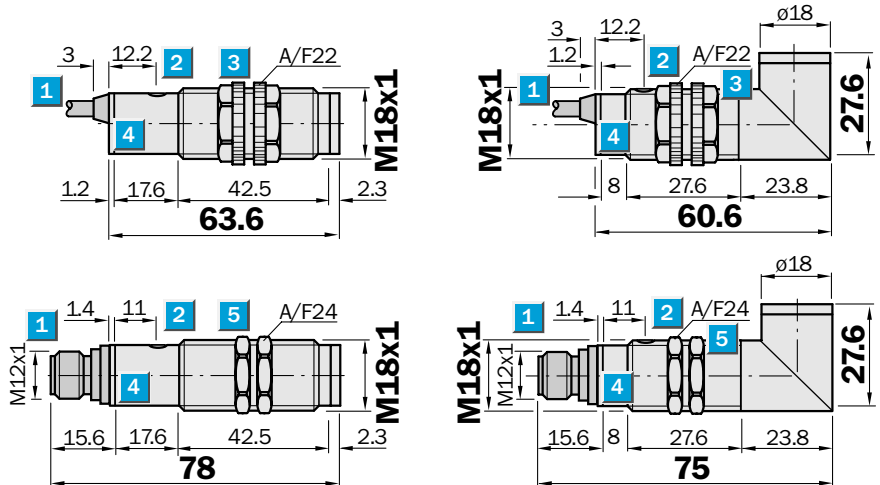


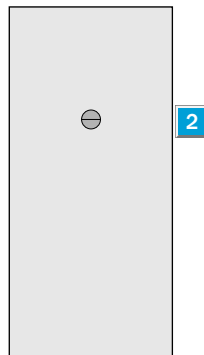
	<b>Scanning distance</b>
	3...200/5...400/ 10...800 mm
	<b>Photoelectric proximity switch</b>

- 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



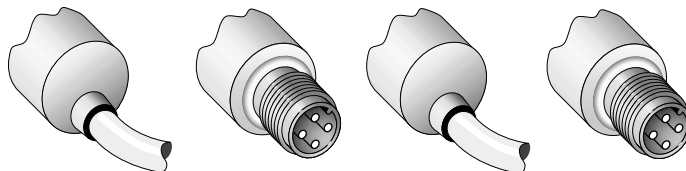
- 1** Connecting cable or plug
- 2** Sensitivity control
- 3** Fastening nut, width across 22 mm, made of plastic for equipment with plastic housing
- 4** Signal strength indicator, LED, yellow
- 5** Fastening nut, width across 24 mm, made of metal for equipment with metal housing



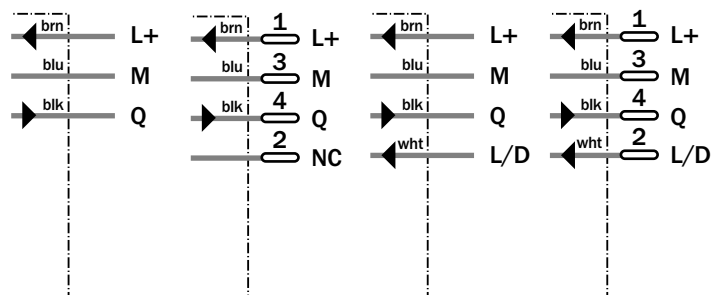
**Connection types**

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 mm <sup>2</sup>	4-pin, M 12	4 x 0.14 mm <sup>2</sup>	4-pin, M 12
--------------------------	-------------	--------------------------	-------------



<b>Accessories</b>	page
Cable receptacle	496
Reflectors	520



Technical data		VTE 18-	3x2...	4x2...	3x4...	4x4...	3x8...	4x8...				
<b>Housing</b>	Straight											
	Angled, 90°											
<b>VTE 18 Scanning distance 200 mm</b>												
<b>Scanning distance</b> , max. typical <sup>1)</sup>	3...200 mm											
<b>Scanning distance</b> <sup>1)</sup>	3...170 mm											
Light spot diameter	Approx. 10 mm at a dist. of 200 mm											
<b>VTE 18 Scanning distance 400 mm</b>												
<b>Scanning distance</b> , max. typical <sup>1)</sup>	5...400 mm											
<b>Scanning distance</b> <sup>1)</sup>	5...350 mm											
Light spot diameter	Approx. 20 mm at a dist. of 400 mm											
<b>VTE 18 Scanning distance 800 mm</b>												
<b>Scanning distance</b> , max. typical <sup>1)</sup>	10...800 mm											
<b>Scanning distance</b> <sup>1)</sup>	10...700 mm											
Light spot diameter	Approx. 40 mm at a dist. of 800 mm											
Sensitivity adjustable (optional)	Potentiometer 270°											
<b>Light source</b> <sup>2)</sup> , <b>light type</b>	LED, infrared light											
Angle of dispersion of sender	2.8°											
<b>Supply voltage V<sub>S</sub></b>	10...30 V DC <sup>3)</sup>											
Ripple <sup>4)</sup>	± 10 %											
Current consumption <sup>5)</sup>	≤ 30 mA											
<b>Switching outputs</b> (optional)	PNP/NPN; open collector: Q											
Switching mode	Q, light-/dark-switching											
	Q, light-switching											
via control wire L/D <sup>6)</sup>	Q, light-/dark-switching											
	+ V <sub>S</sub> = light-switching											
	0 V = dark-switching											
Output current I <sub>A</sub> max.	100 mA											
Response time <sup>7)</sup>	≤ 2 ms											
Max. switching frequency <sup>8)</sup>	250/s											
<b>Connection types</b>												
cable 2 m <sup>9)</sup>	PVC, 3 x 0.14 mm <sup>2</sup> , Ø 3.1 mm											
	PVC, 4 x 0.14 mm <sup>2</sup> , Ø 5 mm											
plug	4 pin, M 12											
<b>VDE protection class</b> <sup>10)</sup>	□											
<b>Circuit protection</b> <sup>11)</sup>	A, B, C, D											
<b>Enclosure rating</b>	IP 67											
<b>Ambient temperature T<sub>A</sub></b>	- 25 °C... + 70 °C											
<b>Weight</b>	metal housing	Approx. 120 g										
	plastic housing	Approx. 100 g										
<b>Housing material</b>												
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<sub>A</sub> = + 25 °C

3) Limit values

4) Must be within V<sub>S</sub> 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<sub>S</sub> 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)
Through-beam photoelectric switch (receiver only)
Through-beam photoelectric switch (sender and receiver)
Photoelectric reflex switch
Photoelectric proximity switch (F = focussed)
Photoelectric proximity switch (E = energetic)



VS
VE
VS/VE
VL
VTF
VTE

### 2 Size and series

Housing M 18 (V 18 Series)
----------------------------

18

### 3 Switching outputs and switching mode

Sender only VS (with test input)
3 line; Q = PNP, dark-switching (D.ON)
3 line; Q = PNP, light-switching (L.ON)
3 line; Q = NPN, dark-switching (D.ON)
3 line; Q = NPN, light-switching (L.ON)
4 line; Q = PNP, L.ON or D.ON selectable via control wire
4 line; Q = NPN, L.ON oder D.ON selectable via control wire

0D
3P
3F
3N
3E
4P
4N

### 4 Scanning range and light source

Sender VS: infrared light; Receiver VE for infrared light
Photoelectric reflex switch VL: red light and polarising filter
Photoelectric proximity switch VTF: scanning distance 50 mm, infrared light
Photoelectric proximity switch VTF: scanning distance 100 mm, infrared light
Photoelectric proximity switch VTE: scanning distance 200 mm, infrared light
Photoelectric proximity switch VTE: scanning distance 400 mm, infrared light
Photoelectric proximity switch VTE: scanning distance 800 mm, infrared light

3
5
1
2
4
8

### 5 Housing (material and form), sensitivity control

Metal, axial, without potentiometer
Metal, axial, with potentiometer
Metal, 90°, without potentiometer
Metal, 90°, with potentiometer
Plastic, axial, without potentiometer
Plastic, axial, with potentiometer
Plastic, 90°, without potentiometer
Plastic, 90°, with potentiometer

1
2
3
4
6
7
8
9

### 6 Connection type

Cable, 2 m
M 12 plug, 4-pin

12
40

## How to find your sensor

### 1 Example

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

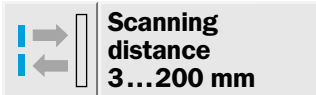
### 2 Define type



### 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				With sensitivity control			
NPN output		PNP output		NPN output		PNP output	
Type	Part no.	Type	Part no.	Type	Part no.	Type	Part no.

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m
	M 12 plug, 4-pin
<b>VTE 18-3</b> Q = L.ON	Cable 2 m
	M 12 plug, 4-pin

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m
	M 12 plug, 4-pin

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m
	M 12 plug, 4-pin
<b>VTE 18-3</b> Q = L.ON	Cable 2 m
	M 12 plug, 4-pin

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m
	M 12 plug, 4-pin

**Housing material: metal**

**Optical axis: axial**

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
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 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
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

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
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°**

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
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 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
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

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
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**

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
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 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
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

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
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°**

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
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 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
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

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
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

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m
	M 12 plug, 4-pin
<b>VTE 18-3</b> Q = L.ON	Cable 2 m
	M 12 plug, 4-pin

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m
	M 12 plug, 4-pin

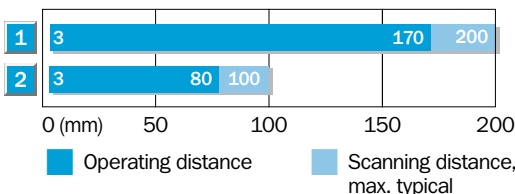
3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m
	M 12 plug, 4-pin
<b>VTE 18-3</b> Q = L.ON	Cable 2 m
	M 12 plug, 4-pin

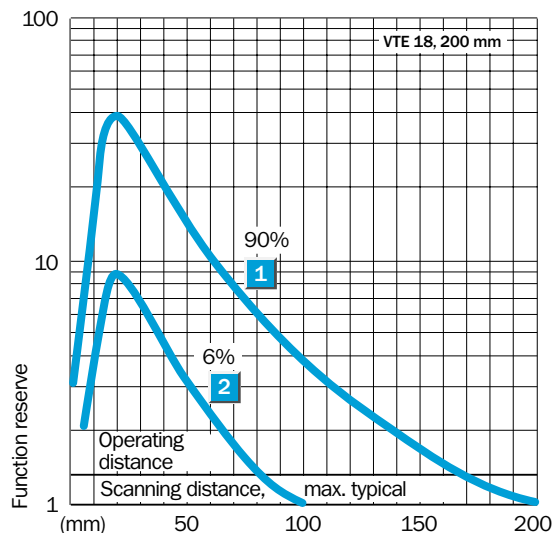
4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m
	M 12 plug, 4-pin

**Operating distance and function reserve**



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



# V 18 selection table



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

Switching mode	Connection type
----------------	-----------------

Without sensitivity control				With sensitivity control			
NPN output		PNP output		NPN output		PNP output	
Type	Part no.	Type	Part no.	Type	Part no.	Type	Part no.

### Housing material: metal

#### Optical axis: axial

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
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 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
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

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
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°

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
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 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
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

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
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

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
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 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
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

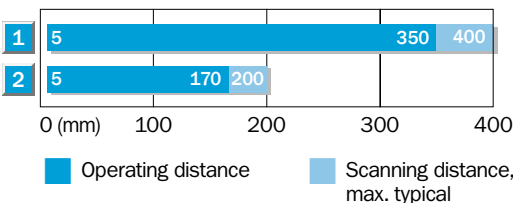
VTE 18-4 N 4612	6 013 306	VTE 18-4 P 4612	6 013 315	VTE 18-4 N 4712	6 013 324	VTE 18-4 P 4712	6 013 333
VTE 18-4 N 4640	6 013 308	VTE 18-4 P 4640	6 013 317	VTE 18-4 N 4740	6 013 326	VTE 18-4 P 4740	6 013 335

#### Optical axis: 90°

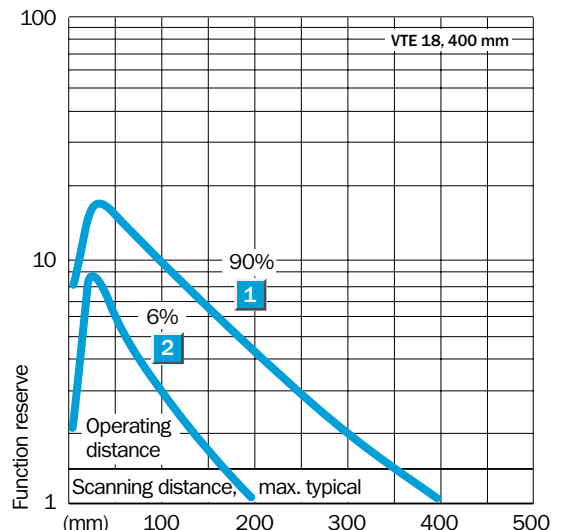
VTE 18-3 N 4812	6 013 336	VTE 18-3 P 4812	6 013 345	VTE 18-3 N 4912	6 013 354	VTE 18-3 P 4912	6 013 363
VTE 18-3 N 4840	6 013 338	VTE 18-3 P 4840	6 013 347	VTE 18-3 N 4940	6 013 356	VTE 18-3 P 4940	6 013 365
VTE 18-3 E 4812	6 013 339	VTE 18-3 F 4812	6 013 348	VTE 18-3 E 4912	6 013 357	VTE 18-3 F 4912	6 013 366
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

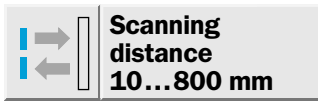
VTE 18-4 N 4812	6 013 342	VTE 18-4 P 4812	6 013 351	VTE 18-4 N 4912	6 013 360	VTE 18-4 P 4912	6 013 369
VTE 18-4 N 4840	6 013 344	VTE 18-4 P 4840	6 013 353	VTE 18-4 N 4940	6 013 362	VTE 18-4 P 4940	6 013 371

### Operating distance and function reserve



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





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

Switching mode	Connection type
----------------	-----------------

Without sensitivity control				With sensitivity control			
NPN output		PNP output		NPN output		PNP output	
Type	Part no.	Type	Part no.	Type	Part no.	Type	Part no.

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

<b>VTE 18-3</b> Q = L.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m M 12 plug, 4-pin
------------------------------	-------------------------------

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

<b>VTE 18-3</b> Q = L.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m M 12 plug, 4-pin
------------------------------	-------------------------------

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

<b>VTE 18-3</b> Q = L.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m M 12 plug, 4-pin
------------------------------	-------------------------------

3 wire

<b>VTE 18-3</b> Q = D.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

<b>VTE 18-3</b> Q = L.ON	Cable 2 m M 12 plug, 4-pin
-----------------------------	-------------------------------

4 wire, L/D control wire

<b>VTE 18-4</b> L.ON/D.ON	Cable 2 m M 12 plug, 4-pin
------------------------------	-------------------------------

**Housing material: metal**

**Optical axis: axial**

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
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 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
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

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

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°**

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
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 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
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

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

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**

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
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 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
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

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

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

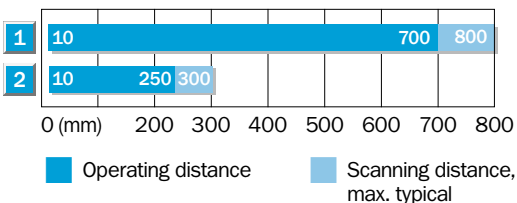
**Optical axis: 90°**

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
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 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
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

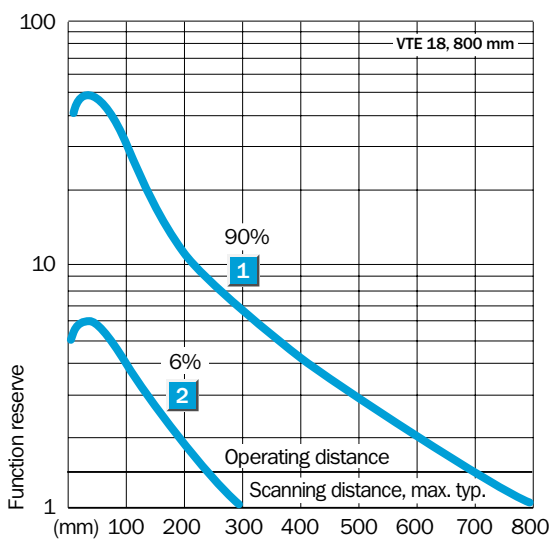
VTE 18-4 N 8812 6 013 198 VTE 18-4 P 8812 6 013 207 VTE 18-4 N 8912 6 013 216 VTE 18-4 P 8912 6 013 225


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



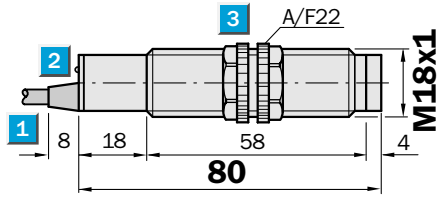
 **Scanning distance**  
100/200/400 mm

**Photoelectric proximity switch**

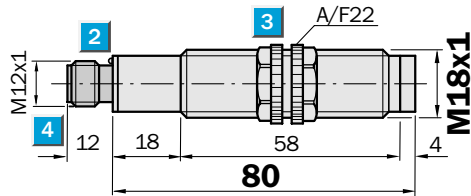
- Photoelectric proximity switch, energetic, 3 scanning ranges can be selected: 100 mm, 200 mm or 400 mm
- Voltage supply 20...253 V AC; triac switching output
- Cable or plug M 12, 4-pin

**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

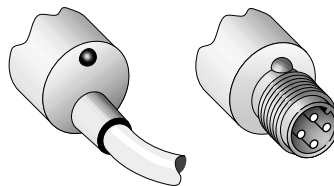


- 1** Connecting cable
- 2** Signal strength indicator
- 3** Fastening nuts, width across 22 mm, (included)
- 4** Equipment plug M 12, 4-pin



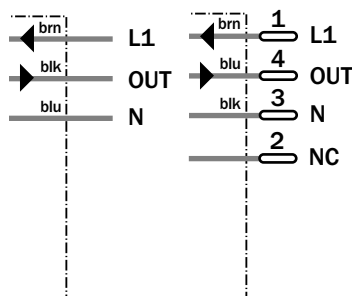
**Connection types**

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



Accessories	page
Cable receptacle	496
Mounting brackets	510

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

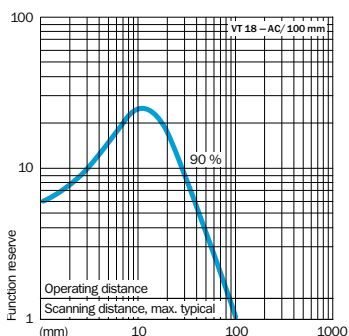
- 1) Object with 90 % reflectance (referred to standard white DIN 5033)
- 2) Average service life 100,000 h at T<sub>A</sub> = + 25 °C

- 3) Limit values
- 4) Without load
- 5) With resistive load
- 6) With light/dark ratio 1:1

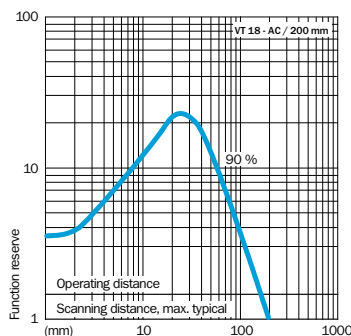
- 7) Do not bend below 0 °C
- 8) Reference voltage 250 V AC
- 9) C = Interference suppression

**Scanning distance**

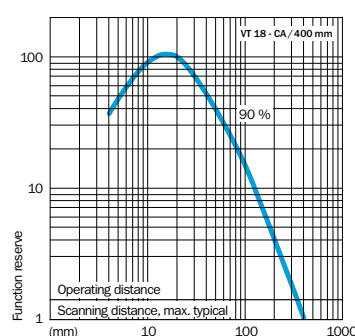
**Scanning distance 100 mm**



**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



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