



# GIOVENZANA INTERNATIONAL B.V.

## GIOVENZANA INTERNATIONAL B.V.

1077 XX Amsterdam, The Netherlands  
WTC Strawinskylaan 1105  
Phone: +31(0) 20.4413576 - Fax: +31(0) 20.4413456  
E-mail: [giovenzana@giovenzana.com](mailto:giovenzana@giovenzana.com)

## G.T.R. LLC

127051, Moscow, Russian Federation  
Likhov lane, h.3, b.2, office 101  
Phone: +7.495.6991296 / +7.499.9228548  
E-mail: [gtr@giovenzana.com](mailto:gtr@giovenzana.com)

## GIOVENZANA CONTROLS INDIA Pvt. Ltd.

Near Mindspace, Malad West - 400064 Mumbai  
A-203, Knox Plaza, Chincholi, Off Link Road  
Phone: +91.22.42640071  
E-mail: [ggindia@giovenzana.com](mailto:ggindia@giovenzana.com)

## GIOVENZANA do Brasil

São Paulo - Brasil  
Rua Enxovia, 472 cj1904  
Cep. 04711-030; Vila São Francisco  
Phone: +55 11 3360-6840 / 11 3530-5316  
E-mail: [logistic.brasil@giovenzana.com](mailto:logistic.brasil@giovenzana.com)

## Branch

DUBAI U.A.E. P.O. Box 262146 - J.A.F.Z.A. 15, Jebel Ali Free Zone  
Phone: +971.4.8870788 - Fax: +971.4.8870787  
E-mail: [uae@giovenzana.com](mailto:uae@giovenzana.com)



[www.giovenzana.com](http://www.giovenzana.com)

AUTOMATION • LIMIT & MICRO SWITCHES

GIOVENZANA INTERNATIONAL B.V.



LIMIT SWITCHES  
MICRO SWITCHES





# QUALITY AS A LIFE STYLE

[www.giovenzana.com](http://www.giovenzana.com)



## GIOVENZANA INTERNATIONAL B.V.: AUTOMATION TECHNOLOGIES

### AUTOMATION

The solutions offered by **Giovenzana** are the results of the market analysis of industrial electrical accessories requirements in conformity with all relevant international standards. The range includes:

- Phoenix cam switches from 12A to 200A;
- Regolus switch disconnectors from 16A to 160A;
- Pegasus, Orion and NEMA auxiliary controls;
- Thermoplastic limit switches, with manual reset, safety limit switches, M12 & pre-wired thermoplastic limit switches;
- Foot switches and micro switches.

### QUALITY

**Giovenzana**, leader in the elevator and lifting equipment field, has gained a prominent position in the automation sector with the launch of industrial control devices into the market. For many years, all commercial and industrial operations have been integrated within the **UNI EN ISO 9001:2015** quality system.

#### CSQ certificate N 9105. GIOV.

Quality system is the end users guarantee that all production stages are closely followed under strict control and adhere to the requirements set by the company both in terms of customer expectations and compliance to the relevant international standards as proved by the various certificates **Giovenzana** holds for its products.

By the **UNI EN ISO 14001:2015**, **Giovenzana** keeps up with new technologies in order to reduce raw materials consumption, energy and natural resources and to minimize waste and emissions. This reduces the environmental impact.

#### The certification CSQ N 9191. GIBV.

### COMPLIANCE

All **Giovenzana** products are manufactured according to the most relevant Cee directives. **Giovenzana** certifies this compliance with a declaration of conformity.

### CERTIFICATIONS

In order to reach its high quality level **Giovenzana's** products are tested by multiple third parties. In order to obtain the UL mark, **Giovenzana** submits their products to Underwriter Laboratories Inc., one of the most eminent independent certification companies in the World.

### CEE DIRECTIVES

From January 1st, 1997 it is compulsory to CE mark all electromechanical products; this has been outlined by an important regulation: 2006/95/CE Low Voltage Directives.

### CE MARK

European directives, applied to all national regulations, set the minimum requirements in term of safety of all electrical material sold within the EU.

Compliance to these requirements is certified by the manufacturer by the CE mark placed on the products.

### STANDARDS

**Giovenzana's** products comply with both the European EN and the American UL standards. These regulations, such as CEI EN 60204-1 (CEI 44-5) with regards to the safety requirements of the electrical circuits on board industrial machinery, define the characteristics, performance and use of the products.

### EN EUROPEAN STANDARDS

The EN European standards are originated from IEC International standards and are the result of the collaboration between CENELEC (European Committee for Electrotechnical Standardization) member countries.

These standards cover and eliminate existing national standards that may be contradictory and non-compliant.

PRODUCTS INDEX - LIMIT SWITCHES & MICRO SWITCHES

**A FTN SERIES THERMOPLASTIC LIMIT SWITCHES**

pg. 7 / 26



FTN131 FTN132 FTN133 FTN134 FTN135 FTN136



FTN137 FTN138 FTN139 FTN140 FTN140L FTN140R



FTN140RL FTN141 FTN142 FTN143 FTN144 FTN198

**B FTN1R SERIES LIMIT SWITCHES WITH MANUAL RESET**

pg. 27 / 41



FTN1R31 FTN1R32 FTN1R33 FTN1R34 FTN1R37 FTN1R38



FTN1R39 FTN1R40 FTN1R40R FTN1R41 FTN1R43 FTN1R44

**PRODUCTS INDEX - LIMIT SWITCHES & MICRO SWITCHES**

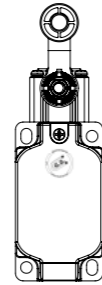
**C FTNG SERIES 40 MM THERMOPLASTIC LIMIT SWITCHES pg. 43 / 53**



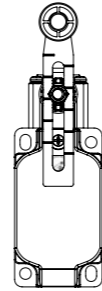
FTNG131



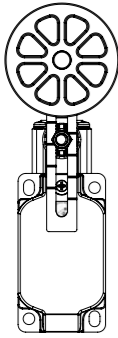
FTNG134



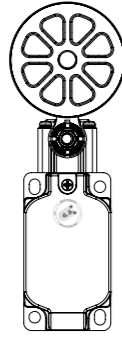
FTNG138



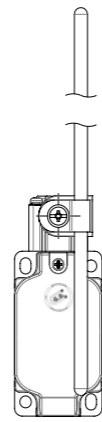
FTNG139



FTNG140



FTNG141



FTNG172

**D STNK SERIES SAFETY LIMIT SWITCHES WITH KEY pg. 55 / 62**



STNK01



STNK02



STNK03

**E FCT SERIES M12 CONNECTION & PRE-WIRED THERMOPLASTIC LIMIT SWITCHES - IP67 pg. 63 / 73**



01



02



03



04



05



06



07



08



09



10



11

AVAILABLE VERSIONS



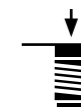
FCT2L...  
with side cable input



FCT2V...  
with vertical cable input



FCTML...  
with side connector input



FCTMV...  
with vertical connector input

**F MFI SERIES MICRO SWITCHES pg. 75 / 91**



MFI



MFI.5



MFI.ST



MFI.STP



MFI.T

**E FCT SERIES M12 CONNECTION & PRE-WIRED THERMOPLASTIC LIMIT SWITCHES**

**DESCRIPTION**

Giovenzana offers two lines of pre-wired switches:

**FCT series:** prewired thermoplastic switches with IP67 protection rating with 2 mt cable. They are available in two different versions:

- with side cable entry;
  - with vertical cable entry.
- (The standard cable length is 2 mt but on request are available different sizes).

**FCTM series:** thermoplastic pre-wired switches with IP67 protection rating with M12 connector.

**TECHNICAL DATA - HOUSING**

Made of glass fibre reinforced technopolymer, self-extinguishing, shock-proof and with double insulation	
FCT Series	Version with integrated cable, standard lenght 2 mt. Other lenghts available on request.
FCTM Series	Version with integrated M12 connector.

**GENERAL DATA**

Utilization category	AC15 (Ue=240V, Ie=1.5A) - DC13 (Ue=240V, Ie=0,27A)
Insulation resistance	100MΩ min (DC 500V)
Conduit resistance	25mΩ max (Initial)
Operating temperature	Min -25°C (-18°F) / Max 70°C (+158°F)
Mechanical life expectancy	1x10 <sup>7</sup> cycles min
Electrically life expectancy	150.000 cycles min
Vibration resistance	IEC 68-2-6, 10-55Hz ± 1Hz, Excursion: 0.35mm, 1 octave/min

**ELECTRICAL DATA**

Rated thermal current (Ith)	Pre-cabled switches: 10A - Switches with M12, 4 pin connector: 4A
Rated insulation voltage (Ui)	500V AC
Rated impulse withstand voltage (Uimp)	4kV
Pollution degree	3
Protection against electric shock	Class II (Double insulation)

**STANDARDS & APPROVALS**

Standards	IEC/EN60947-5-1
Approvals	cULus, EAC and CCC for all applicable directives

**QUALITY MARKS**

**PROTECTION CLASS**
**IP67**

Designed to be used even in the most severe environmental situations, these devices pass the immersion test IP67 in conformity with EN 60529.

**DATA TYPE APPROVED BY UL**
**Utilization categories:**

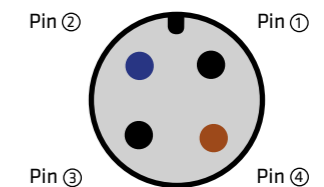
FCT SERIES	A300	Q300	1 NC/1 NO Slow Action
			1 NC/1 NO Snap Action

In conformity with standards: UL508, CSA 22.2 No. 14 - 13.

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


**INTERNAL CABLE WIRING**

Contact Types	X11	Z11
Contact Form	1NC/1NO Slow Action	1NC/1NO Snap Action
Electrical Schemes		

**CONNECTOR PIN ASSIGNMENT**


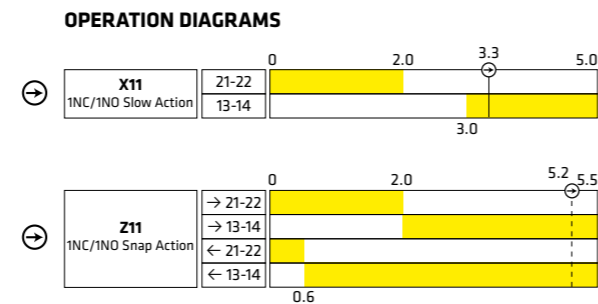
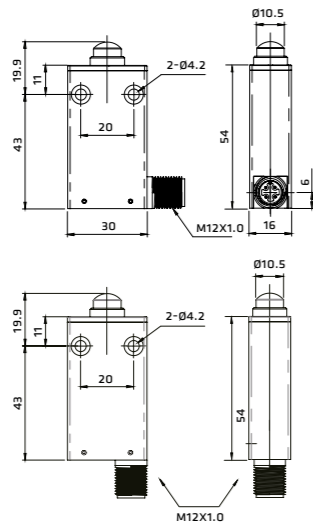
CONTACT No.	CABLE COLOR
Pin 1	Black
Pin 2	Blue
Pin 3	Black
Pin 4	Brown

**PRODUCT SELECTION**

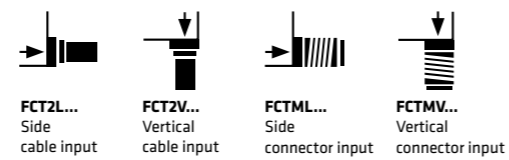
FCT	2	L	01	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	<b>2</b> - 2 mt <b>X</b> - Other lenght on request <b>M</b> - M12 connector	<b>L</b> - Side <b>V</b> - Vertical	<b>01</b> - Steel end plunger <b>02</b> - Roller plunger <b>03</b> - 90° Roller plunger <b>04</b> - Metal revolving lever Ø 17.5 nylon roller <b>05</b> - Adjustable lenght straight metal revolving lever Ø 17.5 nylon roller <b>06</b> - Steel end plunger with threaded flange <b>07</b> - Roller plunger with threaded flange <b>08</b> - 90° Roller plunger with threaded flange <b>09</b> - Steel end plunger with rubber protection <b>10</b> - Rod lever type <b>11</b> - Spring lever with tip in PA	<b>X11</b> - 1NC/1NO Slow Action <b>Z11</b> - 1NC/1NO Snap Action	<b>D</b> - 20 mm

**01: Steel end plunger**

FCT	M	L	01	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	01 - Steel end plunger	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm

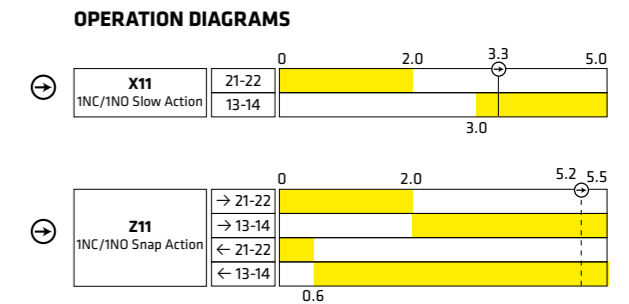
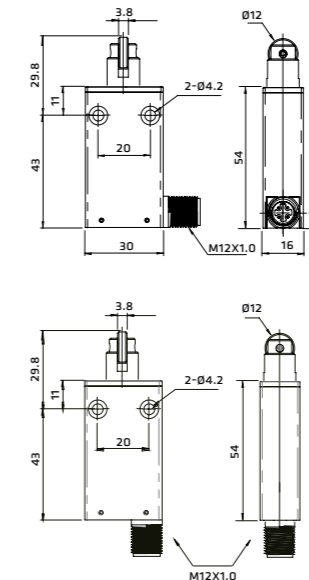


**AVAILABLE VERSIONS**

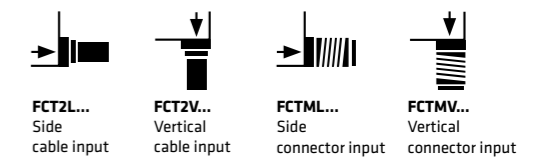


**03: 90° Roller plunger**

FCT	M	L	03	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	03 - 90° Roller plunger	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm

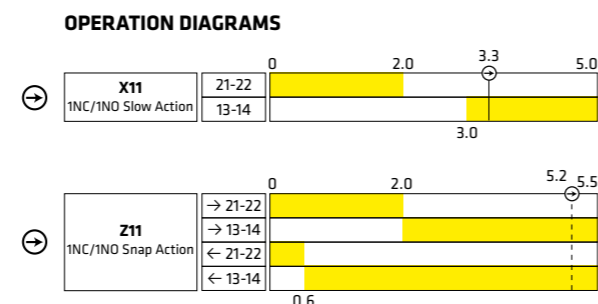
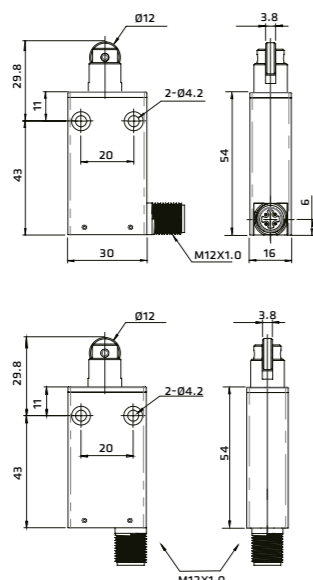


**AVAILABLE VERSIONS**

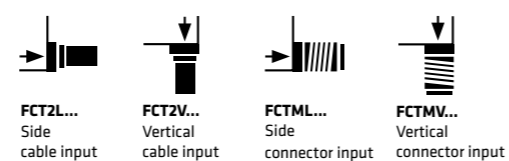


**02: Roller plunger**

FCT	M	L	02	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	02 - Roller plunger	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm

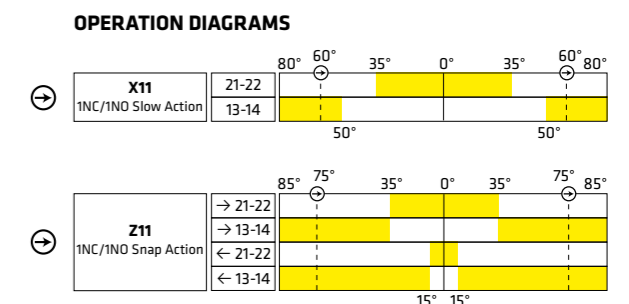
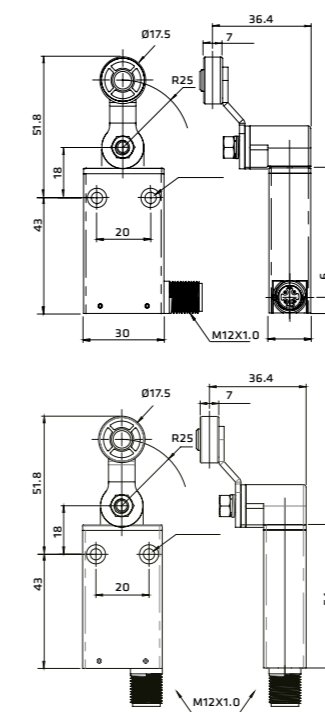


**AVAILABLE VERSIONS**

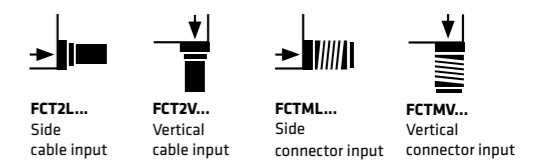


**04: Metal revolving lever Ø17.5 nylon roller**

FCT	M	L	04	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	04 - Metal revolving lever Ø17.5 nylon roller	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm

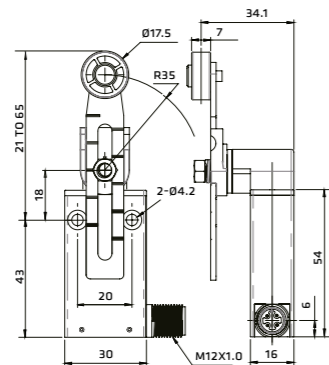


**AVAILABLE VERSIONS**

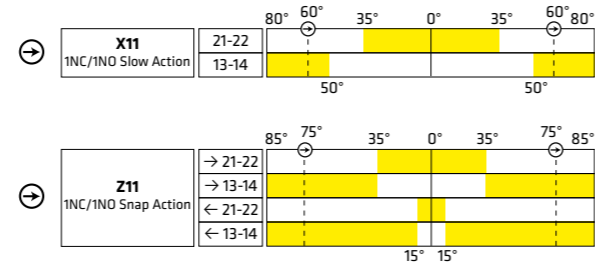


**05: Adjustable length straight metal revolving lever Ø17.5 nylon roller**

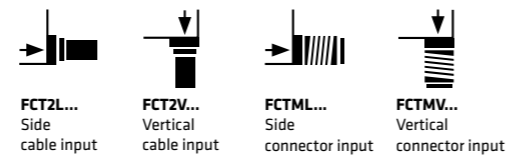
FCT	M	L	05	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	05 - Adjustable length straight metal revolving lever Ø 17.5 nylon roller	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS**

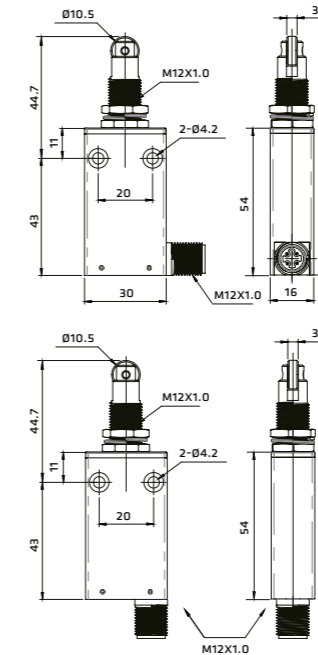


**AVAILABLE VERSIONS**

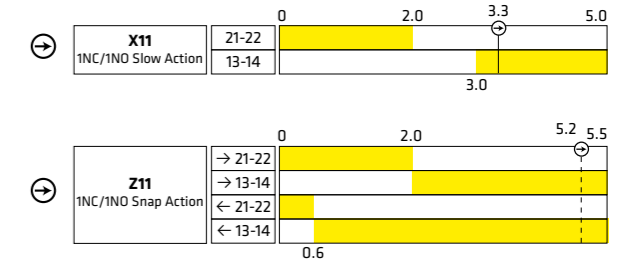


**07: Roller plunger with threaded flange**

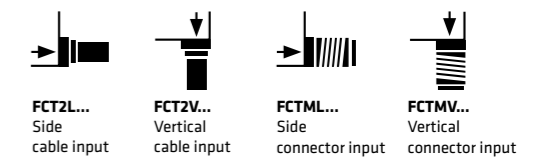
FCT	M	L	07	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	07 - Roller plunger with threaded flange	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS**

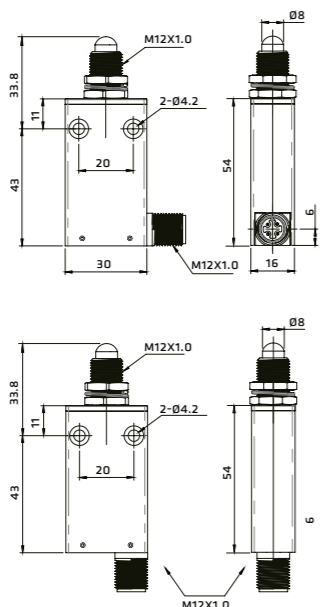


**AVAILABLE VERSIONS**

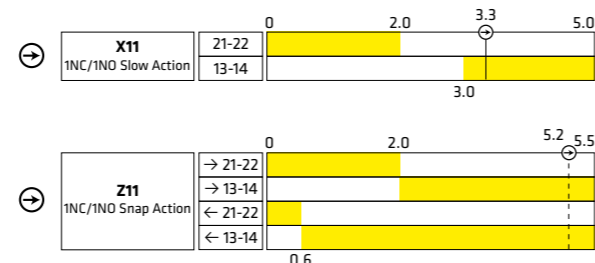


**06: Steel end plunger with threaded flange**

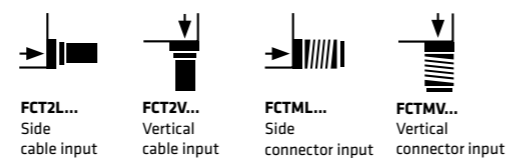
FCT	M	L	06	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	06 - Steel end plunger with threaded flange	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS**

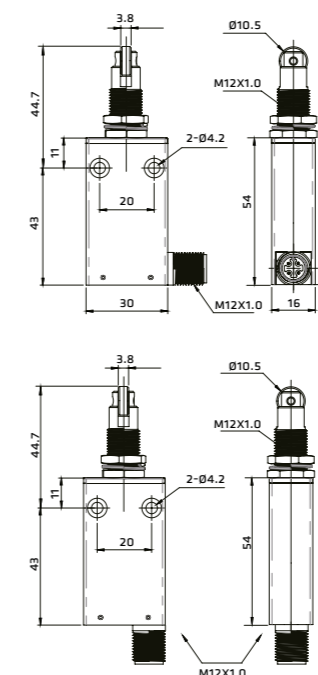


**AVAILABLE VERSIONS**

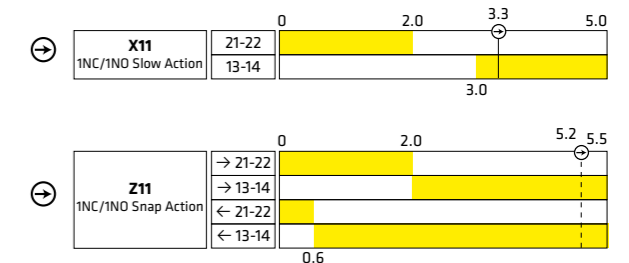


**08: 90° Roller plunger with threaded flange**

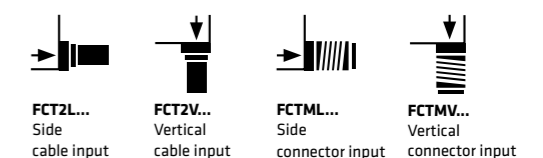
FCT	M	L	08	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	08 - 90° Roller plunger with threaded flange	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS**

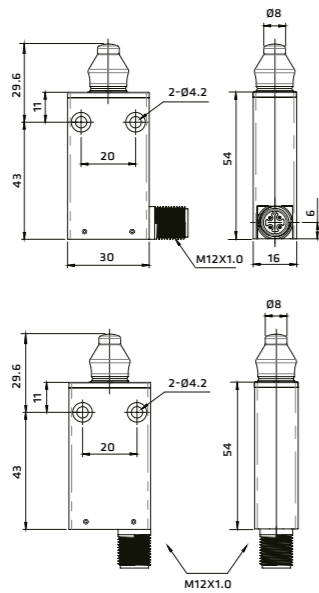


**AVAILABLE VERSIONS**

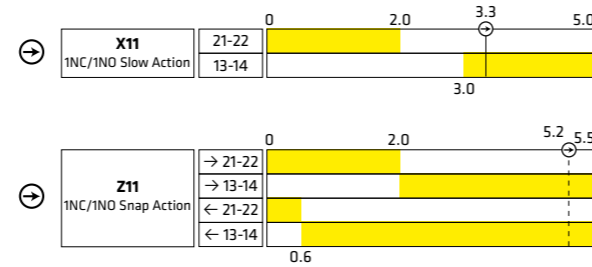


**09: Steel end plunger with rubber protection**

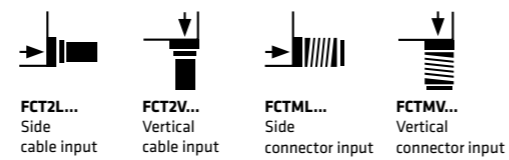
FCT	M	L	09	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	09 - Steel end plunger with rubber protection	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS**

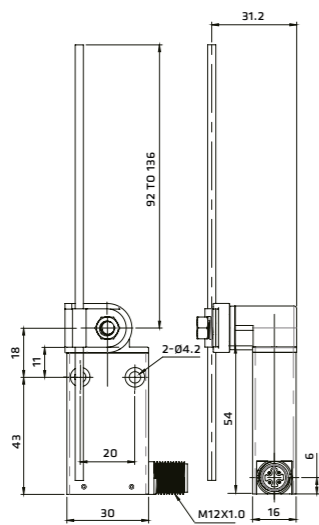


**AVAILABLE VERSIONS**

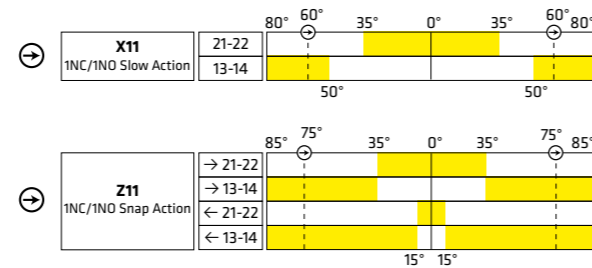


**10: Rod lever type**

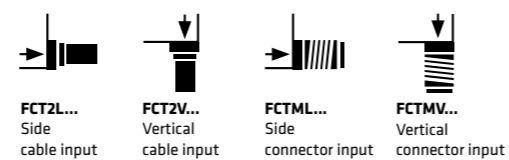
FCT	M	L	10	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	10 - Rod lever type	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS**



**AVAILABLE VERSIONS**

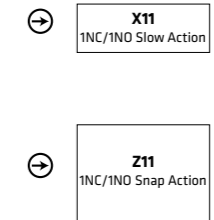


**11: Spring lever with tip in PA**

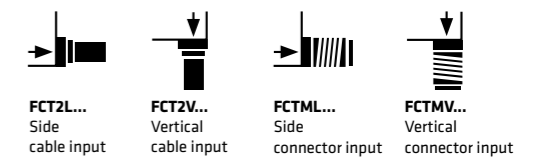
FCT	M	L	11	X11	D
Series	Cable or connector	Cable or connector direction	Head and actuators	Contact Types	Distance between fixing holes
	2 - 2 mt X - Other lengths on request M - M12 connector	L - Side V - Vertical	11 - Spring lever with tip in PA	X11 - 1NC/1NO Slow Action Z11 - 1NC/1NO Snap Action	D - 20 mm



**OPERATION DIAGRAMS... Coming soon**



**AVAILABLE VERSIONS**





**OPERATING FORCE FCT SERIES**

TYPE	CONTACT BLOCK			OF max	RF min	TT min	PT max	OT min	MD max	OP ±1mm
01	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	17.3 mm 16.3 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	16.8 mm
02	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	28.3 mm 27.3 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	27.8 mm
03	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	28.3 mm 27.3 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	27.8 mm
04	X11	1 NC/1 NO Slow Action	NC NO	1000 g	150 g	80°	35° 50°	45° 35°	N/A	N/A
	Z11	1 NC/1 NO Snap Action	NC NO	1000 g	100 g	80°	45° 40°	25° 60°	30°	N/A
05	X11	1 NC/1 NO Slow Action	NC NO	1000 g	150 g	80°	35° 50°	45° 35°	N/A	N/A
	Z11	1 NC/1 NO Snap Action	NC NO	1000 g	100 g	80°	45° 40°	25° 60°	30°	N/A
06	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	32.3 mm 31.3 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	31.8 mm
07	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	43.2 mm 42.2 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	42.7 mm
08	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	43.2 mm 42.2 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	42.7 mm
09	X11	1 NC/1 NO Slow Action	NC NO	1200 g	400 g	5 mm	2 mm 3 mm	3.8 mm 3 mm	N/A	27.1 mm 26.1 mm
	Z11	1 NC/1 NO Snap Action	NC NO	1500 g	300 g	5 mm	2.5 mm	3 mm	2 mm	26.6 mm

**OPERATING FORCE FCT SERIES**



TYPE	CONTACT BLOCK			OF max	RF min	TT min	PT max	OT min	MD max	OP ±1mm
10	X11	1 NC/1 NO Slow Action	NC NO	1000 g	150 g	80°	35° 50°	45° 35°	N/A	N/A
	Z11	1 NC/1 NO Snap Action	NC NO	1000 g	100 g	80°	45° 40°	25° 60°	30°	N/A
11	X11	1 NC/1 NO Slow Action	NC NO	-	-	-	-	-	-	-
	Z11	1 NC/1 NO Snap Action	NC NO	-	-	-	Coming soon!			