



# V18

Widest portfolio of M18 photoelectric sensors

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



### Technical data overview

<b>Dimensions (W x H x D)</b>	18 mm x 18 mm x 63.6 mm 18 mm x 18 mm x 60.6 mm 18 mm x 18 mm x 78 mm 18 mm x 18 mm x 75 mm 18 mm x 18 mm x 79.4 mm 18 mm x 18 mm x 65.2 mm 18 mm x 18 mm x 88 mm 18 mm x 18 mm x 92 mm 18 mm x 18 mm x 96 mm 18 mm x 18 mm x 86 mm
<b>Sensing range max.</b>	3 mm ... 100 mm <sup>1)</sup> 0 mm ... 50 mm <sup>1)</sup> 30 mm ... 90 mm <sup>1)</sup> 3 mm ... 200 mm <sup>1)</sup> 5 mm ... 400 mm <sup>1)</sup> 10 mm ... 800 mm <sup>1)</sup> 0.05 m ... 3.7 m <sup>2)</sup> 0 m ... 20 m 25 mm ... 140 mm <sup>1)</sup> 30 mm ... 92 mm <sup>1)</sup> 2 mm ... 100 mm <sup>1)</sup> 2 mm ... 200 mm <sup>1)</sup> 2 mm ... 400 mm <sup>1)</sup> 0.005 m ... 5 m <sup>2)</sup> 0.005 m ... 3.5 m <sup>2)</sup> 0.03 m ... 2.5 m <sup>2)</sup> 0 m ... 22 m
<b>Light source</b>	LED
<b>Type of light</b>	Infrared light / visible red light (depending on type)
<b>Enclosure rating</b>	IP67
<b>Housing material</b>	Metal Nickel-plated brass Plastic PBT/PC Metal Nickel-plated brass with plastic nuts
<b>Adjustment</b>	None Potentiometer, 270° Sensing range Potentiometer, 270° Sensitivity Potentiometer, 270°

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033).

<sup>2)</sup> Reflector C110A.

### Product description

The V18 family has the widest portfolio of M18 sensors on the market. Users can choose from a variety of options, including sensors with or without sensitivity control, metal or plastic housings and straight or right-angle housing designs. Due to the wide variety of options, the V18 is an ideal solution for countless applications.

Some of these applications include detection of clear bottles on packaging machines, parts detection on metal forming presses and product detection on conveyors.

### At a glance

- Photoelectric sensor family in a cylindrical M18 housing
- Widest portfolio of M18 photoelectric sensors
- Available with or without sensitivity control, with a metal or a plastic housing, straight or right-angle design, and 3 or 4-wire, AC and DC options

### Your benefits

- Simple, standardized design ensures easy mounting, alignment and replacement
- Low-cost solution for standard applications in material handling and packaging industries
- Variety of sensor models gives users the flexibility to choose the right solution based on their application requirements

## Ordering information

Other models and accessories → [www.sick.com/V18](http://www.sick.com/V18)

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 mm ... 50 mm	NPN	Potentiometer	Male connector M12, 4-pin	VTF18-3N5440	6012996
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3N5612	6013012
	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3P5212	6012967
			Male connector M12, 4-pin	VTF18-3P5740	6013041
		None	Male connector M12, 4-pin	VTF18-3P5640	6013023
3 mm ... 100 mm	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3P1212	6012823
				VTF18-3P1412	6012859
				VTF18-3P1712	6012895
			Male connector M12, 4-pin	VTF18-3P1240	6012825
				VTF18-3P1740	6012897
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3P1112	6012805
				VTF18-3P5612	6013021
			Male connector M12, 4-pin	VTF18-3P1140	6012807
				VTF18-3P1340	6012843
				VTF18-3P1640	6012879

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 mm ... 50 mm	NPN	None	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3E5612	6013015
	PNP	Potentiometer	Male connector M12, 4-pin	VTF18-3F5240	6012972
				VTF18-3F5440	6013008
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3F5740	6013044
				VTF18-3F5612	6013024
Male connector M12, 4-pin	VTF18-3F5140	6012954			
	VTF18-3F5640	6013026			

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
3 mm ... 100 mm	NPN	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3E1212	6012817	
				Male connector M12, 4-pin	VTF18-3E1240	6012819
				VTF18-3E1740	6012891	
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3E1112	6012799	
				VTF18-3E1612	6012871	
			Male connector M12, 4-pin	VTF18-3E1140	6012801	
				VTF18-3E1640	6012873	
				VTF18-3E1840	6012909	
		PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3F1212	6012826
					VTF18-3F1412	6012862
					VTF18-3F1712	6012898
	VTF18-3F1912				6012934	
	Male connector M12, 4-pin			VTF18-3F1240	6012828	
				VTF18-3F1440	6012864	
			VTF18-3F1740	6012900		
			VTF18-3F1940	6012936		
	None		Cable, 3-wire, 2 m <sup>1)</sup>	VTF18-3F1112	6012808	
				VTF18-3F1612	6012880	
				VTF18-3F1812	6012916	
			Male connector M12, 4-pin	VTF18-3F1140	6012810	
		VTF18-3F1340		6012846		
		VTF18-3F1640		6012882		
		VTF18-3F1840	6012918			

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
25 mm ... 140 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTB18-4N1212	6030190
				VTB18-4N1212S01	6037542
			Male connector M12, 4-pin	VTB18-4N1240	6030191
				VTB18-4N1240S01	6037543
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTB18-4P1212	6030188
				VTB18-4P1212S01	6037540
			Male connector M12, 4-pin	VTB18-4P1240	6030189
				VTB18-4P1240S01	6037541
30 mm ... 90 mm	PNP	Potentiometer	Male connector M12, 4-pin	VTF18-0P0040S01	6022494
30 mm ... 92 mm	PNP	Potentiometer	Male connector M12, 4-pin	VTB18-0P0240S01	6032862

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background blanking
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
0 mm ... 50 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTF18-4N5212	6012964	
				VTF18-4N5240	6012966	
			None	Male connector M12, 4-pin	VTF18-4N5640	6013020
		PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTF18-4P5212	6012973
					VTF18-4P5412	6013009
					VTF18-4P5712	6013045
	Male connector M12, 4-pin				VTF18-4P5240	6012975
	VTF18-4P5440			6013011		
	VTF18-4P5740			6013047		
	VTF18-4P5940			6013083		
	None	None	Cable, 4-wire, 2 m <sup>1)</sup>	VTF18-4P5612	6013027	
				VTF18-4P5812	6013063	
			Male connector M12, 4-pin	VTF18-4P5640	6013029	

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
2 mm ... 100 mm	NPN, PNP	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-204172	6012018
3 mm ... 100 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTF18-4N1212	6012820
				VTF18-4N1712	6012892
			Male connector M12, 4-pin	VTF18-4N1240	6012822
				VTF18-4N1740	6012894
		None	Cable, 4-wire	VTF18-4N1140	6012804
				Cable, 4-wire, 2 m <sup>1)</sup>	VTF18-4N1112
			VTF18-4N1112S01		6022491
			VTF18-4N1612		6012874
			VTF18-4N1812		6012910
			Male connector M12, 4-pin	VTF18-4N1640	6012876
	VTF18-4N1840	6012912			
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTF18-4P1212	6012829
				VTF18-4P1412	6012865
				VTF18-4P1712	6012901
				VTF18-4P1912	6012937
			Male connector M12, 4-pin	VTF18-4P1240	6012831
				VTF18-4P1440	6012867
				VTF18-4P1740	6012903
				VTF18-4P1940	6012939
		None	Cable, 4-wire	VTF18-4P1140	6012813
Cable, 4-wire, 2 m <sup>1)</sup>				VTF18-4P1112	6012811
			VTF18-4P1612	6012883	
			VTF18-4P1812	6012919	
			Male connector M12, 4-pin	VTF18-4P1340	6012849
VTF18-4P1640				6012885	
VTF18-4P1840	6012921				

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
10 mm ... 800 mm	NPN	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3E8212	6013105	
			Male connector M12, 4-pin	VTE18-3E8240	6013107	
	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3F8212	6013114	
				VTE18-3F8412	6013150	
				VTE18-3F8712	6013186	
				VTE18-3F8912	6013222	
			Male connector M12, 4-pin	VTE18-3F8240	6013116	
				VTE18-3F8440	6013152	
				VTE18-3F8740	6013188	
				VTE18-3F8940	6013224	
	None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3F8612	6013168		
	3 mm ... 200 mm	NPN	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3E2212	6013393
				Male connector M12, 4-pin	VTE18-3E2240	6013395
			None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3E2112	6013375
Male connector M12, 4-pin				VTE18-3E2640	6013449	
PNP		Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3F2212	6013402	
				VTE18-3F2412	6013438	
				VTE18-3F2712	6013474	
			Male connector M12, 4-pin	VTE18-3F2240	6013404	
				VTE18-3F2440	6013440	
				VTE18-3F2740	6013476	
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3F2940	6013512	
				VTE18-3F2112	6013384	
				VTE18-3F2612	6013456	
			Male connector M12, 4-pin	VTE18-3F2140	6013386	
				VTE18-3F2640	6013458	
				VTE18-3F2840	6013494	

<sup>1)</sup> Do not bend below 0 °C.



Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
5 mm ... 400 mm	NPN	Potentiometer	Male connector M12, 4-pin	VTE18-3E4240	6013251
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3E4612	6013303
			Male connector M12, 4-pin	VTE18-3E4140	6013233
	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3F4212	6013258
				VTE18-3F4412	6013294
				VTE18-3F4712	6013330
			Cable, 3-wire, 5 m <sup>1)</sup>	VTE18-3F4715	6013331
			Male connector M12, 4-pin	VTE18-3F4240	6013260
				VTE18-3F4440	6013296
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3F4740	6013332
				VTE18-3F4940	6013368
			Male connector M12, 4-pin	VTE18-3F4112	6013240
				VTE18-3F4612	6013312
				VTE18-3F4140	6013242
	Male connector M12, 4-pin	VTE18-3F4640	6013314		
		VTE18-3F4840	6013350		

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
10 mm ... 800 mm	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3P8712	6013183
			Male connector M12, 4-pin	VTE18-3P8240	6013113
		None	Male connector M12, 4-pin	VTE18-3P8340	6013131
				VTE18-3P8640	6013167
3 mm ... 200 mm	NPN	None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3N2612	6013444
	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3P2212	6013399
			Male connector M12, 4-pin	VTE18-3P2240	6013401
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3P2612	6013453
5 mm ... 400 mm	NPN	None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3N4612	6013300
			Male connector M12, 4-pin	VTE18-3N4140	6013230
				VTE18-3N4640	6013302
	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3P4712	6013327
				VTE18-3P4912	6013363
			Male connector M12, 4-pin	VTE18-3P4240	6013257
				VTE18-3P4440	6013293
			VTE18-3P4740	6013329	
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VTE18-3P4112	6013237
				VTE18-3P4612	6013309
Male connector M12, 4-pin	VTE18-3P4140		6013239		

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
10 mm ... 800 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4N8212	6013108	
				VTE18-4N8712	6013180	
				VTE18-4N8912	6013216	
			Male connector M12, 4-pin	VTE18-4N8240	6013110	
				VTE18-4N8440	6013146	
				VTE18-4N8740	6013182	
			None	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4N8112	6013090
			PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4P8212
	VTE18-4P8412	6013153				
	VTE18-4P8712	6013189				
	VTE18-4P8912	6013225				
	Male connector M12, 4-pin	VTE18-4P8240			6013119	
		VTE18-4P8740			6013191	
		VTE18-4P8940			6013227	
	None	Cable, 4-wire, 2 m <sup>1)</sup>			VTE18-4P8112	6013099
				VTE18-4P8612	6013171	
2 mm ... 100 mm	PNP	None	Male connector M12, 4-pin	VT18-2P4420S02	6011641	
3 mm ... 200 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4N2212	6013396	

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.		
				VTE18-4N2412	6013432		
				VTE18-4N2712	6013468		
				VTE18-4N2912	6013504		
			Male connector M12, 4-pin	VTE18-4N2240	6013398		
			None	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4N2612	6013450	
				Male connector M12, 4-pin	VTE18-4N2340	6013416	
				VTE18-4N2640	6013452		
			PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4P2212	6013405
						VTE18-4P2412	6013441
						VTE18-4P2712	6013477
	VTE18-4P2912	6013513					
	Male connector M12, 4-pin	VTE18-4P2240			6013407		
		VTE18-4P2240S01			6044589		
		VTE18-4P2440			6013443		
		VTE18-4P2740			6013479		
		VTE18-4P2940			6013515		
		None			Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4P2112	6013387
	VTE18-4P2612		6013459				
	Male connector M12, 4-pin		VTE18-4P2140	6013389			
	VTE18-4P2640		6013461				
5 mm ... 400 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4N4212	6013252		
				VTE18-4N4412	6013288		
				VTE18-4N4712	6013324		
			Cable, 4-wire, 5 m <sup>1)</sup>	VTE18-4N4215	6013253		

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.			
			Male connector M12, 4-pin	VTE18-4N4240	6013254			
				VTE18-4N4440	6013290			
				VTE18-4N4740	6013326			
				VTE18-4N4940	6013362			
		None	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4N4612	6013306			
				VTE18-4N4812	6013342			
			Male connector M12, 4-pin	VTE18-4N4640	6013308			
				PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4P4212	6013261
							VTE18-4P4412	6013297
							VTE18-4P4712	6013333
	VTE18-4P4912	6013369						
	Male connector M12, 4-pin	VTE18-4P4240	6013263					
		VTE18-4P4440	6013299					
		VTE18-4P4740	6013335					
		VTE18-4P4940	6013371					
	None	Cable, 4-wire, 2 m <sup>1)</sup>	VTE18-4P8440	6013155				
			VTE18-4P4612	6013315				
		Male connector M12, 4-pin	VTE18-4P4812	6013351				
			VTE18-4P4140	6013245				
			VTE18-4P4640	6013317				
VTE18-4P4840			6013353					

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.05 m ... 3.7 m	NPN	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3N3212	6013534
				VL18-3N3412	6013570
			Male connector M12, 4-pin	VL18-3N3440	6013572
				VL18-3N3940	6013644
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3N3112	6013516
				VL18-3N3612	6013588
				VL18-3N3812	6013624

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
			Male connector M12, 4-pin	VL18-3N3140	6013518	
				VL18-3N3340	6013554	
				VL18-3N3640	6013590	
				VL18-3N3840	6013626	
	PNP	Potentiometer		Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3P3212	6013543
					VL18-3P3712	6013615
					VL18-3P3912	6013651
				Male connector M12, 4-pin	VL18-3P3240	6013545
					VL18-3P3440	6013581
					VL18-3P3740	6013617
		None		Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3P3112	6013525
					VL18-3P3312	6013561
					VL18-3P3612	6013597
				Cable, 3-wire, 5 m <sup>1)</sup>	VL18-3P3812	6013633
					VL18-3P3115	6013526
					Male connector M12, 4-pin	VL18-3P3140
	VL18-3P3340	6013563				
	VL18-3P3640	6013599				
				VL18-3P3840	6013635	

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
0.05 m ... 3.7 m	NPN	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3E3212	6013537	
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3E3612	6013591	
				Male connector M12, 4-pin	VL18-3E3140	6013521
					VL18-3E3340	6013557
		VL18-3E3640S01	6022490			
		PNP	Potentiometer	Male connector M12, 4-pin	VL18-3F3240	6013548
	VL18-3F3440				6013584	
	VL18-3F3740				6013620	
	VL18-3F3940				6013656	
	None		Cable, 3-wire, 2 m <sup>1)</sup>	VL18-3F3112	6013528	
				VL18-3F3612	6013600	
				VL18-3F3812	6013636	
			Cable, 3-wire, 5 m <sup>1)</sup>	VL18-3F3815	6013637	
				Male connector M12, 4-pin	VL18-3F3140	6013530
					VL18-3F3340	6013566
	VL18-3F3640	6013602				
VL18-3F3840	6013638					

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.05 m ... 3.7 m	PNP	None	Male connector M12, 4-pin	VL18-3P6340	6022488

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.03 m ... 2.5 m	PNP	None	Male connector M12, 4-pin	VL18-2P4470S02	6011640
0.05 m ... 3.7 m	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VL18-4N3212	6013540

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
				VL18-4N3412	6013576	
				VL18-4N3712	6013612	
			Male connector M12, 4-pin	VL18-4N3240	6013542	
				VL18-4N3440	6013578	
				VL18-4N3740	6013614	
				VL18-4N3940	6013650	
			None	Cable, 4-wire, 2 m <sup>1)</sup>	VL18-4N3112	6013522
					VL18-4N3612	6013594
		Cable, 4-wire, 5 m <sup>1)</sup>		VL18-4N3115	6013523	
				Male connector M12, 4-pin	VL18-4N3140	6013524
		VL18-4N3640	6013596			
		VL18-4N3840	6013632			
		PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VL18-4P3212	6013549
					VL18-4P3412	6013585
					VL18-4P3712	6013621
					VL18-4P3912	6013657
	Male connector M12, 4-pin			VL18-4P3240	6013551	
				VL18-4P3440	6013587	
				VL18-4P3740	6013623	
				VL18-4P3940	6013659	
	None		Cable, 4-wire, 2 m <sup>1)</sup>	VL18-4P3112	6013531	
				VL18-4P3312	6013567	
				VL18-4P3612	6013603	
				VL18-4P3812	6013639	
			Male connector M12, 4-pin	VL18-4P3140	6013533	
				VL18-4P3340	6013569	
				VL18-4P3640	6013605	
				VL18-4P3840	6013641	

<sup>1)</sup> Do not bend below 0 °C.



- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.05 m ... 3.7 m	NPN	None	Cable, 4-wire, 2 m <sup>1)</sup>	VL18-4N6112	6022445
	PNP	None	Cable, 4-wire, 2 m <sup>1)</sup>	VL18-4P6612	6022489
			Male connector M12, 4-pin	VL18-4P6640	6022487

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
0 m ... 20 m	NPN	None	Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3N3112	6013660	
			Male connector M12, 4-pin	VS/VE18-3N3640	6013734	
				VS/VE18-3N3840	6013770	
	PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3P3212	6013687	
				Male connector M12, 4-pin	VS/VE18-3P3240	6013689
			VS/VE18-3P3440		6013725	
			VS/VE18-3P3740		6013761	
		None	None	Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3P3940	6013797
					VS/VE18-3P3112	6013669
					VS/VE18-3P3312	6013705
					VS/VE18-3P3612	6013741
				Male connector M12, 4-pin	VS/VE18-3P3812	6013777
					VS/VE18-3P3140	6013671
	Male connector M12, 4-pin	VS/VE18-3P3340	6013707			
		VS/VE18-3P3640	6013743			
	VS/VE18-3P3840	6013779				

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
0 m ... 20 m	NPN	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3E3712	6013753	
			Male connector M12, 4-pin	VS/VE18-3E3240	6013683	
		None	Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3E3612	6013735	
			Male connector M12, 4-pin	VS/VE18-3E3640	6013737	
		PNP	Potentiometer	Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3F3212	6013690
					VS/VE18-3F3412	6013726
				Male connector M12, 4-pin	VS/VE18-3F3240	6013692
					VS/VE18-3F3440	6013728
			VS/VE18-3F3740	6013764		
			VS/VE18-3F3940	6013800		
	None		Cable, 3-wire, 2 m <sup>1)</sup>	VS/VE18-3F3112	6013672	
				VS/VE18-3F3612	6013744	
		Male connector M12, 4-pin	VS/VE18-3F3140	6013674		
			VS/VE18-3F3340	6013710		
			VS/VE18-3F3640	6013746		

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 20 m	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VS/VE18-4N3212	6013684
				VS/VE18-4N3712	6013756
			Male connector M12, 4-pin	VS/VE18-4N3240	6013686
				VS/VE18-4N3740	6013758
		None	Cable, 4-wire, 2 m <sup>1)</sup>	VS/VE18-4N3112	6013666
				VS/VE18-4N3612	6013738

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.	
			Male connector M12, 4-pin	VS/VE18-4N3140	6013668	
				VS/VE18-4N3340	6013704	
				VS/VE18-4N3640	6013740	
				VS/VE18-4N3840	6013776	
	PNP	Potentiometer		Cable, 4-wire, 2 m <sup>1)</sup>	VS/VE18-4P3212	6013693
					VS/VE18-4P3412	6013729
					VS/VE18-4P3712	6013765
					VS/VE18-4P3912	6013801
				Male connector M12, 4-pin	VS/VE18-4P3240	6013695
					VS/VE18-4P3440	6013731
					VS/VE18-4P3740	6013767
					VS/VE18-4P3940	6013803
		None		Cable, 4-wire, 2 m <sup>1)</sup>	VS/VE18-4P3112	6013675
					VS/VE18-4P3312	6013711
					VS/VE18-4P3612	6013747
					VS/VE18-4P3812	6013783
			Male connector M12, 4-pin	VS/VE18-2P4440S02	6011642	
				VS/VE18-4P3140	6013677	
				VS/VE18-4P3340	6013713	
				VS/VE18-4P3640	6013749	
VS/VE18-4P3840	6013785					

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Dark switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
25 mm ... 140 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTB18-3N1212	6030197
			Male connector M12, 4-pin	VTB18-3N1240	6030199
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTB18-3P1212	6030193
			Male connector M12, 4-pin	VTB18-3P1240	6030195

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
25 mm ... 140 mm	NPN	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTB18-3E1212	6030196
			Male connector M12, 4-pin	VTB18-3E1240	6030198
	PNP	Potentiometer	Cable, 4-wire, 2 m <sup>1)</sup>	VTB18-3F1212	6030192
			Male connector M12, 4-pin	VTB18-3F1240	6030194

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
2 mm ... 100 mm	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-2T1112	6011370
			Male connector M12, 4-pin	VT18-2T1410	6011373
2 mm ... 200 mm	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-2T1132	6011371
			Male connector M12, 4-pin	VT18-2T1430	6011374

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
2 mm ... 400 mm	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-2T1152	6011372
			Male connector M12, 4-pin	VT18-2T1450	6011375

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Energetic
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
2 mm ... 100 mm	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-2T2112	6022094
			Cable, 3-wire, 5 m <sup>1)</sup>	VT18-2T2115	6040902
			Male connector M12, 4-pin	VT18-2T2410	6022095
2 mm ... 200 mm	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-2T2132	6022096
			Male connector M12, 4-pin	VT18-2T2430	6022097
2 mm ... 400 mm	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VT18-2T2152	6022098
			Male connector M12, 4-pin	VT18-2T2450	6022099

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Light source:** LED
- **Voltage type:** DC
- **Switching mode:** Light/dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
2 mm ... 100 mm	NPN, PNP	None	Male connector M12, 4-pin	VT18-204470	6012019

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.005 m ... 3.5 m	TRIAC	None	Male connector M12, 4-pin	VL18-2T1460	6022093

<sup>1)</sup> Do not bend below 0 °C.

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.005 m ... 5 m	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-2T1132	6022090
			Male connector M12, 4-pin	VL18-2T1430	6022091

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.005 m ... 3.5 m	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-2T2162	6011377
			Male connector M12, 4-pin	VL18-2T2460	6011379
0.005 m ... 5 m	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-2T2132	6011376
			Male connector M12, 4-pin	VL18-2T2430	6011378

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Photoelectric retro-reflective sensor
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Light switching
- **Type of light:** visible red light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0.005 m ... 3.5 m	TRIAC	None	Cable, 3-wire, 2 m <sup>1)</sup>	VL18-2T1162	6022092

<sup>1)</sup> Do not bend below 0 °C.

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Light switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 22 m	TRIAC	None	Cable, 3-wire, 2 m <sup>1) 2)</sup>	VS/VE18-2T1132	6021162
			Male connector M12, 4-pin	VS/VE18-2T1430	6021163

<sup>1)</sup> Sender: 2-wire cable.

<sup>2)</sup> Do not bend below 0 °C.

- **Sensor principle:** Through-beam photoelectric sensor
- **Light source:** LED
- **Voltage type:** AC
- **Switching mode:** Dark switching
- **Type of light:** Infrared light

Sensing range max.	Switching output	Adjustment	Connection type	Type	Part no.
0 m ... 22 m	TRIAC	None	Cable, 3-wire, 2 m <sup>1) 2)</sup>	VS/VE18-2T2132	6011380
			Male connector M12, 4-pin	VS/VE18-2T2430	6011381

<sup>1)</sup> Sender: 2-wire cable.

<sup>2)</sup> Do not bend below 0 °C.

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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