

Proximity switches SIES, inductive

FESTO

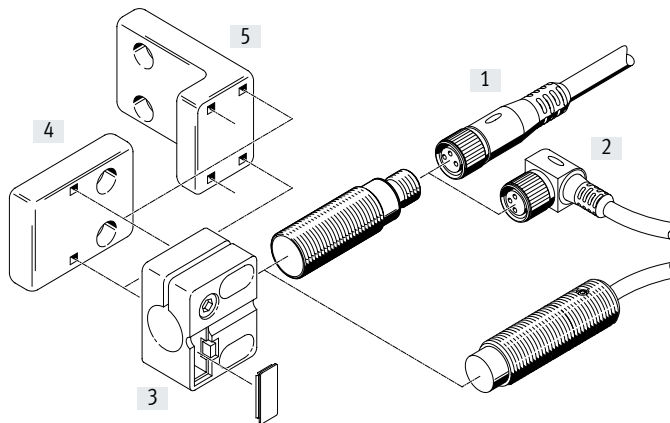


Product range overview

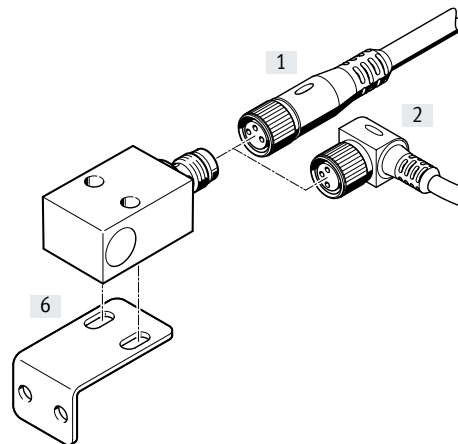
Design	Type	Operating voltage	Switching output/ analogue output	Type of installation	Size	→ Page
Reduction factor, material-specific						
Standard switching distance	SIEN Basic version	10 ... 30 V DC 15 ... 34 V DC	PNP NPN	Flush Not flush	∅ 4 mm, M5, ∅ 6.5 mm, M8, M12, M18, M30	–
	SIEN-...-PA Polyamide housing	10 ... 30 V DC	PNP NPN	Flush Not flush	M12, M18, M30	–
	SIED Basic version	20 ... 265 V AC 20 ... 320 V DC	Contactless, 2-wire	Flush Not flush	M12, M18, M30	–
	SIED-...-PA Polyamide housing	20 ... 250 V AC 10 ... 300 V DC	Contactless, 2-wire	Flush Not flush	M12, M18, M30	–
	SIES Special design	10 ... 30 V DC	PNP NPN	Flush	5x5x25 mm ... 40x40x120 mm	5
	Increased switching distance	SIEH Basic version	10 ... 30 V DC 15 ... 34 V DC	PNP NPN	Flush	∅ 3 mm, M12, M18
SIEH-...-CR Stainless steel housing		10 ... 30 V DC	PNP NPN	Flush	M12, M18	–
Reduction factor 1 for all metals, welding-field-resistant						
Increased switching distance	SIEF Basic version	10 ... 65 V DC	PNP NPN	Flush Partially flush	M8, M12, M18, M30 40x40x65 mm	–
	SIEF-...-WA Housing resistant to welding spatter	10 ... 30 V DC	PNP NPN	Flush Partially flush	M12, M18, M30	–

Peripherals overview

SIE...



SIES-V3B



Mounting attachments and accessories		→ Page
[1]	Connecting cable, straight socket NEBU-M...G...	10
[2]	Connecting cable, angled socket NEBU-M...W...	10
[3]	Sensor bracket SIEZ-...B	10
[4]	Sensor bracket SIEZ-NB	10
[5]	Sensor bracket SIEZ-UH	10
[6]	Mounting bracket HV-M5	11
Mounting attachments and accessories		→ Page
-	Foot mounting HBN	10
-	Flange mounting FBN	10
-	Stop SDA	10

Type codes

001	Series	
SIES	Proximity sensor, inductive, special design	

002	Design	
Q	Cube 12x26 mm	
Q5	Cube 5 mm	
Q8	Cube 8 mm	
Q40	Cube 40 mm	
V3	Cube 15x 20 mm	

003	Mounting type	
B	Flush	

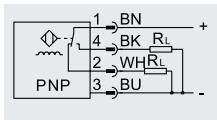
004	Switching input/output	
N	NPN	
P	PNP	

005	Switching element function	
A	Antivalent	
O	N/C contact	
S	N/O contact	

006	Electrical connection	
K	Open end	
S	Plug M8x1, 4-pin	
X	Screw terminals	

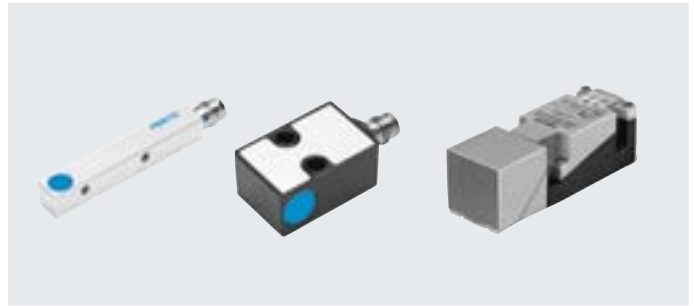
007	Display	
L	Switching status	
2L	Switching status and ready status	

Technical data – Standard switching distance, special design

Function¹⁾

1) e.g. antivalent with PNP output and terminal

- Standard switching distance
- For DC voltage
- Cuboid-shaped design



General technical data	SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40
Conforms to standard	EN 60947-5-2				
Certification	c UL us Listed (OL) RCM				
CE marking (see declaration of conformity)	To EU EMC Directive ¹⁾				
Note on materials	Free of copper and PTFE			RoHS-compliant	–

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/SIES → Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Input signal/measuring element		SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40
Type						
Size	[mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120
Ambient temperature	[°C]	–25 ... +70		–25 ... +85		

Output, general		SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40
Type						
Size	[mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120
Repetition accuracy	[mm]	0.04	0.07	0.1	0.1	0.75

Switching output		SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40
Type						
Size	[mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120
Switching output		PNP		PNP		PNP
		NPN		NPN	–	–
Switching element function		N/O		N/O		Antivalent
		N/C		–	N/C	
Rated operating distance	[mm]	0.8	1.5	2		15
Actual operating distance	[mm]	0.64	1.2	1.6		12

Reduction factors		SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40
Aluminium		0.4	0.45	0.45		0.3
Stainless steel St 18/8		0.7	0.8	0.7	0.8	0.7
Copper		0.3	0.4	0.3	0.35	0.25
Brass		0.4	0.55	0.5		0.3
Steel St 37		1.0		1.0		1.0
Max. switching frequency DC	[Hz]	3000	3500	1200		100
Max. output current	[mA]	200		–		–
Max. output current at ≤ 50°C	[mA]	–		200		200
Max. output current at ≤ 85°C	[mA]	–		150		150
Voltage drop	[V]	≤ 2		≤ 3.2		≤ 3.5

Technical data – Standard switching distance, special design

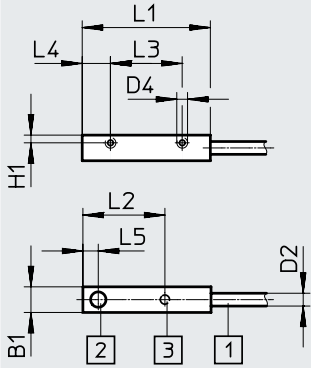
Output, additional data						
Short circuit current rating	Pulsed					
Electronics						
Type	SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40	
Size [mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120	
Operating voltage range [V DC]	10 ... 30				10 ... 34	
Residual ripple [%]	10					
No-load supply current [mA]	≤ 10		≤ 30		≤ 40	
Reverse polarity protection	For all electrical connections					
Electromechanics						
Electrical connection	Cable			Plug		
Type	SIES-Q5	SIES-Q8	SIES-QB	SIES-Q8	SIES-V3	SIES-Q40
Size [mm]	5x5x25	8x8x40	12x26x40	8x8x40	15x20x30	40x40x120
Electrical connection	Cable, 3-wire			Plug, M8x1, 3-pin		Screw terminal
Cable length [m]	2.5			-		-
Information on materials: Cable sheath	TPE-U (PUR)			-		-
Mechanical system						
Type	SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40	
Size [mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120	
Type of mounting	With female thread		Via through-hole			
Type of installation	Flush		Flush			
Product weight [g]	22	15	120	170	230	
Information on materials: Housing	Nickel-plated brass	Chrome-plated die-cast zinc	Die-cast zinc	PBT-reinforced	PBT, PA	
Display/operation						
Type	SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40	
Size [mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120	
Ready status indication	-				Green LED	
Switching status indication	Yellow LED				Yellow LED	
Immission/emission						
Type	SIES-Q5	SIES-Q8	SIES-V3	SIES-QB	SIES-Q40	
Size [mm]	5x5x25	8x8x40	15x20x30	12x26x40	40x40x120	
Degree of protection	IP67				IP65	
Pin allocation to EN 60947-5-2						
M8x1, 3-pin						
N/O contact / N/C contact						
	Pin	Wire colour		Allocation		
	1	Brown		+		
	3	Blue		-		
	4	Black		Output		

Technical data – Standard switching distance, special design

Download CAD data → www.festo.com

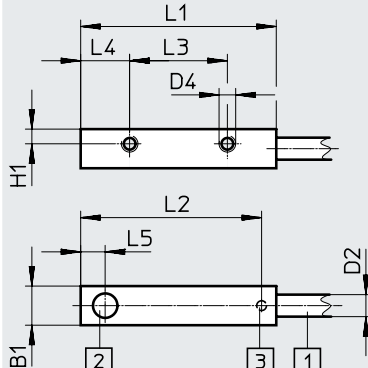
Dimensions

SIES-Q5B
Cable



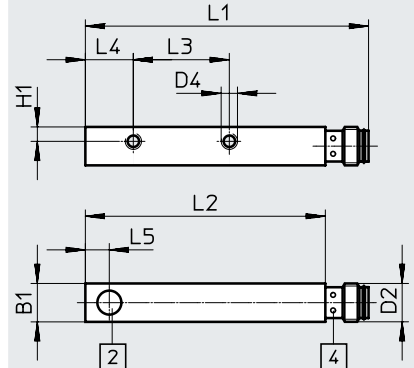
- [1] 3-wire cable, 2.5 m long
- [2] Active surface
- [3] 1 switching status indication, yellow

SIES-Q8B
Cable



- [1] 3-wire cable, 2.5 m long
- [2] Active surface
- [3] 1 switching status indication, yellow

Plug

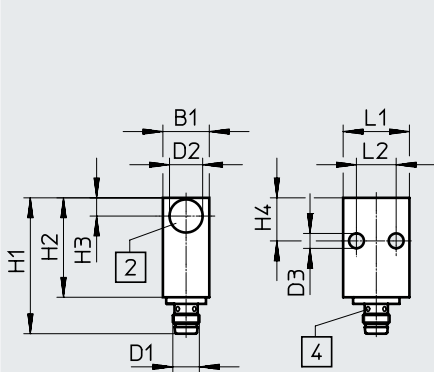


- [2] Active surface
- [4] 4 switching status indications, yellow

Type	B1	D2 ø	D2	D4	H1	L1	L2	L3	L4	L5
SIES-Q5B-...-K-L	5	2.5	-	M1.6	1.5	25	16	14	5.5	3
SIES-Q8B-...-K-L	8	3.5	-	M3	3	40	37	20	10	5
SIES-Q8B-...-S-L	8	-	M8x1	M3	3	59	50	20	10	5

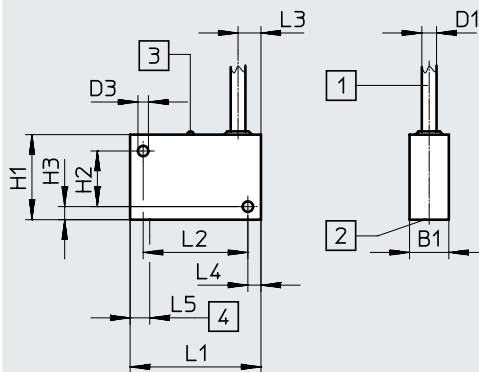
Dimensions

SIES-V3B
Plug



- [2] Active surface
- [4] 4 switching status indications, yellow

SIES-QB
Cable



- [1] 3-wire cable, 2.5 m long
- [2] Active surface
- [3] 1 switching status indication, yellow
- [4] Sensor centre

Download CAD data → www.festo.com

Type	B1	D1 ø	D1	D2 ø	D3 ø	H1	H2	H3	H4	L1	L2	L3	L4	L5
SIES-V3B-...-S-S-L	15	-	M8x1	10	4.5	42	30	5.5	13	20	12	-	-	-
SIES-QB-P-...-K-L	12	4.5	-	-	3.2	26	17	4	-	40	32	6.5	4	6

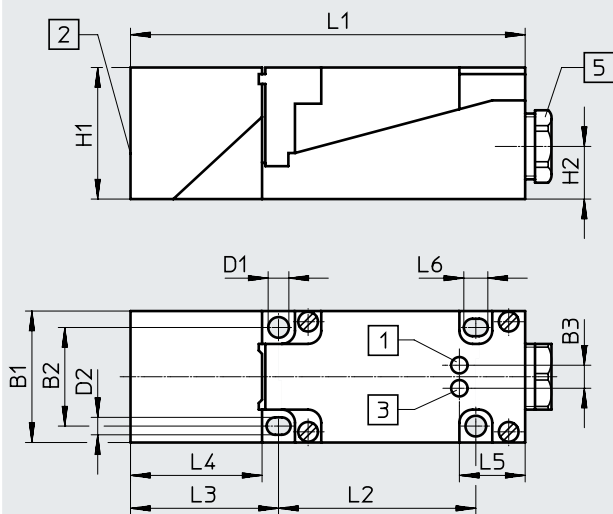
Technical data – Standard switching distance, special design

Dimensions

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SIES-Q40B

Plug

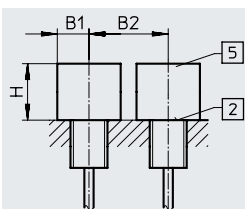


- [1] Operating status indicator, green
- [2] Sensing face at front as supplied: sensor head can be adjusted into a total of 5 sensing directions
- [3] Switching status indication LED, yellow
- [5] M20x1.5, suitable for cable diameter 7.5 mm to 12.5 mm

Type	B1	B2	B3	D1 ∅	D2 ∅	H1	H2	L1	L2	L3	L4	L5	L6
SIE-Q40B-PA-X-2L	40	30	7	5.3	5.3	40	16	120	60	45	40	20	7.3

Fitting instructions


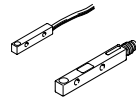


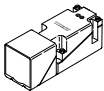
Flush installation



- [2] Active surface
- [5] Metal-free zone

Size	B1	B2	H
5x5x25	2.5	5	2
8x8x40	4	12	3
15x20x30	6	12	5
12x26x40	6	12	5
40x40x120	25	75	30




Technical data – Standard switching distance, special design

Ordering data								
Size [mm]	S _n ¹⁾ [mm]	Type of installation	Switching output	Switching element function	Electrical connection			
					Cable		Plug	
					Part No.	Type	Part No.	Type
5x5x25								
	0.8	Flush	PNP	N/O	178291	SIES-Q5B-PS-K-L	-	
				N/C	174549	SIES-Q5B-PO-K-L		
			NPN	N/O	178290	SIES-Q5B-NS-K-L		
				N/C	174548	SIES-Q5B-NO-K-L		
8x8x40								
	1.5	Flush	PNP	N/O	178294	SIES-Q8B-PS-K-L	178295	SIES-Q8B-PS-S-L
				N/C	174552	SIES-Q8B-PO-K-L	174553	SIES-Q8B-PO-S-L
			NPN	N/O	178292	SIES-Q8B-NS-K-L	178293	SIES-Q8B-NS-S-L
				N/C	174550	SIES-Q8B-NO-K-L	174551	SIES-Q8B-NO-S-L
15x20x30								
	2.0	Flush	PNP	N/O	-		150491	SIES-V3B-PS-S-L
			NPN				150490	SIES-V3B-NS-S-L
12x26x40								
	2.0	Flush	PNP	N/O	150488	SIES-QB-PS-K-L	-	
				N/C	150489	SIES-QB-PO-K-L		
40x40x120								
	15.0	Flush	PNP	Antivalent	-		150492	SIES-Q40B-PA-X-2L ²⁾




1) S_n Rated operating distance [mm]

2) Electrical connection via screw terminals

Accessories






Ordering data – Connecting cables M8x1			Technical data → Internet: nebu	
	Number of wires	Cable length [m]	Part No.	Type
Straight socket				
	3	2.5	★ 541333	NEBU-M8G3-K-2.5-LE3
		5	★ 541334	NEBU-M8G3-K-5-LE3
Angled socket				
	3	2.5	★ 541338	NEBU-M8W3-K-2.5-LE3
		5	★ 541341	NEBU-M8W3-K-5-LE3
Straight socket, straight plug				
	4	2.5	554037	NEBU-M8G3-K-2.5-M8G4 ¹⁾

1) For connecting proximity switches SIEA-M8B to signal converter SVE4-US.





Ordering data – Connecting cables M12x1			Technical data → Internet: nebu	
	Number of wires	Cable length [m]	Part No.	Type
Straight socket				
	3	2.5	★ 541363	NEBU-M12G5-K-2.5-LE3
		5	★ 541364	NEBU-M12G5-K-5-LE3
	4	2.5	★ 550326	NEBU-M12G5-K-2.5-LE4 ¹⁾
		5	★ 541328	NEBU-M12G5-K-5-LE4 ¹⁾
Angled socket				
	3	2.5	541367	NEBU-M12W5-K-2.5-LE3
		5	541370	NEBU-M12W5-K-5-LE3
	4	2.5	550325	NEBU-M12W5-K-2.5-LE4 ¹⁾
		5	541329	NEBU-M12W5-K-5-LE4 ¹⁾
Straight socket, straight plug				
	4	2.5	554036	NEBU-M12G5-K-2.5-M8G4 ²⁾

1) For connecting proximity switches SIE...-M12/M18/M30 in N/C contact version with plug.

2) For connecting proximity switches SIEA-M...B to the signal converter SVE4.

Ordering data – Mounting components		Part No.	Type
	For size		
Sensor bracket with stop for flush mounting			
	M8	538346	SIEZ-B-8
	M12	538348	SIEZ-B-12
	M18	538350	SIEZ-B-18
	M30	538352	SIEZ-B-30
Sensor bracket without stop			
	4	538343	SIEZ-NB-4
	6.5	538344	SIEZ-NB-6.5
	M8	538345	SIEZ-NB-8
	M12	538347	SIEZ-NB-12
	M18	538349	SIEZ-NB-18
	M30	538351	SIEZ-NB-30
	M12, M18	538354	SIEZ-UH

Accessories

Ordering data – Mounting components		Part No.	Type
	For size		
Foot mounting			
	M12	5123	HBN-8/10X1
Flange mounting			
	M30	195855	FBN-32
Mounting bracket			
	SIES-V3B	9634	HV-M5
Stop			
	M8	11542	SDA-8x1-B
	M12	11541	SDA-12x1-B