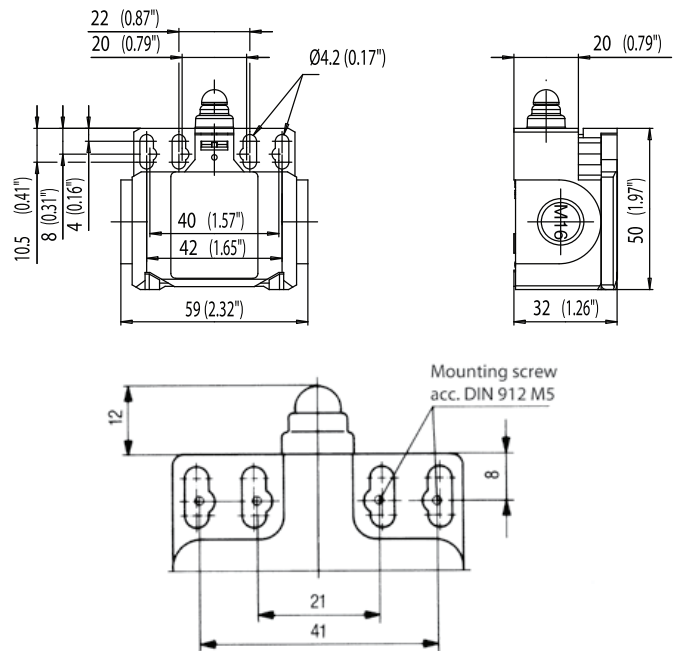


## Bi2 Series



### Recommended use

Multiple slotted mounting holes allow this series to be used as a replacement in a variety of applications. These switches can be adjusted vertically when mounted with M4 bolts. M5 bolts can be used for fixed mounting for Safety applications. Thanks to its two cable entries, this switch is ideal for use in series-connections.


### Product advantages

- Protection class IP65 to VDE 0470 T1
- Enclosure and cover PA 6, self-extinguishing (UL-94 V0)
- Actuator can be repositioned by 4 x 90°
- Cable entry 2x M16 x 1.5
- Connection designation conforming to DIN EN 50013

### 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
- All NC contacts with  in the circuit diagram are positively opening contacts
- Type: Zb (galvanically isolated changeover contact)

### Mounting

- Two M4 adjustment slots (distance between centers 22 mm)
- Two M4 adjustment slots (distance between centers 42 mm)
- Two M5 holes (distance between centers 21 mm) for safety applications
- Two M5 holes (distance between centers 41 mm) for safety applications without additional securing element

### Installation advantages

- Cover opening range 135° (cover can also be detached from hinge)
- Screw connections with self-lifting clamping plates
- Easy-action cover lock (close and press)
- Cover additionally secured with screw
- 2 cable entries for through-wiring

### Technical data

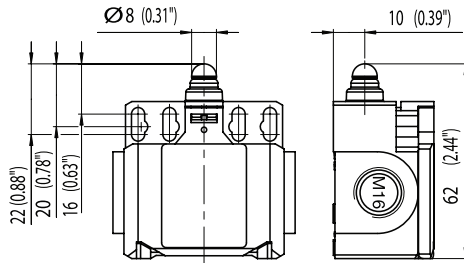
Electrical data		
Rated insulation voltage	U <sub>i</sub> max.	400 V AC
Conventional thermal current <sup>1</sup>	I <sub>thc</sub>	10 A
Rated operating voltage	U <sub>e</sub> max.	240 V AC
Utilization category	AC15, U <sub>e</sub> /I <sub>e</sub> 240 V/3 A	
Short-circuit protection (up to) <sup>1</sup>	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	2 x M16 x 1,5	
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. See Table in Electrical Data

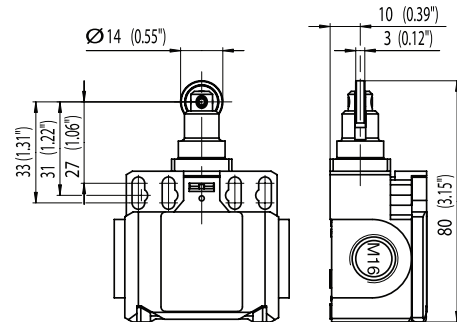
Drawing dimensions in mm

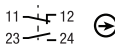
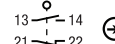
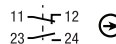
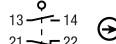
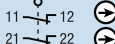
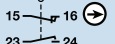
## Bi2 Series

### W



### RIW



Switching Operation	Slow Action	Snap Action	Slow Action	Snap Action
<b>1 NC / 1 NO Contacts</b>	<b>608.5103.100</b> BI2-U1Z W 	<b>608.5153.107</b> BI2-SU1Z W 	<b>608.5117.101</b> BI2-U1Z RIW 	<b>608.5167.108</b> BI2-SU1Z RIW 
<b>2 NC Contacts</b>	<b>608.5803.116</b> BI2-A2Z W 	-	-	-
<b>2 NO Contacts</b>	-	-	-	-
<b>1 NC / 1 NO Contacts Overlapping</b>	<b>608.5303.115</b> BI2-UV1Z W 	-	-	-

### 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

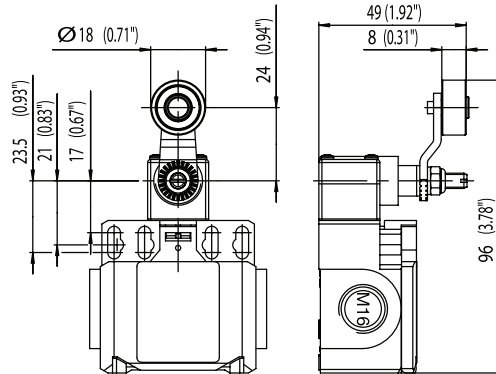


**Special features/variants** (on request)

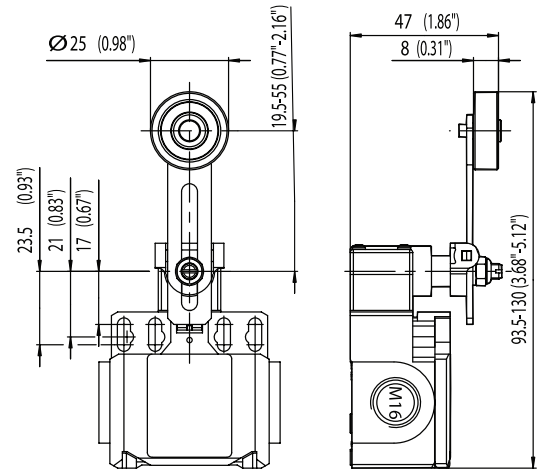
- Steel Roller Available

**Bi2 Series**

**AH**



**AV**

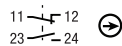


**Switching Operation**

**1 NC / 1 NO Contacts**

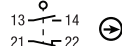
**Slow Action**

**608.5135.104**  
BI2-U1Z AH



**Snap Action**

**608.5185.111**  
BI2-SU1Z AH

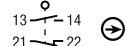


**Slow Action**

-

**Snap Action**

**608.5186.112**  
BI2-SU1 AV



**2 NC Contacts**

-

-

-

-

**2 NO Contacts**

-

-

-

-

**1 NC / 1 NO Contacts Overlapping**

-

-

-

-

**Replacement actuator:**

**391.8351.166**

**391.8360.984**

**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



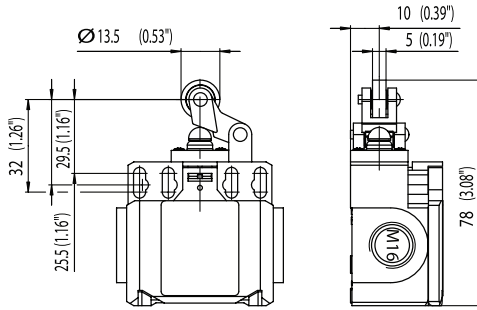
**Special features/variants** (on request)

- Available with different actuator directions
- With steel roller and different roller diameters
- Different lever lengths; straight or bent

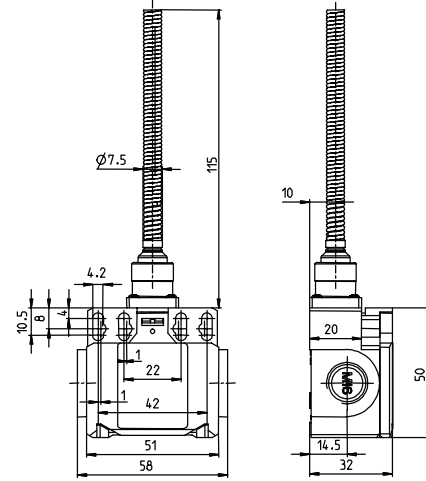
Drawing dimensions in mm

**Bi2 Series**

**HW RO13.5**



**FF**



Switching Operation	Slow Action	Snap Action
<b>1 NC / 1 NO Contacts</b>	-	<b>608.5171.109</b> BI2-SU1Z HW RO13.5 
<b>2 NC Contacts</b>	-	-
<b>2 NO Contacts</b>	-	-
<b>1 NC / 1 NO Contacts Overlapping</b>	-	-

Switching Operation	Slow Action	Snap Action
<b>1 NC / 1 NO Contacts</b>	<b>618.5140.104</b> BI2-U1 FF 	<b>608.5190.114</b> BI2-SU1 FF 
<b>2 NC Contacts</b>	-	-
<b>2 NO Contacts</b>	-	-
<b>1 NC / 1 NO Contacts Overlapping</b>	-	-

**Replacement actuator:** **391.1890.681**

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

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



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

- Available with different spring lengths
- Spring rod
- Various spring versions

*Drawing dimensions in mm*