

Limit switch attachments



- 7 - Type discontinued  
Available up until 03/2016

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## Limit switch attachments DAPZ

Type codes

		DAPZ	SB	M	250AC	EXS	RO
<b>Type</b>							
DAPZ	Limit switch attachment						
<b>Specification</b>							
SB	Sensor box						
<b>Measuring principle</b>							
I	Inductive						
M	Electrical, micro switch						
<b>Operating voltage</b>							
25DC	8 V DC						
30DC	30 V DC						
250AC	250 V AC/DC						
<b>Version</b>							
EX	Explosion-proof						
D	Display						
S	Square design						
R	Round design						
A	AS-interface connection						
M	Solenoid plug						
<b>Variant</b>							
RO	Foot height fixed						
AR	Foot height adjustable						

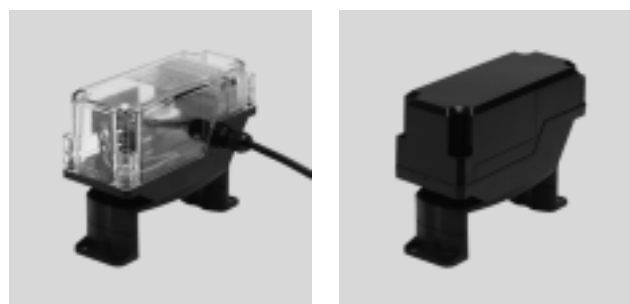
- 2 - Type discontinued  
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## Limit switch attachments DAPZ, square design

Technical data

- Drive interface to Namur  
VDI/VDE 3845
- Quick and easy assembly  
and connection
- Integrated solenoid valve actuation
- DAPZ-SB-I-... with AS-interface



General technical data	DAPZ-SB-M-250AC-DSM-RO	DAPZ-SB-M-250AC-EXS-RO	DAPZ-SB-I-30DC-DSAM-RO
Measuring principle	Mechanical, electrical	Mechanical, electrical	Inductive
Based on standard	EN 60947-5-1	EN 60947-5-1	EN 60947-5-6
	VDI/VDE 3845 (NAMUR)		
Design	Square		
Mounting position	Any		
Protection against short circuit	No	No	Yes
Switching element function	Changeover switch	Changeover switch	Normally closed contact
Protection against reverse polarity	No	No	For all electrical connections
Switching position display	No	No	No
Operating voltage range	Direct current DC [V]	0 ... 250	0 ... 250
	Alternating current AC [V]	0 ... 250	0 ... 250
Nominal operating voltage DC [V]	–	–	30
Insulation voltage [V]	250	250	50
Surge capacity [kV]	4	4	0.8
Max. output current [mA]	16,000	4,000	–
Electrical connection	Screw terminal	Screw terminal	–
Fieldbus interface	–	–	AS-interface: flat cable plug
Permissible cable diameter [mm]	8 ... 13	8 ... 13	–
Cable connector	M20x1.5	M20x1.5	–

Operating and environmental conditions	DAPZ-SB-M-250AC-DSM-RO	DAPZ-SB-M-250AC-EXS-RO	DAPZ-SB-I-30DC-DSAM-RO
Ambient temperature [°C]	–20 ... +85 °C	–20 ... +60 °C	–20 ... +85 °C
Protection class	IP65		
CE marking (see declaration of conformity)	To EU Low Voltage Directive	To EU Explosion Protection Directive (ATEX)	–
ATEX category for gas	–	II 2G	–
Explosion ignition protection type for gas	–	Ex d e IIC T6 Gb	–
Explosion-proof temperature rating	–	–20 °C ≤ Ta ≤ +60 °C	–
Certificate issuing authority	–	PTB 05 ATEX 1087	–
Explosion protection certification outside the EU	–	EPL Gb (RU)	–
	–	EPL Gc (RU)	–
Degree of contamination	3		
Corrosion resistance class CRC <sup>1)</sup>	2		

1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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## Limit switch attachments DAPZ, square design

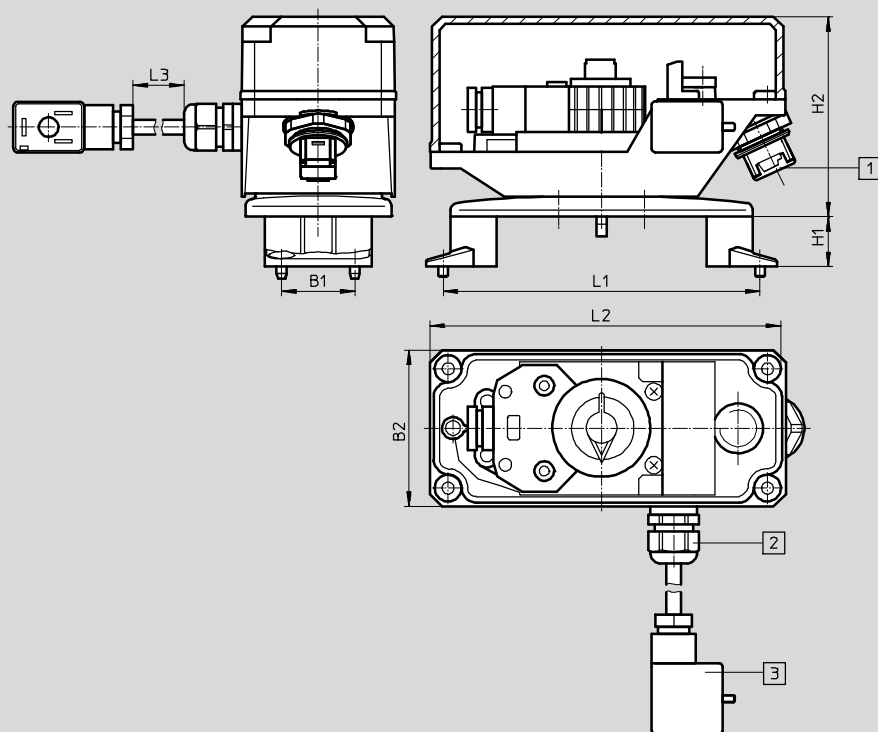
Technical data

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Materials	DAPZ-SB-M-250AC-DSM-RO	DAPZ-SB-M-250AC-EXS-RO	DAPZ-SB-I-30DC-DSAM-RO
1 Housing cover	PC	PA	PC
2 Housing socket, bracket	PA	PA	PA
3 Seals	EPDM		
- Note on materials	RoHS-compliant		

### Dimensions – DAPZ-SB-I-30 V/DC-...

Download CAD data → [www.festo.com](http://www.festo.com)



- 1 Connection for AS-interface flat cable
- 2 Cable connector M12x1.5
- 3 Solenoid plug

	B1	B2± <sub>2</sub>	H1	H2± <sub>3</sub>	L1	L2± <sub>2</sub>	L3± <sub>10</sub>
<b>Feet mounted inwards</b>							
Foot 20	30	63	20.5	80	80	145	300
Foot 30	30	63	30.5	80	80	145	300
Foot 50 (order accessories separately)	30	63	50.5	80	80	145	300
<b>Feet mounted outwards</b>							
Foot 20	30	63	20.5	80	130	145	300
Foot 30	30	63	30.5	80	130	145	300
Foot 50 (order accessories separately)	30	63	50.5	80	130	145	300
<b>Mounting via adapter (order accessories separately)</b> → 11							
DAPZ-SBZ-K0-RO	25± <sub>0.3</sub>	63	20.5	80	50± <sub>0.3</sub>	145	300
DAPZ-SBZ-K3-RO	30± <sub>0.3</sub>	63	30.5	80	150± <sub>0.3</sub>	145	300

- 2 - Type discontinued  
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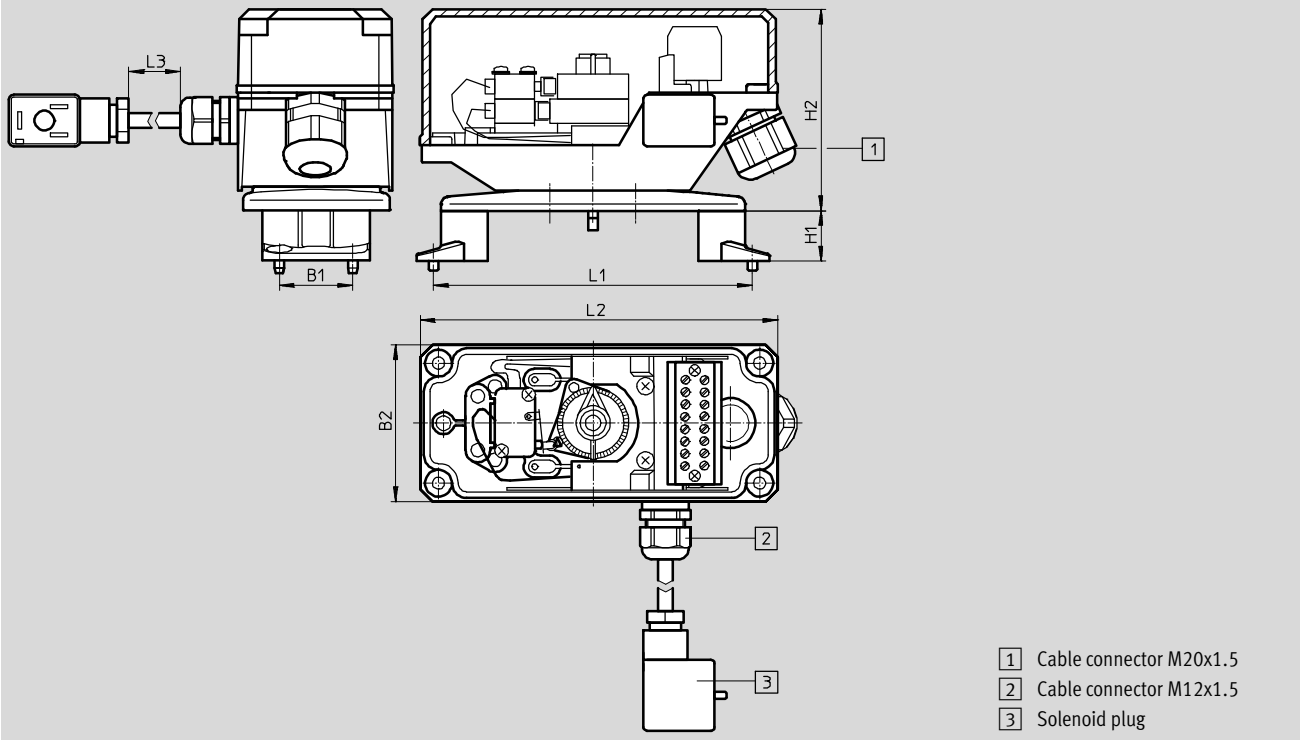
## Limit switch attachments DAPZ, square design

Technical data

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Dimensions – DAPZ-SB-M-250 V/AC-...

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	B1	B2± <sub>2</sub>	H1	H2± <sub>3</sub>	L1	L2± <sub>2</sub>	L3± <sub>10</sub>
<b>Feet mounted inwards</b>							
Foot 20	30	63	20.5	80	80	145	300
Foot 30	30	63	30.5	80	80	145	300
Foot 50 (order accessories separately)	30	63	50.5	80	80	145	300
<b>Feet mounted outwards</b>							
Foot 20	30	63	20.5	80	130	145	300
Foot 30	30	63	30.5	80	130	145	300
Foot 50 (order accessories separately)	30	63	50.5	80	130	145	300
<b>Mounting via adapter (order accessories separately)</b> → 11							
DAPZ-SBZ-K0-RO	25± <sub>0.3</sub>	63	20.5	80	50± <sub>0.3</sub>	145	300
DAPZ-SBZ-K3-RO	30± <sub>0.3</sub>	63	30.5	80	150± <sub>0.3</sub>	145	300

<b>Ordering data</b>				
Sensing type	Variant	Measuring principle	Part No.	Type
Mechanical	Basic version	Mechanical, electrical	534468	DAPZ-SB-M-250AC-DSM-RO
Mechanical	Explosion-proof	Mechanical, electrical	534470	DAPZ-SB-M-250AC-EXS-RO
Contactless	Basic version	Inductive	534473	DAPZ-SB-I-30DC-DSAM-RO

**- 1 - Type discontinued**  
**Available up until 03/2016**

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**Limit switch attachments DAPZ, round design, variant RO**

Technical data

- Drive interface to Namur VDI/VDE 3845
- Quick and easy assembly and connection
- Integrated solenoid valve actuation



General technical data	DAPZ-SB-M-250AC-DR-RO	DAPZ-SB-I-30DC-DR-RO	DAPZ-SB-I-25DC-R-RO
Measuring principle	Mechanical, electrical	Inductive	Inductive
Based on standard	EN 60947-5-1	EN 60947-5-2	EN 60947-5-6
	VDI/VDE 3845 (NAMUR)		
Design	Round		
Mounting position	Any		
Protection against short circuit	No	Pulsed	Yes
Switching element function	Changeover switch	Normally open contact	Normally closed contact
Protection against reverse polarity	No	For all electrical connections	For all electrical connections
Switching position display	Yes	Yes	No
Switching output	–	PNP	Namur
Operating voltage range	Direct current DC [V]	0 ... 250	10 ... 30
	Alternating current AC [V]	0 ... 250	–
Nominal operating voltage DC [V]	–	–	8
Insulation voltage [V]	250	50	25
Surge capacity [kV]	4	0.8	0.5
Max. output current [mA]	9,000	200	–
Switching current [mA]	Attenuated	–	≤1
	Non-attenuated	–	≥3
Electrical connection	Screw terminal	Screw terminal, plug-in	Screw terminal, plug-in
Permissible cable diameter [mm]	8 ... 13		
Cable connector	M20x1.5		

Operating and environmental conditions	DAPZ-SB-M-250AC-DR-RO	DAPZ-SB-I-30DC-DR-RO	DAPZ-SB-I-25DC-R-RO
Ambient temperature [°C]	–20 ... +85 °C	–25 ... +70 °C	–25 ... +70 °C
Protection class	IP65		
CE marking (see declaration of conformity)	To EU Low Voltage Directive	–	To EU Explosion Protection Directive (ATEX)
ATEX category for gas	–	–	II 2G
Explosion ignition protection type for gas	–	–	EEx ia IIC T6
Explosion-proof temperature rating	–	–	–25 °C ≤ Ta ≤ +70 °C
Certificate issuing authority	–	–	TÜV 99 ATEX 1479 X
Degree of contamination	3		
Corrosion resistance class CRC <sup>1)</sup>	2		

1) Corrosion resistance class 2 according to Festo standard 940 070  
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Materials	DAPZ-SB-M-250AC-DR-RO	DAPZ-SB-I-30DC-DR-RO	DAPZ-SB-I-25DC-R-RO
1 Housing cover	PC	PC	PA
2 Housing socket, bracket	PA	PA	PA
3 Seals	EPDM		
– Note on materials	RoHS-compliant		

- Type discontinued  
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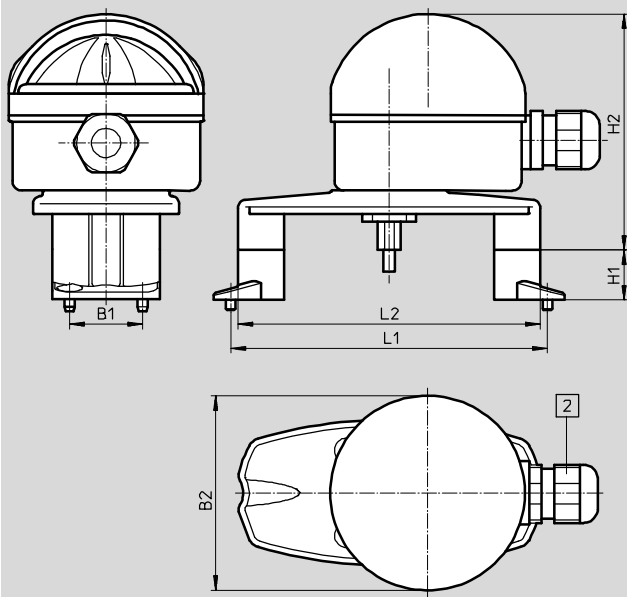
## Limit switch attachments DAPZ, round design, variant RO

Technical data

### Dimensions

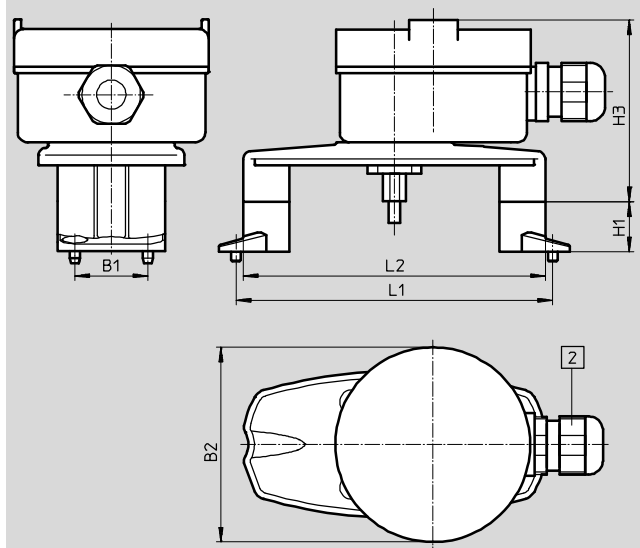
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#### Basic version



2 Cable connector M20x1.5

#### Explosion-proof version



2 Cable connector M20x1.5

	B1	B2± <sub>1</sub>	H1	H2± <sub>2</sub>	H3± <sub>2</sub>	L1	L2± <sub>2</sub>
<b>Feet mounted inwards</b>							
Foot 20	30	80	20.5	97	75	80	122
Foot 30	30	80	30.5	97	75	80	122
Foot 50 (order accessories separately)	30	80	50.5	97	75	80	122
<b>Feet mounted outwards</b>							
Foot 20	30	80	20.5	97	75	130	122
Foot 30	30	80	30.5	97	75	130	122
Foot 50 (order accessories separately)	30	80	50.5	97	75	130	122
<b>Mounting via adapter (order accessories separately)</b> → 11							
DAPZ-SBZ-K0-RO	25± <sub>0.3</sub>	80	20.5	97	75	50± <sub>0.3</sub>	122
DAPZ-SBZ-K3-RO	30± <sub>0.3</sub>	80	30.5	97	75	150± <sub>0.3</sub>	122

### Ordering data

Sensing type	Variant	Measuring principle	Part No.	Type
Mechanical	Basic version	Mechanical, electrical	534469	DAPZ-SB-M-250AC-DR-RO
Contactless	Basic version	Inductive	534471	DAPZ-SB-I-30DC-DR-RO
Contactless	Explosion-proof	Inductive	534472	DAPZ-SB-I-25DC-R-RO

# Limit switch attachments DAPZ, round design, variant AR

Technical data

- Drive interface to Namur VDI/VDE 3845
- Quick and easy assembly and connection
- Integrated solenoid valve actuation



General technical data		DAPZ-SB-M-250AC-DR-AR	DAPZ-SB-I-30DC-DR-AR	DAPZ-SB-I-25DC-EXDR-AR
Measuring principle		Mechanical, electrical	Inductive	Inductive
Based on standard		EN 60947-5-1	EN 60947-5-2	EN 60947-5-6
		VDI/VDE 3845 (NAMUR)		
Design		Round		
Mounting position		Any		
Protection against short circuit		No	Pulsed	No
Switching element function		Changeover switch	Normally open contact	Normally closed contact
Protection against reverse polarity		No	For all electrical connections	No
Switching position display		Yes		
Switching output		–	PNP	Namur
Operating voltage range	Direct current DC [V]	4 ... 250	10 ... 30	–
	Alternating current AC [V]	4 ... 250	–	–
Intrinsic current consumption at operating voltage [mA]		1 ... 5	0 ... 100	–
Nominal operating voltage DC [V]		–	–	8
Max. input power Pi [mW]		–	–	34
Max. input voltage Ui Direct current DC [V]		–	–	16
Max. input current Ii [mA]		–	–	25
Insulation voltage [V]		250	50	25
Surge capacity [kV]		2.5	0.5	0.5
Max. output current [mA]		5,000	100	–
Switching current	Attenuated [mA]	–	–	0 ... 1
	Non-attenuated [mA]	–	–	3
Minimum load current		1 mA at 4 V/DC		
Electrical connection		Screw terminal		
Permissible cable diameter [mm]		7 ... 13		
Cable connector		M20x1.5		



# Limit switch attachments DAPZ, round design, variant AR

Technical data

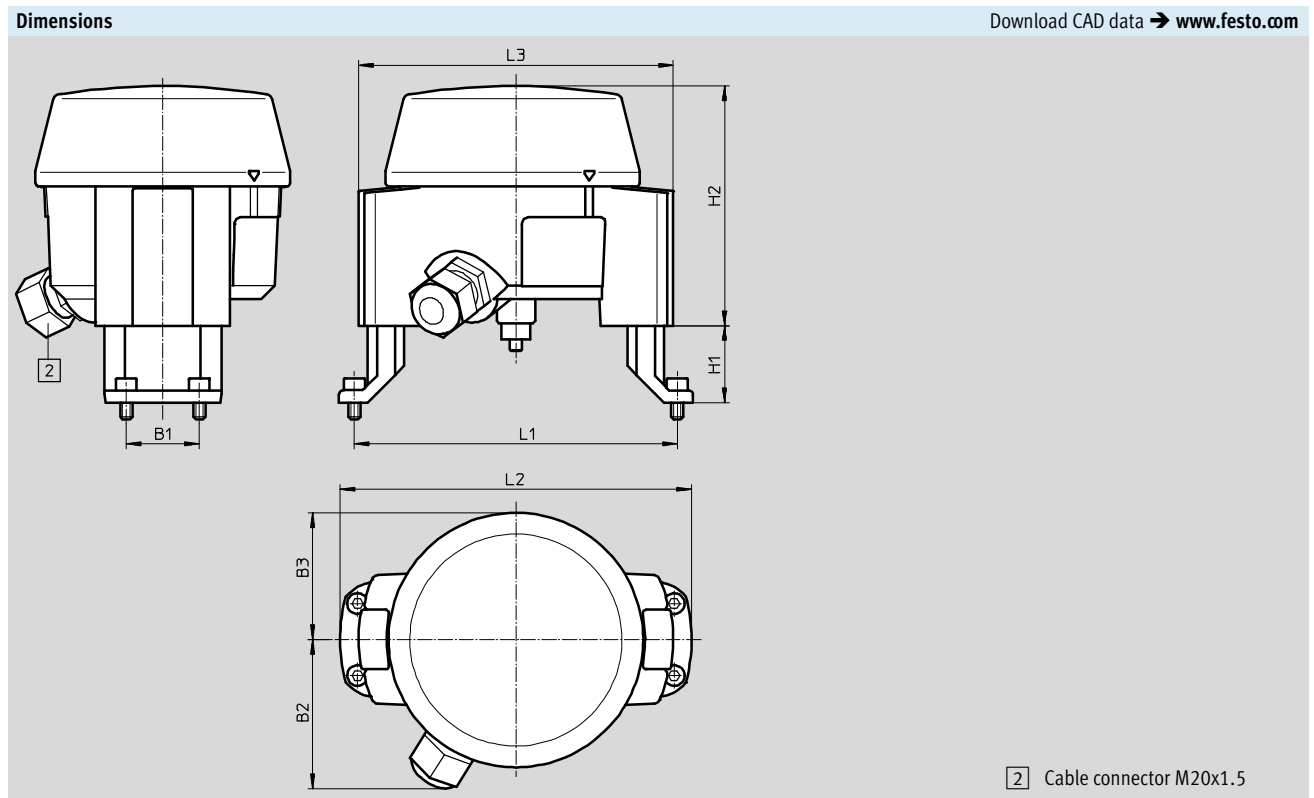
Operating and environmental conditions	DAPZ-SB-M-250AC-DR-AR	DAPZ-SB-I-30DC-DR-AR	DAPZ-SB-I-25DC-EXDR-AR
Ambient temperature [°C]	-20 ... +70 °C		
Protection class	IP67		
CE marking (see declaration of conformity)	To EU Low Voltage Directive	-	To EU Explosion Protection Directive (ATEX)
ATEX category for gas	-	-	II 2GX
Explosion ignition protection type for gas	-	-	EEx ia IIB T6
Explosion-proof temperature rating	-	-	-20 °C ≤ Ta ≤ +70 °C
Certificate issuing authority	-	-	PTB 00 ATEX 2032 X
Explosion protection certification outside the EU	-	-	EPL Gb (RU)
	-	-	EPL Gc (RU)
PFD	-	-	4,69E-04
PFH	-	-	1,07E-07
Degree of contamination	3		
Corrosion resistance class CRC <sup>1)</sup>	2		

1) Corrosion resistance class 2 according to Festo standard 940 070  
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Materials	
1 Housing cover	PC
2 Housing socket, bracket	ABS, PC
3 Seals	NBR
- Note on materials	RoHS-compliant

# Limit switch attachments DAPZ, round design, variant AR

Technical data



	B1	B2	B3	H1	H2	L1	L2	L3
<b>Feet mounted inwards</b>								
Foot height adjustable	30	62	52.5	20, 30, 50	100	80	144	130
<b>Feet mounted outwards</b>								
Foot height adjustable	30	62	52.5	20, 30, 50	100	130	144	130



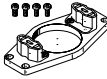





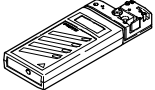
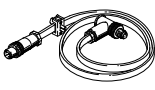
Ordering data				
Sensing type	Variant	Measuring principle	Part No.	Type
Mechanical	Basic version	Mechanical, electrical	534474	DAPZ-SB-M-250AC-DR-AR
Contactless	Basic version	Inductive	534475	DAPZ-SB-I-30DC-DR-AR
Contactless	Explosion-proof	Inductive	534476	DAPZ-SB-I-25DC-EXDR-AR

- 2 - Type discontinued  
Available up until 03/2016

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## Limit switch attachments DAPZ

Accessories

Ordering data		Brief description	Part No.	Type
<b>Foot</b>				
		Kit for limit switch attachment DAPZ-...-RO Shaft height 50 mm, port pattern 130 x 30 mm	534477	DAPZ-SBZ-F50-RO
<b>Adapter for foot mounting</b>				
		Kit for limit switch attachment DAPZ-...-RO on the quarter turn actuator DRD/DRE sizes 1 and 2 Foot connection L50 x W25 x H20 mm	534478	DAPZ-SBZ-K0-RO
		Kit for limit switch attachment DAPZ-...-RO on the quarter turn actuator DRD/DRE sizes 375 ... 880 Foot connection L150 x W30 x H30 mm	534479	DAPZ-SBZ-K3-RO
<b>Fieldbus connection</b>				
		Flat cable for AS-interface components, yellow, 100 m	18940	KASI-1,5-Y-100
		Cable distributor for flat cable, cable rotatable	18786	ASI-KVT-FK
		Cable distributor for flat cable, cable symmetrical	18797	ASI-KVT-FK-S
		Cable cap for flat cable (50 included in the scope of delivery)	18787	ASI-KK-FK
		Cable sleeve (20 included in the scope of delivery)	165593	ASI-KT-FK
<b>Miscellaneous</b>				
		Addressing device for AS-interface stations	18959	ASI-PRG-ADR
		Addressing cable for addressing device	18960	KASI-ADR

# Limit switch attachments QH-DR-E

## Technical data

### Limit switch attachment

- Pneumatic



General technical data			
Measuring principle	Pneumatic <sup>1)</sup>		
Pneumatic connection	G1/8		
Based on standard	VDI/VDE 3845 (NAMUR)		
Design	Square		
Mounting position	Any		
Protection against short circuit	-		
Switching element function	-		
Protection against reverse polarity	-		
Switching position display	No		
Switching output	-		
Operating voltage range	Direct current DC	[V]	-
	Alternating current AC	[V]	-
Insulation voltage	[V]	-	
Surge capacity	[kV]	-	
Max. output current	[mA]	-	
Electrical connection	-		
Cable diameter	[mm]	-	
Cable connector	-		

1) With stem actuated micro valve S-3-PK-3-B

Operating and environmental conditions			
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]		
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)		
Operating pressure	[bar]	-0.95 ... +8	
Ambient temperature	[°C]	-10 ... +60 °C	
Protection class	IP65		
CE marking (see declaration of conformity)	-		
Degree of contamination	-		
Corrosion resistance class CRC <sup>1)</sup>	2		

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

# Limit switch attachments QH-DR-E

Technical data

Materials		
1	Bracket	High-alloy stainless steel
2	Housing cover	PC
3	Housing socket	PA
4	Seals	EPDM
-	Note on materials	RoHS-compliant

Dimensions Download CAD data → [www.festo.com](http://www.festo.com)

1 Pg13.5

	B1	B2	D1 Ø	H1	H2	L1	L2
QH-DR-E- ...	64	30	5.5	102	28.5	146	80

Ordering data	
Measuring principle	Part No. Type
Pneumatic with S3-PK-3-B	164855 QH-DR-E-S3-PK-3-B-B