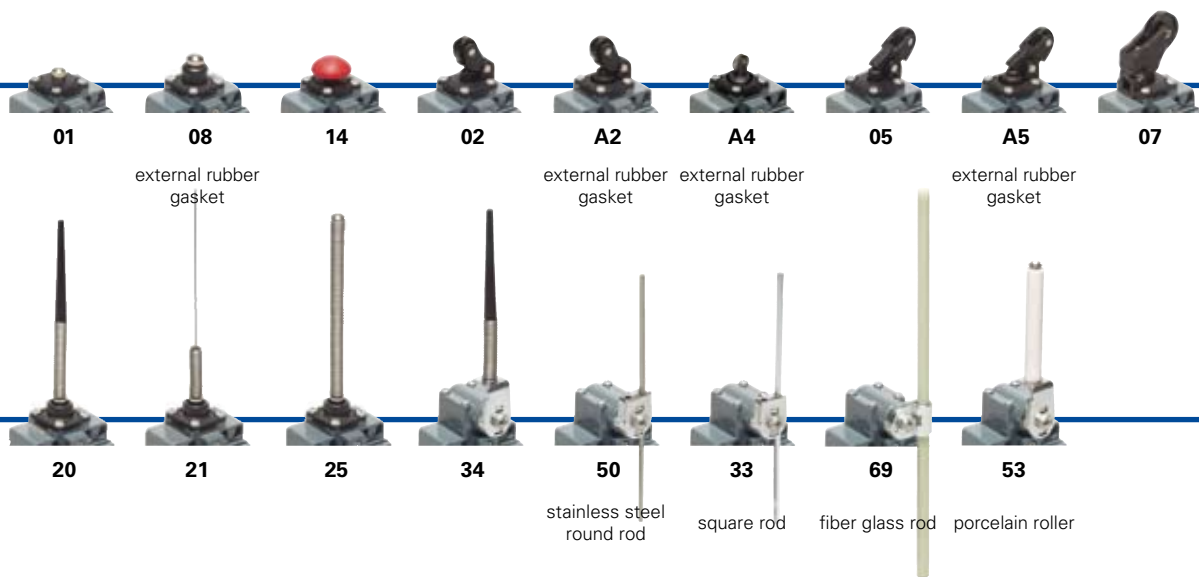
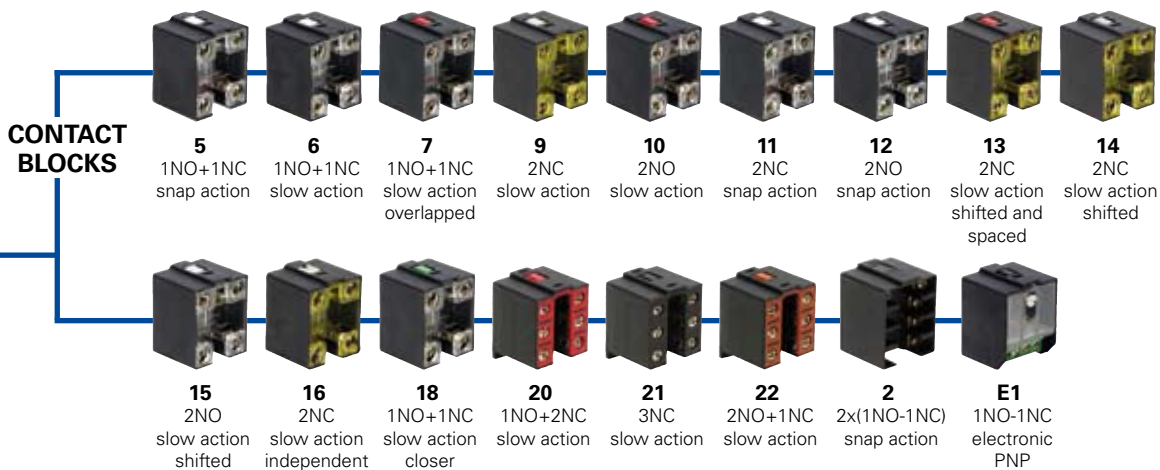


Selection diagram



ACTUATORS



CONDUIT ENTRIES



Threaded conduit entries

	PG 13,5 (standard)
M2	M20x1,5

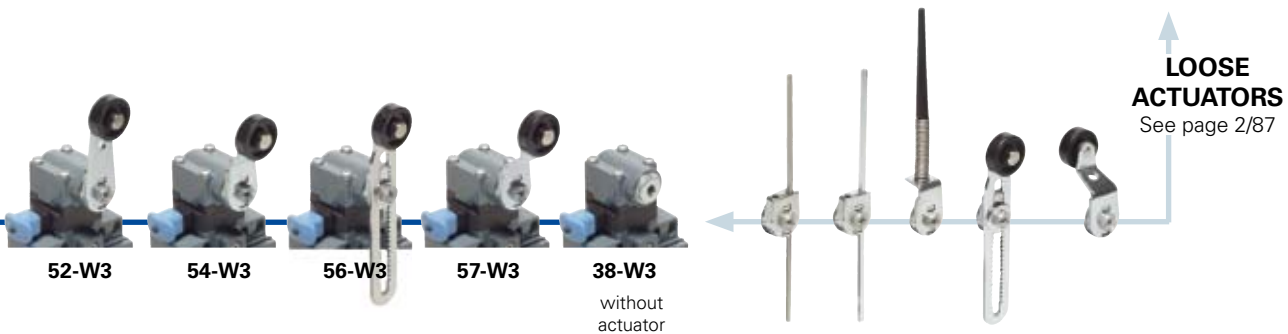
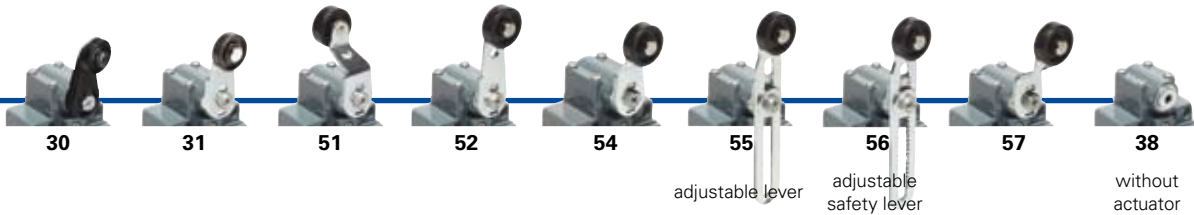
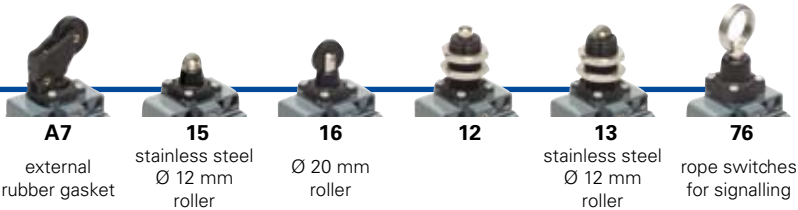
With assembled cable gland

PG 13,5	K121	for Ø 6 to Ø 12 mm cables range, from right
	K221	for Ø 6 to Ø 12 mm cables range, from left
	K125	for Ø 3 to Ø 7 mm cables range, from right
	K225	for Ø 3 to Ø 7 mm cables range, from left
M20x1,5	K123	for Ø 6 to Ø 12 mm cables range, from right
	K223	for Ø 6 to Ø 12 mm cables range, from left
	K127	for Ø 3 to Ø 7 mm cables range, from right
	K227	for Ø 3 to Ø 7 mm cables range, from left

With M12 metal connector assembled and wired

K41	8 poles from right
K42	8 poles from left
K51	5 poles from right
K52	5 poles from left

● product option
 → accessory sold separately


Code structure

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

article options
FZ 502-1W3GM2K51

Housing

FZ Metal housing, two conduit entries

Contact blocks

- 5** 1NO+1NC, snap action
- 6** 1NO+1NC, slow action
- 7** 1NO+1NC, slow action overlapped
-

Actuators

- 01** short plunger
- 02** roller lever
- 05** offset roller lever
-

Suffix

- no suffix (standard)
- 1** with stainless steel roller:
 - Ø 14 mm for actuators A2, 02, A5, 05
 - Ø 20 mm for actuators 30, 31, 51, 52, 54, 55, 56, 57
- 2** with Ø 35 mm polymer roller (see special loose actuators on page 2/88)
- 3** with Ø 50 mm rubber roller (see special loose actuators on page 2/88)
- 4** with Ø 50 mm overhanging rubber roller (see special loose actuators on page 2/88)

Preinstalled cable gland or connectors

- no cable gland or connector (standard)
- K121** with right assembled cable gland suitable for Ø 6 to Ø 12 mm cables range
-
- K51** with 5 poles M12 metal connector from right
-

For the complete list of all combinations, please contact our technical office.

Threaded conduit entry

- PG 13,5 (standard)
- M2** M20x1,5

Contacts type

- silver contacts (standard)
- G** silver contacts gold plated 1 µm (contact block 2 excluded)

Reset hooking

- without reset (standard)
- W3** simultaneous reset hooking



Main data

- Metal housing, two conduit entries
- Protection degree IP67
- 17 contact blocks available
- 42 actuators available
- M12 assembled connector versions
- Silver contacts gold plated versions

Technical data

Housing

Metal housing, coated with baked epoxy powder
 Two threaded conduit entries
 Protection degree: IP67 according to EN 60529

General data

Ambient temperature: from -25°C to +80°C
 Version for operation in ambient temperature from -40°C to +80° C on request
 Max actuation frequency: 3600 operations cycles¹/hour
 Mechanical endurance: 20 million operations cycles¹
 Assembling position: any
 Driving torque for installation: see pages 7/1-7/10
 (1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by EN 60947-5-1 standard.

Cross section of the conductors (flexible copper wire)

Contact blocks 20, 21, 22, 33, 34:	min.	1 x 0,34 mm ²	(1 x AWG 22)
	max.	2 x 1,5 mm ²	(2 x AWG 16)
Contact blocks 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18:	min.	1 x 0,5 mm ²	(1 x AWG 20)
	max.	2 x 2,5 mm ²	(2 x AWG 14)
Contact block 2:	min.	1 x 0,5 mm ²	(1 x AWG 20)
	max.	2 x 1,5 mm ²	(2 x AWG 16)

In conformity with standards:

IEC 60947-5-1, EN 60947-5-1, EN 60947-1, IEC 60204-1, EN 60204-1, EN 1088, EN ISO 12100-1, EN ISO 12100-2, IEC 60529, EN 60529, NFC 63-140, VDE 0660-200, VDE 0113.

Approvals:

IEC 60947-5-1, UL 508, GB14048.5-2001.

Markings and quality marks:



Approval IMQ: EG609
 Approval UL: E131787
 Approval CCC: 2007010305229998
 Approval ECU: 1010151

In conformity with requirements requested by:

Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and Electromagnetic Compatibility 2004/108/EC.

Positive contact opening in conformity with standards:

IEC 60947-5-1, EN 60947-5-1, VDE 0660-206.

Installation for safety applications:

Use only switches marked with the symbol ⊕. The safety circuit must always be connected with the **NC contacts** (normally closed contacts: 11-12, 21-22 or 31-32) as stated in the **standard EN 60947-5-1, encl. K, par. 2**. The switch must be actuated with **at least up to the positive opening travel** shown in the travels diagrams on page 7/6. The switch must be actuated **at least with the positive opening force**, shown in brackets, underneath each article, near the value of the min. force.

⚠ If not expressly indicated in this chapter, for the right installation and the correct utilization of all articles see requirements indicated from page 7/1 to page 7/10.

	Electrical data	Utilization categories	
without connector	Thermal current (I _{th}):	10 A	
	Rated insulation voltage (U _i):	500 Vac 600 Vdc	
	Rated impulse withstand voltage (U _{imp}):	400Vac500Vdc(contact blocks 2, 11, 12, 20, 21, 22, 33, 34)	Alternate current: AC15 (50...60 Hz)
		6 kV	Ue (V) 250 400 500
	4 kV (contact blocks 20, 21, 22, 33, 34)	le (A) 6 4 1	
Conditional short circuit current:	1000 A according to EN 60947-5-1	Direct current: DC13	
Protection against short circuits:	fuse 10 A 500 V type aM	Ue (V) 24 125 250	
Pollution degree:	3	le (A) 6 1,1 0,4	
with 5 poles M12 connector	Thermal current (I _{th}):	4 A	
	Rated insulation voltage (U _i):	250 Vac 300 Vdc	
	Protection against short circuits:	fuse 4 A 500 V type gG	Alternate current: AC15 (50...60 Hz)
	Pollution degree:	3	Ue (V) 24 120 250
			le (A) 4 4 4
		Direct current: DC13	
		Ue (V) 24 125 250	
		le (A) 4 1,1 0,4	
with 8 poles M12 connector	Thermal current (I _{th}):	2 A	
	Rated insulation voltage (U _i):	30 Vac 36 Vdc	
	Protection against short circuits:	fuse 2 A 500 V type gG	Alternate current: AC15 (50...60 Hz)
	Pollution degree:	3	Ue (V) 24
			le (A) 2
		Direct current: DC13	
		Ue (V) 24	
		le (A) 2	



Data type approved by IMQ, CCC and EZU

Rated insulation voltage (Ui): 500 Vac
400 Vac (for contact blocks 2, 11, 12, 20, 21, 22, 33, 34)

Thermal current (Ith): 10 A

Protection against short circuits: fuse 10 A 500 V type aM

Rated impulse withstand voltage (U_{imp}): 6 kV
4 kV (for contact blocks 20, 21, 22, 33, 34)

Protection degree: IP67

MV terminals (screw clamps)

Pollution degree 3

Utilization category: AC15

Operation voltage (Ue): 400 Vac (50 Hz)

Operation current (Ie): 3 A

Forms of the contact element: Za, Zb, Za+Za, Y+Y, X+X, Y+Y+X, Y+Y+Y, Y+X+X

Positive opening of contacts on contact block 5, 6, 7, 9, 11, 13, 14, 16, 18, 20, 21, 22, 33, 34

In conformity with standards: EN 60947-1, EN 60947-5-1+ A1:2009, fundamental requirements of the Low Voltage Directive 2006/95/CE.

Please contact our technical service for the list of approved products.

Data type approved by UL

Utilization categories Q300 (69 VA, 125-250 Vdc)
A600 (720 VA, 120-600 Vac)

Data of the housing type 1, 4X "indoor use only", 12, 13

For all contact blocks except 2 and 3 use 60 or 75 °C copper (Cu) conductor and wire size No. 12-14 AWG. Terminal tightening torque of 7,1 lb in (0,8 Nm).

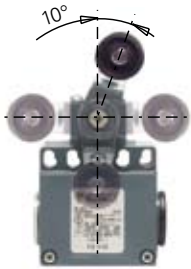
For contact blocks 2 and 3 use 60 or 75 °C copper (Cu) conductor and wire size No. 14 AWG. Terminal tightening torque of 12 lb in (1.4 Nm).

In conformity with standard: UL 508

Please contact our technical service for the list of approved products.

Adjustable levers

In switches with revolving lever it is possible to adjust the lever with 10° steps for the whole 360° range. The positive movement transmission is always guaranteed thanks to the particular geometrical coupling between the lever and the revolving shaft as prescribed for safety applications by the German standard BG-GS-ET-15.



Overturning levers

It's possible to fasten the lever on switches on straight or reverse side, maintaining the positive coupling. In this way it is possible to obtain two different work plans of the lever.



Rotating heads

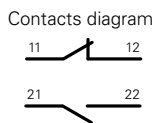
In all switches, it is possible to rotate the head in 90° steps.



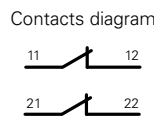
Working operation of contact block 16 with independent contacts

The contact block 16 has two NC contacts, both with positive opening activated independently according to the lever turning direction.

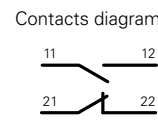
Lever turned to left




Lever not turned




Lever turned to right




Contacts type:

- R** = snap action
- L** = slow action
- LO** = slow action overlapped
- LS** = slow action shifted
- LV** = slow action shifted and spaced
- LI** = slow action independent
- LA** = slow action closer
-  = electronic PNP

Contact blocks

		With stainless steel roller on request	With external rubber gasket With stainless steel roller on request	With external rubber gasket Ø 12 mm stainless steel roller
5	R FZ 501	⊕ 1NO+1NC	FZ 502 ⊕ 1NO+1NC	FZ 5A2 ⊕ 1NO+1NC
6	L FZ 601	⊕ 1NO+1NC	FZ 602 ⊕ 1NO+1NC	FZ 6A2 ⊕ 1NO+1NC
7	LO FZ 701	⊕ 1NO+1NC	FZ 702 ⊕ 1NO+1NC	FZ 7A2 ⊕ 1NO+1NC
9	L FZ 901	⊕ 2NC	FZ 902 ⊕ 2NC	FZ 9A2 ⊕ 2NC
10	L FZ 1001	2NO	FZ 1002 2NO	FZ 10A2 2NO
11	R FZ 1101	⊕ 2NC	FZ 1102 ⊕ 2NC	FZ 11A2 ⊕ 2NC
12	R FZ 1201	2NO	FZ 1202 2NO	FZ 12A2 2NO
13	LV FZ 1301	⊕ 2NC	FZ 1302 ⊕ 2NC	FZ 13A2 ⊕ 2NC
14	LS FZ 1401	⊕ 2NC	FZ 1402 ⊕ 2NC	FZ 14A2 ⊕ 2NC
15	LS FZ 1501	2NO	FZ 1502 2NO	FZ 15A2 2NO
18	LA FZ 1801	⊕ 1NO+1NC	FZ 1802 ⊕ 1NO+1NC	FZ 18A2 ⊕ 1NO+1NC
20	L FZ 2001	⊕ 1NO+2NC	FZ 2002 ⊕ 1NO+2NC	FZ 20A2 ⊕ 1NO+2NC
21	L FZ 2101	⊕ 3NC	FZ 2102 ⊕ 3NC	FZ 21A2 ⊕ 3NC
22	L FZ 2201	⊕ 2NO+1NC	FZ 2202 ⊕ 2NO+1NC	FZ 22A2 ⊕ 2NO+1NC
2	R FZ 201	2x(1NO-1NC)	FZ 202 2x(1NO-1NC)	FZ 2A2 2x(1NO-1NC)
E1	 FZ E101	1NO-1NC	FZ E102 1NO-1NC	FZ E1A2 1NO-1NC
Max speed	page 7/5 - type 4		page 7/5 - type 3	page 7/5 - type 3
Min. force	8 N (25 N ⊕)		6 N (25 N ⊕)	4,3 N (25 N ⊕)
Travel diagrams	page 7/6 - group 1		page 7/6 - group 2	page 7/6 - group 2

	With stainless steel roller on request	With external rubber gasket With stainless steel roller on request	With external rubber gasket	With external rubber gasket
5	R FZ 505	⊕ 1NO+1NC	FZ 5A5 ⊕ 1NO+1NC	FZ 507 ⊕ 1NO+1NC
6	L FZ 605	⊕ 1NO+1NC	FZ 6A5 ⊕ 1NO+1NC	FZ 607 ⊕ 1NO+1NC
7	LO FZ 705	⊕ 1NO+1NC	FZ 7A5 ⊕ 1NO+1NC	FZ 707 ⊕ 1NO+1NC
9	L FZ 905	⊕ 2NC	FZ 9A5 ⊕ 2NC	FZ 907 ⊕ 2NC
10	L FZ 1005	2NO	FZ 10A5 2NO	FZ 1007 2NO
11	R FZ 1105	⊕ 2NC	FZ 11A5 ⊕ 2NC	FZ 1107 ⊕ 2NC
12	R FZ 1205	2NO	FZ 12A5 2NO	FZ 1207 2NO
13	LV FZ 1305	⊕ 2NC	FZ 13A5 ⊕ 2NC	FZ 1307 ⊕ 2NC
14	LS FZ 1405	⊕ 2NC	FZ 14A5 ⊕ 2NC	FZ 1407 ⊕ 2NC
15	LS FZ 1505	2NO	FZ 15A5 2NO	FZ 1507 2NO
18	LA FZ 1805	⊕ 1S+1Ö	FZ 18A5 ⊕ 1S+1Ö	FZ 1807 ⊕ 1S+1Ö
20	L FZ 2005	⊕ 1NO+2NC	FZ 20A5 ⊕ 1NO+2NC	FZ 2007 ⊕ 1NO+2NC
21	L FZ 2105	⊕ 3NC	FZ 21A5 ⊕ 3NC	FZ 2107 ⊕ 3NC
22	L FZ 2205	⊕ 2NO+1NC	FZ 22A5 ⊕ 2NO+1NC	FZ 2207 ⊕ 2NO+1NC
2	R FZ 205	2x(1NO-1NC)	FZ 2A5 2x(1NO-1NC)	FZ 207 2x(1NO-1NC)
E1	 FZ E105	1NO-1NC	FZ E1A5 1NO-1NC	FZ E107 1NO-1NC
Max speed	page 7/5 - type 3		page 7/5 - type 3	page 7/5 - type 3
Min. force	6 N (25 N ⊕)		4,3 N (25 N ⊕)	4 N (25 N ⊕)
Travel diagrams	page 7/6 - group 2		page 7/6 - group 2	page 7/6 - group 3

Accessories See page 6/1

All measures in the drawings are in mm




Contacts type:		With external rubber gasket							
<ul style="list-style-type: none"> R = snap action L = slow action LO = slow action overlapped LS = slow action shifted LV = slow action shifted and spaced LI = slow action independent LA = slow action closer E = electronic PNP 									
Contact blocks									
5	R	FZ 508	➔ 1NO+1NC	FZ 512	➔ 1NO+1NC	FZ 513	➔ 1NO+1NC	FZ 514	➔ 1NO+1NC
6	L	FZ 608	➔ 1NO+1NC	FZ 612	➔ 1NO+1NC	FZ 613	➔ 1NO+1NC	FZ 614	➔ 1NO+1NC
7	LO	FZ 708	➔ 1NO+1NC	FZ 712	➔ 1NO+1NC	FZ 713	➔ 1NO+1NC	FZ 714	➔ 1NO+1NC
9	L	FZ 908	➔ 2NC	FZ 912	➔ 2NC	FZ 913	➔ 2NC	FZ 914	➔ 2NC
10	L	FZ 1008	2NO	FZ 1012	2NO	FZ 1013	2NO	FZ 1014	2NO
11	R	FZ 1108	➔ 2NC	FZ 1112	➔ 2NC	FZ 1113	➔ 2NC	FZ 1114	➔ 2NC
12	R	FZ 1208	2NO	FZ 1212	2NO	FZ 1213	2NO	FZ 1214	2NO
13	LV	FZ 1308	➔ 2NC	FZ 1312	➔ 2NC	FZ 1313	➔ 2NC	FZ 1314	➔ 2NC
14	LS	FZ 1408	➔ 2NC	FZ 1412	➔ 2NC	FZ 1413	➔ 2NC	FZ 1414	➔ 2NC
15	LS	FZ 1508	2NO	FZ 1512	2NO	FZ 1513	2NO	FZ 1514	2NO
18	LA	FZ 1808	➔ 1NO+1NC	FZ 1812	➔ 1S+1Ö	FZ 1813	➔ 1S+1Ö	FZ 1814	➔ 1S+1Ö
20	L	FZ 2008	➔ 1NO+2NC	FZ 2012	➔ 1NO+2NC	FZ 2013	➔ 1NO+2NC	FZ 2014	➔ 1NO+2NC
21	L	FZ 2108	➔ 3NC	FZ 2112	➔ 3NC	FZ 2113	➔ 3NC	FZ 2114	➔ 3NC
22	L	FZ 2208	➔ 2NO+1NC	FZ 2212	➔ 2NO+1NC	FZ 2213	➔ 2NO+1NC	FZ 2214	➔ 2NO+1NC
2	R	FZ 208	2x(1NO-1NC)	FZ 212	2x(1NO-1NC)	FZ 213	2x(1NO-1NC)	FZ 214	2x(1NO-1NC)
E1	E	FZ E108	1NO-1NC	FZ E112	1NO-1NC	FZ E113	1NO-1NC	FZ E114	1NO-1NC
Max speed		page 7/5 - type 4		page 7/5 - type 4		page 7/5 - type 2		page 7/5 - type 4	
Min. force		8 N (25 N ➔)		8 N (25 N ➔)		8 N (25 N ➔)		8 N (25 N ➔)	
Travel diagrams		page 7/6 - group 1		page 7/6 - group 1		page 7/6 - group 1		page 7/6 - group 1	

Ø 12 mm stainless steel roller		With external rubber gasket		With external rubber gasket			
Contact blocks							
5	R	FZ 515	➔ 1NO+1NC	FZ 520	1NO+1NC	FZ 521	1NO+1NC
6	L	FZ 615	➔ 1NO+1NC	FZ 616	➔ 1NO+1NC		
7	LO	FZ 715	➔ 1NO+1NC	FZ 716	➔ 1NO+1NC		
9	L	FZ 915	➔ 2NC	FZ 916	➔ 2NC		
10	L	FZ 1015	2NO	FZ 1016	2NO	FZ 1020	2NO
11	R	FZ 1115	➔ 2NC	FZ 1116	➔ 2NC		
12	R	FZ 1215	2NO	FZ 1216	2NO	FZ 1220	2NO
13	LV	FZ 1315	➔ 2NC	FZ 1316	➔ 2NC		
14	LS	FZ 1415	➔ 2NC	FZ 1416	➔ 2NC		
15	LS	FZ 1515	2NO	FZ 1516	2NO		
18	LA	FZ 1815	➔ 1S+1Ö	FZ 1816	➔ 1S+1Ö	FZ 1820	1NO+1NC
20	L	FZ 2015	➔ 1NO+2NC	FZ 2016	➔ 1NO+2NC	FZ 2020	1NO+2NC
21	L	FZ 2115	➔ 3NC	FZ 2116	➔ 3NC	FZ 2120	3NC
22	L	FZ 2215	➔ 2NO+1NC	FZ 2216	➔ 2NO+1NC	FZ 2220	2NO+1NC
2	R	FZ 215	2x(1NO-1NC)	FZ 216	2x(1NO-1NC)	FZ 220	2x(1NO-1NC)
E1	E	FZ E115	1NO-1NC	FZ E116	1NO-1NC	FZ E120	1NO-1NC
Max speed		page 7/5 - type 2		page 7/5 - type 2		1 m/s	
Min. force		8 N (25 N ➔)		8 N (25 N ➔)		0,07 Nm	
Travel diagrams		page 7/6 - group 1		page 7/6 - group 1		page 7/6 - group 4	





Items with code on the green background are available in stock




Position switches FZ series

Contacts type:

- R** = snap action
- L** = slow action
- LO** = slow action overlapped
- LS** = slow action shifted
- LV** = slow action shifted and spaced
- LI** = slow action independent
- LA** = slow action closer
-  = electronic PNP

Contact blocks

	With external rubber gasket	With Ø 20 mm stainless steel roller on request	Other rollers available. See page 2/88	3x3 mm square rod
5	R FZ 525	1NO+1NC	R FZ 530	1NO+1NC
6	L FZ 525	1NO+1NC	L FZ 530	1NO+1NC
7	LO FZ 525	1NO+1NC	LO FZ 530	1NO+1NC
9	L FZ 525	2NC	L FZ 530	2NC
10	L FZ 1025	2NO	L FZ 1030	2NO
11	R FZ 1025	2NC	R FZ 1030	2NC
12	R FZ 1225	2NO	R FZ 1230	2NO
13	LV FZ 1225	2NC	LV FZ 1230	2NC
14	LS FZ 1225	2NC	LS FZ 1230	2NC
15	LS FZ 1225	2NO	LS FZ 1230	2NO
16	LI FZ 1225	2NC	LI FZ 1230	2NC
18	LA FZ 1825	1NO+1NC	LA FZ 1830	1NO+1NC
20	L FZ 2025	1NO+2NC	L FZ 2030	1NO+2NC
21	L FZ 2125	3NC	L FZ 2130	3NC
22	L FZ 2225	2NO+1NC	L FZ 2230	2NO+1NC
2	R FZ 225	2x(1NO-1NC)	R FZ 230	2x(1NO-1NC)
E1	 FZ E125	1NO-1NC	 FZ E130	1NO-1NC
Max speed	1 m/s	page 7/5 - type 1	page 7/5 - type 1	1,5 m/s
Min. force	0,12 Nm	0,06 Nm (0,25 Nm )	0,06 Nm (0,25 Nm )	0,06 Nm
Travel diagrams	page 7/6 - group 4	page 7/6 - group 5	page 7/6 - group 5	page 7/6 - group 5

	Ø 3 mm stainless steel round rod	Other rollers available. See page 2/88	Other rollers available. See page 2/88
5	R FZ 534	1NO+1NC	R FZ 551
6	L FZ 534	1NO+1NC	L FZ 551
7	LO FZ 534	1NO+1NC	LO FZ 551
9	L FZ 534	2NC	L FZ 551
10	L FZ 1034	2NO	L FZ 1051
11	R FZ 1034	2NC	R FZ 1051
12	R FZ 1234	2NO	R FZ 1251
13	LV FZ 1234	2NC	LV FZ 1251
14	LS FZ 1234	2NC	LS FZ 1251
15	LS FZ 1234	2NO	LS FZ 1251
16	LI FZ 1234	2NC	LI FZ 1251
18	LA FZ 1834	1S+1Ö	LA FZ 1851
20	L FZ 2034	1NO+2NC	L FZ 2051
21	L FZ 2134	3NC	L FZ 2151
22	L FZ 2234	2NO+1NC	L FZ 2251
2	R FZ 234	2x(1NO-1NC)	R FZ 251
E1	 FZ E134	1NO-1NC	 FZ E151
Max speed	1,5 m/s	1,5 m/s	page 7/5 - type 1
Min. force	0,06 Nm	0,06 Nm	0,06 Nm (0,25 Nm )
Travel diagrams	page 7/6 - group 5	page 7/6 - group 5	page 7/6 - group 5

Accessories See page 6/1



Contacts type:

- R** = snap action
- L** = slow action
- LO** = slow action overlapped
- LS** = slow action shifted
- LV** = slow action shifted and spaced
- LI** = slow action independent
- LA** = slow action closer
- ⚡** = electronic PNP

Contact blocks

	Porcelain roller	Other rollers available. See page 2/88	Other rollers available. See page 2/88	Other rollers available. See page 2/88
5	R FZ 553-E0V9	1NO+1NC	FZ 554	1NO+1NC
6	L FZ 653-E0V9	1NO+1NC	FZ 654	1NO+1NC
7	LO FZ 753-E0V9	1NO+1NC	FZ 754	1NO+1NC
9	L FZ 953-E0V9	2NC	FZ 954	2NC
10	L FZ 1053-E0V9	2NO	FZ 1054	2NO
11	R FZ 1253-E0V9	2NO	FZ 1154	2NC
12	R FZ 1253-E0V9	2NO	FZ 1254	2NO
13	LV FZ 1353-E0V9	2NC	FZ 1354	2NC
14	LS FZ 1453-E0V9	2NC	FZ 1454	2NC
15	LS FZ 1553-E0V9	2NO	FZ 1554	2NO
16	LI FZ 1653-E0V9	2NC	FZ 1654	2NC
18	LA FZ 1853-E0V9	1S+1Ö	FZ 1854	1S+1Ö
20	L FZ 2053-E0V9	1NO+2NC	FZ 2054	1NO+2NC
21	L FZ 2153-E0V9	3NC	FZ 2154	3NC
22	L FZ 2253-E0V9	2NO+1NC	FZ 2254	2NO+1NC
2	R FZ 253-E0	2x(1NO-1NC)	FZ 254	2x(1NO-1NC)
E1	⚡ FZ E153-E0V9	1NO-1NC	FZ E154	1NO-1NC
Max speed	0,5 m/s	page 7/5 - type 1	page 7/5 - type 1	page 7/5 - type 1
Min. force	0,03 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 7/6 - group 6	page 7/6 - group 5	page 7/6 - group 5	page 7/6 - group 5

	Other rollers available. See page 2/88	Fiber glass rod	Rope switches for signalling	
5	R FZ 557	1NO+1NC	FZ 576	1NO+1NC
6	L FZ 657	1NO+1NC	FZ 676	1NO+1NC
7	LO FZ 757	1NO+1NC	FZ 776	1NO+1NC
9	L FZ 957	2NC	FZ 976	2NO
10	L FZ 1057	2NO	FZ 1076	2NC
11	R FZ 1157	2NC	FZ 1176	2NO
12	R FZ 1257	2NO	FZ 1276	2NC
13	LV FZ 1357	2NC	FZ 1376	2NO
14	LS FZ 1457	2NC	FZ 1476	2NO
15	LS FZ 1557	2NO	FZ 1576	2NC
16	LI FZ 1657	2NC		
18	LA FZ 1857	1S+1Ö	FZ 1876	1NO+1NC
20	L FZ 2057	1NO+2NC	FZ 2076	2NO+1NC
21	L FZ 2157	3NC	FZ 2176	3NO
22	L FZ 2257	2NO+1NC	FZ 2276	1NO+2NC
2	R FZ 257	2x(1NO-1NC)	FZ 276	2x(1NO-1NC)
E1	⚡ FZ E157	1NO-1NC	FZ E169	1NO-1NC
Max speed	page 7/5 - type 1	1,5 m/s	0,5 m/s	
Min. force	0,06 Nm (0,25 Nm ⊕)	0,06 Nm	initial 20 N - final 40 N	
Travel diagrams	page 7/6 - group 5	page 7/6 - group 5	page 7/6 - group 7	

Items with code on the green background are available in stock

(1) Positive opening only with lever adjusted on the max. See page 2/87.
General Catalog 2011-2012



Position switches FZ series with reset

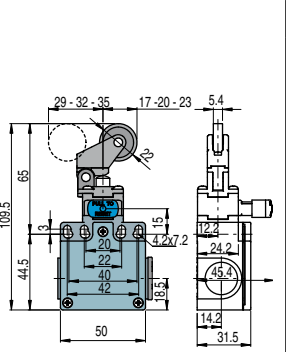
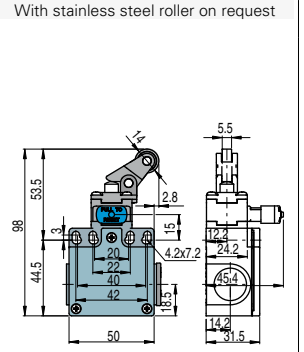
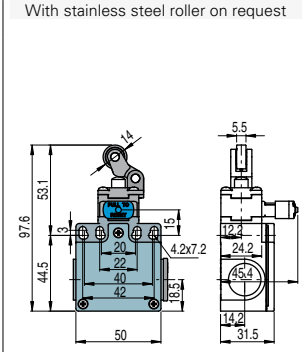
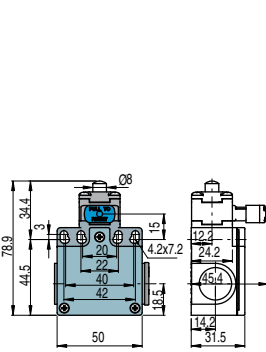


Pizzato Eletttrica has developed a reset device code W3 to make perfectly simultaneous the actuator and the contact block tripping. The new device is a block inserted between the switch body and the head, and could be rotated independently from this last one. This new device has following advantages:

- * The reset device integrate in any standard actuation head
- * Contact blocks with snap action are no more necessary because the tripping movement is made by the reset device itself
- * The reset device can be rotated independently from the head for the maximum flexibility during the assembling.

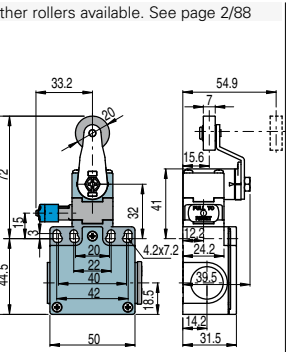
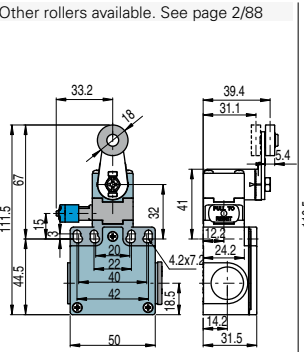
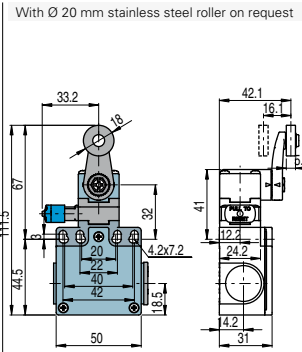
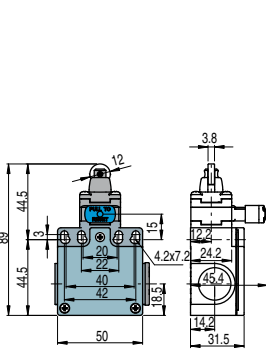
Contacts type:

- R** = snap action
- L** = slow action



Contact blocks

6	L	FZ 601-W3	⊕ 1NO+1NC	FZ 602-W3	⊕ 1NO+1NC	FZ 605-W3	⊕ 1NO+1NC	FZ 607-W3	⊕ 1NO+1NC
9	L	FZ 901-W3	⊕ 2NC	FZ 902-W3	⊕ 2NC	FZ 905-W3	⊕ 2NC	FZ 907-W3	⊕ 2NC
10	L	FZ 1001-W3	2NO	FZ 1002-W3	2NO	FZ 1005-W3	2NO	FZ 1007-W3	2NO
20	L	FZ 2001-W3	⊕ 1NO+2NC	FZ 2002-W3	⊕ 1NO+2NC	FZ 2005-W3	⊕ 1NO+2NC	FZ 2007-W3	⊕ 1NO+2NC
21	L	FZ 2101-W3	⊕ 3NC	FZ 2102-W3	⊕ 3NC	FZ 2105-W3	⊕ 3NC	FZ 2107-W3	⊕ 3NC
22	L	FZ 2201-W3	⊕ 2NO+1NC	FZ 2202-W3	⊕ 2NO+1NC	FZ 2205-W3	⊕ 2NO+1NC	FZ 2207-W3	⊕ 2NO+1NC
2	R	FZ 201-W3	2NO+2NC	FZ 202-W3	2NO+2NC	FZ 205-W3	2NO+2NC	FZ 207-W3	2NO+2NC
Max speed		page 7/5 - type 4		page 7/5 - type 3		page 7/5 - type 3		page 7/5 - type 3	
Min. force		8 N (25 N ⊕)		6 N (25 N ⊕)		6 N (25 N ⊕)		4 N (25 N ⊕)	
Travel diagrams		page 7/7 - group 1		page 7/7 - group 2		page 7/7 - group 2		page 7/7 - group 3	



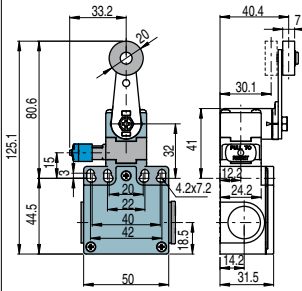
Contact blocks

6	L	FZ 615-W3	⊕ 1NO+1NC	FZ 630-W3	⊕ 1NO+1NC	FZ 631-W3	⊕ 1NO+1NC	FZ 651-W3	⊕ 1NO+1NC
9	L	FZ 915-W3	⊕ 2NC	FZ 930-W3	⊕ 2NC	FZ 931-W3	⊕ 2NC	FZ 951-W3	⊕ 2NC
10	L	FZ 1015-W3	2NO	FZ 1030-W3	2NO	FZ 1031-W3	2NO	FZ 1051-W3	2NO
20	L	FZ 2015-W3	⊕ 1NO+2NC	FZ 2030-W3	⊕ 1NO+2NC	FZ 2031-W3	⊕ 1NO+2NC	FZ 2051-W3	⊕ 1NO+2NC
21	L	FZ 2115-W3	⊕ 3NC	FZ 2130-W3	⊕ 3NC	FZ 2131-W3	⊕ 3NC	FZ 2151-W3	⊕ 3NC
22	L	FZ 2215-W3	⊕ 2NO+1NC	FZ 2230-W3	⊕ 2NO+1NC	FZ 2231-W3	⊕ 2NO+1NC	FZ 2251-W3	⊕ 2NO+1NC
2	R	FZ 215-W3	2NO+2NC	FZ 230-W3	2NO+2NC	FZ 231-W3	2NO+2NC	FZ 251-W3	2NO+2NC
Max speed		page 7/5 - type 2		page 7/5 - type 1		page 7/5 - type 1		page 7/5 - type 1	
Min. force		8 N (25 N ⊕)		0,06 Nm (0,25 Nm ⊕)		0,06 Nm (0,25 Nm ⊕)		0,06 Nm (0,25 Nm ⊕)	
Travel diagrams		page 7/7 - group 1		page 7/7 - group 4		page 7/7 - group 4		page 7/7 - group 4	

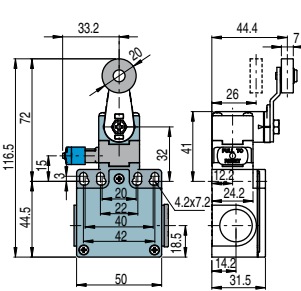
Contacts type:

- R** = snap action
- L** = slow action

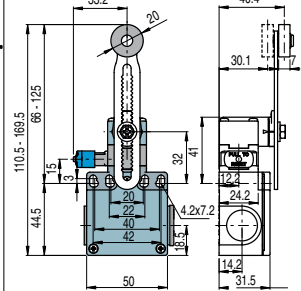
Other rollers available. See page 2/88



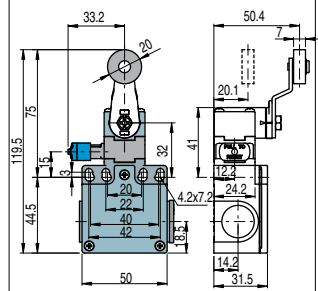
Other rollers available. See page 2/88



Other rollers available. See page 2/88



Other rollers available. See page 2/88



Contact blocks

6	L	FZ 652-W3	➔	1NO+1NC	FZ 654-W3	➔	1NO+1NC	FZ 656-W3	➔	1NO+1NC	FZ 657-W3	➔	1NO+1NC
9	L	FZ 952-W3	➔	2NC	FZ 954-W3	➔	2NC	FZ 956-W3	➔	2NC	FZ 957-W3	➔	2NC
10	L	FZ 1052-W3		2NO	FZ 1054-W3		2NO	FZ 1056-W3		2NO	FZ 1057-W3		2NO
20	L	FZ 2052-W3	➔	1NO+2NC	FZ 2054-W3	➔	1NO+2NC	FZ 2056-W3	➔	1NO+2NC	FZ 2057-W3	➔	1NO+2NC
21	L	FZ 2152-W3	➔	3NC	FZ 2154-W3	➔	3NC	FZ 2156-W3	➔	3NC	FZ 2157-W3	➔	3NC
22	L	FZ 2252-W3	➔	2NO+1NC	FZ 2254-W3	➔	2NO+1NC	FZ 2256-W3	➔	2NO+1NC	FZ 2257-W3	➔	2NO+1NC
2	R	FZ 252-W3		2NO+2NC	FZ 254-W3		2NO+2NC	FZ 256-W3		2NO+2NC	FZ 257-W3		2NO+2NC
Max speed		page 7/5 - type 1		page 7/5 - type 1		page 7/5 - type 1		page 7/5 - type 1		page 7/5 - type 1		page 7/5 - type 1	
Min. 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 ➔)		0,06 Nm (0,25 Nm ➔)		0,06 Nm (0,25 Nm ➔)	
Travel diagrams		page 7/7 - group 4		page 7/7 - group 4		page 7/7 - group 4		page 7/7 - group 4		page 7/7 - group 4		page 7/7 - group 4	

 Items with code on the **green** background are available in stock



Special loose actuators

IMPORTANT: These loose actuators can be used with items of series FR, FM, FX, FZ, FK only.

Ø 20 mm stainless steel rollers

VF LE31-1 (1)	VF LE51-1 (1)	VF LE52-1 (1)	VF LE54-1 (1)	VF LE55-1 (1) (1)	VF LE56-1 (1)	VF LE57-1 (1)

Ø 35 mm polymer rollers

VF LE31-2 (4)	VF LE51-2 (4)	VF LE52-2 (4)	VF LE54-2 (4)	VF LE55-2 (1)	VF LE56-2 (1)	VF LE57-2 (4)

Ø 40 mm rubber rollers

VF LE31-R5 (4)	VF LE51-R5 (4)	VF LE52-R5 (4)	VF LE54-R5 (4)	VF LE55-R5 (1)	VF LE56-R5 (1)	VF LE57-R5 (4)

Ø 50 mm rubber rollers

VF LE51-3 (4)	VF LE52-3 (4)	VF LE54-3 (4)	VF LE55-3 (1)	VF LE56-3 (1)	VF LE57-3 (4)

Ø 50 mm overhanging rubber rollers

VF LE55-4 (1)	VF LE56-4 (1)

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