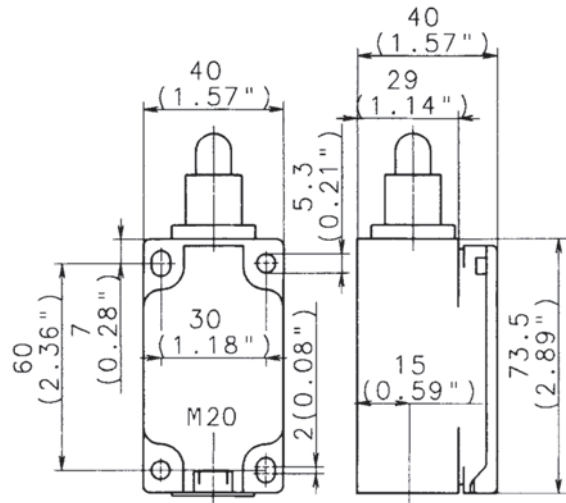


## ENK Series



### Recommended use

Thanks to its standard size design and its metal actuators, the ENK limit switch is particularly suitable for applications requiring a sturdy switch made of plastic.


### 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 and cover PA 6, (UL-94-V0)
- 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

- Available with M12 connector
- AS interface variants available
- Preassembled with customer-specific cables and connectors on request

### Design layout

- Slow-action and snap-action contacts
- Versions: 1 NC/1NO, 2 NC, 3 NC, overlapping contacts
- Latching function on request
- All NC contacts with  in the circuit diagram are positively opening contacts
- Type: Zb (galvanically isolated changeover contact)

### Mounting

- 2 adjustment slots for M5 screws
- 2 holes for M5 mounting screws in safety applications

### Installation advantages

- Snap-on cover can be released with screwdriver
- Cover opening range 150° (cover can also be detached from hinge)
- Cover protects switching element during installation
- Screw connections with self-lifting clamping plates
- Easy to install cover lock (close and press)

### Technical data

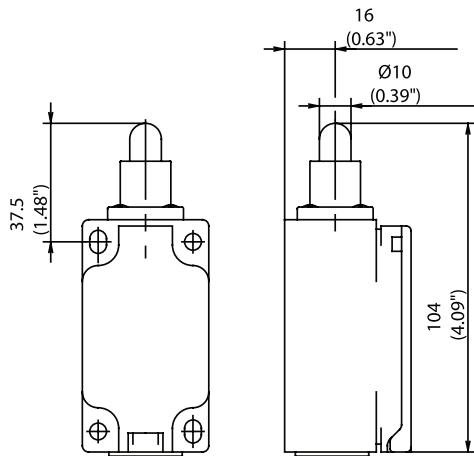
Electrical data		
Rated insulation voltage	U <sub>i</sub> max.	400 V AC
Conventional thermal current (up to) <sup>1</sup>	I <sub>the</sub>	10 A
Rated operating voltage	U <sub>e</sub> max.	240 V
Utilization category	AC-15, U <sub>e</sub> /I <sub>e</sub> 240 V/3 A	
Short-circuit protection (up to) <sup>1</sup>	Fuse 10 A gL/gG	
Protection class	II, Insulated	
Mechanical data		
Enclosure material	Thermoplastic, glass fibre-reinforced	
Ambient temperature	-30 °C to +80 °C	
Mechanical service life (up to) <sup>1</sup>	10 x 10 <sup>6</sup> switching cycles	
B10d (up to) <sup>1</sup>	20 Mio.	
Switching frequency	≤ 100/min.	
Type of connection	Screw connections	
Conductor cross sections	Single-wire 0.5 - 1.5 mm <sup>2</sup> or Stranded wire with ferrule 0.5 - 1.5 mm <sup>2</sup>	
Cable entry	1 x M20 x 1.5 ≈ 0.15 kg	
Protection class	IP65 conforming to EN 60529; DIN VDE 0470 T1	
Standards		
VDE 0660 T100, DIN EN 60947-1, IEC 60947-1		
VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1		

<sup>1</sup> Depending on switching system.

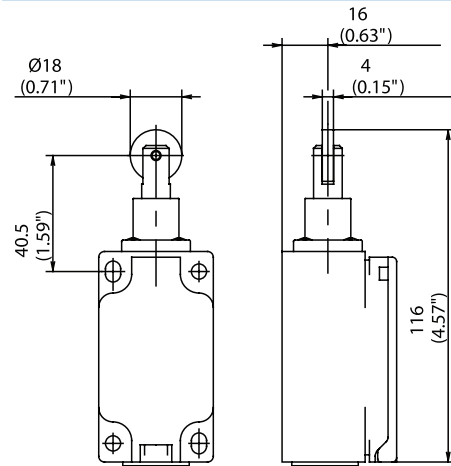
Drawing dimensions in mm

**ENK Series**

**IW (Form B)**



**RIW (Form C)**

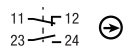


**Switching Operation**

**1 NC / 1 NO Contacts**

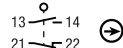
**Slow Action**

**608.1102.001**  
ENK-U1Z IW



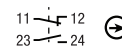
**Snap Action**

**608.1152.007**  
ENK-SU1Z IW



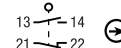
**Slow Action**

**608.1117.002**  
ENK-U1Z RIW



**Snap Action**

**608.1167.008**  
ENK-SU1Z RIW

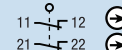


**2 NC Contacts**

-

-

**608.1817.281**  
ENK-A2Z RIW



-

**2 NO Contacts**

-

-

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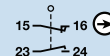
-

**1 NC / 1 NO Contacts Overlapping**

-

-

**608.1317.307**  
ENK-UV1Z RIW



-

**Replacement actuator:**

**391.8020.660**

**391.8170.661**

**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<sup>6</sup>

10 x 10<sup>6</sup>

10 x 10<sup>6</sup>

10 x 10<sup>6</sup>

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 black enclosure and following contacts:  
3 NC contacts

**Special features/variants** (on request)

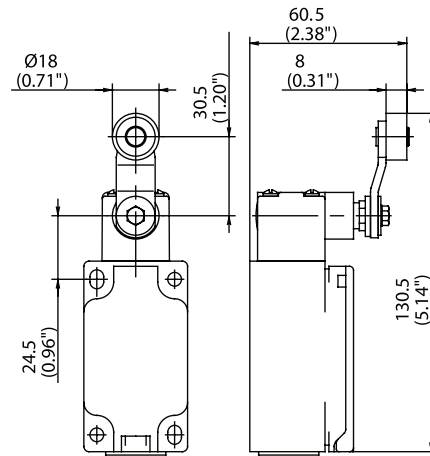
- Available for high temperature range and following contacts:  
3 NC contacts

*Drawing dimensions in mm*

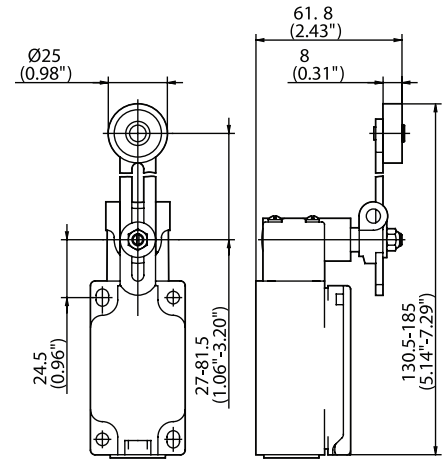
**ENK Series**



**AHS-V (Form A)**



**AV**

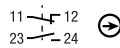


**Switching Operation**

**1 NC / 1 NO Contacts**

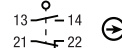
**Slow Action**

**608.1135.003**  
ENK-U1Z AHS-V



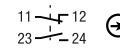
**Snap Action**

**608.1185.009**  
ENK-SU1Z AHS-V



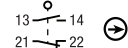
**Slow Action**

**608.1136.012**  
ENK-U1 AV



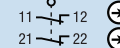
**Snap Action**

**608.1186.018**  
ENK-SU1 AV



**2 NC Contacts**

**608.1835.323**  
ENK-A2Z AHS-V



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**2 NO Contacts**

-

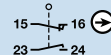
-

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-

**1 NC / 1 NO Contacts  
Overlapping**

**608.1335.006**  
ENK-UV1Z AHS-V



-

-

-

**Replacement actuator:**

**391.8350.737**

**391.8360.738**

**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 <sup>6</sup>	10 x 10 <sup>5</sup>
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

	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 <sup>6</sup>	10 x 10 <sup>6</sup>
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 black enclosure
- With 50 mm diameter rubber roller
- 3 NC contacts possible

**Special features/variants** (on request)

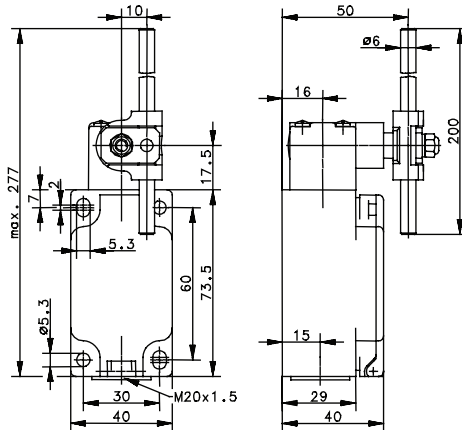
- Available with different lever lengths
- With 50 mm diameter rubber roller

Drawing dimensions in mm

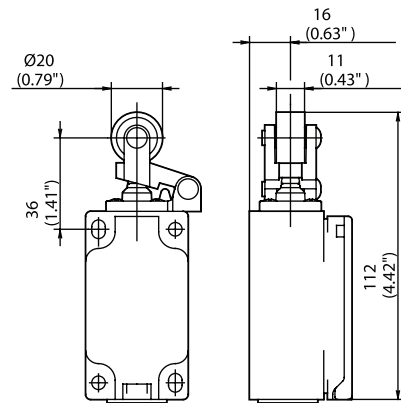
**ENK Series**



**AD (Form D)**



**HW RO20**



Switching Operation	Slow Action	Snap Action	Slow Action	Snap Action
<b>1 NC / 1 NO Contacts</b>	<b>608.1137.011</b> ENK-U1 AD 	<b>608.1187.017</b> ENK-SU1 AD 	<b>608.1121.095</b> ENK-U1Z HW RO20 	<b>608.1171.096</b> ENK-SU1Z HW RO20 
<b>2 NC Contacts</b>	-	-	-	-
<b>2 NO Contacts</b>	-	-	-	-
<b>1 NC / 1 NO Contacts Overlapping</b>	-	-	-	-

**Replacement actuator:** **391.8370.739** (for AD)      **391.8200.906** (for HW RO20)

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 <sup>6</sup>	10 x 10 <sup>6</sup>	10 x 10 <sup>6</sup>	10 x 10 <sup>6</sup>
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

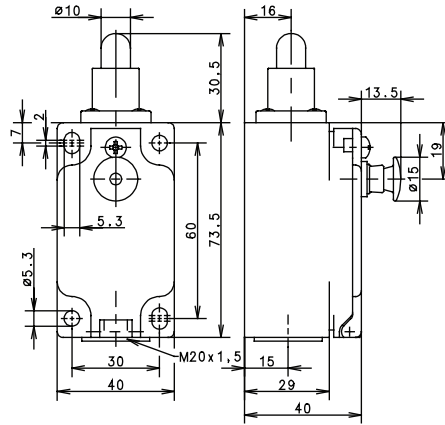
- Special features/variants (on request)**
- Available with various actuator directions and actuator lengths
  - Available with black enclosure and various roller diameters

*Drawing dimensions in mm*

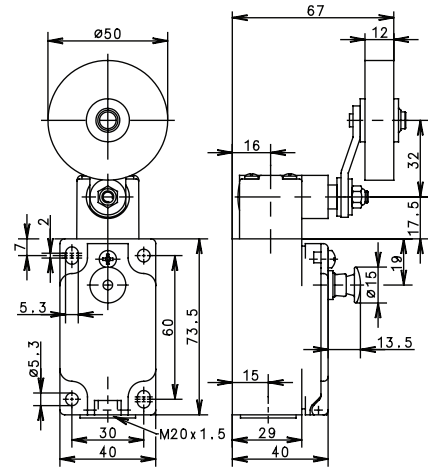
**ENK Series**



**iW RAST - LATCHING**



**AHS-GU RAST RO50 - LATCHING**



Switching Operation	Slow Action	Snap Action	Slow Action	Snap Action
<b>1 NC / 1 NO Contacts</b>	<b>618.1102.137</b> ENK-U1Z IW RAST 	-	<b>618.1135.251</b> ENK-U1Z AHSGU RAST RO50 	-
<b>2 NC Contacts</b>	-	-	-	-
<b>2 NO Contacts</b>	-	-	-	-
<b>1 NC / 1 NO Contacts Overlapping</b>	-	-	-	-

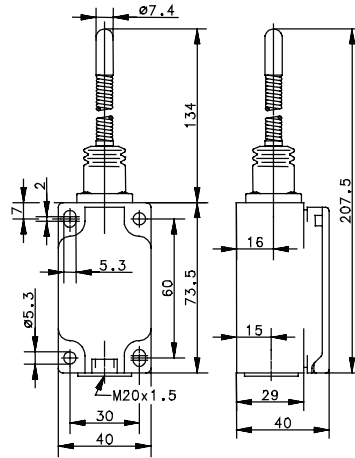
Replacement actuator: **391.8020.660**

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)*	3 x 10 <sup>6</sup>	10 x 10 <sup>6</sup>	10 x 10 <sup>6</sup>	10 x 10 <sup>6</sup>
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

**ENK Series**

**FF**



Switching Operation	Slow Action	Snap Action
1 NC / 1 NO Contacts		<b>608.1190.045</b> ENK-SU1 FF 
2 NC Contacts	-	-
2 NO Contacts	-	-
1 NC / 1 NO Contacts Overlapping	-	-

**Replacement actuator:** **391.8400.662**

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 <sup>6</sup>	10 x 10 <sup>6</sup>
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

