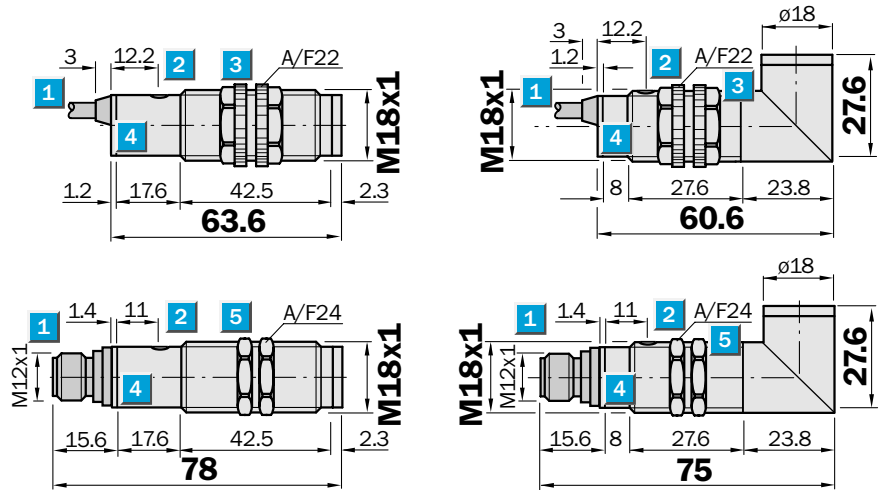




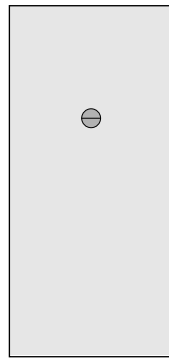
- Large range
- Optionally VS/VE 18-3 in 3-line model or VS/VE with light/dark control line
- Many other options

Dimensional drawing



Adjustments possible

See selection table on page 371.

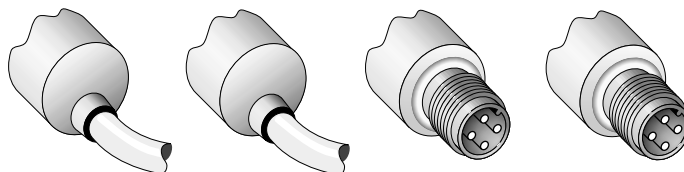


- 1 Connecting cable or plug
- 2 Sensitivity control
- 3 Fastening nut, width across 22 mm, made of plastic for equipment with plastic housing
- 4 Operating display for VS, LED, yellow
Signal strength indicator for VE, LED, yellow
- 5 Fastening nut, width across 24 mm, made of metal for equipment with metal housing

Connection types

VS/VE 18-3	VS/VE 18-4	VS/VE 18-3	VS/VE 18-4
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Variants, equipment options: See selection table on page 371 for type name and part no.



Accessories	page
Cable receptacle	496
Mounting brackets	510

Sender	3 x 0.14 mm ² VS 18-OD...	3 x 0.14 mm ² VS 18-OD...	4-pin, M 12 VS 18-OD...	4-pin, M 12 VS 18-OD...
Receiver	3 x 0.14 mm ² VE 18-3...	4 x 0.14 mm ² VE 18-4...	4-pin, M 12 VE 18-3...	4-pin, M 12 VE 18-4...

Technical data		VS/VE 18-	3...	4...								
Housing	Straight											
	Angled, 90°											
Scanning range , max. typical	0 ... 20 m											
Operating range	0 ... 14 m											
Light spot diameter	Approx. 700 mm at a distance of 14 m											
Angle of dispersion of sender	2.8°											
Sensitivity adjustable (optional)	Potentiometer 270°											
Light source¹⁾, light type	LED, infrared light											
Supply voltage V_S		10 ... 30 V DC ²⁾										
Ripple ³⁾	± 10 %											
Current consumption ⁴⁾	≤ 30 mA											
Switching outputs (optional)		PNP/NPN; open collector: Q										
Switching mode	Q, dark-switching											
	Q, light-switching											
via control wire L/D ⁵⁾	Q, light-/dark-switching											
	+ V_S = light-switching											
	0 V = dark-switching											
Output current I_A max.	100 mA											
Response time ⁶⁾	≤ 2 ms											
Max. switching frequency ⁷⁾	250/s											
Test input "TE", VS sender off	PNP, NPN: TE to 0 V											
Connection types												
Cable 2 m ⁸⁾	sender VS 18-OD...:	PVC, 3 x 0.14 mm ² , Ø 3.1 mm										
	receiver VE 18...:	PVC, 3 x 0.14 mm ² , Ø 3.1 mm										
Plug	sender VS 18-OD...:	PVC, 4 x 0.14 mm ² , Ø 5 mm										
	receiver VE 18...:	4-pin, M 12										
VDE protection class⁹⁾		□										
Circuit protection¹⁰⁾	A, B, C, D											
Enclosure rating	IP 67											
Ambient temperature T_A		- 25 °C ... + 70 °C										
Weight	metal housing	Sender and receiver each approx. 120 g										
	plastic housing	Sender and receiver each approx. 100 g										
Housing material												
	metal housing	Nickel-plated brass; PBT/PC										
	plastic housing	PBT/PC										
	optic	PMMA										

1) Average service life 100,000 h at $T_A = + 25 °C$

2) Limit values

3) Must be within V_S tolerances

4) Without load

5) Control wire open:
NPN: light-switching
PNP: dark-switching

6) With resistive load

7) With light/dark ratio 1:1

8) Do not bend below 0 °C

9) Reference voltage 50 V DC

10) A = Connections reverse-polarity protected

B = Inputs/outputs reverse-polarity protected

C = Interference suppression

D = Outputs overcurrent and short-circuit protected

Order information

See selection table on page 371