



GIOVENZANA
INTERNATIONAL B.V.

LIMIT SWITCHES **FTG Series**


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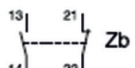
LIMIT SWITCHES

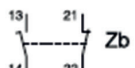
FTG Series - Double Insulation - Plastic casing IP65 - 40mm width

1 cable entry M20x1,5

Conformity /  (N.C. contact with positive opening operation)
Max actuation speed [m/s]
Min. force [N] or torque [Nm]: actuation / positive opening operation


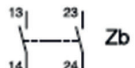
Additional Technical Datas

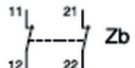
Z11 Snap Action
Contacts (1NO + 1NC)  **Zb** Operation Diagram

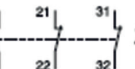
X11 Non overlapping Slow Action
Contacts (1NO + 1NC)  **Zb** Operation Diagram

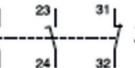
Y11 Overlapping Slow Action
Contacts (1NO + 1NC)  **Zb** Operation Diagram

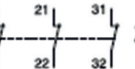
W02 Slow Action
Contacts (2NC)  **Zb** Operation Diagram



W20 Slow Action
Contacts (2NO)   **Zb** Operation Diagram

Z02 Snap Action
Contacts (2NC)  **Zb** Operation Diagram

X12 Non overlapping Slow Action
Contacts (1NO + 2NC)  **Zb** Operation Diagram

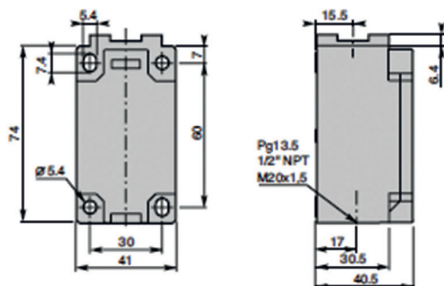
X21 Non overlapping Slow Action
Contacts (2NO + 1NC)  **Zb** Operation Diagram

W03 Simultaneous Slow Action
Contacts (3NC)  **Zb** Operation Diagram

W30 Simultaneous Slow Action
Contacts (3NO)   **Zb** Operation Diagram

Weight (packing per unit) [kg]

Dimensions (in mm)



FTG131



Plain steel plunger

FTG134




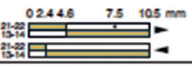
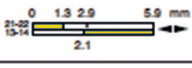
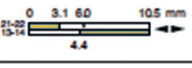


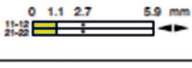




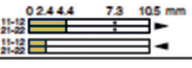
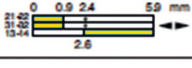
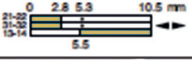

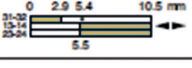



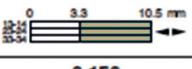
Steel roller plunger

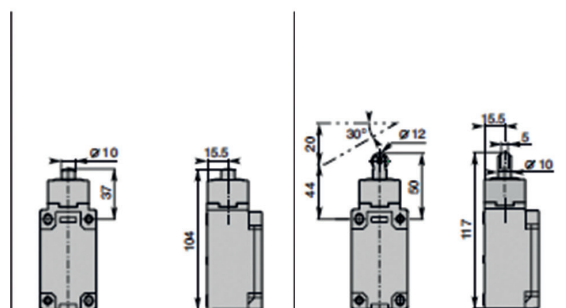
EN 50041

0,5
14 / 40

EN 50041

0,5
14 / 40


	
	
	
	
	
	
	
	
	
	
0,145	0,150



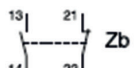
LIMIT SWITCHES

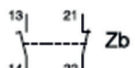
FTG Series - Double Insulation - Plastic casing IP65 - 40mm width

1 cable entry M20x1,5

Conformity /  (N.C. contact with positive opening operation)
Max actuation speed [m/s]
Min. force [N] or torque [Nm]: actuation / positive opening operation

Additional Technical Datas

Z11 Snap Action
Contacts (1NO + 1NC)  Zb Operation Diagram

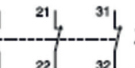
X11 Non overlapping Slow Action
Contacts (1NO + 1NC)  Zb Operation Diagram

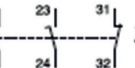
Y11 Overlapping Slow Action
Contacts (1NO + 1NC)  Zb Operation Diagram

W02 Slow Action
Contacts (2NC)  Zb Operation Diagram

W20 Slow Action
Contacts (2NO)  Zb Operation Diagram

Z02 Snap Action
Contacts (2NC)  Zb Operation Diagram

X12 Non overlapping Slow Action
Contacts (1NO + 2NC)  Zb Operation Diagram

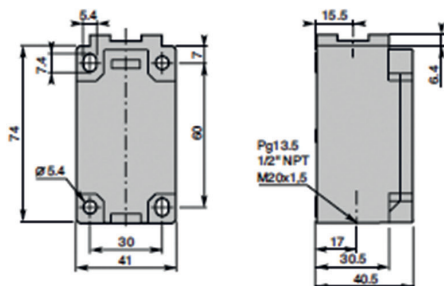
X21 Non overlapping Slow Action
Contacts (2NO + 1NC)  Zb Operation Diagram

W03 Simultaneous Slow Action
Contacts (3NC)  Zb Operation Diagram

W30 Simultaneous Slow Action
Contacts (3NO)  Zb Operation Diagram

Weight (packing per unit) [kg]

Dimensions (in mm)



FTG132



One way lever

Standard $\varnothing 22$ nylon roller
On request $\varnothing 22$ stainless steel roller
On request $\varnothing 22$ stell ball bearing

1,0
8 / 30

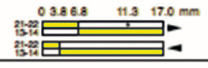
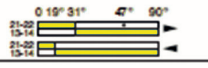

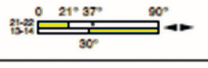

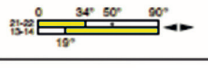
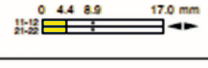



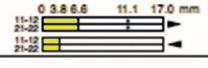






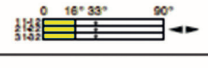
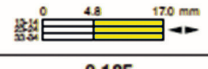

FTG138

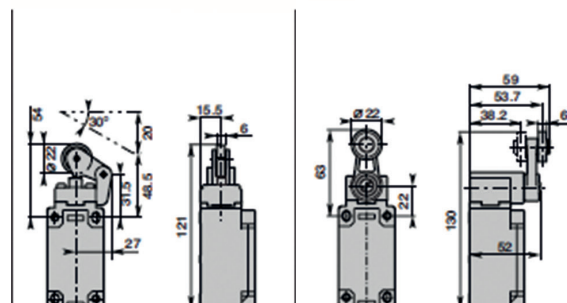


$\varnothing 22$ roller lever

Standard nylon roller
On request stainless steel roller
On request stell ball bearing

EN 50041
1,5
0,15 / 0,30

	
	
	
	
	
	
	
	
	
	
0,185	0,200



LIMIT SWITCHES

FTG Series - Double Insulation - Plastic casing IP65 - 40mm width

FTG139



Adjustable Ø22
roller lever

Standard nylon roller
On request stainless steel roller
On request steel ball bearing

1,5
0,15 / 0,30

FTG140



Adjustable Ø50
rubber roller lever

1,5
0,15 / 0,30

FTG141



Ø50 rubber
roller lever

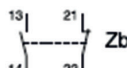
1,5
0,15 / 0,30

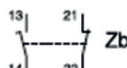
1 cable entry M20x1,5

Conformity / (N.C. contact with positive opening operation)
Max actuation speed [m/s]

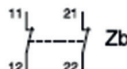
Min. force [N] or torque [Nm]: actuation / positive opening operation

Additional Technical Datas


Z11 Snap Action
Contacts (1NO + 1NC)  Zb Operation Diagram

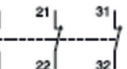
X11 Non overlapping
Slow Action
Contacts (1NO + 1NC)  Zb Operation Diagram

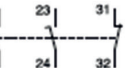
Y11 Overlapping
Slow Action
Contacts (1NO + 1NC)  Zb Operation Diagram

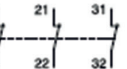
W02 Slow Action
Contacts (2NC)  Zb Operation Diagram

W20 Slow Action
Contacts (2NO)  Zb Operation Diagram

Z02 Snap Action
Contacts (2NC)  Zb Operation Diagram

X12 Non overlapping
Slow Action
Contacts (1NO + 2NC)  Zb Operation Diagram

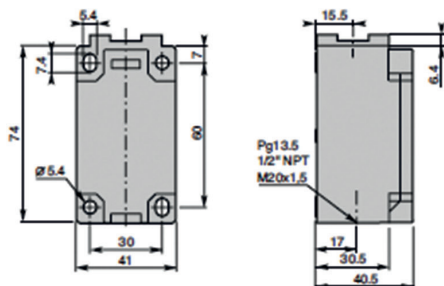
X21 Non overlapping
Slow Action
Contacts (2NO + 1NC)  Zb Operation Diagram

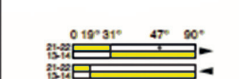
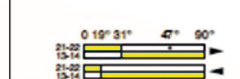

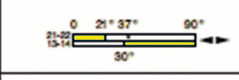
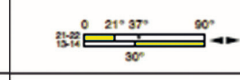
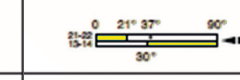
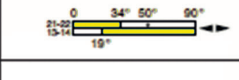
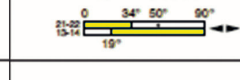
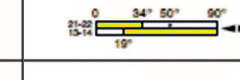






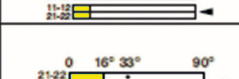
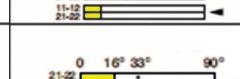
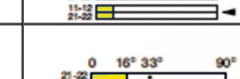
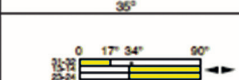
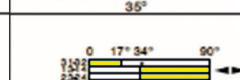

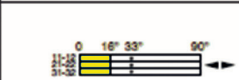





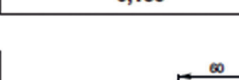
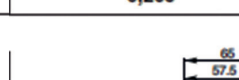
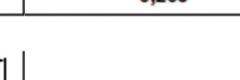
W03 Simultaneous
Slow Action
Contacts (3NC)  Zb Operation Diagram

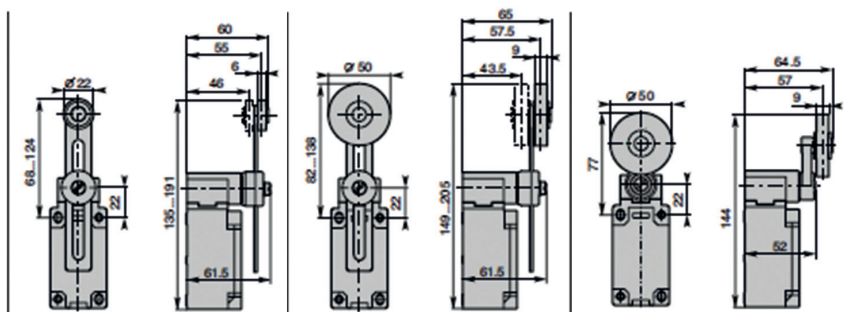
W30 Simultaneous
Slow Action
Contacts (3NO)  Zb Operation Diagram

Weight (packing per unit) [kg]

Dimensions (in mm)




		
		
		
		
		
		
		
		
		
		
0,195	0,205	0,205



LIMIT SWITCHES

FTG Series - Double Insulation - Plastic casing IP65 - 40mm width

1 cable entry M20x1,5

Conformity /  (N.C. contact with positive opening operation)
 Max actuation speed [m/s]
 Min. force [N] or torque [Nm]: actuation / positive opening operation

Additional Technical Datas

Z11 Snap Action
Contacts (1NO + 1NC)

13 21 Zb

Operation Diagram

X11 Non overlapping
Slow Action
Contacts (1NO + 1NC)

The diagram shows a relay symbol with four terminals: 13 (top left), 21 (top right), 14 (bottom left), and 22 (bottom right). A horizontal dashed line connects terminals 13 and 21, representing a normally open (NO) contact. A vertical solid line connects terminals 14 and 22, representing a normally closed (NC) contact. The relay is labeled 'Zb' to its right. The text 'Operation Diagram' is to the right of the diagram.


Operation Diagram

Y11 Overlapping
Slow Action
Contacts (1NO + 1NC)

Operation Diagram

W02 Slow Action
Contacts (2NC)

Operation Diagram

W20 Slow Action
Contacts (2NO)  **Zb** **Operation Diagram**

Z02 Snap Action
Contacts (2NC)

11 21
12 22

Zb

Operation Diagram


X12 Non overlapping
Slow Action
Contacts (1NO + 2NC)

Operation Diagram

X21 Non overlapping
Slow Action
Contacts (2NO + 1NC)

Operation Diagram


W03 Simultaneous
Slow Action
Contacts (3NC)



The diagram shows three vertical lines representing contacts, labeled 11, 21, and 31 at the top and 12, 22, and 32 at the bottom. A horizontal dashed line connects the three lines at the top. To the right of the diagram is the label 'Zb' and the text 'Operation Diagram'.

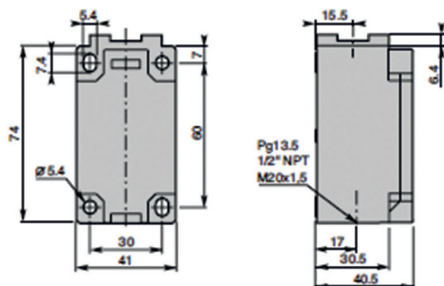
Operation Diagram

W30 Simultaneous
Slow Action
Contacts (3NO)

  **Zb** **Operation Diagram**

Weight (packing per unit)	[kg]
---------------------------	------

Dimensions (in mm)



FTG 135



**Multidirectional
nylon actuator with
stainless steel spring**

1,0
0,18 / -

FTG 136



Stainless steel spring multidirectional actuator

1,0
0,18 / -

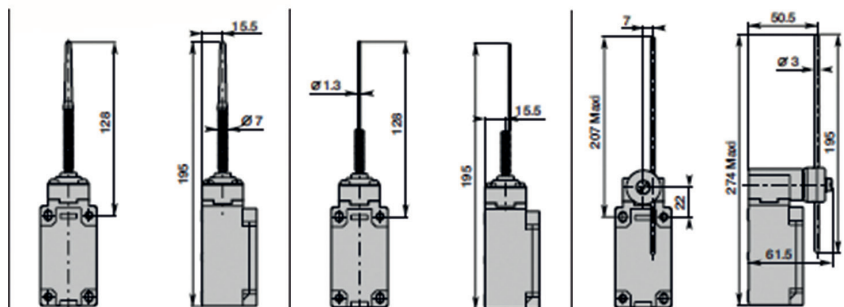
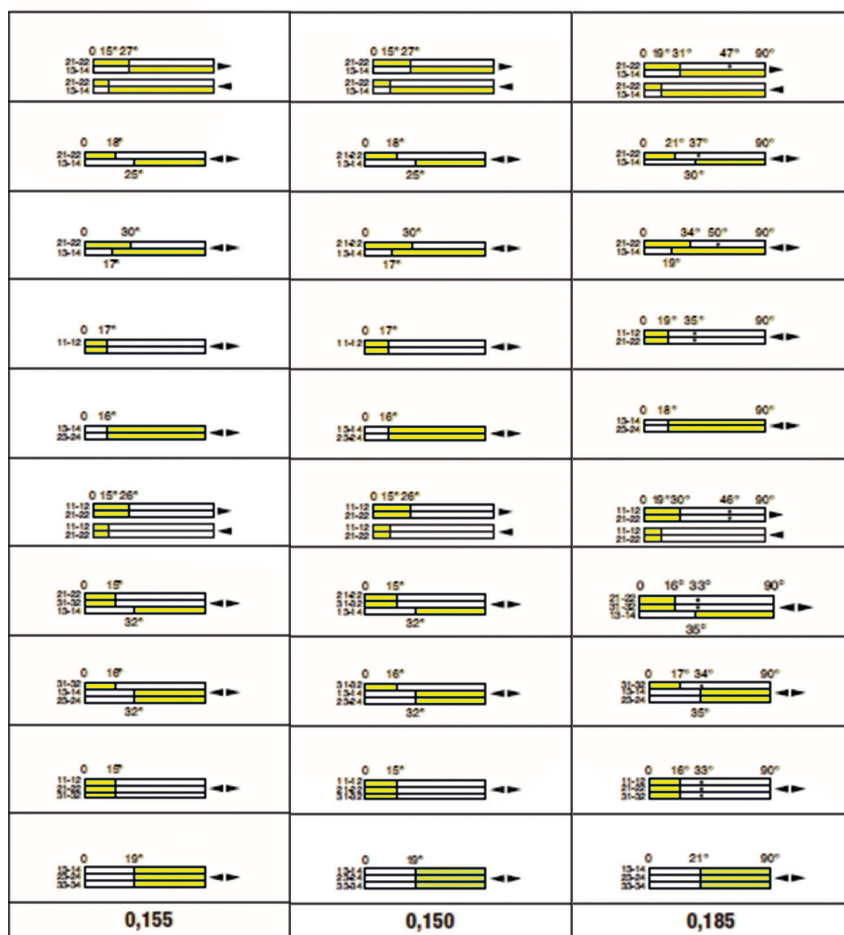
FTG137



Adjustable rod lever

Standard stainless steel rod Ø3
On request fiberglass rod Ø3
On request square steel rod 3x3

1,5
0,15 / 0,30





GIOVENZANA
INTERNATIONAL B.V.



Automation technology

www.giovenzana.com

LIMIT SWITCHES

FTG Series - Double Insulation - Plastic casing IP65 - 40mm width

GENERAL CHARACTERISTICS

Comply with

Certifications

Ambient temperature

IEC947-5-1, EN60947-5-1, UL508, CSA 22.2 n° 14

cUL

Operating -25 +70

Storage -30 +80

Climate protection

IEC68 part 2-3

IEC68 part 2-11

Hot damp

Saline fog

All positions

Installation positions

Impact resistance

IEC68 part 2-27

Vibration resistance

IEC68 part 2-6

Electrical shocks withstand

IEC536

Protection rating

EN60529

Accuracy (measured after 1 million operations)

0.05 Minimum tripping force

m/s

Rated insulation voltage Ui

(IEC/EN60947-1)

V

according to UL508 and CSA C22-2 No. 14

V

Rated impulse withstand voltage Uimp

(IEC/EN60947-1)

kV

Rated thermal current Ith

(IEC/EN60947-1)

A

Short circuit protection

<500 Va.c. - fuses type gG (gl7)

A

Rated operating current Ie:

AC-15 (IEC/EN60947-5-1)

24 V - 50/60 Hz A

120 V - 50/60 Hz A

230 V - 50/60 Hz A

240 V - 50/60 Hz A

400 V - 50/60 Hz A

DC-13 (IEC/EN60947-5-1)

24 V - 50/60 Hz A

125 V - 50/60 Hz A

250 V - 50/60 Hz A

Changeover frequency

Load factor

cycles/hour

Contact insulation resistance

m Ω

Termination type

Earth terminal (FAG Series only)

Terminal capacity solid/flexible conductor

n.1 or 2 x mm²

Terminal referencing

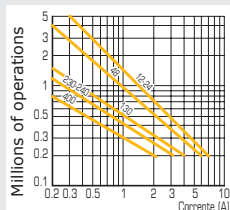
Mechanical life

milions

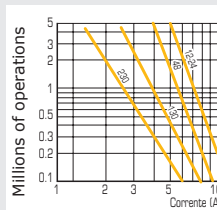
of operations

Electrical life (according to IEC/EN60947-5-1)

AC-15 Snap action



AC-15 Slow break



IEC947-5-1, EN60947-5-1, UL508, CSA 22.2 n° 14

cUL

Operating -25 +70

Storage -30 +80

Hot damp

Saline fog

All positions

50g* (1/2 sinusoidal shock for 11 msec) without replacing contacts

25g (10...500 Hz) without replacing contacts >100 msec

Class II for FTG Series - Class I for FAG Series

IP65 FTG Series - IP66 - FAG Series

0.05 FAG Series - 0.1 FTG Series (on the making point)

Slow break 0.06 - snap action 0.001

690 FTG Series - 400 FAG Series

(3 pollution grade)

600 (designation A600 - Q600)

6

10

10

10

6

3.1

3

1.9

2.8

0.55

0.27

3600

0.5

25

M3.5 screw clamp terminals (+/-) pozidriv 2

M3.5 screw clamp terminals (+/-) pozidriv 2

0.75...2.5

according to EN50013

15 | FA. | 31; 32; 33

10 | FA. | 34; 37; 38... 41

>5 | FT. | P31... P33; 35; 36

AC-15 and DC-13 categories of use (0.5 load factor according to the diagrams below)

DC-13

Snap action

Slow break

Breaking capacity for a duration
of 5 millions cycles

Voltage	24 V	9.5 W	12 W
Voltage	48 V	6.8 W	9 W
Voltage	110 V	3.6 W	6 W

*25gr for FA.40 and FT.40

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