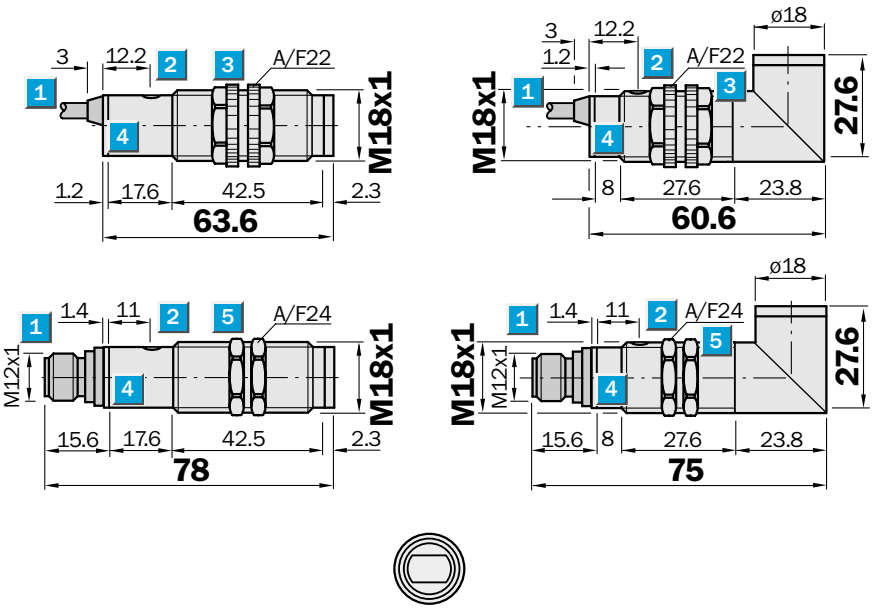
Scanning distance 3…200/5…400/ 10…800 mm

Photoelectric proximity switch

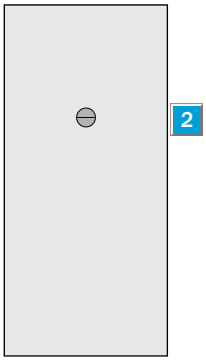
- Energetic scanner, also with large scanning distances for standard applications
- 3 scanning distance options:
  SD 1 = 200 mm
  SD 2 = 400 mm
  SD 3 = 800 mm
- Optionally VT 18-3 in 3-line model or VT 18-4 with light/dark control line
- Many other options

Dimensional drawing



Adjustments possible

See selection table on page 367–369

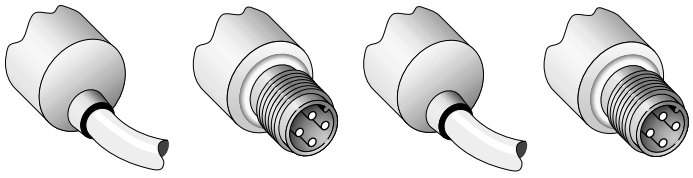


1 Connecting cable or plug
2 Sensitivity control
3 Fastening nut, width across 22 mm, made of plastic for equipment with plastic housing
4 Signal strength indicator, LED, yellow
5 Fastening nut, width across 24 mm, made of metal for equipment with metal housing

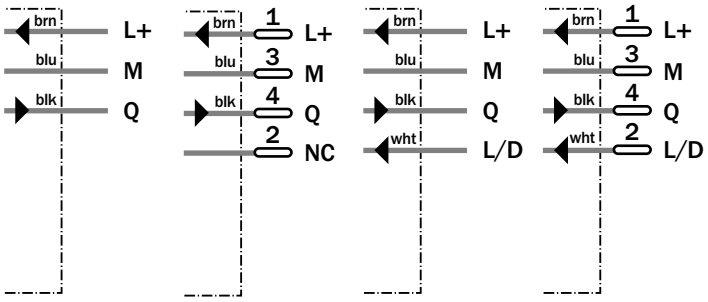
Connection types

VTE 18-3 | VTE 18-4

Variants, equipment options: See selection table on pages 367 – 369 for type name and part no.



3 x 0.14 mm²	4-pin, M 12	4 x 0.14 mm²	4-pin, M 12



Accessories	page
Cable receptacle	496
Reflectors	520

Technical data	VTE 18-	3x2...	4x2...	3x4...	4x4...	3x8...	4x8...
Housing	Straight	■	■	■	■	■	■
	Angled, 90°	■	■	■	■	■	■
VTE 18 Scanning distance 200 mm							
Scanning distance, max. typical[1]	3…200 mm	■	■				
Scanning distance[1]	3…170 mm	■	■				
Light spot diameter	Approx. 10 mm at a dist. of 200 mm	■	■				
VTE 18 Scanning distance 400 mm							
Scanning distance, max. typical[1]	5…400 mm			■	■		
Scanning distance[1]	5…350 mm			■	■		
Light spot diameter	Approx. 20 mm at a dist. of 400 mm			■	■		
VTE 18 Scanning distance 800 mm							
Scanning distance, max. typical[1]	10…800 mm					■	■
Scanning distance[1]	10…700 mm					■	■
Light spot diameter	Approx. 40 mm at a dist. of 800 mm					■	■
Sensitivity adjustable (optional)	Potentiometer 270°	■	■	■	■	■	■
Light source[2], **light type**	LED, infrared light	■	■	■	■	■	■
Angle of dispersion of sender	2.8°	■	■	■	■	■	■
Supply voltage V_S	10…30 V DC[3]	■	■	■	■	■	■
Ripple[4]	± 10 %	■	■	■	■	■	■
Current consumption[5]	≤ 30 mA	■	■	■	■	■	■
Switching outputs (optional)	PNP/NPN; open collector: Q	■	■	■	■	■	■
Switching mode	Q, light-/dark-switching	■		■		■	
	Q, light-switching	■		■		■	
via control wire L/D[6]	Q, light-/dark-switching		■		■		■
	+ V_S = light-switching		■		■		■
	0 V = dark-switching		■		■		■
Output current I_A max.	100 mA	■	■	■	■	■	■
Response time[7]	≤ 2 ms	■	■	■	■	■	■
Max. switching frequency[8]	250/s	■	■	■	■	■	■
Connection types							
cable 2 m[9]	PVC, 3 x 0.14 mm², ⌀ 3.1 mm	■		■		■	
	PVC, 4 x 0.14 mm², ⌀ 5 mm		■		■		■
plug	4 pin, M12	■	■	■	■	■	■
VDE protection class[10]	⧈	■	■	■	■	■	■
Circuit protection[11]	A, B, C, D	■	■	■	■	■	■
Enclosure rating	IP 67	■	■	■	■	■	■
Ambient temperature T_A	– 25 °C…+ 70 °C	■	■	■	■	■	■
Weight metal housing	Approx. 120 g	■	■	■	■	■	■
plastic housing	Approx. 100 g	■	■	■	■	■	■
Housing material							
metal housing	Nickel-plated brass; PBT/PC	■	■	■	■	■	■
plastic housing	PBT/PC	■	■	■	■	■	■
optic	PMMA	■	■	■	■	■	■

1) Object with 90 % reflectance (referred to standard white DIN 5033)
2) Average service life 100,000 h at T_A = + 25 °C
3) Limit values
4) Must be within V_S tolerances
5) Without load
6) Control wire open:
NPN: light-switching
PNP: dark-switching
7) With resistive load
8) With light/dark ratio 1:1
9) Do not bend below 0 °C
10) Reference voltage 50 V DC
11) A = V_S 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 367 – 369

Order data V 18 DC (10…30 V)

1 Basic type	
Through-beam photoelectric switch (sender only)	VS
Through-beam photoelectric switch (receiver only)	VE
Through-beam photoelectric switch (sender and receiver)	VS/VE
Photoelectric reflex switch	VL
Photoelectric proximity switch (F = focussed)	VTF
Photoelectric proximity switch (E = energetic)	VTE

2 Size and series	
Housing M 18 (V 18 Series)	18

3 Switching outputs and switching mode	
Sender only VS (with test input)	0D
3 line; Q = PNP, dark-switching (D.ON)	3P
3 line; Q = PNP, light-switching (L.ON)	3F
3 line; Q = NPN, dark-switching (D.ON)	3N
3 line; Q = NPN, light-switching (L.ON)	3E
4 line; Q = PNP, L.ON or D.ON selectable via control wire	4P
4 line; Q = NPN, L.ON oder D.ON selectable via control wire	4N

4 Scanning range and light source	
Sender VS: infrared light; Receiver VE for infrared light	
Photoelectric reflex switch VL: red light and polarisingfilter	3
Photoelectric proximity switch VTF: scanning distance 50 mm, infrared light	5
Photoelectric proximity switch VTF: scanning distance 100 mm, infrared light	1
Photoelectric proximity switch VTE: scanning distance 200 mm, infrared light	2
Photoelectric proximity switch VTE: scanning distance 400 mm, infrared light	4
Photoelectric proximity switch VTE: scanning distance 800 mm, infrared light	8

5 Housing (material and form), sensitivity control	
Metal, axial, without potentiometer	1
Metal, axial, with potentiometer	2
Metal, 90°, without potentiometer	3
Metal, 90°, with potentiometer	4
Plastic, axial, without potentiometer	6
Plastic, axial, with potentiometer	7
Plastic, 90°, without potentiometer	8
Plastic, 90°, with potentiometer	9

6 Connection type	
Cable, 2 m	12
M 12 plug, 4-pin	40

How to find *your* sensor

1 Example

1	**Base type photoelectric reflex switch** Photoelectric proximity switch (E = energetic)	→ VTE
2	**Model of housing** Housing M 18 (V 18 Series)	→ 18
3	**Switching outputs and switching mode** 3 line; Q = PNP, light-switching (L.ON)	→ 3F
4	**Scanning range and light source** Photoelectric proximity switch VTE: scanning distance 200 mm, infrared light	→ 2
5	**Housing (material and models) sensitivity control** Metal, 90°, without potentiometer	→ 3
6	**Connection type** M 12 plug, 4-pin	→ 40

2 Define type

VTE 18 – 3F 2 3 40

3 Select part number

(see register page 609)

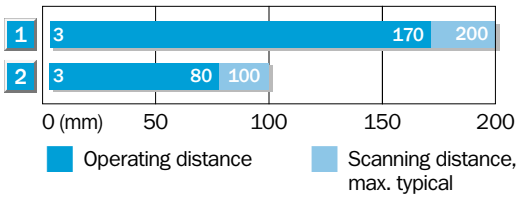
Type	Part no.
VTE 18-3F 2340	6 013 422

Scanning distance 3…200 mm

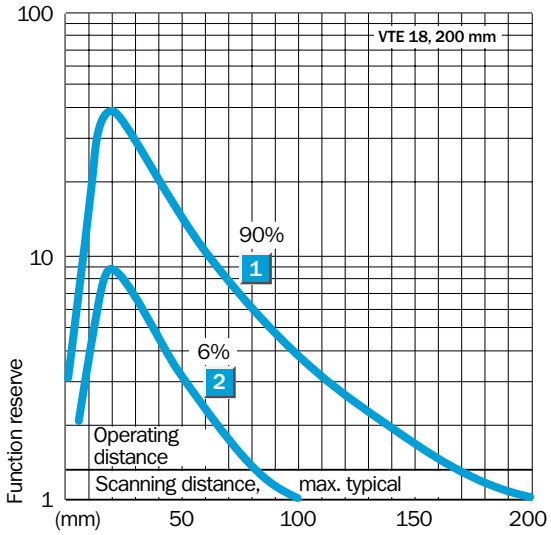
VTE 18-3, VTE 18-4 selection table, photoelectric proximity switch, energetic

Switching mode	Connection type	Without sensitivity control: NPN output Type	Part no.	Without sensitivity control: PNP output Type	Part no.	With sensitivity control: NPN output Type	Part no.	With sensitivity control: PNP output Type	Part no.
Housing material: metal									
Optical axis: axial									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 2112	6 013 372	VTE 18-3 P 2112	6 013 381	VTE 18-3 N 2212	6 013 390	VTE 18-3 P 2212	6 013 399
	M 12 plug, 4-pin	VTE 18-3 N 2140	6 013 374	VTE 18-3 P 2140	6 013 383	VTE 18-3 N 2240	6 013 392	VTE 18-3 P 2240	6 013 401
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 2112	6 013 375	VTE 18-3 F 2112	6 013 384	VTE 18-3 E 2212	6 013 393	VTE 18-3 F 2212	6 013 402
	M 12 plug, 4-pin	VTE 18-3 E 2140	6 013 377	VTE 18-3 F 2140	6 013 386	VTE 18-3 E 2240	6 013 395	VTE 18-3 F 2240	6 013 404
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 2112	6 013 378	VTE 18-4 P 2112	6 013 387	VTE 18-4 N 2212	6 013 396	VTE 18-4 P 2212	6 013 405
	M 12 plug, 4-pin	VTE 18-4 N 2140	6 013 380	VTE 18-4 P 2140	6 013 389	VTE 18-4 N 2240	6 013 398	VTE 18-4 P 2240	6 013 407
Optical axis: 90°									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 2312	6 013 408	VTE 18-3 P 2312	6 013 417	VTE 18-3 N 2412	6 013 426	VTE 18-3 P 2412	6 013 435
	M 12 plug, 4-pin	VTE 18-3 N 2340	6 013 410	VTE 18-3 P 2340	6 013 419	VTE 18-3 N 2440	6 013 428	VTE 18-3 P 2440	6 013 437
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 2312	6 013 411	VTE 18-3 F 2312	6 013 420	VTE 18-3 E 2412	6 013 429	VTE 18-3 F 2412	6 013 438
	M 12 plug, 4-pin	VTE 18-3 E 2340	6 013 413	VTE 18-3 F 2340	6 013 422	VTE 18-3 E 2440	6 013 431	VTE 18-3 F 2440	6 013 440
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 2312	6 013 414	VTE 18-4 P 2312	6 013 423	VTE 18-4 N 2412	6 013 432	VTE 18-4 P 2412	6 013 441
	M 12 plug, 4-pin	VTE 18-4 N 2340	6 013 416	VTE 18-4 P 2340	6 013 425	VTE 18-4 N 2440	6 013 434	VTE 18-4 P 2440	6 013 443
Housing material: plastic									
Optical axis: axial									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 2612	6 013 444	VTE 18-3 P 2612	6 013 453	VTE 18-3 N 2712	6 013 462	VTE 18-3 P 2712	6 013 471
	M 12 plug, 4-pin	VTE 18-3 N 2640	6 013 446	VTE 18-3 P 2640	6 013 455	VTE 18-3 N 2740	6 013 464	VTE 18-3 P 2740	6 013 473
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 2612	6 013 447	VTE 18-3 F 2612	6 013 456	VTE 18-3 E 2712	6 013 465	VTE 18-3 F 2712	6 013 474
	M 12 plug, 4-pin	VTE 18-3 E 2640	6 013 449	VTE 18-3 F 2640	6 013 458	VTE 18-3 E 2740	6 013 467	VTE 18-3 F 2740	6 013 476
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 2612	6 013 450	VTE 18-4 P 2612	6 013 459	VTE 18-4 N 2712	6 013 468	VTE 18-4 P 2712	6 013 477
	M 12 plug, 4-pin	VTE 18-4 N 2640	6 013 452	VTE 18-4 P 2640	6 013 461	VTE 18-4 N 2740	6 013 470	VTE 18-4 P 2740	6 013 479
Optical axis: 90°									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 2812	6 013 480	VTE 18-3 P 2812	6 013 489	VTE 18-3 N 2912	6 013 498	VTE 18-3 P 2912	6 013 507
	M 12 plug, 4-pin	VTE 18-3 N 2840	6 013 482	VTE 18-3 P 2840	6 013 491	VTE 18-3 N 2940	6 013 500	VTE 18-3 P 2940	6 013 509
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 2812	6 013 483	VTE 18-3 F 2812	6 013 492	VTE 18-3 E 2912	6 013 501	VTE 18-3 F 2912	6 013 510
	M 12 plug, 4-pin	VTE 18-3 E 2840	6 013 485	VTE 18-3 F 2840	6 013 494	VTE 18-3 E 2940	6 013 503	VTE 18-3 F 2940	6 013 512
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 2812	6 013 486	VTE 18-4 P 2812	6 013 495	VTE 18-4 N 2912	6 013 504	VTE 18-4 P 2912	6 013 513
	M 12 plug, 4-pin	VTE 18-4 N 2840	6 013 488	VTE 18-4 P 2840	6 013 497	VTE 18-4 N 2940	6 013 506	VTE 18-4 P 2940	6 013 515

Operating distance and function reserve



1 Scanning range on white, 90 % remission
2 Scanning range on black, 6 % remission

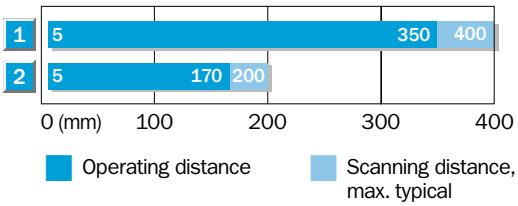


Scanning distance 5…400 mm

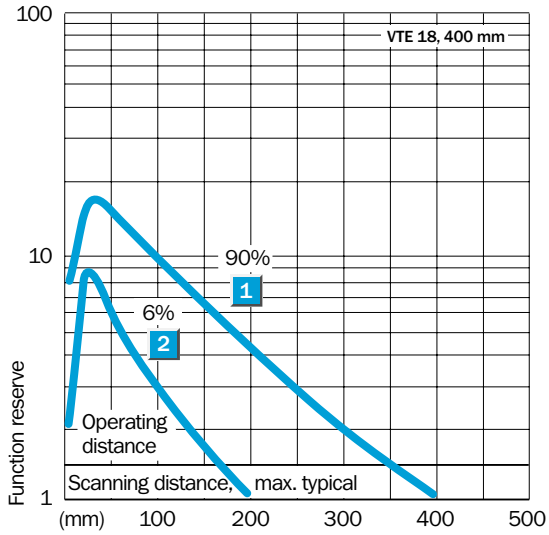
VTE 18-3, VTE 18-4 selection table, photoelectric proximity switch, energetic

Switching mode	Connection type	Without sensitivity control: NPN output Type	Part no.	PNP output Type	Part no.	With sensitivity control: NPN output Type	Part no.	PNP output Type	Part no.
Housing material: metal									
Optical axis: axial									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 4112	6 013 228	VTE 18-3 P 4112	6 013 237	VTE 18-3 N 4212	6 013 246	VTE 18-3 P 4212	6 013 255
	M 12 plug, 4-pin	VTE 18-3 N 4140	6 013 230	VTE 18-3 P 4140	6 013 239	VTE 18-3 N 4240	6 013 248	VTE 18-3 P 4240	6 013 257
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 4112	6 013 231	VTE 18-3 F 4112	6 013 240	VTE 18-3 E 4212	6 013 249	VTE 18-3 F 4212	6 013 258
	M 12 plug, 4-pin	VTE 18-3 E 4140	6 013 233	VTE 18-3 F 4140	6 013 242	VTE 18-3 E 4240	6 013 251	VTE 18-3 F 4240	6 013 260
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 4112	6 013 234	VTE 18-4 P 4112	6 013 243	VTE 18-4 N 4212	6 013 252	VTE 18-4 P 4212	6 013 261
	M 12 plug, 4-pin	VTE 18-4 N 4140	6 013 236	VTE 18-4 P 4140	6 013 245	VTE 18-4 N 4240	6 013 254	VTE 18-4 P 4240	6 013 263
Optical axis: 90°									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 4312	6 013 264	VTE 18-3 P 4312	6 013 273	VTE 18-3 N 4412	6 013 282	VTE 18-3 P 4412	6 013 291
	M 12 plug, 4-pin	VTE 18-3 N 4340	6 013 266	VTE 18-3 P 4340	6 013 275	VTE 18-3 N 4440	6 013 284	VTE 18-3 P 4440	6 013 293
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 4312	6 013 267	VTE 18-3 F 4312	6 013 276	VTE 18-3 E 4412	6 013 285	VTE 18-3 F 4412	6 013 294
	M 12 plug, 4-pin	VTE 18-3 E 4340	6 013 269	VTE 18-3 F 4340	6 013 278	VTE 18-3 E 4440	6 013 287	VTE 18-3 F 4440	6 013 296
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 4312	6 013 270	VTE 18-4 P 4312	6 013 279	VTE 18-4 N 4412	6 013 288	VTE 18-4 P 4412	6 013 297
	M 12 plug, 4-pin	VTE 18-4 N 4340	6 013 272	VTE 18-4 P 4340	6 013 281	VTE 18-4 N 4440	6 013 290	VTE 18-4 P 4440	6 013 299
Housing material: plastic									
Optical axis: axial									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 4612	6 013 300	VTE 18-3 P 4612	6 013 309	VTE 18-3 N 4712	6 013 318	VTE 18-3 P 4712	6 013 327
	M 12 plug, 4-pin	VTE 18-3 N 4640	6 013 302	VTE 18-3 P 4640	6 013 311	VTE 18-3 N 4740	6 013 320	VTE 18-3 P 4740	6 013 329
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 4612	6 013 303	VTE 18-3 F 4612	6 013 312	VTE 18-3 E 4712	6 013 321	VTE 18-3 F 4712	6 013 330
	M 12 plug, 4-pin	VTE 18-3 E 4640	6 013 305	VTE 18-3 F 4640	6 013 314	VTE 18-3 E 4740	6 013 323	VTE 18-3 F 4740	6 013 332
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 4612	6 013 306	VTE 18-4 P 4612	6 013 315	VTE 18-4 N 4712	6 013 324	VTE 18-4 P 4712	6 013 333
	M 12 plug, 4-pin	VTE 18-4 N 4640	6 013 308	VTE 18-4 P 4640	6 013 317	VTE 18-4 N 4740	6 013 326	VTE 18-4 P 4740	6 013 335
Optical axis: 90°									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 4812	6 013 336	VTE 18-3 P 4812	6 013 345	VTE 18-3 N 4912	6 013 354	VTE 18-3 P 4912	6 013 363
	M 12 plug, 4-pin	VTE 18-3 N 4840	6 013 338	VTE 18-3 P 4840	6 013 347	VTE 18-3 N 4940	6 013 356	VTE 18-3 P 4940	6 013 365
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 4812	6 013 339	VTE 18-3 F 4812	6 013 348	VTE 18-3 E 4912	6 013 357	VTE 18-3 F 4912	6 013 366
	M 12 plug, 4-pin	VTE 18-3 E 4840	6 013 341	VTE 18-3 F 4840	6 013 350	VTE 18-3 E 4940	6 013 359	VTE 18-3 F 4940	6 013 368
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 4812	6 013 342	VTE 18-4 P 4812	6 013 351	VTE 18-4 N 4912	6 013 360	VTE 18-4 P 4912	6 013 369
	M 12 plug, 4-pin	VTE 18-4 N 4840	6 013 344	VTE 18-4 P 4840	6 013 353	VTE 18-4 N 4940	6 013 362	VTE 18-4 P 4940	6 013 371

Operating distance and function reserve



1	Scanning range on white, 90 % remission
2	Scanning range on black, 6 % remission

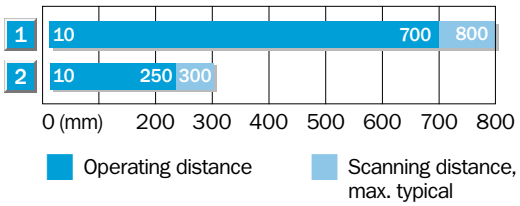


Scanning distance 10…800 mm

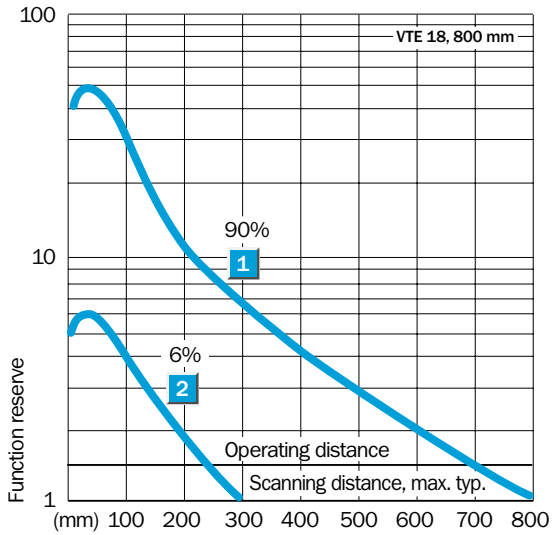
VTE 18-3, VTE 18-4 selection table, photoelectric proximity switch, energetic

Switching mode	Connection type	Without sensitivity control: NPN output Type	Part no.	Without sensitivity control: PNP output Type	Part no.	With sensitivity control: NPN output Type	Part no.	With sensitivity control: PNP output Type	Part no.
Housing material: metal									
Optical axis: axial									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 8112	6 013 084	VTE 18-3 P 8112	6 013 093	VTE 18-3 N 8212	6 013 102	VTE 18-3 P 8212	6 013 111
	M 12 plug, 4-pin	VTE 18-3 N 8140	6 013 086	VTE 18-3 P 8140	6 013 095	VTE 18-3 N 8240	6 013 104	VTE 18-3 P 8240	6 013 113
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 8112	6 013 087	VTE 18-3 F 8112	6 013 096	VTE 18-3 E 8212	6 013 105	VTE 18-3 F 8212	6 013 114
	M 12 plug, 4-pin	VTE 18-3 E 8140	6 013 089	VTE 18-3 F 8140	6 013 098	VTE 18-3 E 8240	6 013 107	VTE 18-3 F 8240	6 013 116
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 8112	6 013 090	VTE 18-4 P 8112	6 013 099	VTE 18-4 N 8212	6 013 108	VTE 18-4 P 8212	6 013 117
	M 12 plug, 4-pin	VTE 18-4 N 8140	6 013 092	VTE 18-4 P 8140	6 013 101	VTE 18-4 N 8240	6 013 110	VTE 18-4 P 8240	6 013 119
Optical axis: 90°									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 8312	6 013 120	VTE 18-3 P 8312	6 013 129	VTE 18-3 N 8412	6 013 138	VTE 18-3 P 8412	6 013 147
	M 12 plug, 4-pin	VTE 18-3 N 8340	6 013 122	VTE 18-3 P 8340	6 013 131	VTE 18-3 N 8440	6 013 140	VTE 18-3 P 8440	6 013 149
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 8312	6 013 123	VTE 18-3 F 8312	6 013 132	VTE 18-3 E 8412	6 013 141	VTE 18-3 F 8412	6 013 150
	M 12 plug, 4-pin	VTE 18-3 E 8340	6 013 125	VTE 18-3 F 8340	6 013 134	VTE 18-3 E 8440	6 013 143	VTE 18-3 F 8440	6 013 152
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 8312	6 013 126	VTE 18-4 P 8312	6 013 135	VTE 18-4 N 8412	6 013 144	VTE 18-4 P 8412	6 013 153
	M 12 plug, 4-pin	VTE 18-4 N 8340	6 013 128	VTE 18-4 P 8340	6 013 137	VTE 18-4 N 8440	6 013 146	VTE 18-4 P 8440	6 013 155
Housing material: plastic									
Optical axis: axial									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 8612	6 013 156	VTE 18-3 P 8612	6 013 165	VTE 18-3 N 8712	6 013 174	VTE 18-3 P 8712	6 013 183
	M 12 plug, 4-pin	VTE 18-3 N 8640	6 013 158	VTE 18-3 P 8640	6 013 167	VTE 18-3 N 8740	6 013 176	VTE 18-3 P 8740	6 013 185
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 8612	6 013 159	VTE 18-3 F 8612	6 013 168	VTE 18-3 E 8712	6 013 177	VTE 18-3 F 8712	6 013 186
	M 12 plug, 4-pin	VTE 18-3 E 8640	6 013 161	VTE 18-3 F 8640	6 013 170	VTE 18-3 E 8740	6 013 179	VTE 18-3 F 8740	6 013 188
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 8612	6 013 162	VTE 18-4 P 8612	6 013 171	VTE 18-4 N 8712	6 013 180	VTE 18-4 P 8712	6 013 189
	M 12 plug, 4-pin	VTE 18-4 N 8640	6 013 164	VTE 18-4 P 8640	6 013 173	VTE 18-4 N 8740	6 013 182	VTE 18-4 P 8740	6 013 191
Optical axis: 90°									
3 wire									
VTE 18-3 Q = D.ON	Cable 2 m	VTE 18-3 N 8812	6 013 192	VTE 18-3 P 8812	6 013 201	VTE 18-3 N 8912	6 013 210	VTE 18-3 P 8912	6 013 219
	M 12 plug, 4-pin	VTE 18-3 N 8840	6 013 194	VTE 18-3 P 8840	6 013 203	VTE 18-3 N 8940	6 013 212	VTE 18-3 P 8940	6 013 221
VTE 18-3 Q = L.ON	Cable 2 m	VTE 18-3 E 8812	6 013 195	VTE 18-3 F 8812	6 013 204	VTE 18-3 E 8912	6 013 213	VTE 18-3 F 8912	6 013 222
	M 12 plug, 4-pin	VTE 18-3 E 8840	6 013 197	VTE 18-3 F 8840	6 013 206	VTE 18-3 E 8940	6 013 215	VTE 18-3 F 8940	6 013 224
4 wire, L/D control wire									
VTE 18-4 L.ON/D.ON	Cable 2 m	VTE 18-4 N 8812	6 013 198	VTE 18-4 P 8812	6 013 207	VTE 18-4 N 8912	6 013 216	VTE 18-4 P 8912	6 013 225
	M 12 plug, 4-pin	VTE 18-4 N 8840	6 013 200	VTE 18-4 P 8840	6 013 209	VTE 18-4 N 8940	6 013 218	VTE 18-4 P 8940	6 013 227

Operating distance and function reserve



1 Scanning range on white, 90 % remission
2 Scanning range on black, 6 % remission



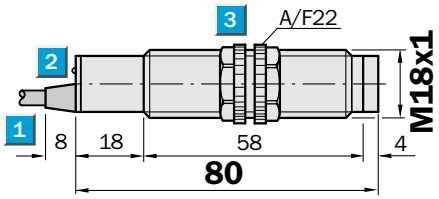
Scanning distance 100/200/400 mm

Photoelectric proximity switch

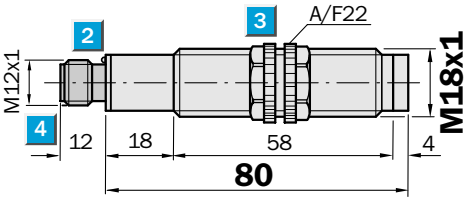
- Photoelectric proximity switch, energetic, 3 scanning ranges can be selected: 100 mm, 200 mm or 400 mm
- Voltage supply 20…253 V AC; triac switching output
- Cable or plug M 12, 4-pin

Dimensional drawing

VT 18-2T 1112
VT 18-2T 1132
VT 18-2T 1152



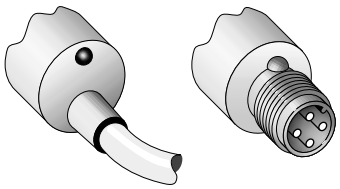
VT 18-2T 1410
VT 18-2T 1430
VT 18-2T 1450



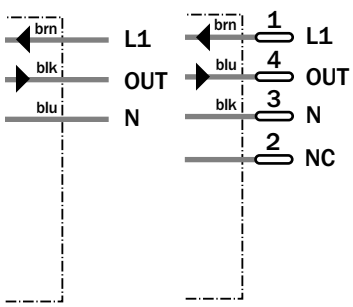
1 Connecting cable
2 Signal strength indicator
3 Fastening nuts, width across 22 mm, (included)
4 Equipment plug M 12, 4-pin

Connection types

VT 18-2T 1112 VT 18-2T 1132 VT 18-2T 1152	VT 18-2T 1410 VT 18-2T 1430 VT 18-2T 1450



3 x 0.34 mm²	4-pin, M 12



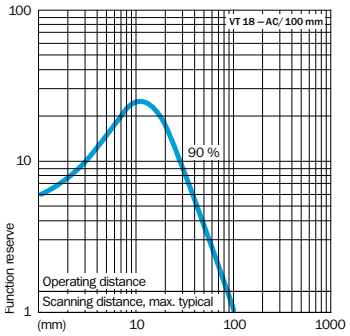
Accessories	page
Cable receptacle	496
Mounting brackets	510

Technical data	VT 18-2T	1112	1410	1132	1430	1152	1450
Housing	Straight	■	■	■	■	■	■
Scanning distance, max. typical	2 mm ... 100 mm[1]	■	■				
Recommended operating distance	3 mm ... 90 mm[1]	■	■				
Light source[2], light type	LED, infrared light	■	■				
Light spot diameter	Approx. 12 mm at 100 mm	■	■				
Angle of dispersion of sender	Approx. 3.5°	■	■				
Scanning distance, max. typical	2 mm ... 200 mm[1]			■	■		
Recommended operating distance	3 mm ... 180 mm[1]			■	■		
Light source[2], light type	LED, infrared light			■	■		
Light spot diameter	Approx. 24 mm at 200 mm			■	■		
Angle of dispersion of sender	Approx. 3.5°			■	■		
Scanning distance, max. typical	2 mm ... 400 mm[1]					■	■
Recommended operating distance	3 mm ... 360 mm[1]					■	■
Emetteur[2], type	LED, infrared light					■	■
Light spot diameter	Approx. 48 mm at 400 mm					■	■
Angle of dispersion of sender	Approx. 3.5°					■	■
Supply voltage V_S[3]	20 ... 253 V AC/50 ... 60 Hz	■	■	■	■	■	■
Current consumption[4]	≤ 30 mA	■	■	■	■	■	■
Switching output	TRIAC	■	■	■	■	■	■
Switching current I_A max.	5 ... 300 mA	■	■	■	■	■	■
voltage drop	3 V max. (U = 250 V AC)	■	■	■	■	■	■
max. switching current	6 A/10 ms; f = 10 Hz	■	■	■	■	■	■
leakage current	max. 1.5 mA (V_S = 250 V AC)	■	■	■	■	■	■
Switching voltage	V_S	■	■	■	■	■	■
Light receiver, switching mode	Light-switching	■	■	■	■	■	■
Response time[5]	≤ 20 ms	■	■	■	■	■	■
Max. switching frequency[6]	25/s	■	■	■	■	■	■
Connection types cable	PVC, 2 m[7]; 3 x 0.34 mm², ø 4.7 mm	■		■		■	
plug	M 12, 4-pin		■		■		■
VDE protection class[8]	⧈	■	■	■	■	■	■
Circuit protection[9]	C	■	■	■	■	■	■
Enclosure rating	IP 67	■	■	■	■	■	■
Ambient temperature T_A	– 25 °C...+ 70 °C	■	■	■	■	■	■
Weight with connection cable	Approx. 95 g	■		■		■	
with equipment plug	Approx. 30 g		■		■		■
Housing material	Housing: PBT/PC; optic: PMMA	■	■	■	■	■	■

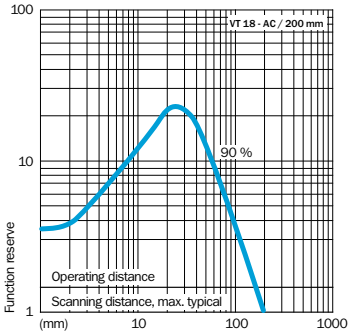
1) Object with 90 % reflectance (referred to standard white DIN 5033
2) Average service life 100,000 h at T_A = + 25 °C
3) Limit values
4) Without load
5) With resistive load
6) With light/dark ratio 1:1
7) Do not bend below 0 °C
8) Reference voltage 250 V AC
9) C = Interference suppression

Scanning distance

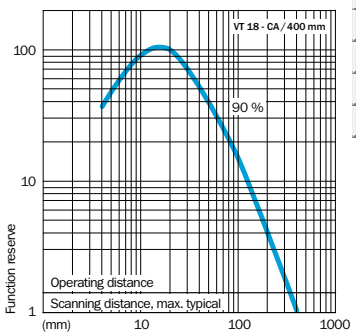
Scanning distance 100 mm



Scanning distance 200 mm



Scanning distance 400 mm



Order information

Type	Part no.
VT 18-2T 1112	6 011 370
VT 18-2T 1410	6 011 373
VT 18-2T 1132	6 011 371
VT 18-2T 1430	6 011 374
VT 18-2T 1152	6 011 372
VT 18-2T 1450	6 011 375