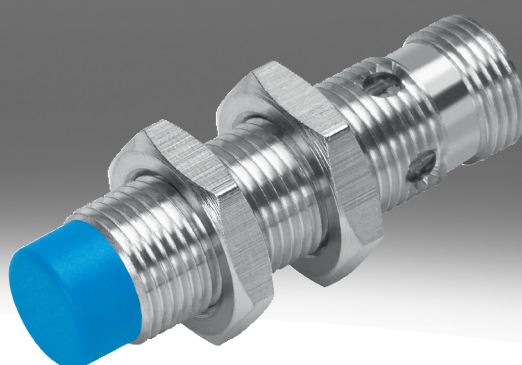


Proximity switch SIEF

FESTO



Type code

001	Series	
SIEF	Proximity sensor, inductive, with reduction factor 1 for all metals, welding field immune	

002	Design	
M8	Round, M8x1	
M12	Round, M12x1	
M18	Round, M18x1	
M30	Round, M30x1.5	
Q40	Cube 40 mm	

003	Mounting type	
B	Flush	
S	Partially flush	
NB	Not flush	

004	Switching input/output	
N	NPN	
P	PNP	

005	Switching element function	
A	Antivalent	
S	N/O contact	

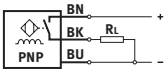
006	Electrical connection	
K	Open end	
S	Plug M8x1, 4-pin	

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

008	Housing material	
	Standard	

Datasheet

General technical data



- Standard switching distance
- Reduction factor for all metals
- Welding field resistant
- For DC voltage
- Round design

Size	40x40x65 mm	M8	M12	M18	M30
Mounting type	Partially flush	Flush, Not flush			
Design	Square	Round			
Conforms to standard	EN 60947-5-2				
Approval	RCM, c UL us - Listed (Oil)				
CE mark (see declaration of conformity) ¹⁾	To EU EMC Directive, To EU Low Voltage Directive, In accordance with EU RoHS Directive				
Note on materials	–	RoHS compliant			
LABS (PWIS) conformity	VDMA24364 zone III	VDMA24364-B2-L, VDMA24364 zone III			

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

If the devices are subject to usage restrictions in residential, commercial or industrial environments as well as in small businesses, additional measures for reducing the emitted interference may be necessary.

Input signal, measuring element

Ambient temperature	-30 ... 85°C
---------------------	--------------

Switching output

Size	40x40x65 mm	M8	M12	M18	M30
Mounting type	Partially flush	Flush, Not flush			
Switching output	NPN, PNP				
Switching element function	Antivalent	N/O contact			
Rated operating distance	35 mm	1.5 ... 4 mm	3 ... 8 mm	5 ... 12 mm	10 ... 20 mm
Repetition accuracy	0.7 mm	0.08 mm	0.16 mm	0.24 ... 0.28 mm	0.4 ... 0.55 mm
Assured operating distance	28.35 mm	3.24 mm	6.48 mm	9.72 mm	16.2 mm
Reduction factors	Aluminium = 1.0, Stainless steel St 18/8 = 1.0, Copper = 1.0, Brass = 1.0, Steel St 37 = 1.0				
Hysteresis	1.05 ... 5.25 mm	0.12 ... 0.6 mm	0.24 ... 1.2 mm	0.36 ... 1.8 mm	0.6 ... 3 mm
Max. switching frequency DC	250 Hz	2,000 Hz	2,000 ... 3,000 Hz		1,500 ... 2,000 Hz
Max. output current	200 mA	150 mA	200 mA		
Voltage drop	≤1.8 V				

Electronics

Size	40x40x65 mm	M8	M12	M18	M30				
Mounting type	Partially flush	Flush, Not flush							
Operational voltage range DC	10 ... 65 V	10 ... 30 V							
Residual ripple	10%								
No-load supply current	≤15 mA								
Short circuit current rating	Pulsed								
Reverse polarity protection	For all electrical connections								

Datasheet

Electromechanics					
Size	40x40x65 mm	M8	M12	M18	M30
Mounting type	Partially flush	Flush, Not flush			
Electrical connection	4-pin, Fixcon, M12x1, Plug	3-core, 3-pin, Cable, M8x1, Plug	3-core, 3-pin, Fixcon, Cable, M12x1, Plug		
Electrical connection 1, connection type	Plug	Cable, Plug			
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101	M8x1, A-coded, to EN 61076-2-104, Open end	M12x1, A-coded to EN 61076-2-101, Open end		
Electrical connection 1, number of connections/cores	4	3			
Electrical connection 1, used connections/cores	4	3			
Electrical connection 1, type of mounting	Screw-type lock, Not rotatable	Snap-locking, Screw-type lock, Not rotatable	Screw-type lock, Not rotatable		
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock	Compatible with latching lock, Compatible with rotatable screw-type lock	Compatible with rotatable screw-type lock		
Cable length	–	2.5 m			
Material cable sheath	–	TPE-U(PU), TPE-U(PUR)			
Material insulating sheath	–	PVC			

Mechanical system					
Size	40x40x65 mm	M8	M12	M18	M30
Mounting type	Partially flush	Flush, Not flush			
Type of mounting	With through-hole	Via lock nut			
Tightening torque	–	10 Nm		25 Nm	75 Nm
Product weight	156 g	12 ... 77 g	22 ... 120 g	38 ... 141 g	90 ... 194 g
Material housing	Process automation, Reinforced PBT	Process automation, PP, High-alloy stainless steel	Brass, PBT, TPE-O, Chrome-plated		

Display, operation					
Size	40x40x65 mm	M8	M12	M18	M30
Mounting type	Partially flush	Flush, Not flush			
Switching status indication	Yellow LED				
Ready status indication	Green LED	—			

Immission, emission, flush					
Size	40x40x65 mm	M8	M12	M18	M30
Mounting type	Partially flush	Flush			
Ambient temperature with moving cable	–	-5 ... 70°C			
Degree of protection	IP67	IP68			
Corrosion resistance class CRC ¹⁾	0 - No corrosion stress	2 - Moderate corrosion stress			
Pollution degree	–	3			
LABS (PWIS) conformity	VDMA24364 zone III	VDMA24364-B2-L			

1) More information www.festo.com/x/topic/kbk

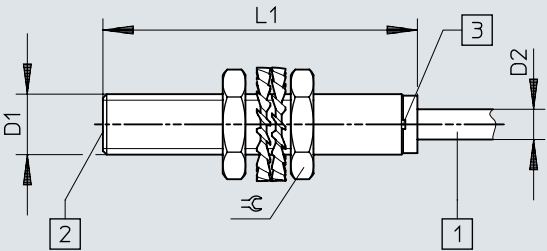
Immission, emission, not flush				
Size	M8	M12	M18	M30
Mounting type	Not flush			
Ambient temperature with moving cable	0 ... 80°C			
Degree of protection	IP67			
Corrosion resistance class CRC ¹⁾	4 - Very high corrosion stress	2 - Moderate corrosion stress		
Pollution degree	–			
LABS (PWIS) conformity	VDMA24364 zone III			

1) More information www.festo.com/x/topic/kbk

Dimensions

Dimensions – M8, flush mounted, cable

Download CAD data www.festo.com

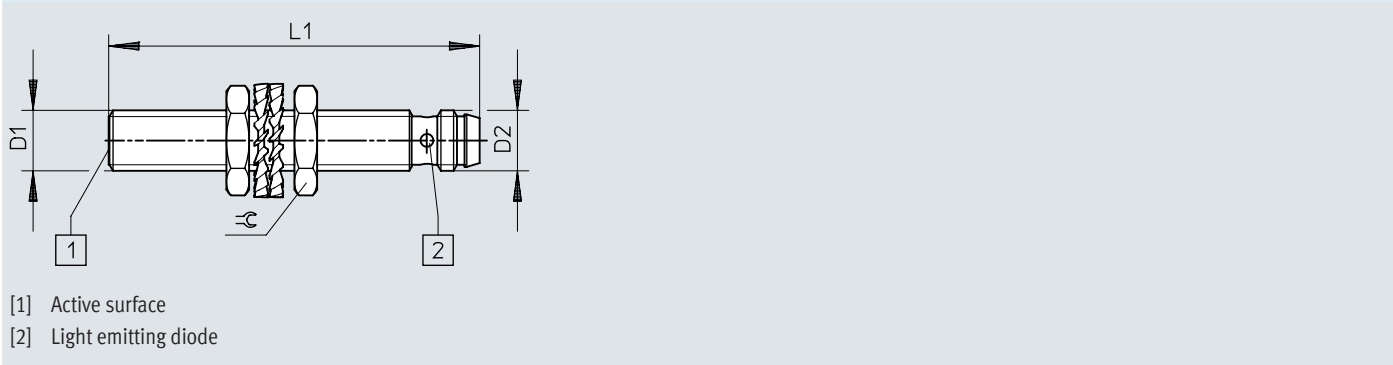


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	≡
SIEF-M8B-PS-K-L	M8x1	4	41,6	13
SIEF-M8B-NS-K-L				

Dimensions

Dimensions – M8, flush mounted, plug Download CAD data www.festo.com

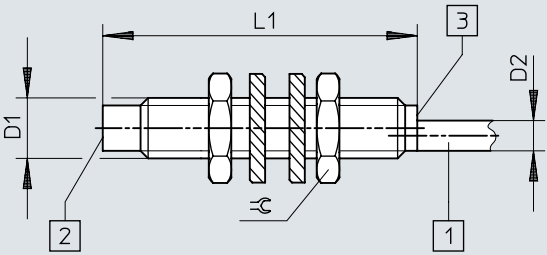


	D1	D2	L1	⌀
SIEF-M8B-PS-S-L	M8x1	M8x1	49	13
SIEF-M8B-NS-S-L				

Dimensions

Dimensions – M8, partially flush mounted, cable

Download CAD data www.festo.com

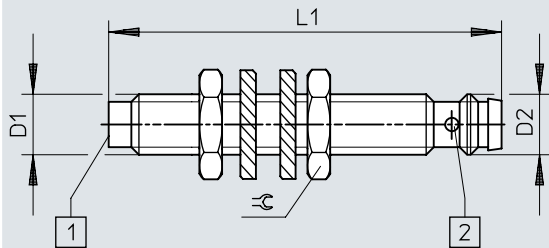


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	⌀
SIEF-M8NB-PS-K-L	M8x1	4	41,6	13
SIEF-M8NB-NS-K-L				

Dimensions

Dimensions – M8, partially flush mounted, plug Download CAD data www.festo.com



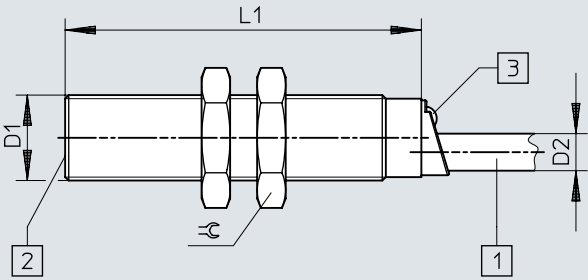
- [1] Active surface
- [2] Light emitting diode

	D1	D2	L1	⌀
SIEF-M8NB-PS-S-L	M8x1	M8x1	52	13
SIEF-M8NB-NS-S-L				

Dimensions

Dimensions – M12, flush mounted, cable

Download CAD data www.festo.com

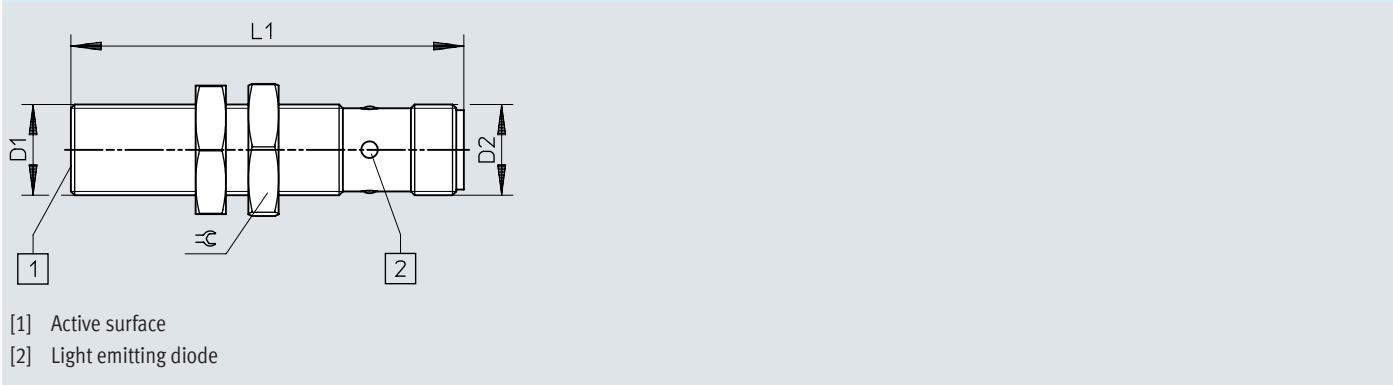


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	⌀
SIEF-M12B-PS-K-L	M12x1	5,2	50	17
SIEF-M12B-NS-K-L				

Dimensions

Dimensions – M12, flush mounted, plug Download CAD data www.festo.com

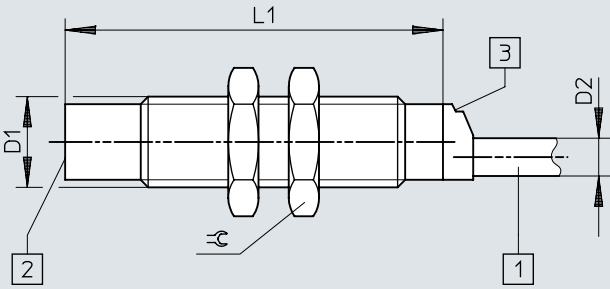


	D1	D2	L1	
SIEF-M12B-PS-S-L	M12x1	M12x1	52	17
SIEF-M12B-NS-S-L				

Dimensions

Dimensions – M12, partially flush mounted, cable

Download CAD data www.festo.com

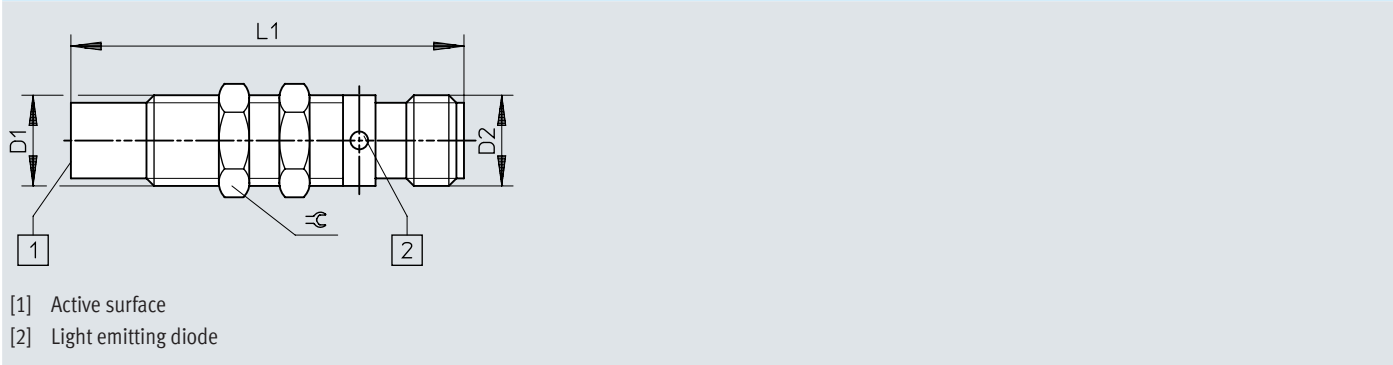


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	≡G
SIEF-M12NB-PS-K-L	M12x1	5	50	17
SIEF-M12NB-NS-K-L				

Dimensions

Dimensions – M12, partially flush mounted, plug Download CAD data www.festo.com



	D1	D2	L1	
SIEF-M12NB-PS-S-L	M12x1	M12x1	52	13
SIEF-M12NB-NS-S-L				

Dimensions

Dimensions – M18, flush mounted, cable

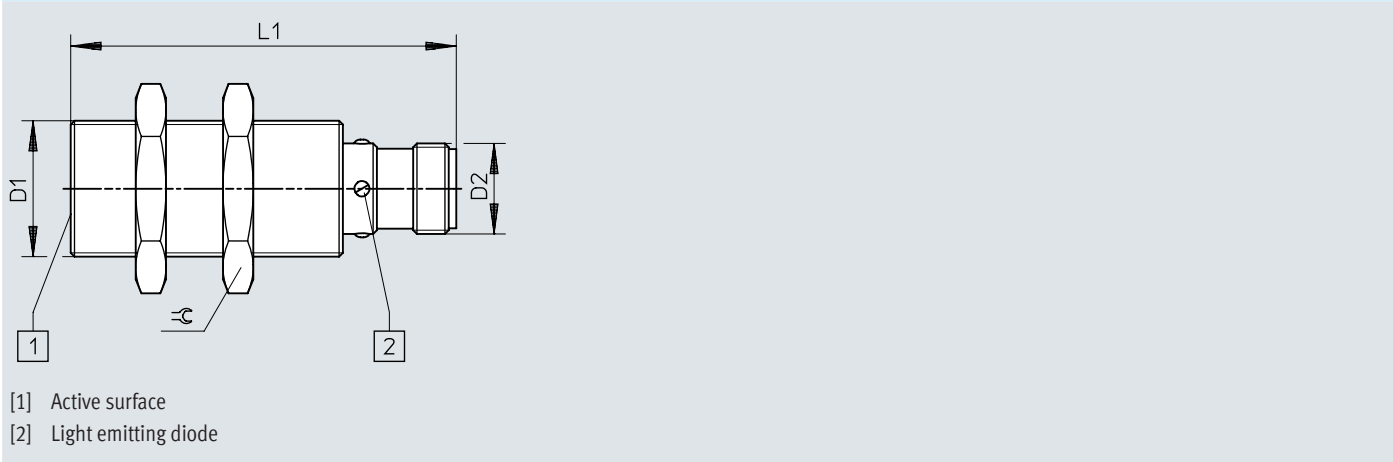
Download CAD data www.festo.com

[1] Connecting cables
[2] Active surface
[3] Light emitting diode

	D1	D2	L1	
SIEF-M18B-PS-K-L	M18x1	5,2	50	24
SIEF-M18B-NS-K-L				

Dimensions

Dimensions – M18, flush mounted, plug Download CAD data www.festo.com

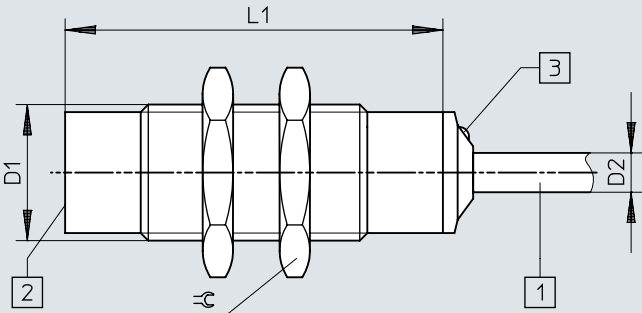


	D1	D2	L1	
SIEF-M18B-PS-S-L	M18x1	M12x1	52	24
SIEF-M18B-NS-S-L				

Dimensions

Dimensions – M18, partially flush mounted, cable

Download CAD data www.festo.com

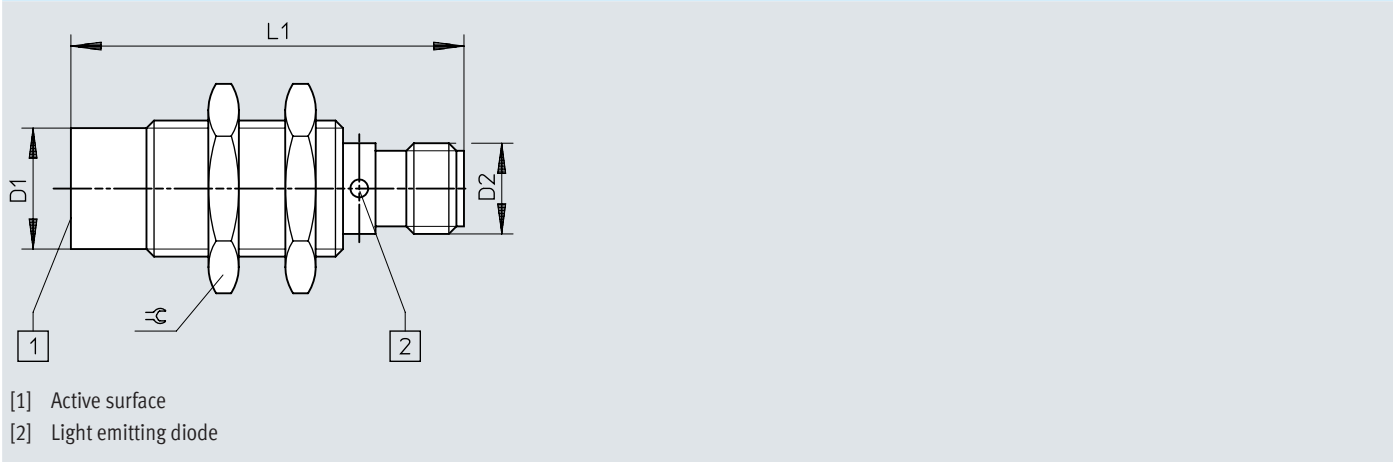


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	☒
SIEF-M18NB-PS-K-L	M18x1	5,2	50	24
SIEF-M18NB-NS-K-L				

Dimensions

Dimensions – M18, partially flush mounted, plug Download CAD data www.festo.com

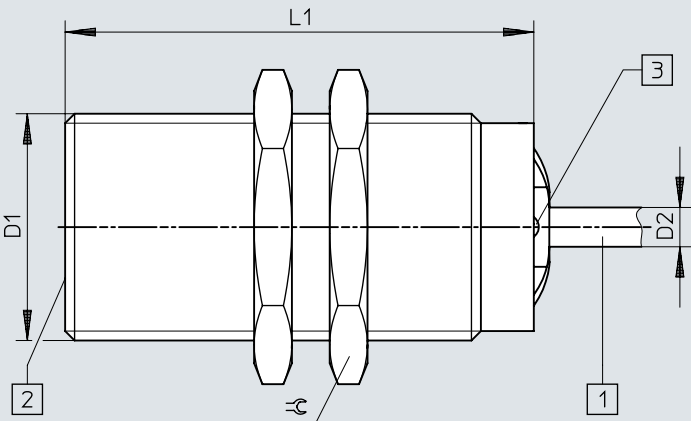


	D1	D2	L1	⌀
SIEF-M18NB-PS-S-L	M18x1	M12x1	52	24
SIEF-M18NB-NS-S-L				

Dimensions

Dimensions – M30, flush mounted, cable

Download CAD data www.festo.com

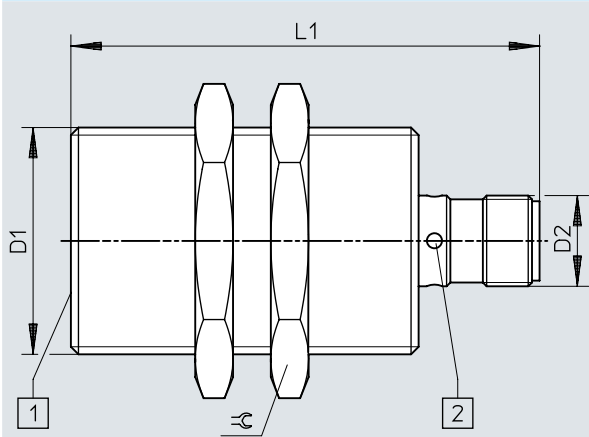


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	
SIEF-M30B-PS-K-L	M30x1,5	5,2	60	36
SIEF-M30B-NS-K-L				

Dimensions

Dimensions – M30, flush mounted, plug Download CAD data www.festo.com



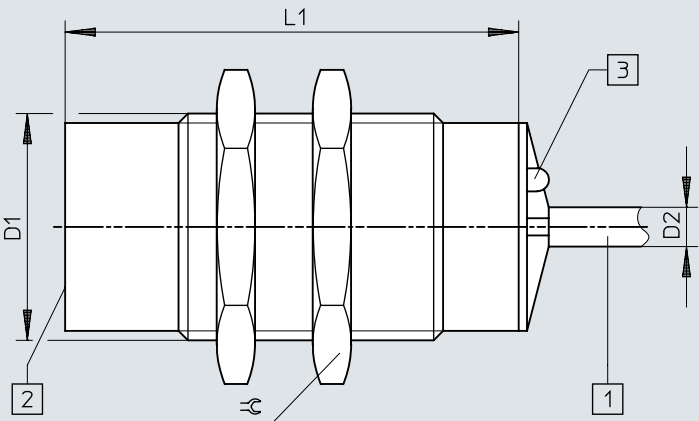
- [1] Active surface
- [2] Light emitting diode

	D1	D2	L1	⌀
SIEF-M30B-PS-S-L	M30x1,5	M12x1	62	36
SIEF-M30B-NS-S-L				

Dimensions

Dimensions – M30, partially flush mounted, cable

Download CAD data www.festo.com

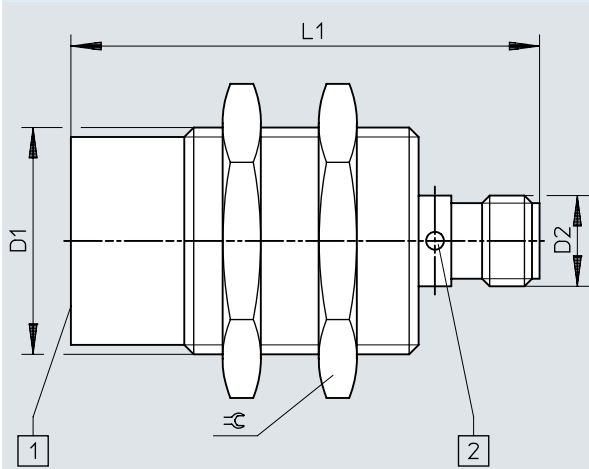


- [1] Connecting cables
- [2] Active surface
- [3] Light emitting diode

	D1	D2	L1	⌀
SIEF-M30NB-PS-K-L	M30x1,5	5,2	60	36
SIEF-M30NB-NS-K-L				

Dimensions

Dimensions – M30, partially flush mounted, plug Download CAD data www.festo.com



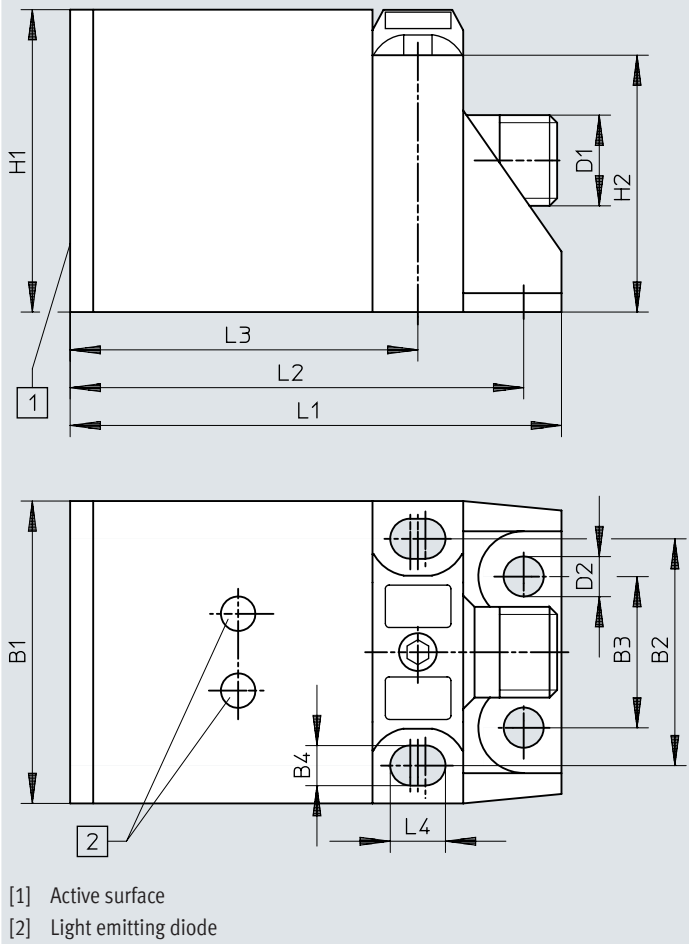
- [1] Active surface
- [2] Light emitting diode

	D1	D2	L1	
SIEF-M30NB-PS-S-L	M30x1,5	M12x1	62	36
SIEF-M30NB-NS-S-L				

Dimensions

Dimensions – 40x40x65 mm, partially flush mounted, plug

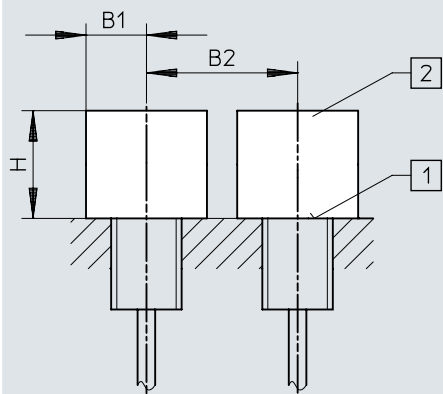
Download CAD data www.festo.com



	B1	B2	B3	B4	D1	D2	H1	H2	L1	L2	L3	L4
SIEF-Q40S-PA-S-2L	40	30	20	5,3	M12x1	5,3	40	34	65	60	46	7,3
SIEF-Q40S-NA-S-2L												

Dimensions

Dimensions – Installation note Flush mounted Download CAD data www.festo.com



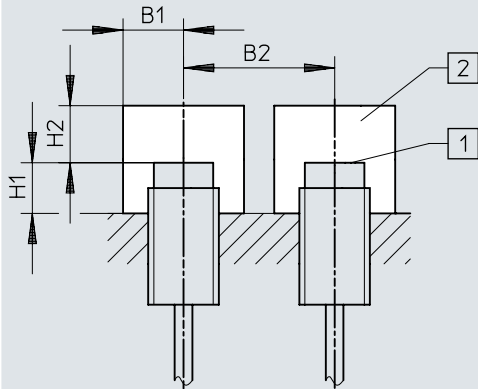
- [1] Active surface
- [2] Metal-free room

	B1	B2	H
SIEF-M8B	12	16	4,5
SIEF-M12B	18	24	12
SIEF-M18B	27	36	15
SIEF-M30B	45	60	30

Dimensions

Dimensions – Installation note Partially flush mounted

Download CAD data www.festo.com



- [1] Active surface
[2] Metal-free room

	B1	B2	H1	H2
SIEF-M8NB	12	32	8	12
SIEF-M12NB	18	48	16	24
SIEF-M18NB	27	54	24	36
SIEF-M30NB	45	90	30	60
SIEF-Q40S	60	120	30	105

Ordering data

Ordering data M8					
Electrical connection	Rated operating distance	Mounting type	Switching output	Part no.	Type
3-core, Cable	1.5 mm	Flush	NPN	553540	SIEF-M8B-NS-K-L
			PNP	553538	SIEF-M8B-PS-K-L
	4 mm	Not flush	NPN	538310	SIEF-M8NB-NS-K-L
			PNP	538308	SIEF-M8NB-PS-K-L
3-pin, M8x1, Plug	1.5 mm	Flush	NPN	553539	SIEF-M8B-NS-S-L
			PNP	553537	SIEF-M8B-PS-S-L
	4 mm	Not flush	NPN	538309	SIEF-M8NB-NS-S-L
			PNP	538307	SIEF-M8NB-PS-S-L

Ordering data M12					
Electrical connection	Rated operating distance	Mounting type	Switching output	Part no.	Type
3-core, Cable	3 mm	Flush	NPN	553544	SIEF-M12B-NS-K-L
			PNP	553542	SIEF-M12B-PS-K-L
	8 mm	Not flush	NPN	538314	SIEF-M12NB-NS-K-L
			PNP	538312	SIEF-M12NB-PS-K-L
3-pin, M12x1, Plug	3 mm	Flush	NPN	553543	SIEF-M12B-NS-S-L
			PNP	553541	SIEF-M12B-PS-S-L
3-pin, Fixcon, M12x1, Plug	8 mm	Not flush	NPN	538313	SIEF-M12NB-NS-S-L
			PNP	538311	SIEF-M12NB-PS-S-L

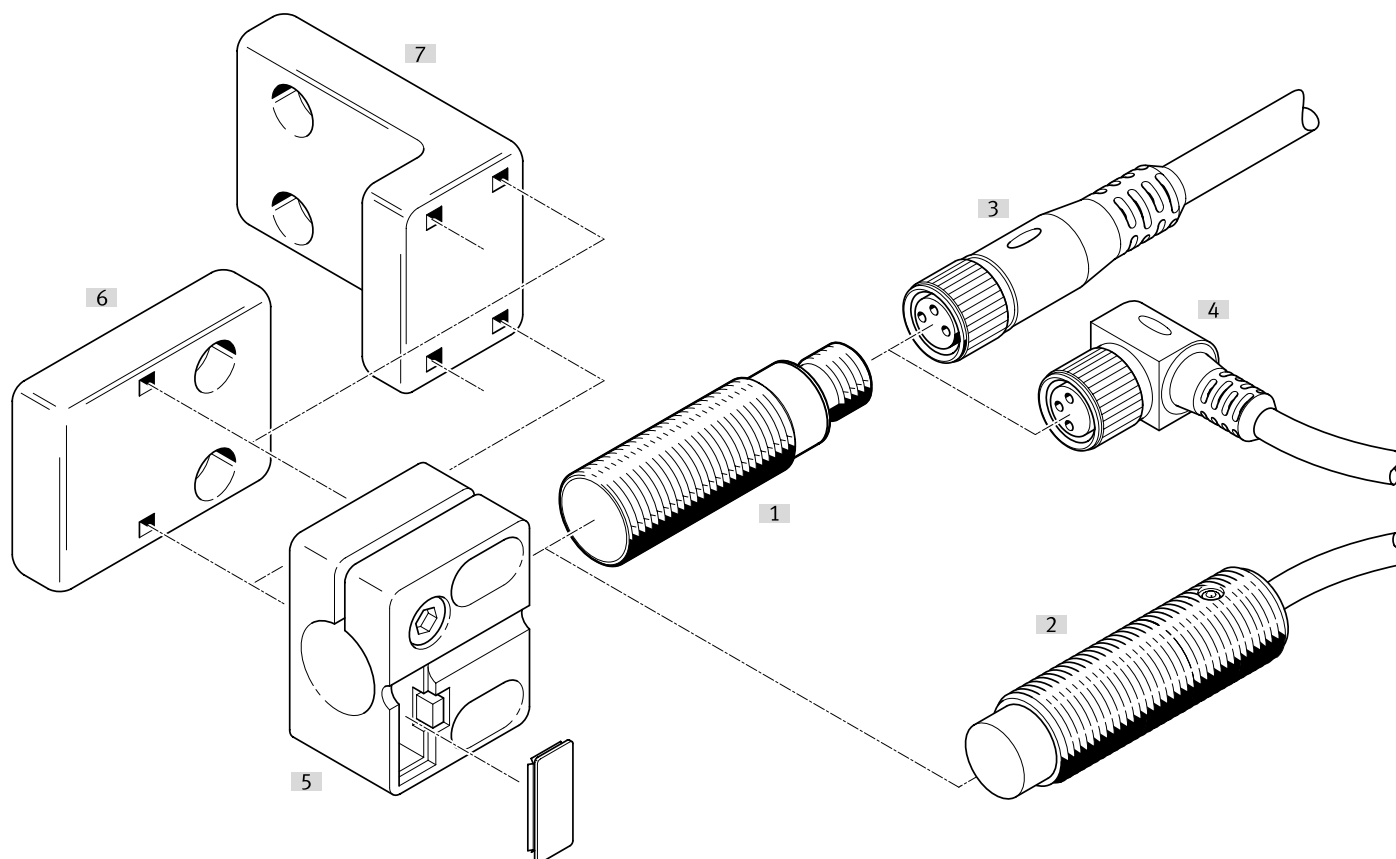
Ordering data M18					
Electrical connection	Rated operating distance	Mounting type	Switching output	Part no.	Type
3-core, Cable	5 mm	Flush	NPN	553548	SIEF-M18B-NS-K-L
			PNP	553546	SIEF-M18B-PS-K-L
	12 mm	Not flush	NPN	538318	SIEF-M18NB-NS-K-L
			PNP	538316	SIEF-M18NB-PS-K-L
3-pin, M12x1, Plug	5 mm	Flush	NPN	553547	SIEF-M18B-NS-S-L
			PNP	553545	SIEF-M18B-PS-S-L
3-pin, Fixcon, M12x1, Plug	12 mm	Not flush	NPN	538317	SIEF-M18NB-NS-S-L
			PNP	538315	SIEF-M18NB-PS-S-L

Ordering data M30					
Electrical connection	Rated operating distance	Mounting type	Switching output	Part no.	Type
3-core, Cable	10 mm	Flush	NPN	553552	SIEF-M30B-NS-K-L
			PNP	553550	SIEF-M30B-PS-K-L
	20 mm	Not flush	NPN	538322	SIEF-M30NB-NS-K-L
			PNP	538320	SIEF-M30NB-PS-K-L
3-pin, M12x1, Plug	10 mm	Flush	NPN	553551	SIEF-M30B-NS-S-L
			PNP	553549	SIEF-M30B-PS-S-L
3-pin, Fixcon, M12x1, Plug	20 mm	Not flush	NPN	538321	SIEF-M30NB-NS-S-L
			PNP	538319	SIEF-M30NB-PS-S-L

40x40x65 mm					
Electrical connection	Rated operating distance	Mounting type	Switching output	Part no.	Type
4-pin, Fixcon, M12x1, Plug	35 mm	Partially flush	NPN	538342	SIEF-Q40S-NA-S-2L
			PNP	538341	SIEF-Q40S-PA-S-2L

Peripherals

Peripherals overview



Accessories			→ Link
Type/order code	Description		
[1] Proximity switch SIEF-M8B	Flush		sief
[2] Proximity switch SIEF-M8NB	Not flush		sief
[3] Connecting cables NEBA-M...G...	Straight socket		26
[4] Connecting cables NEBA-M...W...	Angled socket		26
[5] Sensor bracket SL-DSM-S-...-B	-		27
[6] Sensor bracket SIEZ-NB	-		27
[7] Sensor bracket SIEZ-UH	-		27
[8] Mounting bracket HV-M5	-		28
[9] Foot mounting HBN	-		28
[10] Flange mounting FBN	-		28
[11] Stop SDA	-		28

Accessories

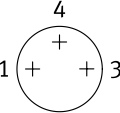
Connecting cables M8 socket, 3-pin, without switching status indication						
Electrical connection 1, cable outlet	Electrical connection 2, connector system	Electrical connection 2, cable outlet	Cable length	Product weight	Part no.	Type
Straight	M12x1, A-coded to EN 61076-2-101	Straight	0.5 m	23 g	8078278	NEBA-M8G3-U-0.5-N-M12G3
			1 m	33 g	8078279	NEBA-M8G3-U-1-N-M12G3
			2.5 m	60 g	8078280	NEBA-M8G3-U-2.5-N-M12G3
			5 m	107 g	8078281	NEBA-M8G3-U-5-N-M12G3
			0.5 m	17 g	8078282	NEBA-M8G3-U-0.5-N-M8G3
	M8x1, A-coded to EN 61076-2-104	Straight	1 m	26 g	8078283	NEBA-M8G3-U-1-N-M8G3
			1.5 m	35 g	8078284	NEBA-M8G3-U-1.5-N-M8G3
			2 m	44 g	8078285	NEBA-M8G3-U-2-N-M8G3
			2.5 m	54 g	8078286	NEBA-M8G3-U-2.5-N-M8G3
			5 m	100 g	8078287	NEBA-M8G3-U-5-N-M8G3
			10 m	192 g	8078288	NEBA-M8G3-U-10-N-M8G3
			1 m	22 g	8078222	NEBA-M8G3-U-1-N-LE3
			2.5 m	50 g	8078223	NEBA-M8G3-U-2.5-N-LE3
			5 m	96 g	8078224	NEBA-M8G3-U-5-N-LE3
			10 m	188 g	8078225	NEBA-M8G3-U-10-N-LE3
			20 m	373 g	8078226	NEBA-M8G3-U-20-N-LE3
	Open end	Straight	2.5 m	50 g	8078230	NEBA-M8W3-U-2.5-N-LE3
			5 m	96 g	8078231	NEBA-M8W3-U-5-N-LE3
			10 m	189 g	8078232	NEBA-M8W3-U-10-N-LE3
			10 m	189 g	8078232	NEBA-M8W3-U-10-N-LE3
Angled						

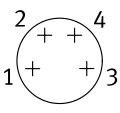
Connecting cables, socket M8, 3-pin, snap-locking					
Electrical connection 1, cable outlet	Electrical connection 2, connector system	Cable length	Product weight	Part no.	Type
Straight	Open end	2.5 m	49 g	8078264	NEBA-M8CG3-U-2.5-N-LE3
		5 m	95 g	8078265	NEBA-M8CG3-U-5-N-LE3
Angled		2.5 m	49 g	8078266	NEBA-M8CW3-U-2.5-N-LE3
		5 m	95 g	8078267	NEBA-M8CW3-U-5-N-LE3

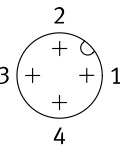
Connecting cables M12 socket, 5-pin, without switching status indication						
Electrical connection 1, cable outlet	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Product weight	Part no.	Type
Straight	M12x1, A-coded to EN 61076-2-101	5	0.5 m	34 g	8078274	NEBA-M12G5-U-0.5-N-M12G5
			1 m	47 g	8078275	NEBA-M12G5-U-1-N-M12G5
			2.5 m	87 g	8078276	NEBA-M12G5-U-2.5-N-M12G5
			5 m	153 g	8078277	NEBA-M12G5-U-5-N-M12G5
	Open end	3	2.5 m	55 g	8078236	NEBA-M12G5-U-2.5-N-LE3
			5 m	102 g	8078237	NEBA-M12G5-U-5-N-LE3
			10 m	194 g	8078238	NEBA-M12G5-U-10-N-LE3
			Angled	2.5 m	56 g	8078245
5 m	103 g	8078246		NEBA-M12W5-U-5-N-LE3		
10 m	195 g	8078247		NEBA-M12W5-U-10-N-LE3		

Connecting cables, socket M12, 5-pin, without switching status indicator						
Electrical connection 1, connection type	Electrical connection 1, connector system	Electrical connection 2, number of connections/cores	Electrical connection 2, connection type	Electrical connection 2, connector system	Product weight	Type
Socket	M12x1, A-coded to EN 61076-2-101	5	Cable	Screw terminal	23 g	8162293 NECB-M12W5-C2
					26 g	8162291 NECB-M12G5-C2

Accessories

M8 plug, 3-pin						
	Cable outlet	Electrical connection 2, connection type	Cable diameter	Product weight	Part no.	Type
	Straight	Cable	2.1 ... 5 mm	5 g	8162298	NECB-S-M8G3-C2

M8 plug, 4-pin						
	Cable outlet	Electrical connection 2, connection type	Cable diameter	Product weight	Part no.	Type
	Straight	2x cable	2 ... 3.8 mm	8 g	8162300	NECB-S-M8G4-C2-D
		Cable	2.1 ... 5 mm	5 g	8162299	NECB-S-M8G4-C2

Plug M12, 5-pin						
	Cable outlet	Electrical connection 2, connection type	Cable diameter	Product weight	Part no.	Type
	Straight	2x cable	2.1 ... 5.6 mm	25 g	8162297	NECB-S-M12G5-C2-D
		Cable	2.1 ... 7 mm	19 g	8162296	NECB-S-M12G5-C2

Sensor bracket with stop for flush installation						
Size	Type of mounting	Ambient temperature	Product weight	Part no.	Type	
M8	With through-hole	-25 ... 80 °C	3.5 g	538346	SIEZ-B-8	
M12			20 g	538348	SIEZ-B-12	
M18			21 g	538350	SIEZ-B-18	
M30			36 g	538352	SIEZ-B-30	

Sensor bracket without stop						
Size	Type of mounting	Ambient temperature	Product weight	Part no.	Type	
	With through-hole	-25 ... 80 °C	25 g	538354	SIEZ-UH	
4 mm			14 g	538343	SIEZ-NB-4	
6.5 mm			9 g	538344	SIEZ-NB-6,5	
M8			3.5 g	538345	SIEZ-NB-8	
M12			20 g	538347	SIEZ-NB-12	
M18			21 g	538349	SIEZ-NB-18	
M30			36 g	538351	SIEZ-NB-30	

Accessories

Foot mounting				
	Size	Product weight	Part no.	Type
	8/10	22 g	5123	HBN-8/10X1

Flange mounting				
	Size	Product weight	Part no.	Type
	32	103 g	195855	FBN-32

Mounting bracket HV-M5				
	Material bracket	Product weight	Part no.	Type
	Steel, Galvanised	11 g	9634	HV-M5

Stop				
	Size	Part no.	Type	
	M8	11542	SDA-8X1-B	
	M12	11541	SDA-12X1-B	