

V3 83161 Dual-current Dual-current 831618 Part number 83161806



- Minimum rating 1 mA / 4 VDC
- Operating temperature up to +125 °C
- Conforming to EN 61058 and UL 1054
- Choice of actuators with 4 possible fixing positions

Part numbers

	Type	Function	Connections
83161806	Dual-current 831618	I (Changeover)	W3

Specifications

Electrical characteristics

Rating nominal / 250 VAC (A)	0,1
Rating thermal / 250 VAC (A)	6

Mechanical characteristics

Maximum operating force (N)	0,8
Min. Release force (N)	0,2
Maximum total travel force (N)	2
Max. permitted overtravel force (N)	20
Maximum rest position (mm)	16,2
Operating position (mm)	14,7 ^{+0,3}
Maximum differential travel (mm)	0,35
Min. overtravel CRA (mm)	1,2
Ambient operating temperature (°C)	-20 → +125
Mechanical life for 2/3 CRA (operations)	2 x 10 ⁷
Contact gap (mm)	0,4
Weight (g)	5,6

Additional specifications

Components

Material

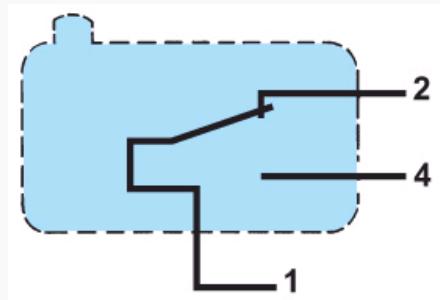
- Housings : polyamide or polyester
- Button : polyamide
- Contacts : gold alloy

Levers

- Flat : stainless steel
- Roller : stainless steel, glass-filled polyamide roller
- Other polyamides

Approvals : NF

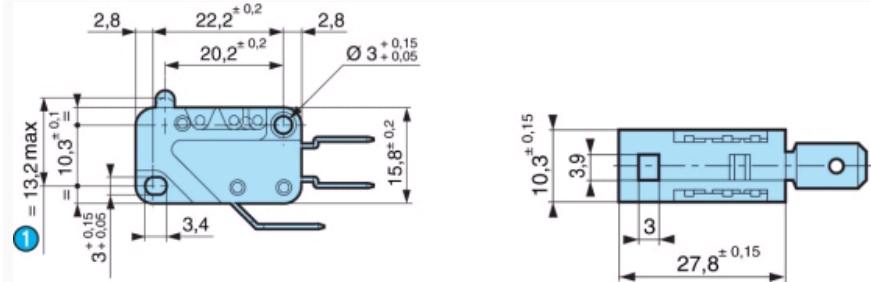
Principles



Dimensions (mm)

Product

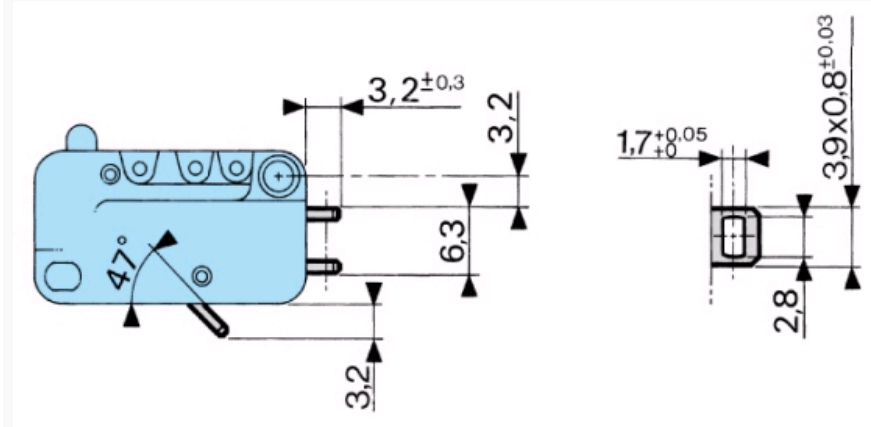
83161



Dimensions (mm)

Connections

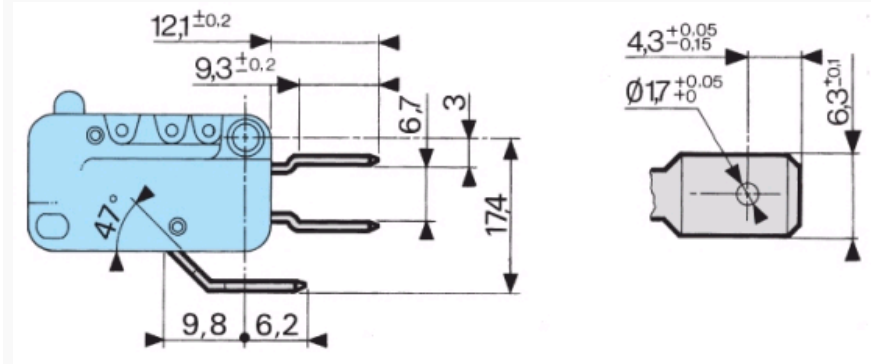
W2 solder



Dimensions (mm)

Connections

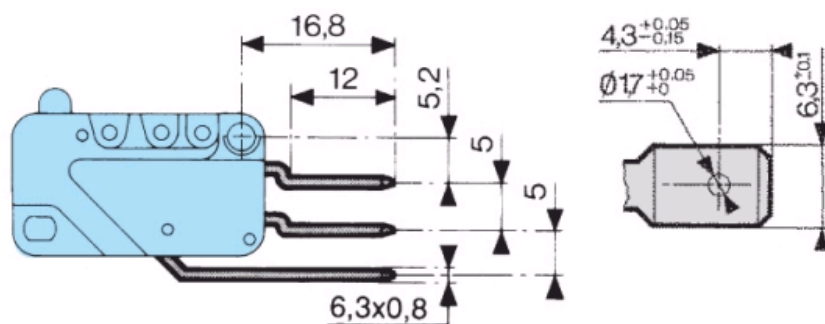
W3 (6.3 x 0.8) for 6.35 mm clips



Dimensions (mm)

Connections

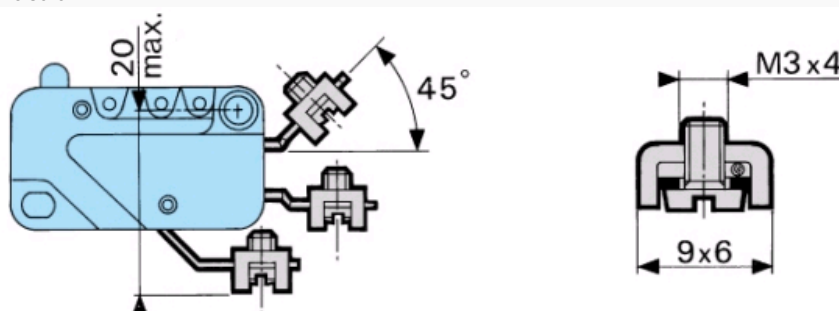
W3R5 (6.3 x 0.8) for 6.35 mm clips



Dimensions (mm)

Connections

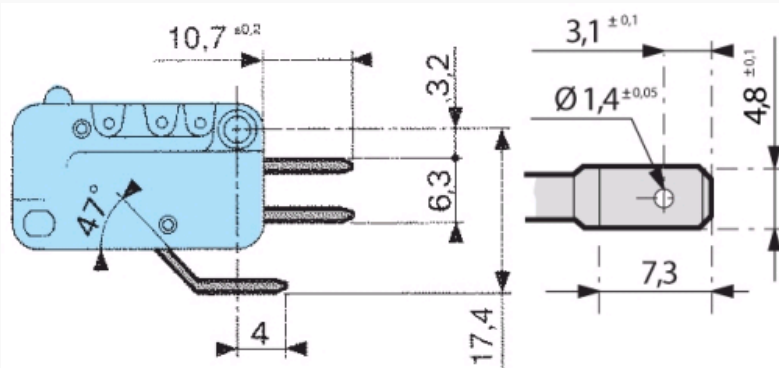
W5 screw



Dimensions (mm)

Connections

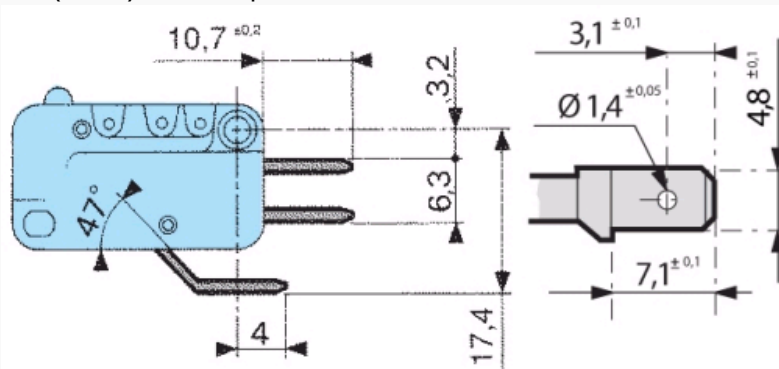
W6A5 (4.8 x 0.5) for 4.8 mm clips



Dimensions (mm)

Connections

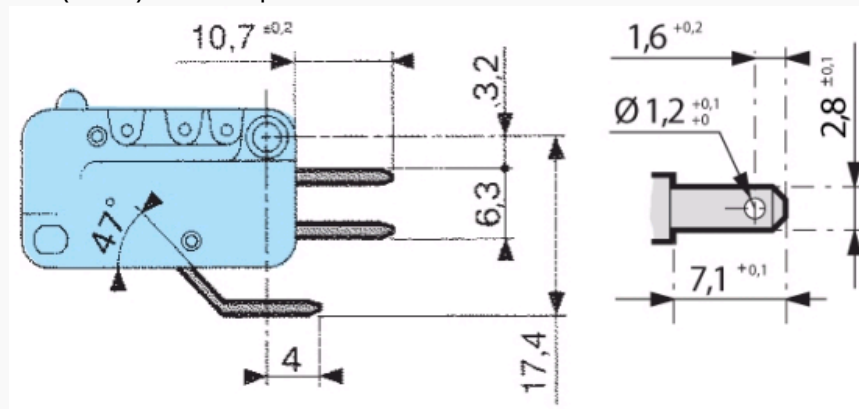
W6D8 (4.8 x 0.8) for 4.8 mm clips



Dimensions (mm)

Connections

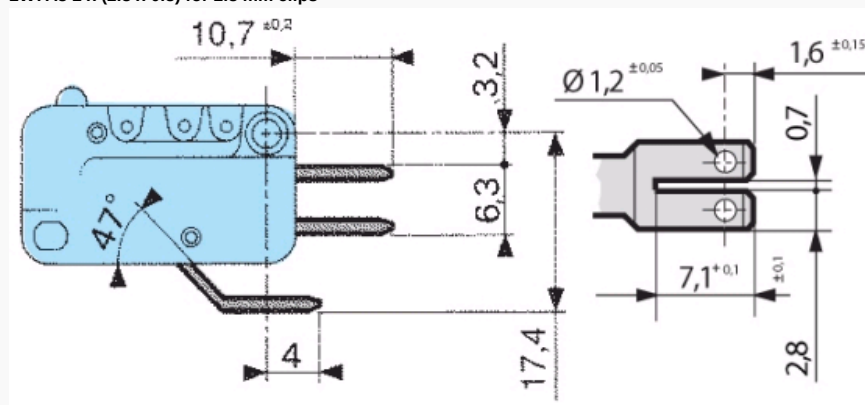
W7A5 (2.8 x 0.5) for 2.8 mm clips



Dimensions (mm)

Connections

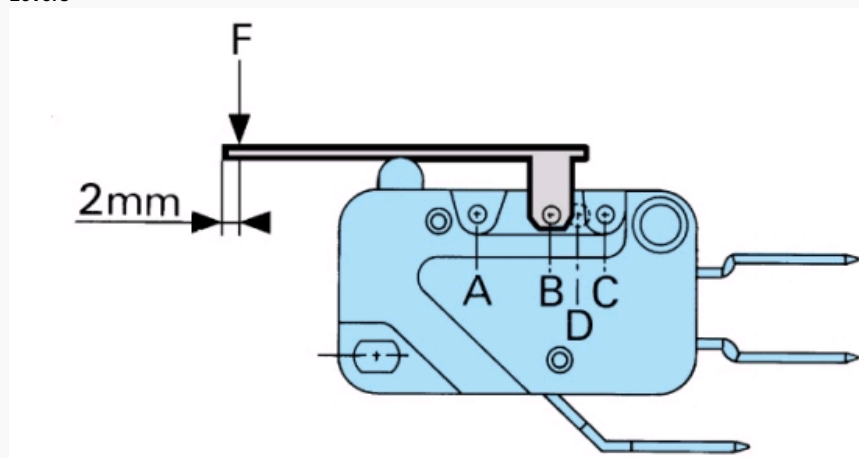
2W7A8 2 x (2.8 x 0.8) for 2.8 mm clips



Dimensions (mm)

Actuator mounting positions

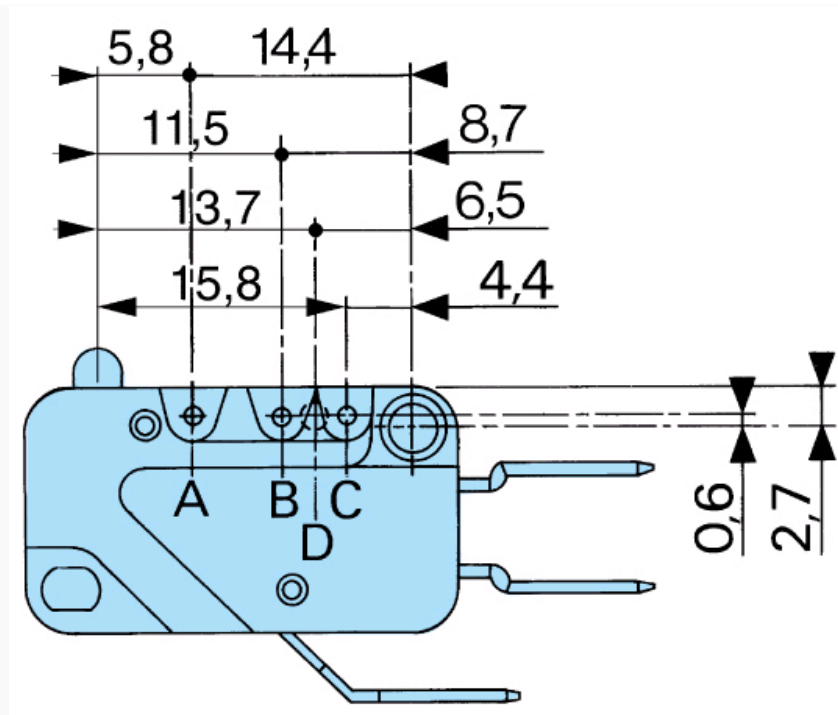
Levers



To calculate force Divide the switch force by the coefficient given in the table. To calculate travel Multiply the switch travel by the same coefficient. Example : 83 161 8 with lever 161 A - R 25.4 position A (coeff. 4) Operating force : $0.8 : 4 = 0.2$ N Pre-travel : $1.4 \times 4 = 5.6$ mm

Dimensions (mm)

Actuator mounting positions

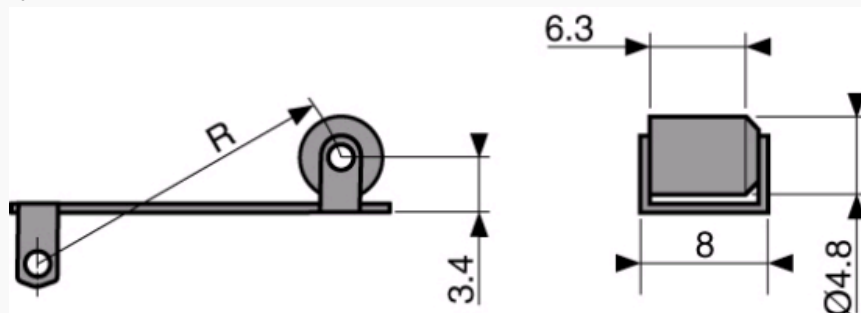


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Dimensions (mm)

Actuators

161 E

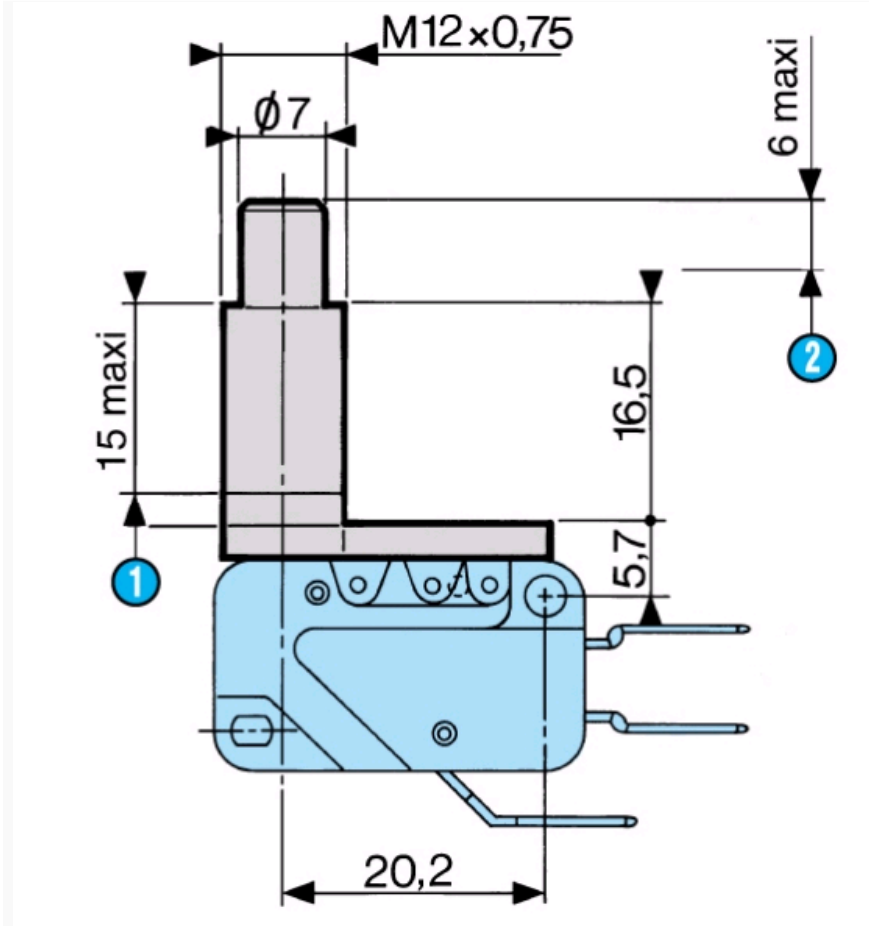


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Dimensions (mm)

Actuators

161 L



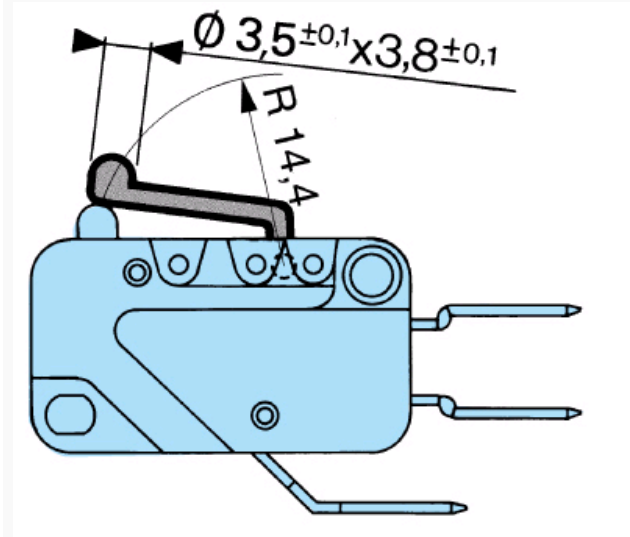
Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

N°	Legend
1	Thread
2	Total travel

Dimensions (mm)

Actuators

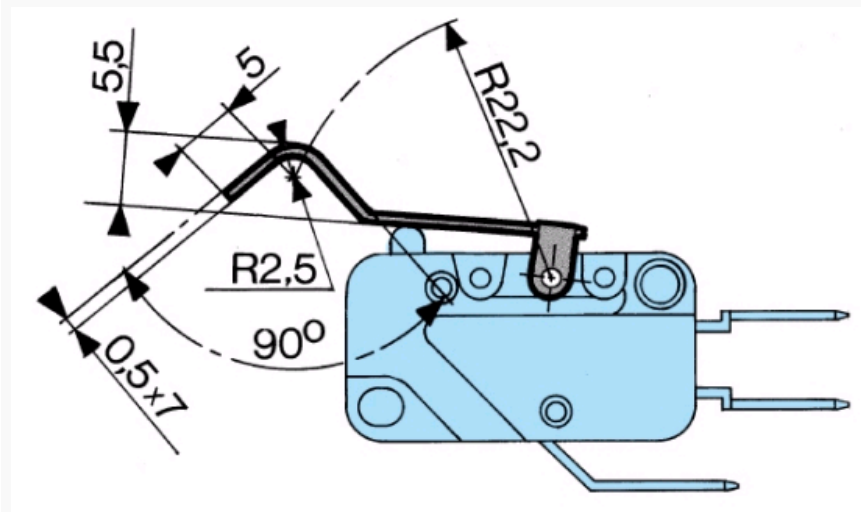
161 V



Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

161 F

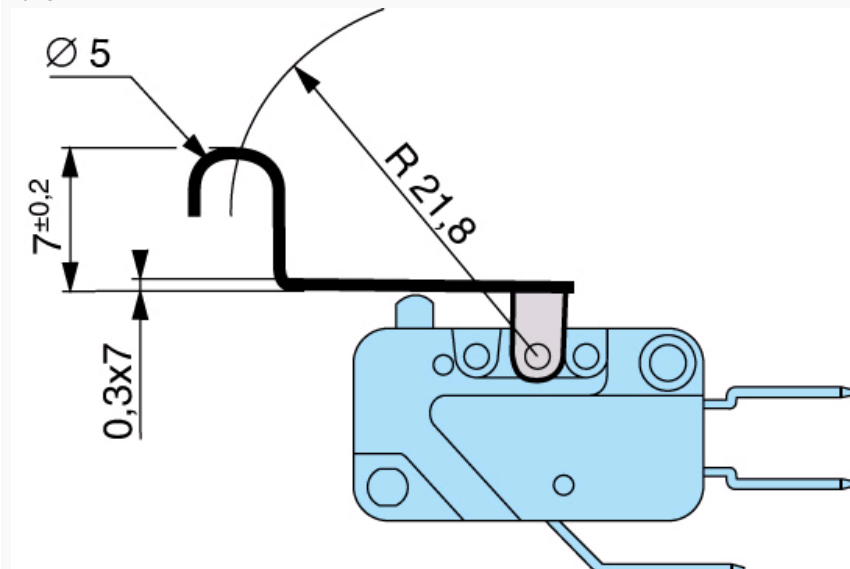


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Actuators

161 G

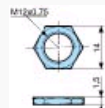


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Mounting accessories

Nut 70602118

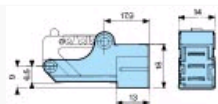


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Mounting accessories

Housing 161 J for connections W3 R5



Curves

The plot shows the current I (y-axis) versus voltage U (x-axis) for a diode. The y-axis is logarithmic, ranging from 10^5 to 10^8 . The x-axis is logarithmic, ranging from 0.1 to 5. The plot shows a horizontal line at $I = 2 \cdot 10^7$ A for $U < 0.2$ V, and a linear decrease for $U > 0.2$ V. A blue line is drawn through the data points, and a red arrow points to the linear region. The plot is labeled with circled numbers 1 through 4.

Nº	Legend
1	Number of cycles
2	Resistive circuit
3	Mechanical life limit
4	Current in Amps

Connections

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected

Part numbers for standard actuators		79 215 740		70 507 524		79 215 742		70 507 529		70 507 528	
Actuators		Plain 161A R14,2		Plain 161A R25,4		Roller 161E R13,6		Roller 161E R24,1		Dummy roller 161F R22,2	
											
Fixing positions		A	B	A	B	C	A	B	C	A	B
Coefficient		2	1	4	2	1,5	2	1	4	2	1,8
Tripping point (except 83 161 6)		15,2 ⁺¹	15,2 ^{+0,45}	15,2 ^{+0,3}	15,2 ⁺¹	15,2 ^{+0,8}	20,5 ^{+1,3}	20,5 ^{+0,8}	20,5 ^{+0,9}	20,5 ^{+1,3}	20,4 ^{+0,7}
Tripping point 83 161 6		14,8 ⁺¹	15 ^{+0,45}	14,4 ^{+0,3}	14,8 ⁺¹	14,8 ^{+0,8}	20,1 ^{+1,3}	20,3 ^{+0,8}	19,7 ^{+0,9}	20,1 ^{+1,3}	20,2 ^{+1,3}
Part numbers for standard actuators		79 218 651									
Actuators		Dummy roller 161G R21,8		**Telescopic plunger 161 L		Manual action		161V		Housing 161J	
											
Fixing positions		A	B	D		D					
Coefficient		3	1,8	1		1					
Tripping point (except 83 161 6)		21,7 ⁺²	21,7 ^{+0,7}	21,5 ⁺¹		18,35 ^{+0,6}					
Tripping point 83 161 6		21,5 ⁺²	21,5 ^{+0,7}	21,5 ⁺¹							
Except where otherwise indicated, plain and roller levers are supplied unmounted. For factory mounting, specify fixing position A, B or C. ** For 83 161 1, 83 161 2, 83 161 3, 83 161 6 mounted in factory (supplied without nut)											

Other information

Mounting - Operation
See basic technical concepts

Product adaptations

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- Special levers
 - Special connections
 - Specific fixing
 - High operating temperature
 - Special operating force
 - Approvals : UL - cUL