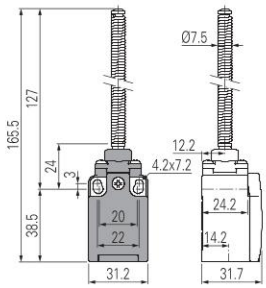
Contact type
R = snap action
L = slow action

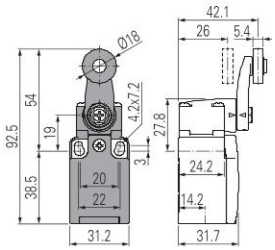


External gasket



External gasket

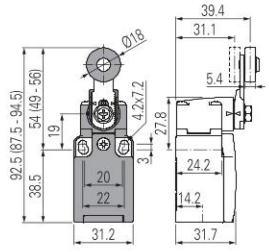


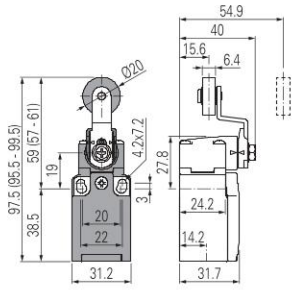


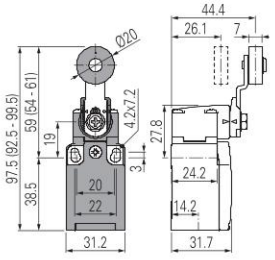
Contact block

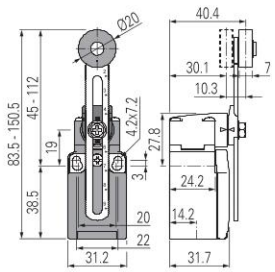
3	R	FK 315-XM2	1NO+1NC		FK 320-XM2	1NO-1NC		FK 325-XM2	1NO-1NC		FK 330-XM2V38	1NO+1NC
33	L	FK 3315-XM2	1NO+1NC		FK 3320-XM2	1NO+1NC		FK 3325-XM2	1NO+1NC		FK 3330-XM2V38	1NO+1NC
34	L	FK 3415-XM2	2NC		FK 3420-XM2	2NC		FK 3425-XM2	2NC		FK 3430-XM2V38	2NC
Max. speed		page 221 - type 2			1 m/s			1 m/s			page 221 - type 1	
Actuating force		8 N (25 N →)			0.05 Nm			0.1 Nm			0.06 Nm (0,25 Nm →)	
Travel diagrams		page 222 - group 1			page 222 - group 4			page 222 - group 4			page 222 - group 5	

Contact type
R = snap action
L = slow action









Contact block

3	R	FK 331-XM2V38	1NO+1NC		FK 351-XM2V38	1NO+1NC		FK 354-XM2V38	1NO+1NC		FK 356-XM2V38	1NO+1NC
33	L	FK 3331-XM2V38	1NO+1NC		FK 3351-XM2V38	1NO+1NC		FK 3354-XM2V38	1NO+1NC		FK 3356-XM2V38	1NO+1NC
34	L	FK 3431-XM2V38	2NC		FK 3451-XM2V38	2NC		FK 3454-XM2V38	2NC		FK 3456-XM2V38	2NC
Max. speed		page 221 - type 1			page 221 - type 1			page 221 - type 1			page 221 - type 1	
Actuating force		0.06 Nm (0.25 Nm →)			0.06 Nm (0.25 Nm →)			0.06 Nm (0.25 Nm →)			0.06 Nm (0.25 Nm →)	
Travel diagrams		page 222 - group 5			page 222 - group 5			page 222 - group 5			page 222 - group 5	

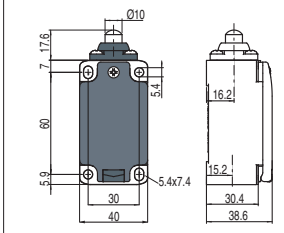
All values in the drawings are in mm

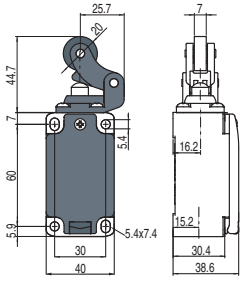
Accessories See page 195

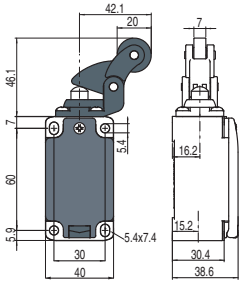
➔ The 2D and 3D files are available at **www.pizzato.com**

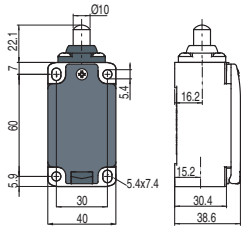
Switches with external parts in **stainless steel**

Contact type
R = snap action
L = slow action





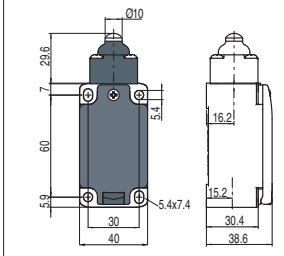


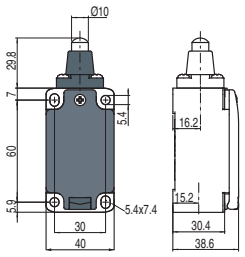


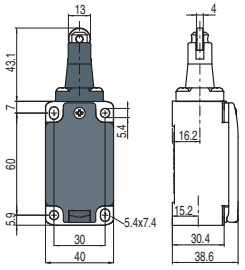
Contact block								
2	R	FP 201-XM2	2x(1NO-1NC)	FP 202-XM2	2x(1NO-1NC)	FP 205-XM2	2x(1NO-1NC)	FP 208-XM2	2x(1NO-1NC)
5	R	FP 501-XM2	1NO+1NC	FP 502-XM2	1NO+1NC	FP 505-XM2	1NO+1NC	FP 508-XM2	1NO+1NC
6	L	FP 601-XM2	1NO+1NC	FP 602-XM2	1NO+1NC	FP 605-XM2	1NO+1NC	FP 608-XM2	1NO+1NC
9	L	FP 901-XM2	2NC	FP 902-XM2	2NC	FP 905-XM2	2NC	FP 908-XM2	2NC
20	L	FP 2001-XM2	1NO+2NC	FP 2002-XM2	1NO+2NC	FP 2005-XM2	1NO+2NC	FP 2008-XM2	1NO+2NC
Max. speed		page 219 - type 4		page 219 - type 3		page 219 - type 3		page 219 - type 4	
Actuating force		8 N (25 N)		6 N (25 N)		6 N (25 N)		8 N (25 N)	
Travel diagrams		page 220 - group 1		page 220 - group 2		page 220 - group 2		page 220 - group 1	

Contact type
R = snap action
L = slow action

External gasket



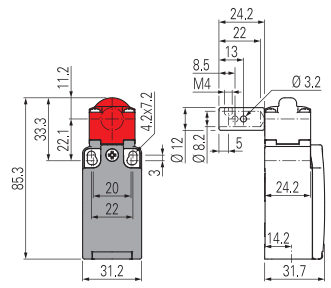


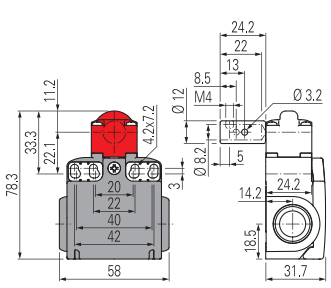


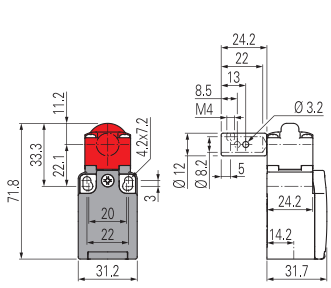
Contact block							
2	R	FP 210-XM2	2x(1NO-1NC)	FP 211-XM2	2x(1NO-1NC)	FP 216-XM2	2x(1NO-1NC)
5	R	FP 510-XM2	1NO+1NC	FP 511-XM2	1NO+1NC	FP 516-XM2	1NO+1NC
6	L	FP 610-XM2	1NO+1NC	FP 611-XM2	1NO+1NC	FP 616-XM2	1NO+1NC
9	L	FP 910-XM2	2NC	FP 911-XM2	2NC	FP 916-XM2	2NC
20	L	FP 2010-XM2	1NO+2NC	FP 2011-XM2	1NO+2NC	FP 2016-XM2	1NO+2NC
Max. speed		page 219 - type 4		page 219 - type 4		page 219 - type 2	
Actuating force		11 N (25 N)		8 N (25 N)		8 N (25 N)	
Travel diagrams		page 220 - group 1		page 220 - group 1		page 220 - group 1	

Safety switches for hinges

Contact type
L = slow action







Contact block							
9	L	FR 996-XM2	2NC	FX 996-XM2	2NC	/	
18	L	FR 1896-XM2	1NO+1NC	FX 1896-XM2	1NO+1NC	/	
20	L	FR 2096-XM2	1NO+2NC	FX 2096-XM2	1NO+2NC	/	
33	L	/		/		FK 3396-XM2	1NO+1NC
34	L	/		/		FK 3496-XM2	2NC
Actuating force		0.15 Nm (0.4 Nm)		0.15 Nm (0.4 Nm)		0.15 Nm (0.4 Nm)	
Travel diagrams		page 224 - group 9		page 224 - group 9		page 224 - group 9	

⚠ If not expressly indicated in this chapter, for correct installation and utilization of all articles see chapter Utilization requirements from page 217 to page 232.

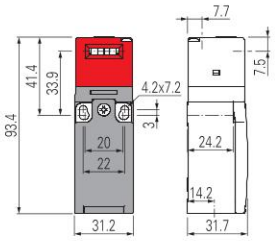
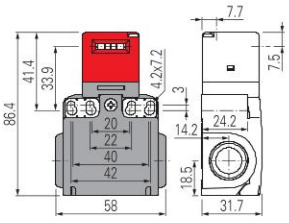
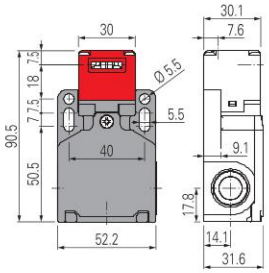
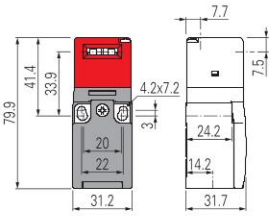
All values in the drawings are in mm

Accessories See page 195

→ The 2D and 3D files are available at **www.pizzato.com**

Safety switches with separate actuator

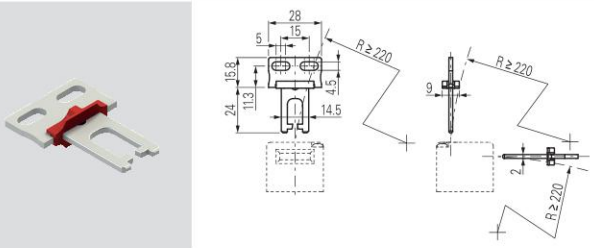
Contact type
L = slow action

Contact block		Without actuator	Without actuator	Without actuator	Without actuator
					
6	L	FR 693-XM2 → 1NO+1NC	FX 693-XM2 → 1NO+1NC	FW 692-XM2 → 1NO+1NC	/
9	L	FR 993-XM2 → 2NC	FX 993-XM2 → 2NC	FW 992-XM2 → 2NC	/
20	L	FR 2093-XM2 → 1NO+2NC	FX 2093-XM2 → 1NO+2NC	FW 2092-XM2 → 1NO+2NC	/
33	L	/	/	/	FK 3393-XM2 → 1NO+1NC
34	L	/	/	/	FK 3493-XM2 → 2NC
Actuating force		10 N (18 N →)	10 N (18 N →)	10 N (18 N →)	10 N (18 N →)
Travel diagrams		page 224 - group 8	page 224 - group 8	page 224 - group 8	page 224 - group 8

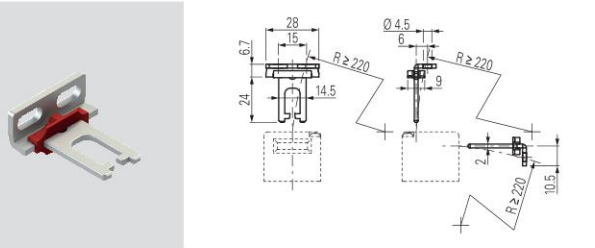
Stainless steel actuators

IMPORTANT: These actuators can be used only with items of the FR, FX, FK and FW series (e.g. FR 693-XM2).
Low coding level acc. to EN ISO 14119.

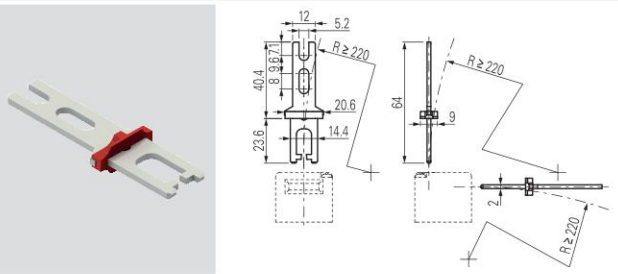
Article	Description
VF KEYD	Straight actuator



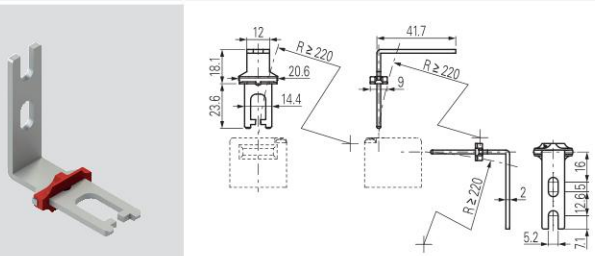
Article	Description
VF KEYD1	Angled actuator



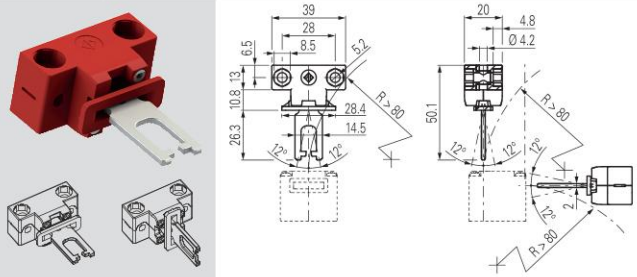
Article	Description
VF KEYD5	Extended actuator



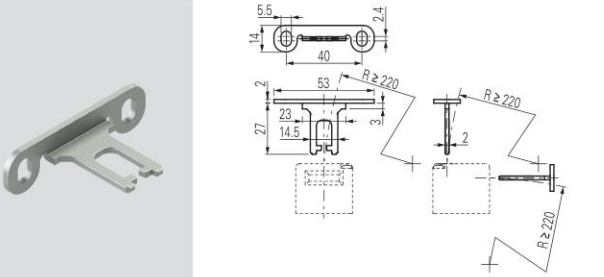
Article	Description
VF KEYD6	Extended actuator, angled



Article	Description
VF KEYD8	Universal actuator



Article	Description
VF KEYD10	Profiled actuator



SR series
magnetic safety sensors



See
General Catalogue Safety Devices 2025-2026

ST series
RFID safety sensors



See
General Catalogue Safety Devices 2025-2026

HX series
stainless steel safety switches



See
General Catalogue Safety Devices 2025-2026

All values in the drawings are in mm

Accessories See page 195

→ The 2D and 3D files are available at **www.pizzato.com**