



V3 83161 Standard 831613 Part number 83161338



- Nominal ratings 0.1 A to 20 A / 250 VAC
- 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
83161338	Standard 831613	I (Changeover)	W3

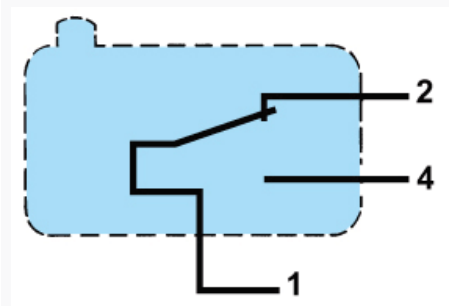
Specifications

Electrical characteristics	
Rating nominal / 250 VAC (A)	16
Rating thermal / 250 VAC (A)	20
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 : AgNi
- Levers**
- Flat : stainless steel
 - Roller : stainless steel, glass-filled polyamide roller
 - Other polyamides
- Approvals** : NF

Principles



Dimensions (mm)

Product

83161

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



Connections

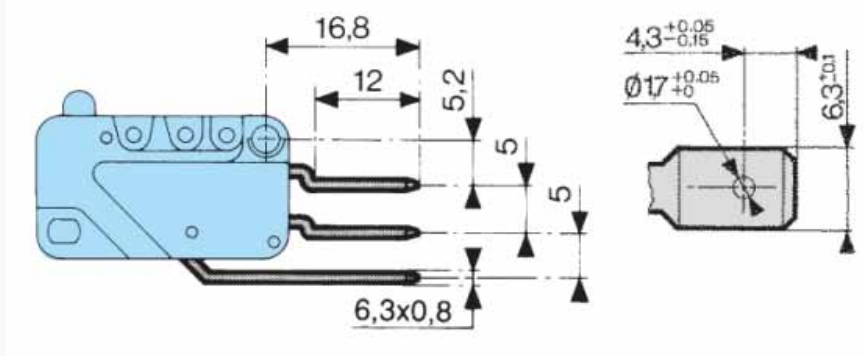
Technical drawing of a mechanical part with dimensions:

- Overall width: $3,2^{+0,3}$
- Overall height: $3,2$
- Distance from top edge to center of hole: $6,3$
- Distance from bottom edge to center of hole: $3,2$
- Angle: 47°

Connections

Connections

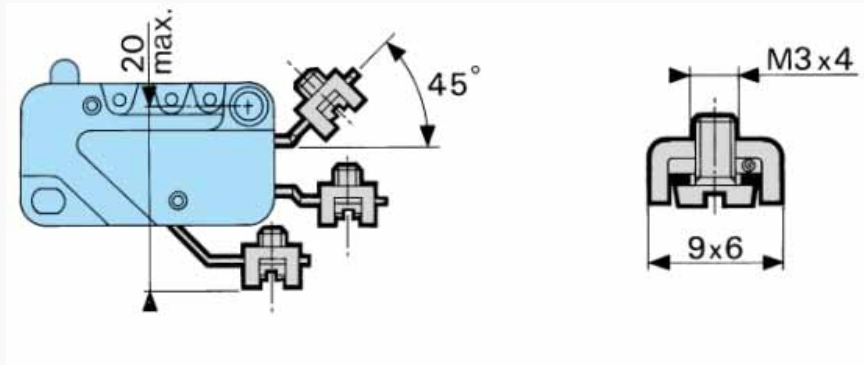
Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected



Dimensions (mm)

Connections

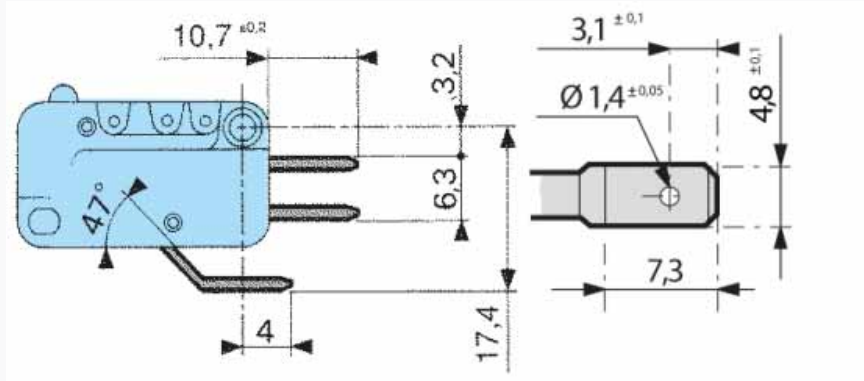
W5 screw



Dimensions (mm)

Connections

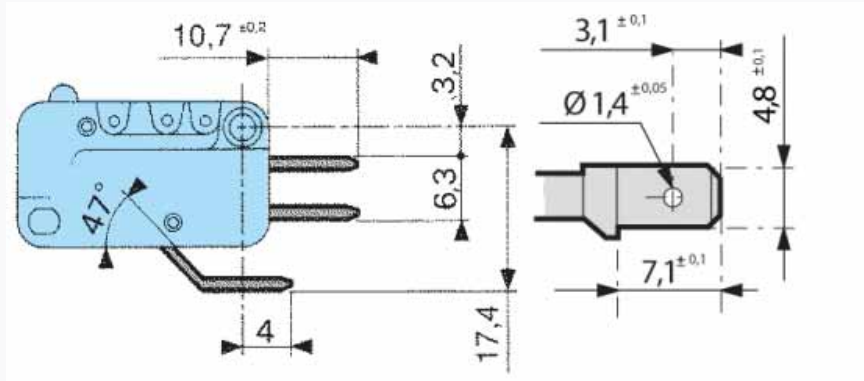
W6A5 for 4.8 mm clips (4.8 x 0.5)



Dimensions (mm)

Connections

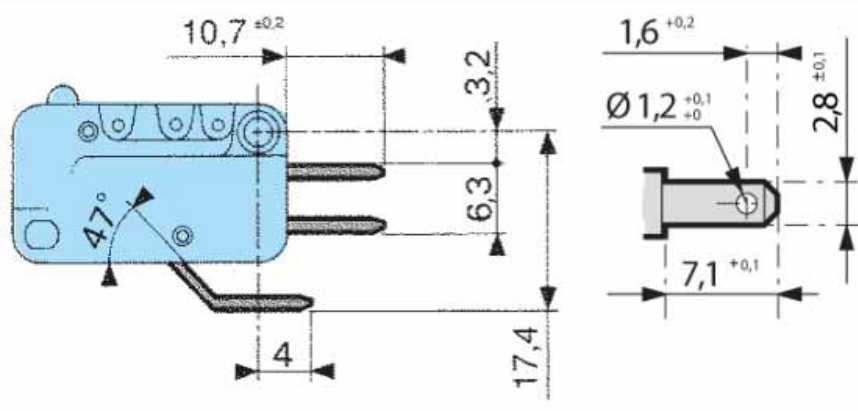
W6D8 for 4.8 mm clips (4.8 x 0.8)



Dimensions (mm)

Connections

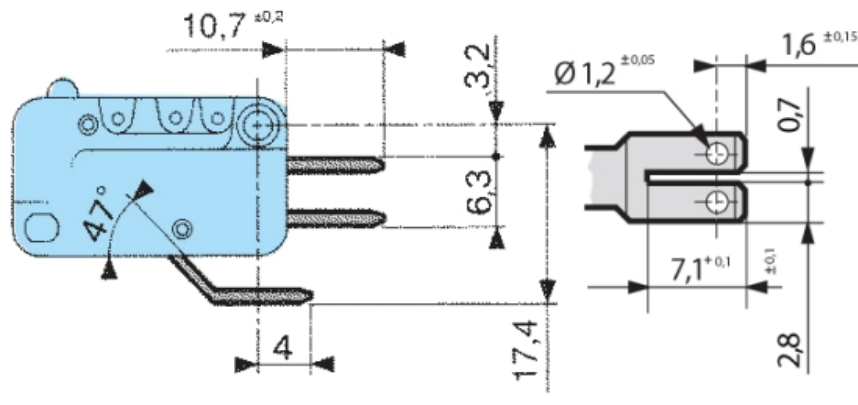
W7A5 for 2.8 mm clips (2.8 x 0.5)



Dimensions (mm)

Connections

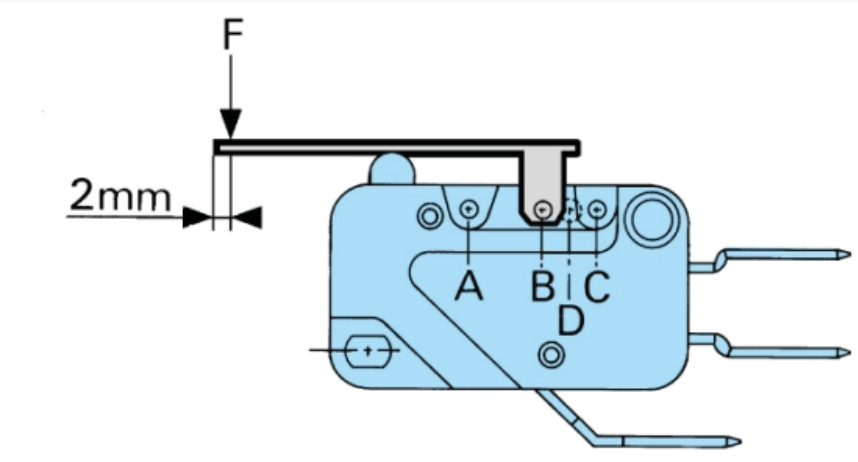
2W7A8 for 2.8 mm clips (2.8 x 0.8)



Dimensions (mm)

Actuator mounting positions

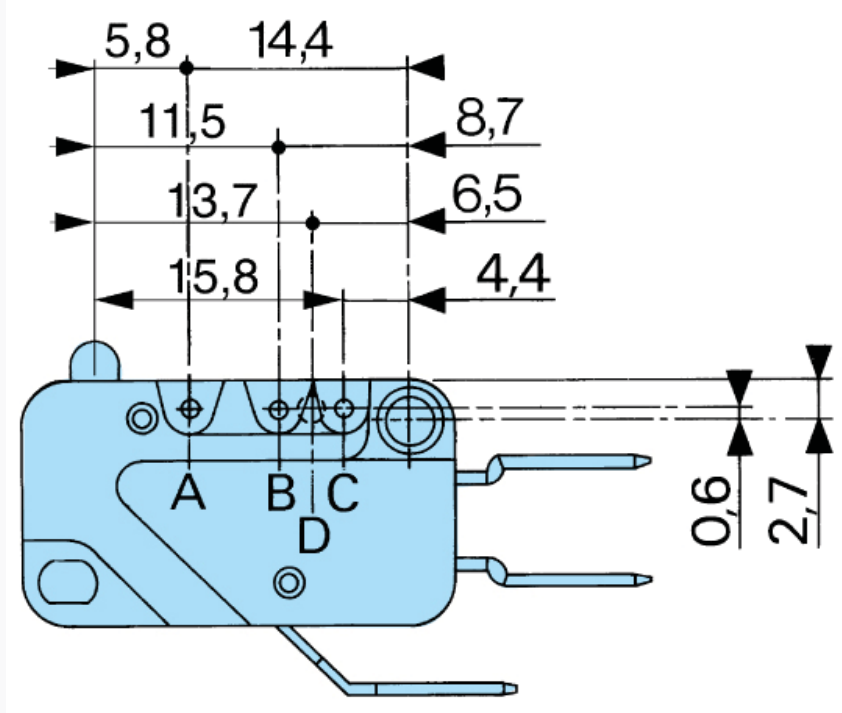
Levers



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 3 with lever 161 A - R 25.4 position A (coeff. 4) Operating force : 0.8 : 4 = 0.2 N Pre-travel : 1.4 x 4 = 5.6 mm

Dimensions (mm)

Actuator mounting positions

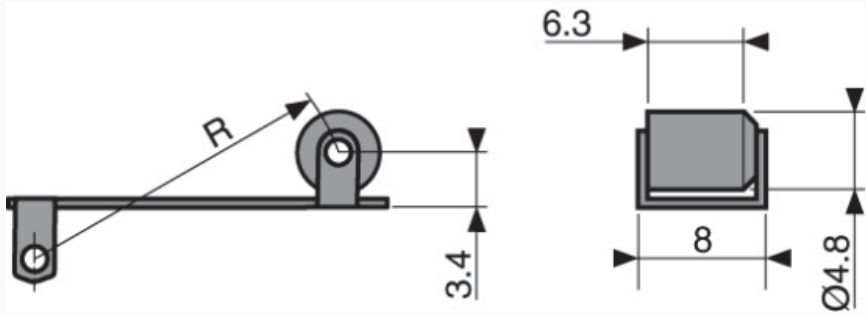


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Dimensions (mm)

Actuators

161 E

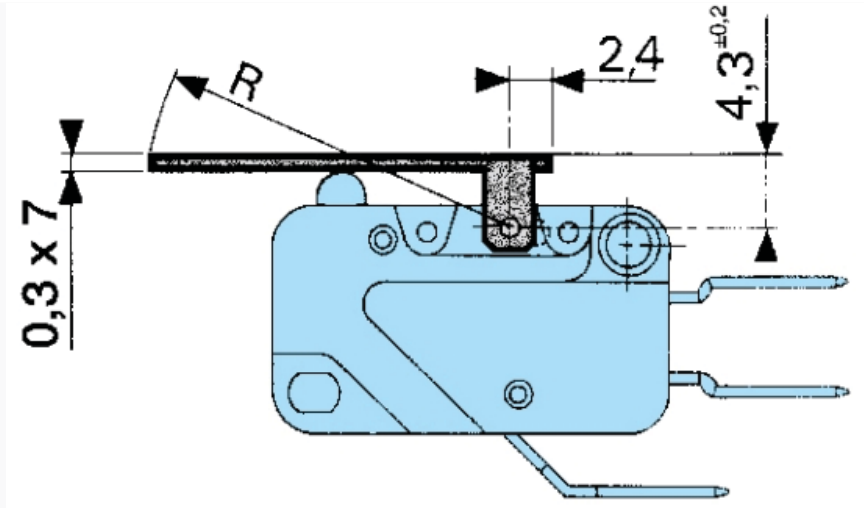


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Dimensions (mm)

Actuators

161 A

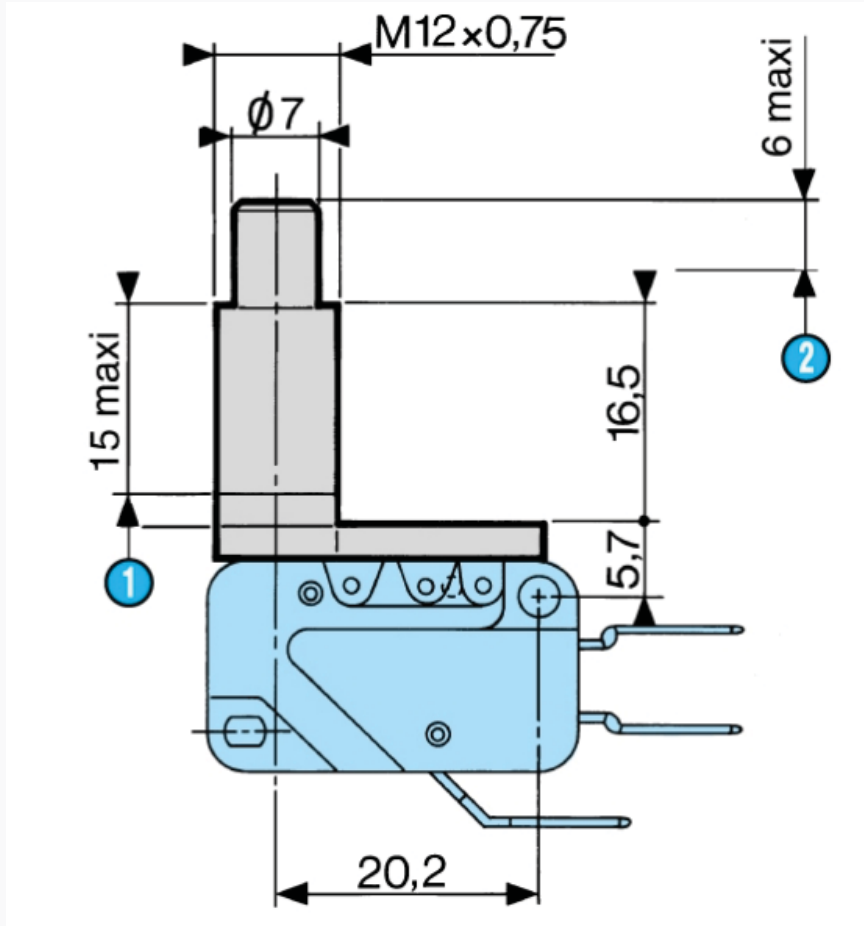


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Dimensions (mm)

Actuators

161 L

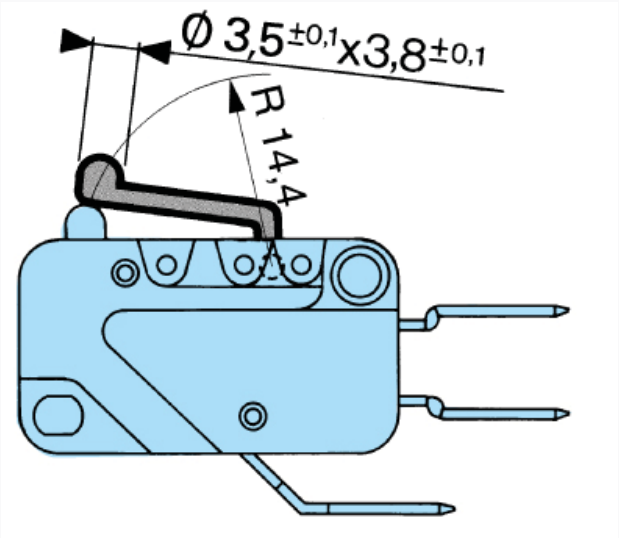


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Nº	Legend
1	Thread
2	Total travel

Dimensions (mm)

161 V

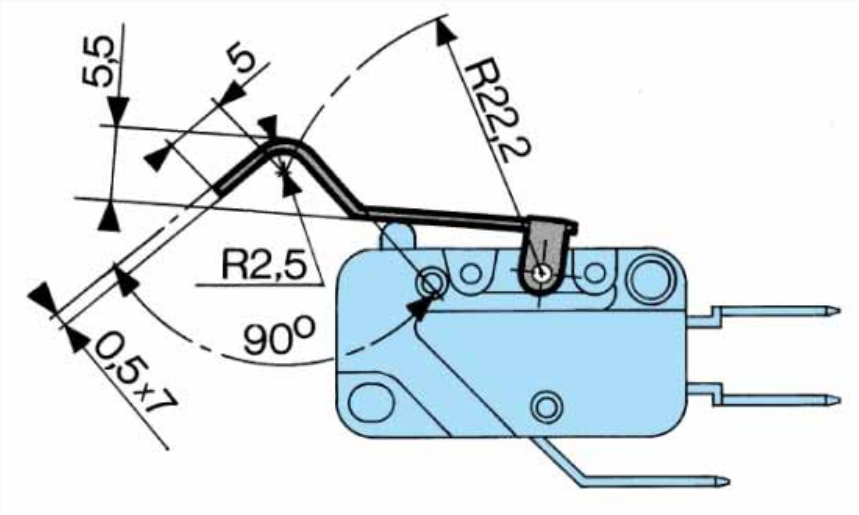


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Actuators

161 F

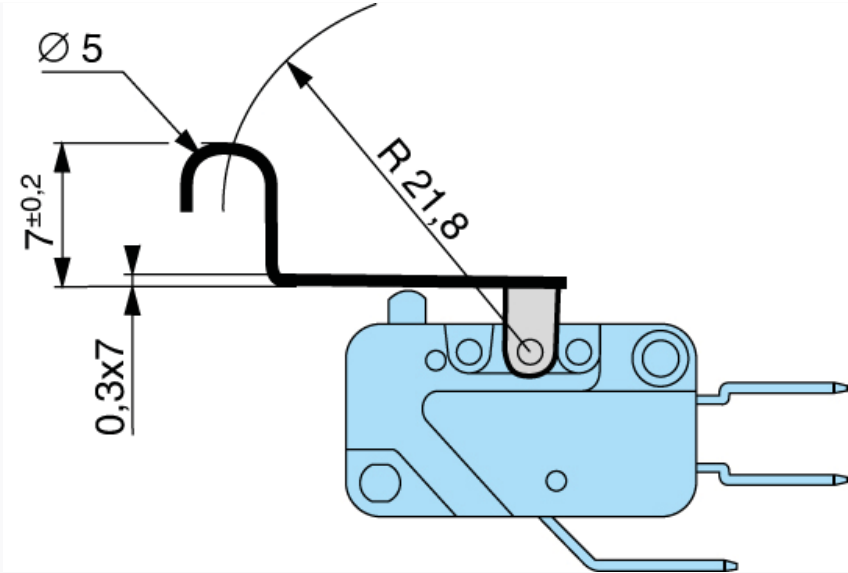


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Actuators

161 G

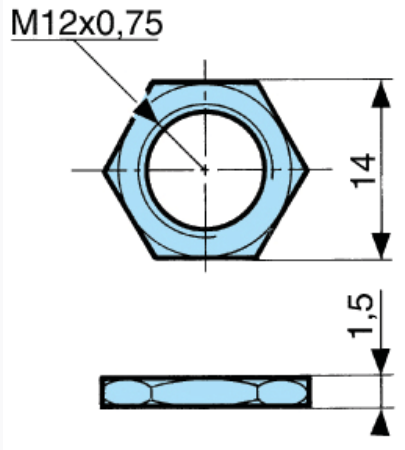


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Mounting accessories

Nut 70602118

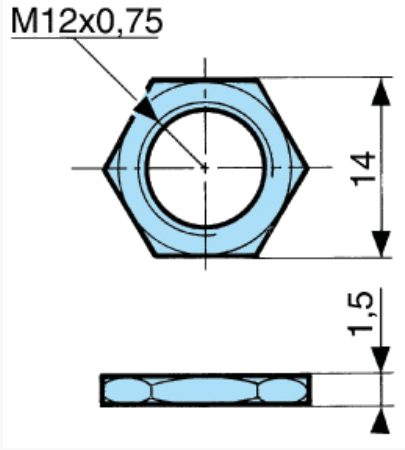


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

Dimensions (mm)

Mounting accessories

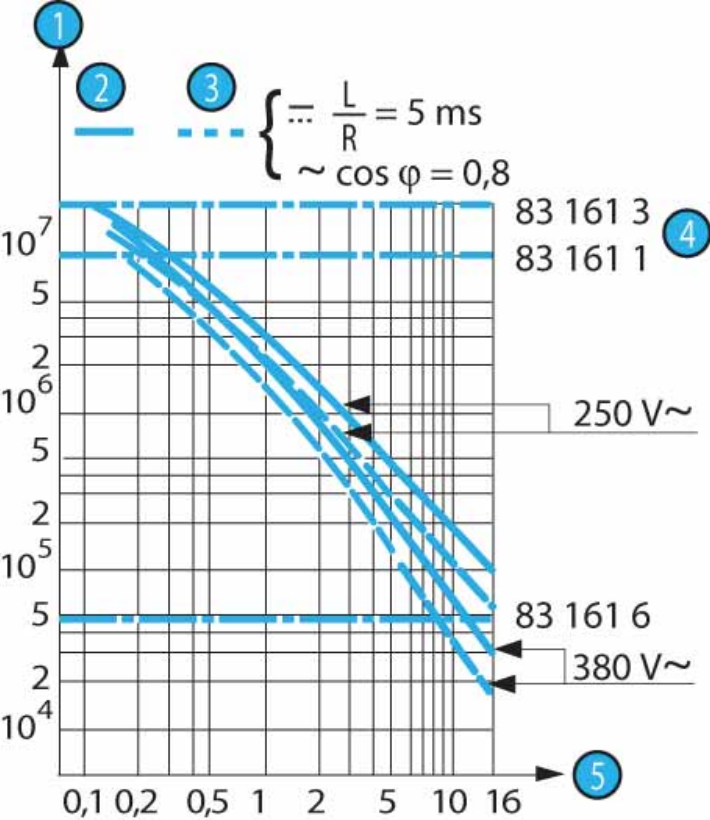
Housing 161 J for connections W3 R5



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

Curves

Operating curve for types 831611 / 831613 / 831616



N°	Legend
1	Number of cycles
2	Resistive circuit
3	Inductive circuit
4	Mechanical life limit
5	Current in Amps

Connections

Actuators and fixing positions

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
Coefficient	2	1	4	2	1,5	3	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 ^{+0,3}	20,5 ^{+0,8}
Tripping point 83 161 6	14,8 ⁺¹	15 ^{+0,45}	14,4 ^{+0,3}	14,8 ⁺¹	14,9 ^{+0,8}	19,7 ^{+0,9}	20,1 ^{+0,3}
Part numbers for standard actuators		79 218 651					
Actuators		Dummy roller 161G R21,8	**Telescopic plunger 161 L	Manual action	161V	Housing 161J	Nut for 161L Part no.: 70 602 118
							
Fixing positions	A	B	D				
Coefficient	3	1,8	1				
Tripping point (except 83 161 6)	21,7 ^{+0,2}	21,7 ^{+0,7}	21,5 ^{+0,1}				
Tripping point 83 161 6	21,5 ^{+0,2}	21,5 ^{+0,7}	21,5 ^{+0,1}				

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



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