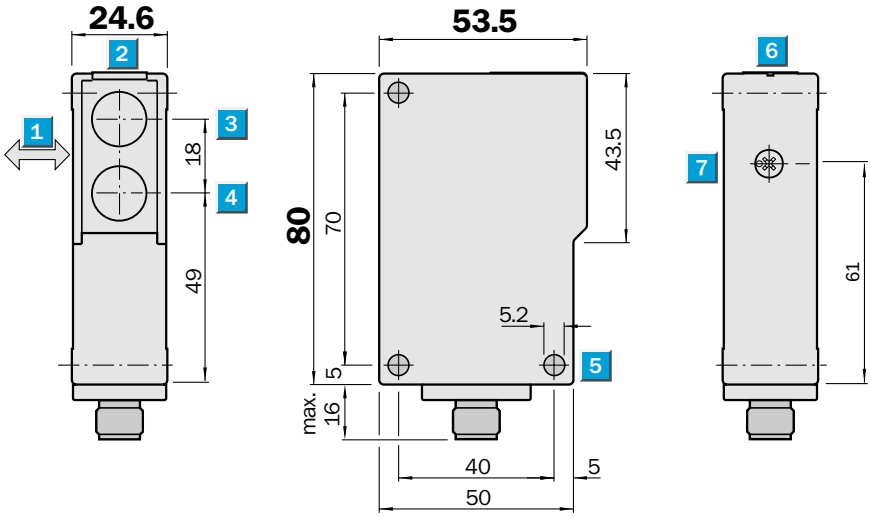
Scanning distance 30…1000 mm

Photoelectric proximity switches

- Infrared light
- Adjustable background blanking
- Low-cost sensor

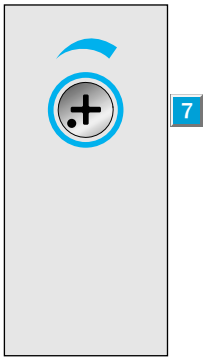
Accessories	page
Cable receptacles	496
Mounting brackets	510

Dimensional drawing



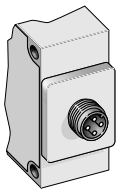
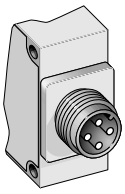
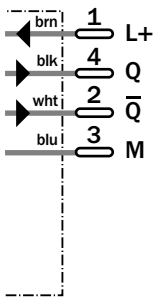
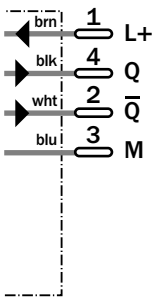
Adjustments possible

WT 23-F 420
WT 23-F 421



1 Standard direction of the material being scanned
2 Status indicator
3 Centre of optical axis, sender
4 Centre of optical axis, receiver
5 Mounting hole ø 5.2 mm
6 Alignment sight
7 Sensitivity adjustment

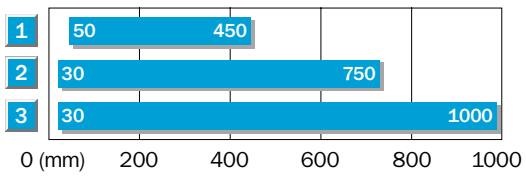
Connection types

WT 23-F 420	WT 23-F 421
	
4-pin, M 12	4-pin, M 18
	

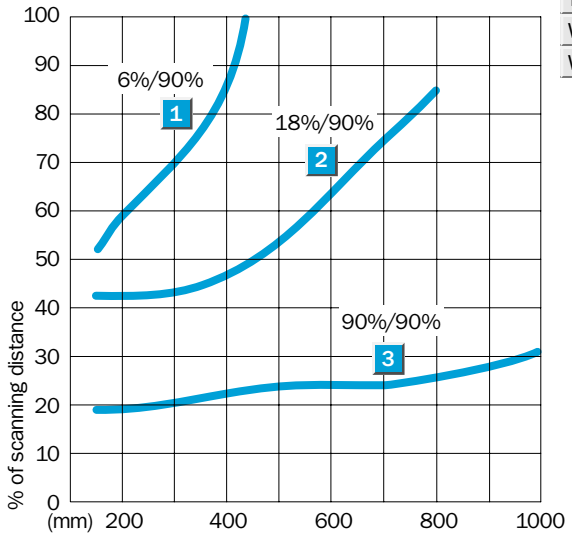
Technical data	WT 23-	F 420	F 421
Scanning distance	30…1000 mm, adjustable		
Light source[1], **light type**	LED, infrared light		
Light spot diameter	30 mm at 800 mm		
Supply voltage V_S	12…24 V DC[2]		
Ripple[3]	≤ 5 V_{SS}		
Current consumption[4]	≤ 30 mA		
Switching outputs	PNP, Q and $\overline{Q}$		
Output current I_A max.	100 mA		
Response time[5]	2.5 ms		
Max. switching frequency[6]	200/s		
Connection types	Plug, M 12, 4-pin		
	Plug, M 18, 4-pin		
VDE protection class[7]	⧈		
Circuit protection[8]	A, B, C		
Enclosure rating	IP 65		
Ambient temperature T_A	Operation – 25 °C…+ 60 °C		
	Storage – 40 °C…+ 70 °C		
Weight	Approx. 120 g		
Housing material	ABS		

1) Average service life 100,000 h at T_A = + 25 °C
2) Limit values
3) May not exceed or fall short of V_S tolerances
4) Without load
5) Signal transit time with resistive load
6) With light/dark ratio 1:1
7) Withstand voltage 50 V DC
8) A = V_S connections reverse-polarity protected
B = Output Q and $\overline{Q}$ short-circuit protected
C = Interference pulse suppression

Scanning distance



1	Scanning distance on black, 6 % remission
2	Scanning distance on grey, 18 % remission
3	Scanning distance on white, 90 % remission



Order information

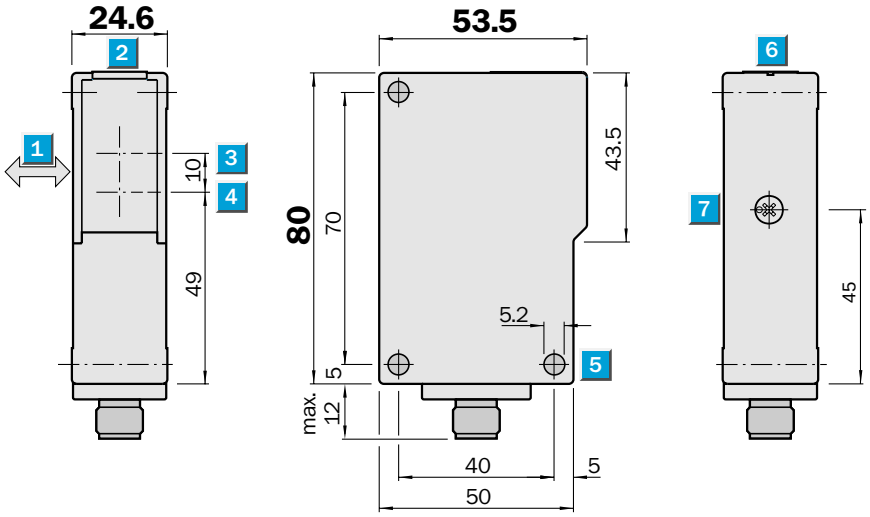
Type	Part no.
WT 23-F 420	1 016 667
WT 23-F 421	1 016 666

Scanning distance 300…2000 mm

Photoelectric proximity switches

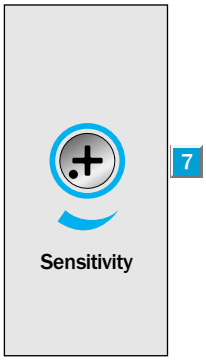
- Infrared light
- Adjustable energetic photoelectric proximity switch
- Low-cost sensor

Dimensional drawing



Adjustments possible

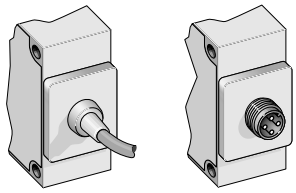
WT 23-F 410
WT 23-S 112



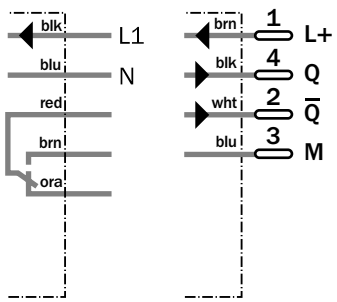
1 Standard direction of the material being scanned
2 Status indicator
3 Centre of optical axis, sender
4 Centre of optical axis, receiver
5 Mounting hole ø 5.2 mm
6 Alignment sight
7 Sensitivity adjustment

Connection types

WT 23-S 112 | WT 23-F 410



5 x 0.25 mm² | 4-pin, M 12

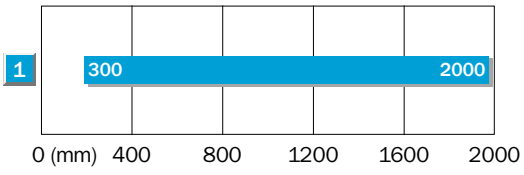


Accessories	page
Cable receptacles	496
Mounting brackets	510

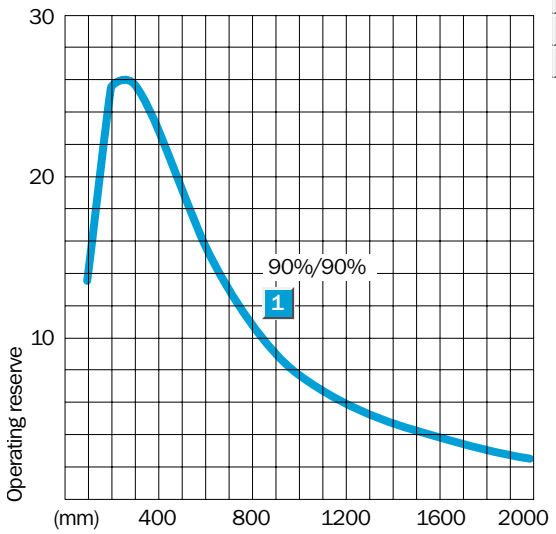
Technical data	WT 23-	F 410	S 112
Scanning distance	300…2000 mm, adjustable	■	■
Light source[1], **light type**	LED, infrared light	■	■
Light spot diameter	200 mm at 2000 mm	■	■
Supply voltage V_S	12…24 V DC[2]	■	
	90…265 V AC[2]		■
Ripple[3]	≤ 5 V_{SS}	■	
Current consumption[4]	≤ 25 mA	■	
Power consumption	< 2 VA		■
Switching outputs	PNP, Q and $\overline{Q}$	■	
	Relay SPDT[5]		■
Output current I_A max.	100 mA	■	
Max. switching voltage	90…265 V AC		■
Switching current	2.5 A		■
Max. switching capacity	150 VA		■
Response time[6]	2.5 ms	■	
	6 ms		■
Max. switching frequency[7]	250 Hz	■	
	10/s		■
Connection types	Cable[8], 2 m		■
	Plug, M 12, 4-pin	■	
VDE protection class[9]	⧈	■	■
Circuit protection[10]	A, B, C	■	■
Enclosure rating	IP 65	■	■
Ambient temperature T_A	Operation – 25 °C…+ 60 °C	■	■
	Storage – 40 °C…+ 70 °C	■	■
Weight	Approx. 100 g	■	
	Approx. 180 g		■
Housing material	ABS	■	■

1) Average service life 100,000 h at T_A = + 25 °C
2) Limit values
3) May not exceed or fall short of V_S tolerances
4) Without load
5) Provide suitable spark suppression for inductive or capacitive loads
6) Signal transit time with resistive load
7) With light/dark ratio 1:1
8) Do not bend below 0 °C
9) Reference voltage 50 V DC, 250 V AC
10) A = V_S connections reverse-polarity protected
B = Output Q and $\overline{Q}$ short-circuit protected
C = Interference pulse suppression

Scanning distance



1 Scanning distance on white, 90 % remission



Order information

Type	Part no.
WT 23-F 410	1 015 925
WT 23-S 112	1 016 249