



## ML 441-11Y-M20

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

## Data

### Ordering data

Product type description	ML 441-11Y-M20
Article number (order number)	101170496
EAN (European Article Number)	4030661297781
eCl@ss number, version 12.0	27-27-06-01
eCl@ss number, version 11.0	27-27-06-01
eCl@ss number, version 9.0	27-27-06-01
ETIM number, version 7.0	EC000030
ETIM number, version 6.0	EC000030

### Approvals - Standards

Certificates	CCC
--------------	-----

### General data

Standards	EN IEC 60947-5-1
-----------	------------------

Working principle	mechanical
Slide form	Castor
Housing material	Grey cast iron, galvanised
Housing coating material	painted
Gross weight	1,655 g

### General data - Features

Number of normally closed (NC)	1
Number of normally open (NO)	1

### Safety classification - Safety outputs

B <sub>10D</sub> Normally-closed contact (NC)	2,000,000 Operations
---	----------------------

### Mechanical data

Actuating element	Roller lever
Roller material	Plastic
Mechanical life, minimum	10,000,000 Operations
Actuating angle, from left of switch axis	30 °
Actuating angle, from right of switch axis	30 °
Contact opening	2 x 2.5 mm
Actuating speed, minimum	1 mm/min
Actuating speed, maximum	3 m/s
Note (Actuating speed)	Actuating speed with vertical actuating angle to switch axis

### Mechanical data - Connection technique

Termination	Screw terminals M20 x 1.5
Cable section, minimum	1.5 mm <sup>2</sup>
Cable section, maximum	2.5 mm <sup>2</sup>
Note	All indications including the conductor ferrules.
Wire cross-section	13 AWG

## Mechanical data - Dimensions

Length of sensor	63 mm
Width of sensor	106 mm
Height of sensor	192 mm
Width of Castor	9 mm
Diameter of Castor	36 mm

## Ambient conditions

Degree of protection	IP65
Ambient temperature	-30 ... +90 °C

## Ambient conditions - Insulation values

Rated insulation voltage $U_i$	250 VAC
Rated impulse withstand voltage $U_{imp}$	6 kV

## Electrical data

Thermal test current	16 A
Utilisation category AC-15	250 VAC
Utilisation category AC-15	4 A
Switching element	NO contact, NC contact
Note (Switching element)	galvanically separated contact bridges
Switching principle	Snap action
Bounce duration, maximum	5 ms
Material of the contacts, electrical	Silver

## Ordering code

Product type description:  
(1)(2) 441-11Y(3)-(4)-(5)

(1)	
<b>T</b>	Slow action (not for AF/S)
<b>M</b>	Snap action
(2)	
<b>S</b>	Plunger S
<b>2S</b>	Telescopic plunger 2S
<b>R</b>	Roller plunger R
<b>K</b>	Offset roller lever K
<b>J</b>	Offset roller lever J
<b>2C</b>	Fork lever 2C
<b>L</b>	Roller lever L
<b>D</b>	Roller lever D
<b>MAF/S</b>	Level switch AF/S
(3)	
<b>UE</b>	Slow action with overlapping contacts
(4)	
<b>without</b>	Cast iron enclosure
<b>A</b>	Aluminium enclosure
(5)	
<b>T</b>	temperature-resistant and tropical version with ceramic insulation for -40 °C ... +200 °C
<b>1276-2</b>	Gold-plated contacts

## Pictures

**Product picture (catalogue individual photo)**



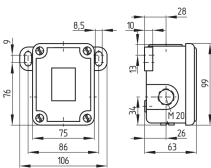
ID: kt441f08

| 530.6 kB | .jpg | 215.547 x 344.664 mm - 611 x 977 px - 72 dpi

| 77.2 kB | .png | 74.083 x 118.181 mm - 210 x 335 px - 72 dpi

| 59.2 kB | .jpg | 77.258 x 123.472 mm - 219 x 350 px - 72 dpi

## Dimensional drawing basic component



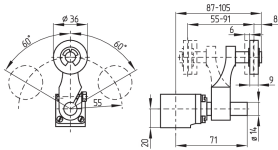
ID: 1t441g01

| 29.6 kB | .cdr |

| 3.9 kB | .png | 74.083 x 51.858 mm - 210 x 147 px - 72 dpi

| 86.4 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

## Dimensional drawing actuator

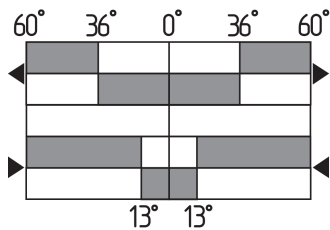


ID: 1t422b07

| 9.8 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi

| 113.5 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

## Switch travel diagram



ID: kt441s12

| 57.7 kB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi

| 1.3 kB | .png | 74.083 x 52.564 mm - 210 x 149 px - 72 dpi

| 78.0 kB | .jpg | 352.778 x 260.703 mm - 1000 x 739 px - 72 dpi

## Operating principle

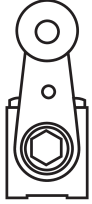


ID: 235hz05

| 15.2 kB | .cdr |

| 180.5 kB | .jpg | 352.778 x 749.3 mm - 1000 x 2124 px - 72 dpi

| 3.4 kB | .png | 74.083 x 157.339 mm - 210 x 446 px - 72 dpi



Schmersal Ltd., Sparrowhawk Close, WR14 1GL Malvern

The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

Generated on: 24/05/2024, 13:19