

Datasheet - MD 441-11Y

Position switch / medium heavy Position switch / T/M 441 / 441 Roller lever D

 Preferred typ

(Minor differences between the printed image and the original product may exist!)

- Actuator head can be repositioned in steps 4 x 90°
- Metal enclosure
- Continuous adjustment of lever position 360°
- Lever can be transposed by 180°
- 2 Contacts
- 106 mm x 99 mm x 63 mm (basic component)
- In temperature-resistant version, the roller can be mounted in two different positions on the shaft
- Protection class IP65
- 2 cable entries M 20 x 1.5

Ordering details


Product type description	MD 441-11Y
Article number	101160102
EAN code	4030661188850
eCl@ss	27-27-06-01

Approval

Approval



Global Properties

Product name	441 Rollenschwenkhebel D
Standards	EN 60947-5-1
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	No
Standard housing (Y/N)	No
Materials	
- Material of the housings	cast iron, galvanized
- Roller material	Plastic
- Material of the contacts	Silver
Housing coating	painted

Weight	1655 g
Slide form	Castor

Mechanical data

Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	1.5 mm ²
- Max. Cable section	2.5 mm ²
AWG-Number	13
Active principle	mechanical
Mechanical life	5.000.000 operations
notice	All indications about the cable section are including the conductor ferrules.
Design of actuating element	Roller lever
Bounce duration	≤ 5 ms
Switchover time	≤ 35 ms
Contact opening	2 x 2.5 mm
Actuating speed with vertical actuating angle to switch axis	
- Min. Actuating speed	1 mm/min
- Max. Actuating speed	3 m/s
- Actuating angle from left of switch axis	30°
- Actuating angle from right of switch axis	30°

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+90 °C
Protection class	IP65 to IEC/EN 60529

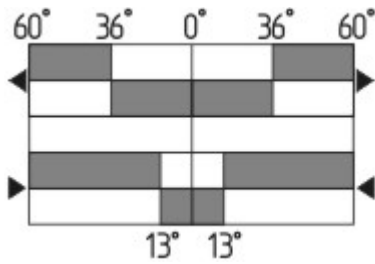
Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
- Change-over contact with double break	
- galvanically separated contact bridges	
Switching principle	Snap switch element
Number of shutters	1 piece
Number of openers	1 piece
Rated impulse withstand voltage U_{imp}	4 kV
Rated insulation voltage U_i	250 V
Thermal test current I_{the}	16 A
Utilisation category	AC-15: 250 V / 4 A
Max. fuse rating	16 A gG D-fuse

Dimensions

Dimensions of the sensor	
- Width of sensor	106 mm
- Height of sensor	237 mm
- Length of sensor	63 mm
Roller wide	9 mm
Roller diameter	36 mm

Switch travel diagram



Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- L Break point
- P Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: MD 441-11Y-**A**

...- A	Aluminium enclosure
...- 1276-2	gold-plated contacts
...- T	Temperature-resistant and tropical version with ceramic insulation for -40°C ... +200°C Rated insulation voltage U_i : 500 V (Snap action)
...- 1801	Splined shaft and lever available with 10° tothing
...- 1801	Splined shaft and lever available with 10° tothing
...- RMS	Available with metal roller

Ordering code

(1)(2) 441-11Y(3)-(4)-(5)

(1)

T	Slow action
M	Snap action

(2)

S	Plunger S
2S	Telescopic plunger 2S
R	Roller plunger R
K	Offset roller lever K
J	Offset roller lever J
2C	Fork lever 2C

L	Roller lever L
D	Roller lever D
(3)	
UE	Slow action with overlapping contacts
(4)	
without	Cast iron enclosure
A	Aluminium enclosure
(5)	
T	Temperature-resistant and tropical version with ceramic insulation for -40 °C ... +200 °C
1276-2	gold-plated contacts

Documents

Operating instructions and Declaration of conformity (cn) 138 kB, 29.05.2017

Code: mrl_posi-allgemein_cn

Operating instructions and Declaration of conformity (it) 86 kB, 09.03.2016

Code: mrl_posi-allgemein_it

Operating instructions and Declaration of conformity (fr) 85 kB, 20.07.2016

Code: mrl_posi-allgemein_fr

Operating instructions and Declaration of conformity (de) 88 kB, 18.02.2016

Code: mrl_posi-allgemein_de

Operating instructions and Declaration of conformity (pt) 86 kB, 27.03.2017

Code: mrl_posi-allgemein_pt

Operating instructions and Declaration of conformity (ru) 133 kB, 23.12.2015

Code: mrl_posi-allgemein_ru

Operating instructions and Declaration of conformity (en) 86 kB, 23.12.2015

Code: mrl_posi-allgemein_en

Operating instructions and Declaration of conformity (pl) 118 kB, 01.04.2016

Code: mrl_posi-allgemein_pl

Operating instructions and Declaration of conformity (es) 88 kB, 09.03.2016

Code: mrl_posi-allgemein_es

Declaration of conformity (en) 96 kB, 11.04.2014

Code: konfi_mrl_t422_en

Declaration of conformity (de) 94 kB, 08.08.2016

Code: __422p01

Declaration of conformity (pl) 129 kB, 08.08.2016

Code: __422p01_pl

CCC certification (cn) 1 MB, 22.06.2017

Code: q_352p03

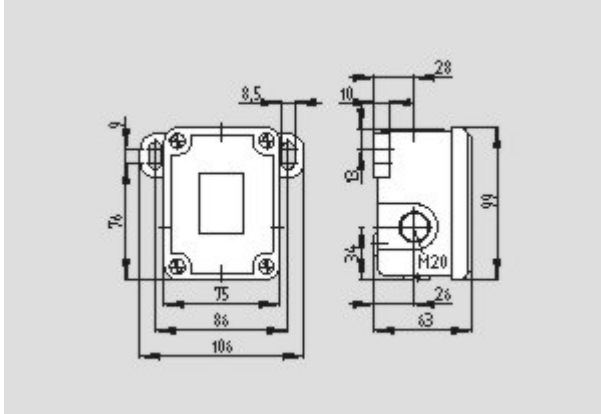
CCC certification (en) 1 MB, 22.06.2017

Code: q_352p02

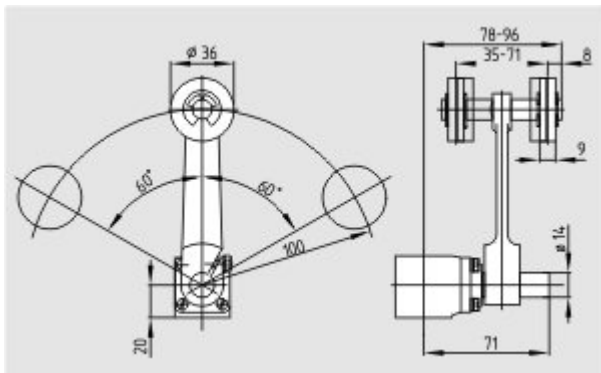
EAC certification (ru) 388 kB, 20.01.2016

Code: q_1527p17_ru

Images



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)



Operating principle

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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