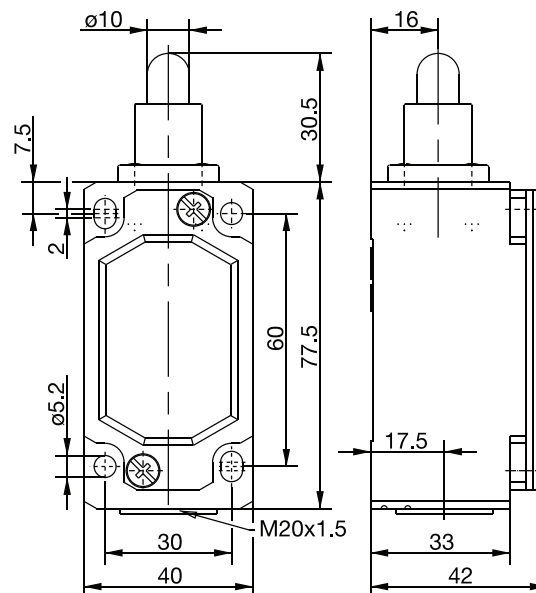


ENM2 Series



Recommended use

With its standard enclosure size, the ENM2 limit switch is a perfect series for use in industrial and safety applications, where a rugged and durable switch is required.

Product advantages

- Standard switch conforming to DIN EN 50041
- Standard actuator conforming to DIN EN 50041, Type A, B, C, D
- Protection class IP65 to VDE 0470 T1
- Enclosure: Aluminum pressure die-casting
- Cover: Sheet aluminum
- Actuator can be repositioned by 4 x 90°
- Cable entry M20 x 1.5
- Connection designation conforming to DIN EN 50013
- Metal actuators for high loads

Options

- AS interface versions on request
- Preassembled with customer-specific cables and connectors on request

Design layout

- Slow-action and snap-action contacts
- Versions: 1 NC /1NO, 2 NC, overlapping contacts
- All NC contacts with  in the circuit diagram are positively opening contacts
- Type: Zb (galvanically isolated changeover contact)

Mounting

- Two M5 adjustment screws with slots
- Two M5 screws for safety applications without additional securing element

Installation advantages

- Screw connections with self-lifting clamping plates
- Easy-to-change switching system thanks to snap-in retainer (depending on type)
- Finely adjustable switching point with adjusting screw
- Captive cover screws
- Enlarged connection space
- Earthing surface on same level as switching system

Technical data

Electrical data	
Rated insulation voltage (up to) ¹	U _i max. 400 V AC
Conventional thermal current (up to) ¹	I _{the} 10 A
Rated operating voltage	U _e max. 240 V
Utilization category (up to) ¹	A300, AC-15, U _e /I _e 240 V/3 A
Short-circuit protection (up to) ¹	Fuse 10 A gL/gG
Protection class	I
Mechanical data	
Enclosure material	Aluminum pressure die-casting
Ambient temperature	-30 °C to +80 °C
Mechanical service life (up to) ¹	10 x 10 ⁶ switching cycles
B10d (up to) ¹	20 Mill.
Switching frequency	≤ 100/min.
Type of connection	Screw connections
Conductor cross sections	Single-wire 0.5 - 1.5 mm ² or Stranded wire with ferrule 0.5 - 1.5 mm ²
Cable entry	1 x M20 x 1.5
Protection class	IP65 conforming to IEC/EN 60529
Standards	
VDE 0660 T100, DIN EN 60947-1, IEC 60947-1 VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1	

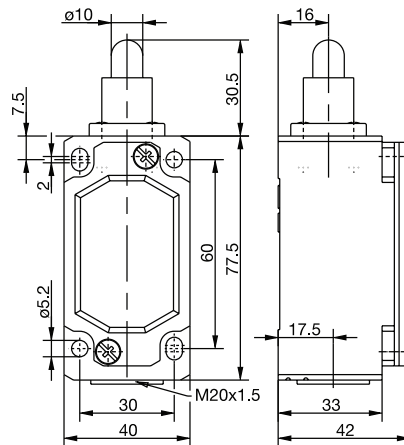
¹ Depending on switching system. See Table on Pages 76-79.

Drawing dimensions in mm

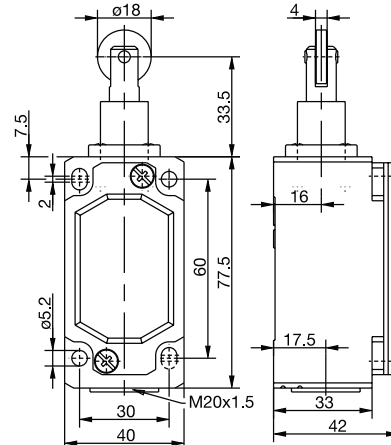
ENM2 Series



IW (Form B)



RIW (Form C)

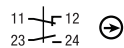


Switching Operation

1 NC / 1 NO Contacts

Slow Action

608.7102.001
ENM2-U1Z IW



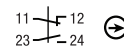
Snap Action

608.7352.002
ENM2-SU1Z IW



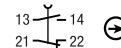
Slow Action

608.7117.004
ENM2-U1Z RIW



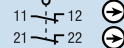
Snap Action

608.7367.005
ENM2-SU1Z RIW



2 NC Contacts

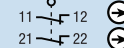
608.7802.003
ENM2-A2Z IW



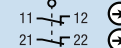
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608.7817.006
ENM2-A2Z RIW

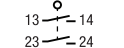


608.7867.051
ENM2-SA2Z RIW



2 NO Contacts

608.7802.021
ENM2-E2 IW



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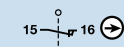
-

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1 NC / 1 NO Contacts Overlapping

608.7302.027
ENM2-UV1Z IW



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Replacement actuator:

391.8020.584

391.8170.587

Technical Information

Slow Action

Snap Action

Maximum Switching Voltage

240V

240V

Max. Switching Amps (up to)*

10A

10A

B10d (up to)*

20 Million

20 Million

Mechanical Service Life (up to)*

10 x 10⁶

10 x 10⁶

Switching Frequency

≤ 100/min

≤ 100/min

Operating Temperature

-30 °C to +80 °C

-30 °C to +80 °C

Protection Rating

IP65

IP65

Utilization Category (up to)*

AC-15, Ue/Ue 240V 3A

AC-15, Ue/Ue 240V 3A

Rate Insulation Voltage

400VAC

400VAC

Approvals

* Depending on switching system - see technical information for details



Special features/variants (on request)

- Also available with following contacts:
2 NC / 1 NO with overlap
1 NC / 2 NO with overlap

Special features/variants (on request)

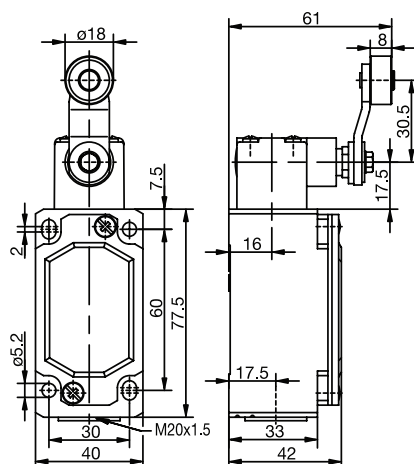
- Available with different directions
- High temperature range
- Different roller diameters and contact types

Drawing dimensions in mm

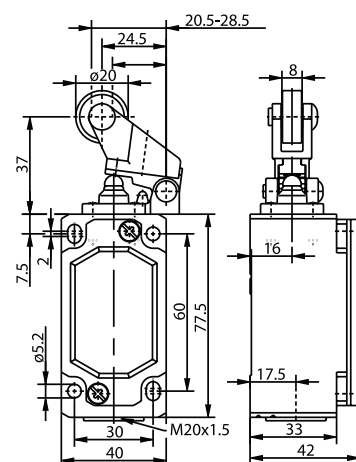
ENM2 Series



AHS-V (Form A)



DGHW RO20

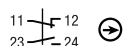


Switching Operation

1 NC / 1 NO Contacts

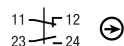
Slow Action

608.7135.013
ENM2-U1Z AHS-V



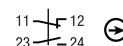
Snap Action

608.7385.014
ENM2-SU1Z AHS-V



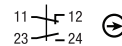
Slow Action

608.7121.007
ENM2-U1Z DGHW RO20



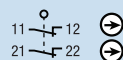
Snap Action

608.7371.008
ENM2-SU1Z DGHW RO20



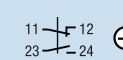
2 NC Contacts

608.7835.015
ENM2-A2Z AHS-V



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-

608.7821.009
ENM2-A2Z DGHW RO20



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2 NO Contacts

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1 NC / 1 NO Contacts Overlapping

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Replacement actuator:

391.8350.729

391.8211.656

Technical Information

Slow Action

Snap Action

Maximum Switching Voltage

240V

240V

Max. Switching Amps (up to)*

10A

10A

B10d (up to)*

20 Million

20 Million

Mechanical Service Life (up to)*

3 x 10⁶

10 x 10⁶

Switching Frequency

≤ 100/min

≤ 100/min

Operating Temperature

-30 °C to +80 °C

-30 °C to +80 °C

Protection Rating

IP65

IP65

Utilization Category (up to)*

AC-15, Ue/Ue 240V 3A

AC-15, Ue/Ue 240V 3A

Rate Insulation Voltage

400VAC

400VAC

Approvals

* Depending on switching system - see technical information for details



Special features/variants (on request)

- Available with different directions

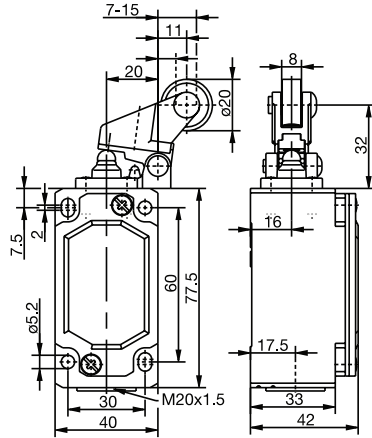
Special features/variants (on request)

- Available with different directions

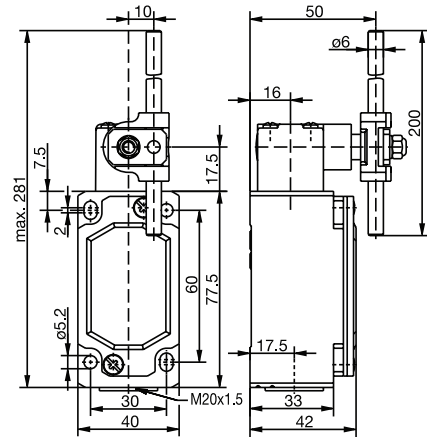
ENM2 Series



DGKW RO20



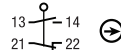
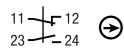
AD (Form D)



Switching Operation

1 NC / 1 NO Contacts

608.7127.010 ENM2-U1Z DGKW RO20 **608.7377.011** ENM2-SU1Z DGKW RO20



2 NC Contacts

-

-

2 NO Contacts

-

-

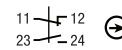
1 NC / 1 NO Contacts Overlapping

-

-

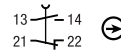
Slow Action

608.7137.018 ENM2-U1 AD



Snap Action

608.7387.019 ENM2-SU1 AD



Replacement actuator:

391.8271.655

391.8370.731

Technical Information

	Slow Action	Snap Action
Maximum Switching Voltage	240V	240V
Max. Switching Amps (up to)*	10A	10A
B10d (up to)*	20 Million	20 Million
Mechanical Service Life (up to)*	10 x 10 ⁶	10 x 10 ⁶
Switching Frequency	≤ 100/min	≤ 100/min
Operating Temperature	-30 °C to +80 °C	-30 °C to +80 °C
Protection Rating	IP65	IP65
Utilization Category (up to)*	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A
Rate Insulation Voltage	400VAC	400VAC

Approvals

* Depending on switching system - see technical information for details



Special features/variants (on request)

- Available with different actuating directions

Special features/variants (on request)

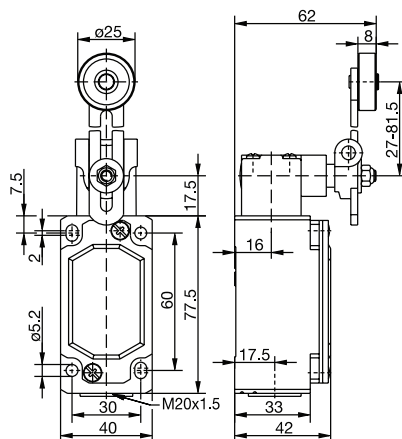
- Available with various actuator lengths and actuator directions

Drawing dimensions in mm

ENM2 Series



AV

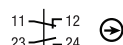


Switching Operation

1 NC / 1 NO Contacts

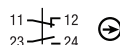
Slow Action

608.7136.016
ENM2-U1 AV



Snap Action

608.7386.017
ENM2-SU1 AV



2 NC Contacts

-

-

2 NO Contacts

618.7836.060
ENM2-E2 AV

-

-



**1 NC / 1 NO Contacts
Overlapping**

-

-

Replacement actuator:

391.8360.730

Technical Information

Slow Action

Snap Action

Maximum Switching Voltage	240V	240V
Max. Switching Amps (up to)*	10A	10A
B10d (up to)*	20 Million	20 Million
Mechanical Service Life (up to)*	3 x 10 ⁶	10 x 10 ⁶
Switching Frequency	≤ 100/min	≤ 100/min
Operating Temperature	-30 °C to +80 °C	-30 °C to +80 °C
Protection Rating	IP65	IP65
Utilization Category (up to)*	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A
Rate Insulation Voltage	400VAC	400VAC

Approvals

* Depending on switching system - see technical information for details



Special features/variants (on request)

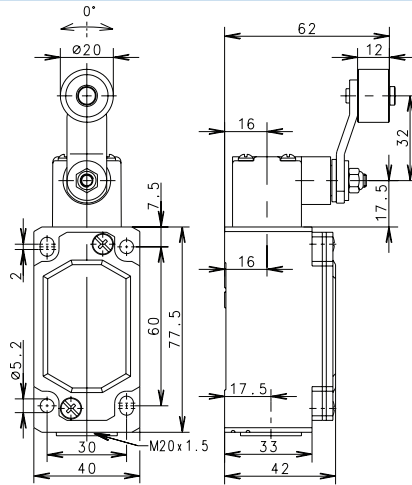
- Available with various actuator lengths and actuator directions
- Various roller diameters

Drawing dimensions in mm

ENM2 - Safety Limit Switch



AHZ

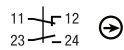


Switching Operation

1 NC/1 NO Contacts

Slow Action

608.7135.030
ENM2-U1Z AHZ



Snap Action

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-

2 NC Contacts

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2 NO Contacts

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1 NC / 1NO Contacts
Overlapping

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Replacement actuator:

Technical Information

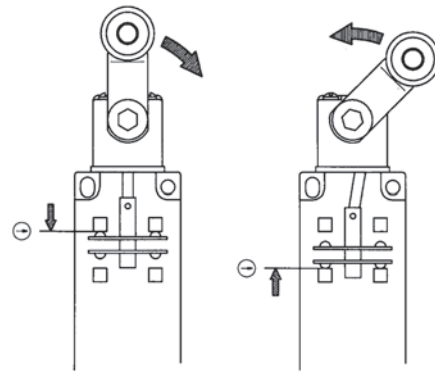
Maximum Switching Voltage	240V	
Max. Switching Amps (up to)*	10A	
B10d (up to)*	20 Million	
Mechanical Service Life (up to)*	10 x 10 ⁶	
Switching Frequency	≤ 100/min	
Operating Temperature	-30 °C to +80 °C	
Protection Rating	IP65	
Utilization Category (up to)*	AC-15, Ue/Ue 240V 3A	
Rate Insulation Voltage	400VAC	

Approvals



Special features

- Positively opening action, forward and return activation
- For special safety applications, the positive opening action of the normally-closed contacts takes place both in forward (moving in one direction) as well as in return (moving back to home position) direction
- For personal protection applications movement of the roller must be contained in a guide block in both directions



Note – if substituting actuators
AH, AHS, AHS-V, AHZ, AF, AD, AV,
DGH, DGK
– the positive conditions of the
activation may change.

After the adjustment, the user must
make sure that the part reaches the
necessary safety levels.

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[618.7135.103](#) [618.7135.107](#) [618.7335.101](#) [618.7352.131](#) [618.7367.132](#) [618.7385.031](#) [618.7117.039](#) [618.7117.055](#)
[618.7117.058](#) [618.7118.102](#) [618.7135.046](#) [618.7135.049](#)