Limit switch attachments

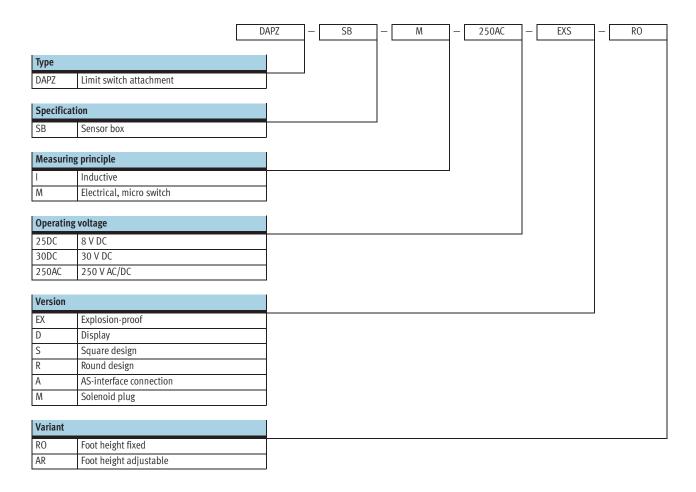


Limit switch attachments DAPZ

FESTO

Type codes

2



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





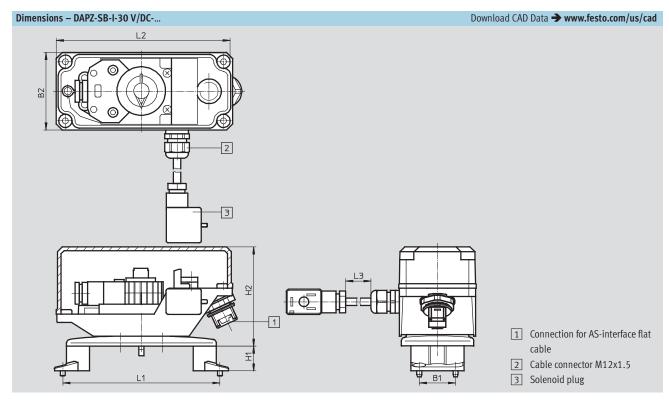
General technical data			DAPZ-SB-M-250AC-DSM-RO	DAPZ-SB-M-250AC-EXS-RO	DAPZ-SB-I-30DC-DSAM-RO
Measuring principle			Mechanical, electrical	Mechanical, electrical	Inductive
Based on standard			EN 60947-5-1	EN 60947-5-1	EN 60947-5-6
			VDI/VDE 3845 (NAMUR)	•	•
Design			Square		
Mounting position			Any		
Protection against short circuit	t		No	No	Yes
Switching element function			Changeover switch	Changeover switch	Normally closed contact
Protection against reverse pola	arity		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 ¹⁾	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.

Limit switch attachments DAPZ, square design Technical data

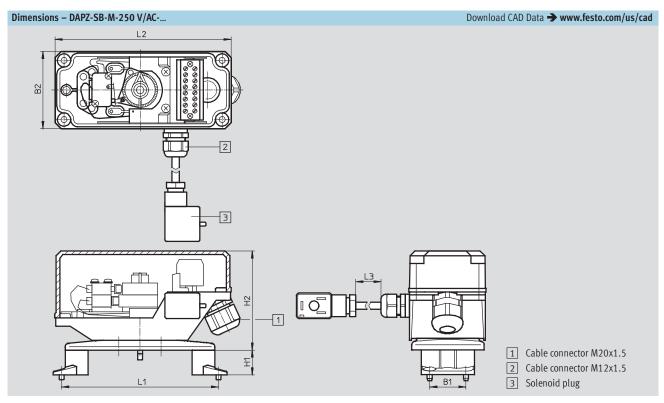
Materials	DAPZ-SB-M-250AC-DSM-RO	DAPZ-SB-M-250AC-EXS-RO	DAPZ-SB-I-30DC-DSAM-RO		
1 Housing cover	PC	PA	PC		
2 Housing socket, bracket	PA	PA	PA		
3 Seals	EPDM				
 Note on materials 	RoHS-compliant				



	B1	B2±2	H1	H2±3	L1	L2±2	L3± ₁₀
Feet mounted inwards							
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
Feet mounted outwards							
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
Mounting via adapter (order accessories s	eparately)						→ 11
DAPZ-SBZ-KO-RO	25± _{0.3}	63	20.5	80	50± _{0.3}	145	300
DAPZ-SBZ-K3-RO	30± _{0.3}	63	30.5	80	150± _{0.3}	145	300

Limit switch attachments DAPZ, square design Technical data





	B1	B2±2	H1	H2±3	L1	L2±2	L3± ₁₀
Feet mounted inwards							
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
Feet mounted outwards							
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
Mounting via adapter (order accessories s	eparately)						→ 11
DAPZ-SBZ-KO-RO	25± _{0.3}	63	20.5	80	50± _{0.3}	145	300
DAPZ-SBZ-K3-RO	30± _{0.3}	63	30.5	80	150± _{0.3}	145	300

Ordering data				
Sensing type	Variant	Measuring principle	Part No.	Туре
Mechanical	Basic version	Mechanical, electrical	534 468	DAPZ-SB-M-250AC-DSM-RO
Mechanical	Explosion-proof	Mechanical, electrical	534 470	DAPZ-SB-M-250AC-EXS-RO
Contactless	Basic version	Inductive	534 473	DAPZ-SB-I-30DC-DSAM-RO

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





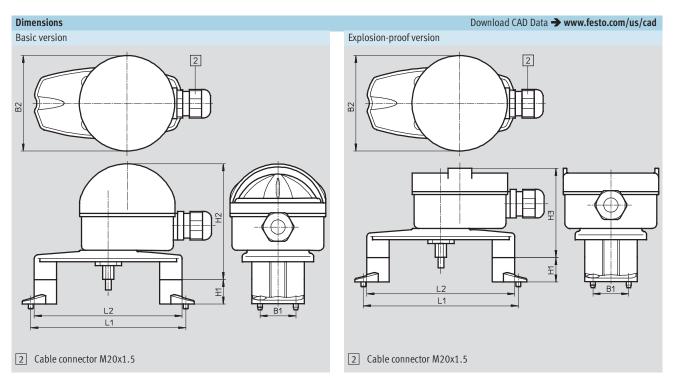
General technical data			DAPZ-SB-M-250AC-DR-RO	DAPZ-SB-I-30DC-DR-RO	DAPZ-SB-I-25DC-R-RO
Measuring principle			Mechanical, electrical	Inductive	Inductive
Based on standard			EN 60947-5-1	EN 60947-5-2	EN 60947-5-6
			VDI/VDE 3845 (NAMUR)	•	•
Design			Round		
Mounting position			Any		
Protection against short circuit	it		No	Pulsed	Yes
Switching element function			Changeover switch	Normally open contact	Normally closed contact
Protection against reverse pol	arity		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	Attenuated	[mA]	-	-	≤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	•	<u>.</u>
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 ¹⁾		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

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				

Limit switch attachments DAPZ, round design, variant RO Technical data



	B1	B2±1	H1	H2±2	H3± ₂	L1	L2±2				
Feet mounted inwards	eet mounted inwards										
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				
Feet mounted outwards											
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				
Mounting via adapter (order accessories separately) → 11											
DAPZ-SBZ-KO-RO	25± _{0.3}	80	20.5	97	75	50± _{0.3}	122				
DAPZ-SBZ-K3-RO	30± _{0.3}	80	30.5	97	75	150± _{0.3}	122				

Ordering data				
Sensing type	Variant	Measuring principle	Part No.	Туре
Mechanical	Basic version	Mechanical, electrical	534 469	DAPZ-SB-M-250AC-DR-RO
Contactless	Basic version	Inductive	534 471	DAPZ-SB-I-30DC-DR-RO
Contactless	Explosion-proof	Inductive	534 472	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 circui	t		No	Pulsed	No	
Switching element function			Changeover switch	Normally open contact	Normally closed contact	
Protection against reverse pola	arity		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 li		[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		-	-	3	
Minimum load current			1 mA at 4 V/DC	-	-	
Electrical connection			Screw terminal			
Permissible cable diameter		[mm]	713			
Cable connector			M20x1.5			

Limit switch attachments DAPZ, round design, variant AR Technical data

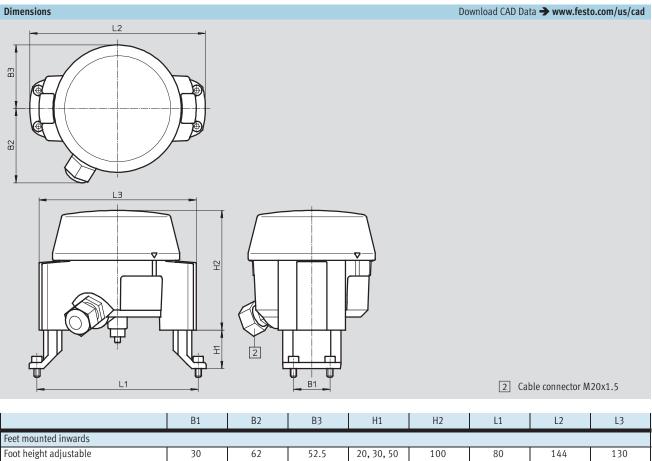


Operating and environmental conditions		DAPZ-SB-M-250AC-DR-AR	DAPZ-SB-I-30DC-DR-AR	DAPZ-SB-I-25DC-EXDR-AR
Ambient temperature	[°C]	−20 +70 °C		
Protection class		IP67		
CE marking (see declaration of conformity)		To EU Low Voltage Directive	-	To EU Explosion Protection Directive (ATEX)
ATEX category 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 ¹⁾		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.

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

Limit switch attachments DAPZ, round design, variant AR Technical data



	DI	DZ	כם	111	HZ	LI	LZ	L)
Feet mounted inwards								
Foot height adjustable	30	62	52.5	20, 30, 50	100	80	144	130
				•				
Feet mounted outwards								
Foot height adjustable	30	62	52.5	20, 30, 50	100	130	144	130

Ordering data				
Sensing type	Variant	Measuring principle	Part No.	Туре
Mechanical	Basic version	Mechanical, electrical	534 474	DAPZ-SB-M-250AC-DR-AR
Contactless	Basic version	Inductive	534 475	DAPZ-SB-I-30DC-DR-AR
Contactless	Explosion-proof	Inductive	534 476	DAPZ-SB-I-25DC-EXDR-AR

Limit switch attachments DAPZ



Accessories

Ordering data			
	Brief description	Part No.	Туре
Foot			
	Kit for limit switch attachment DAPZRO	534 477	DAPZ-SBZ-F50-RO
	Shaft height 50 mm, port pattern 130 x 30 mm		
Adapter for foot mounting			
1111 🙈	Kit for limit switch attachment DAPZRO	534 478	DAPZ-SBZ-KO-RO
	on the quarter turn actuator DRD/DRE sizes 1 and 2		
	Foot connection L50 x W25 x H20 mm		
1111 🔊	Kit for limit switch attachment DAPZRO	534 479	DAPZ-SBZ-K3-RO
	on the quarter turn actuator DRD/DRE sizes 375 880		
	Foot connection L150 x W30 x H30 mm		
	·	•	
Fieldbus connection			
	Flat cable for AS-interface components, yellow, 100 m	18 940	KASI-1,5-Y-100
June 1	Cable distributor for flat cable, cable rotatable	18 786	ASI-KVT-FK
CONTRACTOR OF THE PARTY OF THE	Cable distributor for flat cable, cable symmetrical	18 797	ASI-KVT-FK-S
\	Cable cap for flat cable	18 787	ASI-KK-FK
OPD)	(50 included in the scope of delivery)	10,0,	AST III THE
	Cable sleeve	165 593	ASI-KT-FK
	(20 included in the scope of delivery)		
Miscellaneous			
	Addressing device for AS-interface stations	18 959	ASI-PRG-ADR
of Co	Addressing cable for addressing device	18 960	KASI-ADR

Limit switch attachments QH-DR-E

FESTO

Technical data

Limit switch attachment with 3 measuring principles:

- Pneumatic
- Mechanical, electrical
- Inductive



General technical data			QH-DR-E-S3-PK-3-B-B	QH-DR-E-S3-E-SW-B	QH-DR-E-SIEN-M12-NB-B			
Measuring principle			Pneumatic ¹⁾	Mechanical, electrical ²⁾	Inductive ³⁾			
Pneumatic connection			G½8	-	-			
Based on standard			VDI/VDE 3845 (NAMUR)	VDI/VDE 3845 (NAMUR)				
			– EN 60947-5-1 EN 60947-5-2					
Design			Square	1				
Mounting position			Any					
Protection against short circu	it		-	No	Pulsed			
Switching element function			-	Changeover switch	Normally open contact			
Protection against reverse polarity			-	No	For all electrical connections			
Switching position display			No	No	No			
Switching output	Switching output			-	PNP			
Operating voltage range	Direct current DC	[V]	-	0 250	10 30			
	Alternating current AC	[V]	-	0 250	-			
Insulation voltage		[V]	-	250	50			
Surge capacity	Surge capacity [kV]		-	2.5	0.5			
Max. output current [mA]		-	16,000	200				
Electrical connection		-	Screw terminal	Screw terminal				
Cable diameter		[mm]	-	8 13	8 13			
Cable connector			-	M20	M20			

Operating and environmental conditions		QH-DR-E-S3-PK-3-B-B	QH-DR-E-S3-E-SW-B	QH-DR-E-SIEN-M12-NB-B
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	−20 +85 °C	−25 +70 °C
Protection class		IP65		
CE marking (see declaration of conformity)		-	To EU Low Voltage Directive	To EU EMC Directive
Degree of contamination		-	3	•
Corrosion resistance class CRC ¹⁾		2	•	

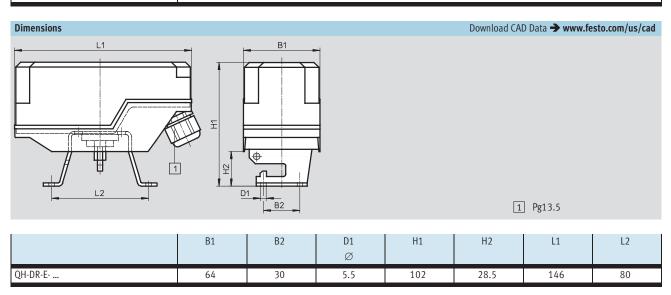
¹⁾ Corrosion resistance class 2 according to Festo standard 940 070 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

With stem actuated micro valve S-3-PK-3-B
 With micro switch with roller lever (splash-proof) S-3-E-SW-B
 With proximity sensor SIEN-M12-NB-B

Limit switch attachments QH-DR-E Technical data



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



Ordering data		
Measuring principle	Part No.	Туре
Pneumatic with S3-PK-3-B	164 855	QH-DR-E-S3-PK-3-B-B
Electrical with S3-E-SW-B	164 854	QH-DR-E-S3-E-SW-B
Inductive with SIE-M12-NB-B	164 853	QH-DR-E-SIEN-M12-NB-B

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