Proximity sensors SIEN, inductive

Technical data – Standard operating distance, basic version

FESTO

General technical data

Size			⌀ 4 mm	M5	⌀ 6.5 mm	M8x1	M12x1	M18x1	M30x1.5
Type of mounting			Flush			Flush or non-flush			
Rated operating distance S_n	Flush	[mm]	0.8	0.8	1.5	1.5	2.0	5.0	10.0
	Non-flush	[mm]	–	–	–	2.5	4.0	8.0	15.0
Repetition accuracy	Flush	[mm]	0.04	0.04	0.075	0.075	0.1	0.15	0.3
	Non-flush	[mm]	–	–	–	0.125	0.2	0.2	0.4

Electrical data

Size			⌀ 4 mm	M5	⌀ 6.5 mm	M8x1	M12x1	M18x1	M30x1.5
Electrical connection	Cable		3-wire						
	Plug		M8x1, 3-pin				M12x1, 3-pin		
Operating voltage range	[V DC]		10 … 30		15 … 34				
Max. output current as a function of temperature	[mA]		200 at ≤ 70 °C		150 at ≤ 85 °C				
	[mA]				200 at ≤ 50 °C				
Max. switching frequency	Flush	[Hz]	3,000	3,000	1,500	1,500	1,200	800	350
	Non-flush	[Hz]	–	–	–	900	800	300	300
Protection against short circuit			Pulsed						
Protection against polarity reversal			For all electrical connections						
Protection class			IP67						

Materials

Size	⌀ 4 mm	M5	⌀ 6.5 mm	M8x1	M12x1	M18x1	M30x1.5
Housing	High-alloy stainless steel				Nickel-plated brass		
Cable sheath	Polyurethane						

Operating and environmental conditions

Size		⌀ 4 mm	M5	⌀ 6.5 mm	M8x1	M12x1	M18x1	M30x1.5
Ambient temperature	[°C]	−25 … +70		−25 … +85				
Ambient temperature with flexible cable installation	[°C]	−25 … +70		−25 … +85				
CE mark (see declaration of conformity)		In accordance with EU EMC directive						
Certification		C-Tick						

Ordering data

Size	S_n [1] [mm]	Type of mounting	Switch output	Switching element function	Electrical connection Cable Part No.	Type	Plug Part No.	Type
⌀ 4 mm								
	0.8	Flush	PNP	Normally open	150 362	SIEN-4B-PS-K-L	150 363	SIEN-4B-PS-S-L
				Normally closed	150 366	SIEN-4B-PO-K-L	150 367	SIEN-4B-PO-S-L
			NPN	Normally open	150 360	SIEN-4B-NS-K-L	150 361	SIEN-4B-NS-S-L
				Normally closed	150 364	SIEN-4B-NO-K-L	150 365	SIEN-4B-NO-S-L
M5								
	0.8	Flush	PNP	Normally open	150 370	SIEN-M5B-PS-K-L	150 371	SIEN-M5B-PS-S-L
				Normally closed	150 374	SIEN-M5B-PO-K-L	150 375	SIEN-M5B-PO-S-L
			NPN	Normally open	150 368	SIEN-M5B-NS-K-L	150 369	SIEN-M5B-NS-S-L
				Normally closed	150 372	SIEN-M5B-NO-K-L	150 373	SIEN-M5B-NO-S-L

1) S_n Rated operating distance [mm]

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Ordering data								
Size	S_n[1] [mm]	Type of mounting	Switch output	Switching element function	Electrical connection			
					Cable		Plug	
					Part No.	Type	Part No.	Type
⌀ 6.5 mm								
	1.5	Flush	PNP	Normally open	150 378	SIEN-6,5B-PS-K-L	150 379	SIEN-6,5B-PS-S-L
				Normally closed	150 382	SIEN-6,5B-PO-K-L	150 383	SIEN-6,5B-PO-S-L
			NPN	Normally open	150 376	SIEN-6,5B-NS-K-L	150 377	SIEN-6,5B-NS-S-L
				Normally closed	150 380	SIEN-6,5B-NO-K-L	150 381	SIEN-6,5B-NO-S-L
M8								
	1.5	Flush	PNP	Normally open	150 386	SIEN-M8B-PS-K-L	150 387	SIEN-M8B-PS-S-L
				Normally closed	150 390	SIEN-M8B-PO-K-L	150 391	SIEN-M8B-PO-S-L
			NPN	Normally open	150 384	SIEN-M8B-NS-K-L	150 385	SIEN-M8B-NS-S-L
				Normally closed	150 388	SIEN-M8B-NO-K-L	150 389	SIEN-M8B-NO-S-L
	2.5	Non-flush	PNP	Normally open	150 394	SIEN-M8NB-PS-K-L	150 395	SIEN-M8NB-PS-S-L
				Normally closed	150 398	SIEN-M8NB-PO-K-L	150 399	SIEN-M8NB-PO-S-L
			NPN	Normally open	150 392	SIEN-M8NB-NS-K-L	150 393	SIEN-M8NB-NS-S-L
				Normally closed	150 396	SIEN-M8NB-NO-K-L	150 397	SIEN-M8NB-NO-S-L
M12								
	2.0	Flush	PNP	Normally open	150 402	SIEN-M12B-PS-K-L	150 403	SIEN-M12B-PS-S-L
				Normally closed	150 406	SIEN-M12B-PO-K-L	150 407	SIEN-M12B-PO-S-L
			NPN	Normally open	150 400	SIEN-M12B-NS-K-L	150 401	SIEN-M12B-NS-S-L
				Normally closed	150 404	SIEN-M12B-NO-K-L	150 405	SIEN-M12B-NO-S-L
	4.0	Non-flush	PNP	Normally open	150 410	SIEN-M12NB-PS-K-L	150 411	SIEN-M12NB-PS-S-L
				Normally closed	150 414	SIEN-M12NB-PO-K-L	150 415	SIEN-M12NB-PO-S-L
			NPN	Normally open	150 408	SIEN-M12NB-NS-K-L	150 409	SIEN-M12NB-NS-S-L
				Normally closed	150 412	SIEN-M12NB-NO-K-L	150 413	SIEN-M12NB-NO-S-L
M18								
	5.0	Flush	PNP	Normally open	150 418	SIEN-M18B-PS-K-L	150 419	SIEN-M18B-PS-S-L
				Normally closed	150 422	SIEN-M18B-PO-K-L	150 423	SIEN-M18B-PO-S-L
			NPN	Normally open	150 416	SIEN-M18B-NS-K-L	150 417	SIEN-M18B-NS-S-L
				Normally closed	150 420	SIEN-M18B-NO-K-L	150 421	SIEN-M18B-NO-S-L
	8.0	Non-flush	PNP	Normally open	150 426	SIEN-M18NB-PS-K-L	150 427	SIEN-M18NB-PS-S-L
				Normally closed	150 430	SIEN-M18NB-PO-K-L	150 431	SIEN-M18NB-PO-S-L
			NPN	Normally open	150 424	SIEN-M18NB-NS-K-L	150 425	SIEN-M18NB-NS-S-L
				Normally closed	150 428	SIEN-M18NB-NO-K-L	150 429	SIEN-M18NB-NO-S-L
M30								
	10.0	Flush	PNP	Normally open	150 434	SIEN-M30B-PS-K-L	150 435	SIEN-M30B-PS-S-L
				Normally closed	150 438	SIEN-M30B-PO-K-L	150 439	SIEN-M30B-PO-S-L
			NPN	Normally open	150 432	SIEN-M30B-NS-K-L	150 433	SIEN-M30B-NS-S-L
				Normally closed	150 436	SIEN-M30B-NO-K-L	150 437	SIEN-M30B-NO-S-L
	15.0	Non-flush	PNP	Normally open	150 442	SIEN-M30NB-PS-K-L	150 443	SIEN-M30NB-PS-S-L
				Normally closed	150 446	SIEN-M30NB-PO-K-L	150 447	SIEN-M30NB-PO-S-L
			NPN	Normally open	150 440	SIEN-M30NB-NS-K-L	150 441	SIEN-M30NB-NS-S-L
				Normally closed	150 444	SIEN-M30NB-NO-K-L	150 445	SIEN-M30NB-NO-S-L

[1] S_n Rated operating distance [mm]