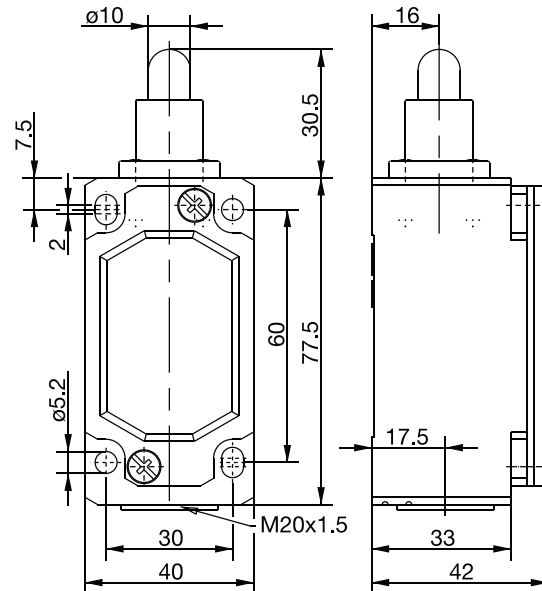


ENM2 Series



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

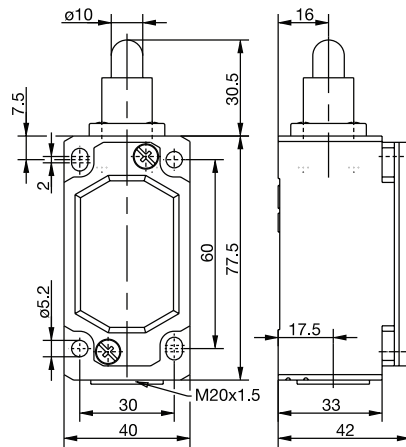
Electrical data	
Rated insulation voltage (up to) ¹	U _i max. 400 V AC
Conventional thermal current (up to) ¹	I _{the} 10 A
Rated operating voltage	U _e max. 240 V
Utilization category (up to) ¹	A300, AC-15, U _e /I _e 240 V/3 A
Short-circuit protection (up to) ¹	Fuse 10 A gL/gG
Protection class	I
Mechanical 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.

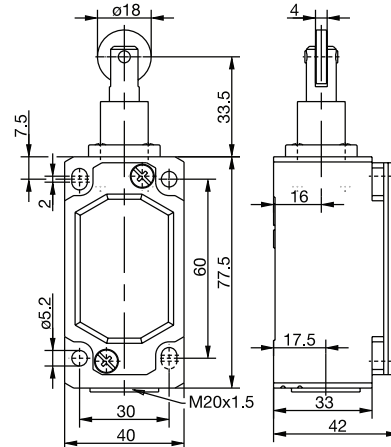
ENM2 Series



IW (Form B)



RIW (Form C)



Switching Operation	Slow Action	Snap Action	Slow Action	Snap Action
1 NC / 1 NO Contacts	608.7102.001 ENM2-U1Z IW 	608.7352.002 ENM2-SU1Z IW 	608.7117.004 ENM2-U1Z RIW 	608.7367.005 ENM2-SU1Z RIW
2 NC Contacts	608.7802.003 ENM2-A2Z IW 	-	608.7817.006 ENM2-A2Z RIW 	608.7867.051 ENM2-SA2Z RIW
2 NO Contacts	608.7802.021 ENM2-E2 IW 	-	-	-
1 NC / 1 NO Contacts Overlapping	608.7302.027 ENM2-UV1Z IW 	-	-	-

	391.8020.584		391.8170.587	
	Slow Action	Snap Action	Slow Action	Snap Action
Maximum Switching Voltage	240V	240V	240V	240V
Max. Switching Amps (up to)*	10A	10A	10A	10A
B10d (up to)*	20 Million	20 Million	20 Million	20 Million
Mechanical Service Life (up to)*	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶
Switching Frequency	≤ 100/min	≤ 100/min	≤ 100/min	≤ 100/min
Operating Temperature	-30 °C to +80 °C	-30 °C to +80 °C	-30 °C to +80 °C	-30 °C to +80 °C
Protection Rating	IP65	IP65	IP65	IP65
Utilization Category (up to)*	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A
Rate Insulation Voltage	400VAC	400VAC	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

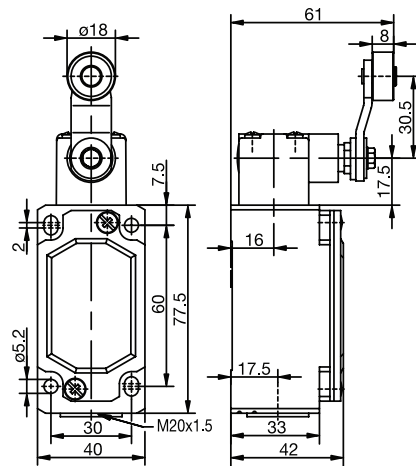
- Special features/variants** (on request)
- Available with different directions
 - High temperature range
 - Different roller diameters and contact types

Drawing dimensions in mm

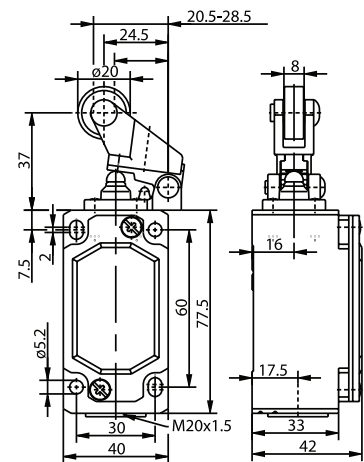
ENM2 Series



AHS-V (Form A)



DGHW RO20



Switching Operation	AHS-V (Form A)		DGHW RO20	
	Slow Action	Snap Action	Slow Action	Snap Action
1 NC / 1 NO Contacts	608.7135.013 ENM2-U1Z AHS-V 	608.7385.014 ENM2-SU1Z AHS-V 	608.7121.007 ENM2-U1Z DGHW RO20 	608.7371.008 ENM2-SU1Z DGHW RO20
2 NC Contacts	608.7835.015 ENM2-A2Z AHS-V 	-	608.7821.009 ENM2-A2Z DGHW RO20 	-
2 NO Contacts	-	-	-	-
1 NC / 1 NO Contacts Overlapping	-	-	-	-

Replacement actuator: **391.8350.729** (AHS-V) **391.8211.656** (DGHW RO20)

Technical Information	AHS-V		DGHW RO20	
	Slow Action	Snap Action	Slow Action	Snap Action
Maximum Switching Voltage	240V	240V	240V	240V
Max. Switching Amps (up to)*	10A	10A	10A	10A
B10d (up to)*	20 Million	20 Million	20 Million	20 Million
Mechanical Service Life (up to)*	3 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶
Switching Frequency	≤ 100/min	≤ 100/min	≤ 100/min	≤ 100/min
Operating Temperature	-30 °C to +80 °C	-30 °C to +80 °C	-30 °C to +80 °C	-30 °C to +80 °C
Protection Rating	IP65	IP65	IP65	IP65
Utilization Category (up to)*	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A	AC-15, Ue/Ue 240V 3A
Rate Insulation Voltage	400VAC	400VAC	400VAC	400VAC

Approvals * Depending on switching system - see technical information for details



Special features/variants (on request)
● Available with different directions

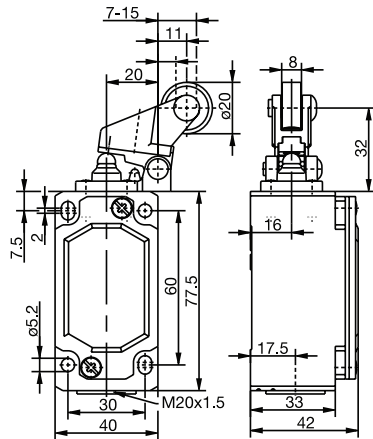
Special features/variants (on request)
● Available with different directions

Drawing dimensions in mm

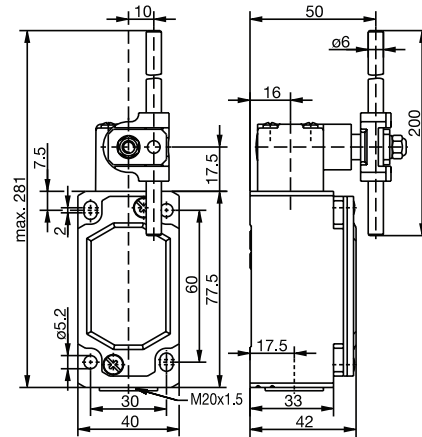
ENM2 Series



DGKW RO20



AD (Form D)



Switching Operation	Slow Action	Snap Action	Slow Action	Snap Action
1 NC / 1 NO Contacts	608.7127.010 ENM2-U1Z DGKW RO20	608.7377.011 ENM2-SU1Z DGKW RO20	608.7137.018 ENM2-U1 AD	608.7387.019 ENM2-SU1 AD
2 NC Contacts	-	-	-	-
2 NO Contacts	-	-	-	-
1 NC / 1 NO Contacts Overlapping	-	-	-	-

Replacement actuator: **391.8271.655** (for DGKW RO20) **391.8370.731** (for AD)

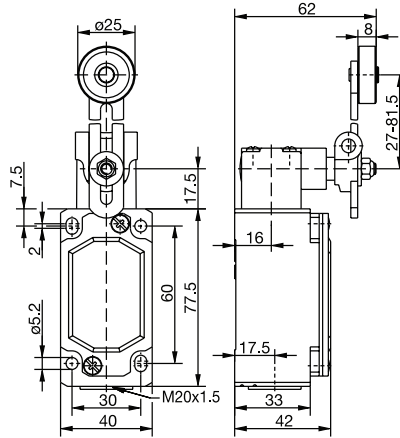
Technical Information	Slow Action	Snap Action	Slow Action	Snap Action
Maximum Switching Voltage	240V	240V	240V	240V
Max. Switching Amps (up to)*	10A	10A	10A	10A
B10d (up to)*	20 Million	20 Million	20 Million	20 Million
Mechanical Service Life (up to)*	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶
Switching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

Approvals * Depending on switching system - see technical information for details

- Special features/variants** (on request)
- Available with different actuating directions
 - Available with various actuator lengths and actuator directions

ENM2 Series

AV



Switching Operation	Slow Action	Snap Action
1 NC / 1 NO Contacts	608.7136.016 ENM2-U1 AV 	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



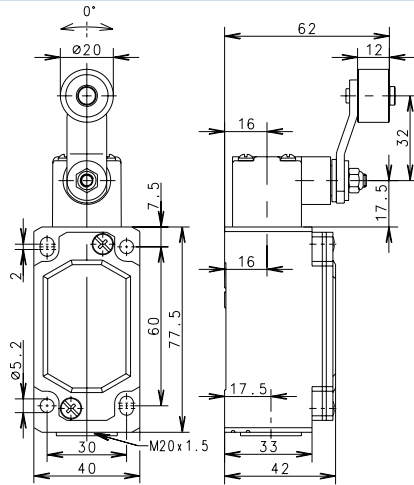
Special features/variants (on request)

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

ENM2 - Safety Limit Switch

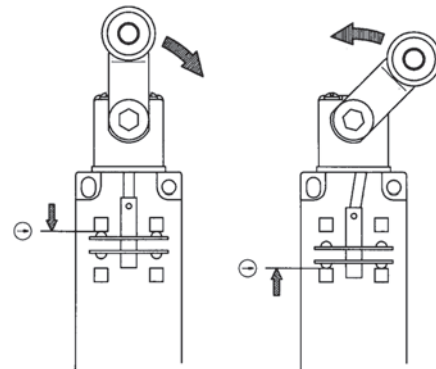


AHZ



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



Switching Operation

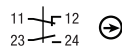
1 NC/1 NO Contacts

Slow Action

608.7135.030
ENM2-U1Z AHZ

Snap Action

-



2 NC Contacts

-

-

2 NO Contacts

-

-

1 NC / 1NO Contacts
Overlapping

-

-

Replacement actuator:

Technical Information

Slow Action

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



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.