

### V3 83161 Dual-current Dual-current 831618 Part number 83161801



- 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

Type	Function	Connections
<b>83161801</b> Dual-current 831618	I (Changeover)	W2

#### **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)	$14,7^{\pm0,3}$
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 <sup>7</sup>
Contact gap (mm)	0,4
Weight (g)	5,6

#### Components

# Material

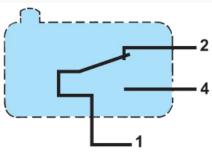
- Housings : polyamide or polyester
- Button : polyamide
- Contacts : gold alloy

# Levers

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

Approvals : NF

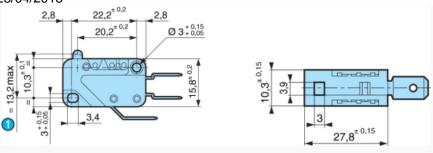
# Principles



#### Dimensions (mm)

# Product

83161

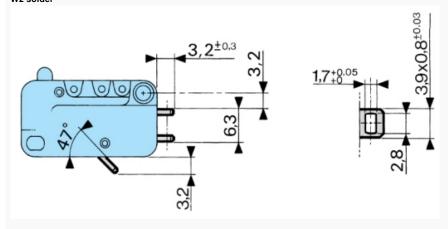


N°	Legend
•	OL

#### Dimensions (mm)

# Connections

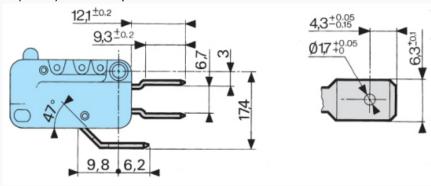
#### W2 solder



# Dimensions (mm)

# Connections

# W3 (6.3 x 0.8) for 6.35 mm clips

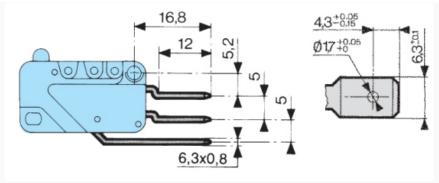


# Dimensions (mm)

#### Connections

# W3R5 (6.3 x 0.8) for 6.35 mm clips

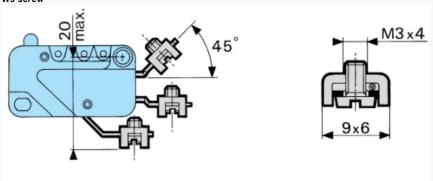
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# Dimensions (mm)

#### Connections

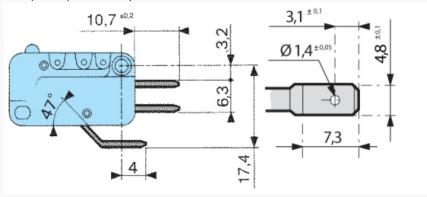
#### W5 screw



# Dimensions (mm)

#### Connections

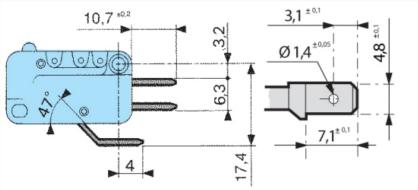
# W6A5 (4.8 x 0.5) for 4.8 mm clips



# Dimensions (mm)

#### Connections

# W6D8 (4.8 x 0.8) for 4.8 mm clips

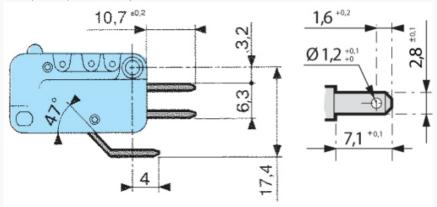


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# Dimensions (mm)

Connections

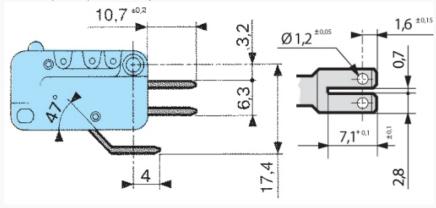
#### W7A5 (2.8 x 0.5) for 2.8 mm clips



#### Dimensions (mm)

Connections

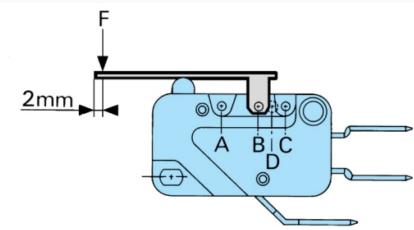
#### 2W7A8 2 x (2.8 x 0.8) for 2.8 mm clips



### Dimensions (mm)

**Actuator mounting positions** 

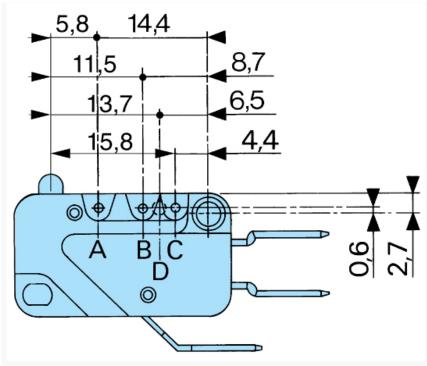
#### Levers



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 x 4 = 5.6 mm

Dimensions (mm)

**Actuator mounting positions** 

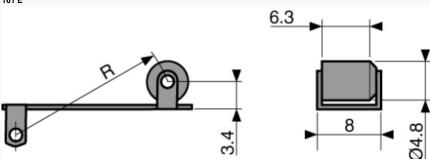


To calculate force Divide the switch force by the coefficient given in the table. To calculate travel Multiply the switch travel by the same coefficient. Example: 83 161 8 with lever 161 A - R 25.4 position A (coeff. 4) Operating force: 0.8: 4 = 0.2 N Pre-travel: 1.4 x 4 = 5.6 mm

#### Dimensions (mm)

#### Actuators

161 E

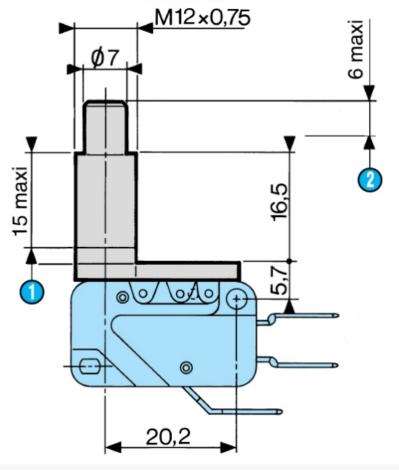


To calculate force Divide the switch force by the coefficient given in the table. To calculate travel Multiply the switch travel by the same coefficient. Example: 83 161 8 with lever 161 A - R 25.4 position A (coeff. 4) Operating force: 0.8: 4 = 0.2 N Pre-travel: 1.4 x 4 = 5.6 mm

#### Dimensions (mm)

Actuators

161 L



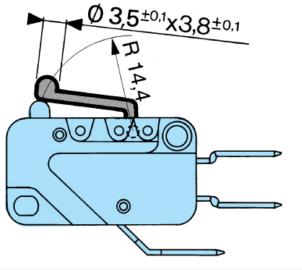
Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N  $\,$ 

No.	Legend
0	Thread
0	Total travel

# Dimensions (mm)

### Actuators

161 V

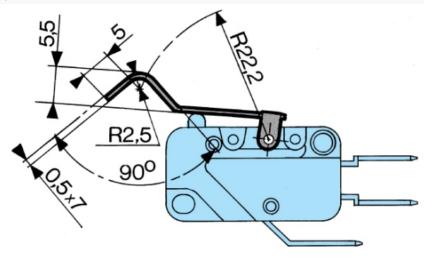


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N  $\,$ 

Dimensions (mm)

**Actuators** 

161 F

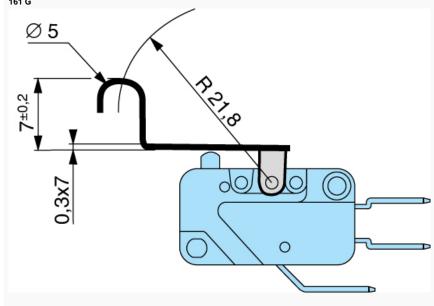


Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N

# 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



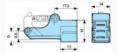
Nut thickness Max. torque 1.5 mm 5 Cm N 2 mm 7 Cm N 2.5 mm 10 Cm N  $\,$ 

Dimensions (mm)

**Mounting accessories** 

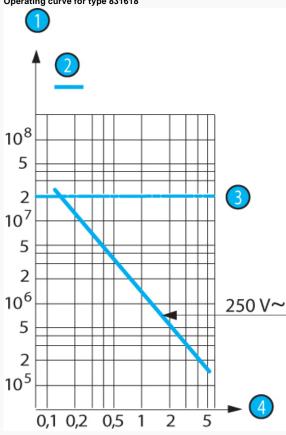
Housing 161 J for connections W3 R5

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

# Operating curve for type 831618



For types 831618 - 9 and 9 SP 4136 Dual-current These models are designed to operate equally well on dual-current (1 mA 4 V minimum) or medium-current (5 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

Nº	Legend
0	Number of cycles
<b>②</b>	Resistive circuit
<b>③</b>	Mechanical life limit
•	Current in Amps

# Connections

**Actuators and fixing positions** 

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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		
	-		-		7			Ą	6			
Fixing positions	A	В	A	В	С	A	В	A	В	С	A	В
Coefficient	2	1	4	2	1,5	2	1	4	2	1,5	3	1,8
Tripping point (except 83 161 6)	15,2*1	15,2 ***	15,2 *35	15,2*1	15,2***	20,5 *1.5	20,5 ***	20,5 *49	20,5 41.5	20,5 *1.2	20,412	20,4 **
Tripping point 83 161 6	14,8*1	15 1045	14,4 +3,5	14,8 11	14,9***	20,1 41,5	20,3 ***	19,7 449	20,1 41.5	20,2 11.2	20,2 *2	20,2 1
Part numbers for standard actuators	79 2	18 651										
Actuators	Dummy roller 161G R21,8		**Telescopic M plunger 161 L		anual action 161V			Housing 161		F	t for 161L art no.: 602 118	
Fixing positions	A	В	D		-	-68	_ D		. 1	2		
Coefficient	3	1,8	1				1					
Tripping point (except 83 161 6)	21,7 =2	21,7 ***7	21,5**				18,35 **	(45				
Tripping point 83 161 6	21.5=2	21,5 =1.7	21,5=									

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

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