



Z sensor

Variety in a miniature size,
for standard short range applications

The Z sensor is a miniature photoelectric sensor with basic functions packed into different housings, which can be optimized for customer demands. Standard applications reside in the short range.

Examples of applications are conveyor systems, vending machines, automated garment handling, packaging lines, or other simple on/off applications. The Z sensor does not have adjustment possibilities or additional functions which is common in other SICK devices. However, these features are not necessary for simple on/off applications, the Z sensor is also economically attractive.

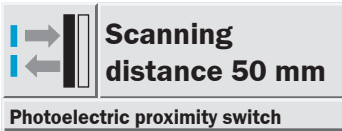
The integrated ASIC-technology "made by SICK" guarantees the best optical performance. Background suppression (50 mm fixed) and cross-talk immunity are just two of many highlights.

155 mm scanning range in an energetic switch and 5 m scanning range in a reflex type, these are impressive sensing ranges for a sensor which is not much bigger than a fingertip.

The possibility to integrate the optical and electronic elements into different housings, leads to a multifunctional use of the Z sensor.

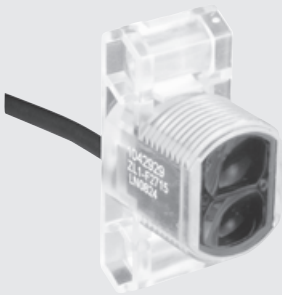
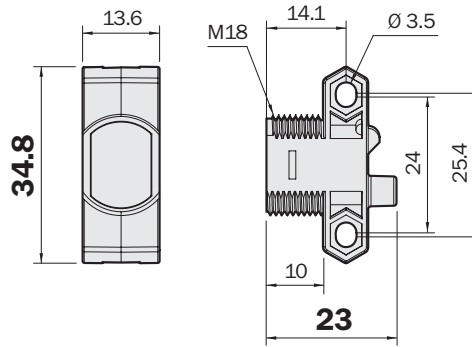
The Z1 and Z2 models come with integrated M18 threads and additional mounting holes for conventional mounting (24 - 25.4 mm flange mount). The Z3 model, or the "Eyeball", can be aligned in any direction, just like the human eye.

Finally, the Z sensor delights with its transparent design. And this is not just for the looks, it also serves an important function: It makes the indicator LED visible from any direction (360° around the sensor).



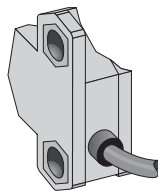
- Background suppression
- Infrared light
- Clear housing for perfect indicator LED visibility
- 18 mm front and flange mounting possibility
- Output indicator

Dimensional drawing

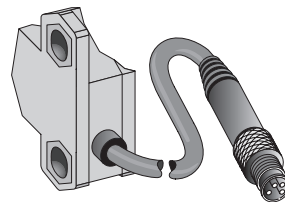
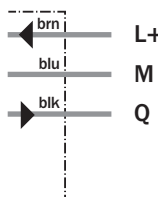


Connection type

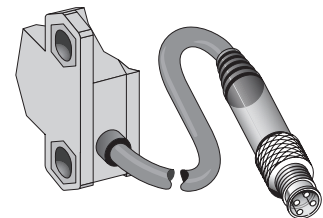
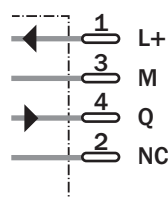
ZT1-N3215	ZT1-N3231	ZT1-N3221
ZT1-P3215	ZT1-P3231	ZT1-P3221
ZT1-F3215		
ZT1-E3215		



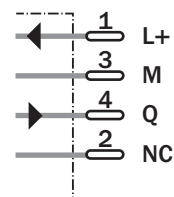
3 x 0.23 mm²



M8, 4-pin



M12, 4-pin



Accessories
Reflectors
Mounting systems

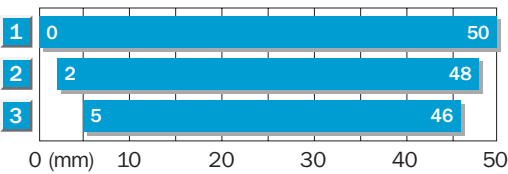
Technical data		ZT1-	N3215	P3215	F3215	E3215	N3221	P3221	N3231	P3231
Scanning distance typ.	0 ... 50 mm									
Light source ¹⁾, light type	LED, infrared light, 880 nm									
Light spot diameter	Approx. 10.5 mm at 50 mm									
Supply voltage V_S ²⁾	10 ... 30 V DC									
Ripple ³⁾	< 5 V_{PP}									
Current consumption ⁴⁾	< 20 mA									
Switching outputs	Q: NPN									
	Q: PNP									
Switching mode	Light switching									
	Dark switching									
Output current I_A max.	50 mA									
Switching frequency ⁵⁾	200 Hz									
Connection type	Cable (PVC), 2 m, 3-wire									
	Cable with plug 150 mm, M8, 4-pin									
	Cable with plug 150 mm, M12, 4-pin									
VDE protection class ⁶⁾	⊕									
Circuit protection ⁷⁾	A, D									
Enclosure rating	IP 67									
Ambient temperature	Operation -25 ... +50 °C									
	Storage -40 ... +70 °C									
Housing material	ABS, fibreglass reinforced									
Included with delivery	Mounting nut M18									

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) With light/dark ratio 1:1
 6) Reference voltage 50 V DC

7) A = V_S connections reverse-polarity protected
 D = Outputs overcurrent and short-circuit protected

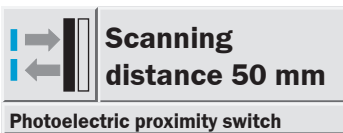
Scanning distance



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

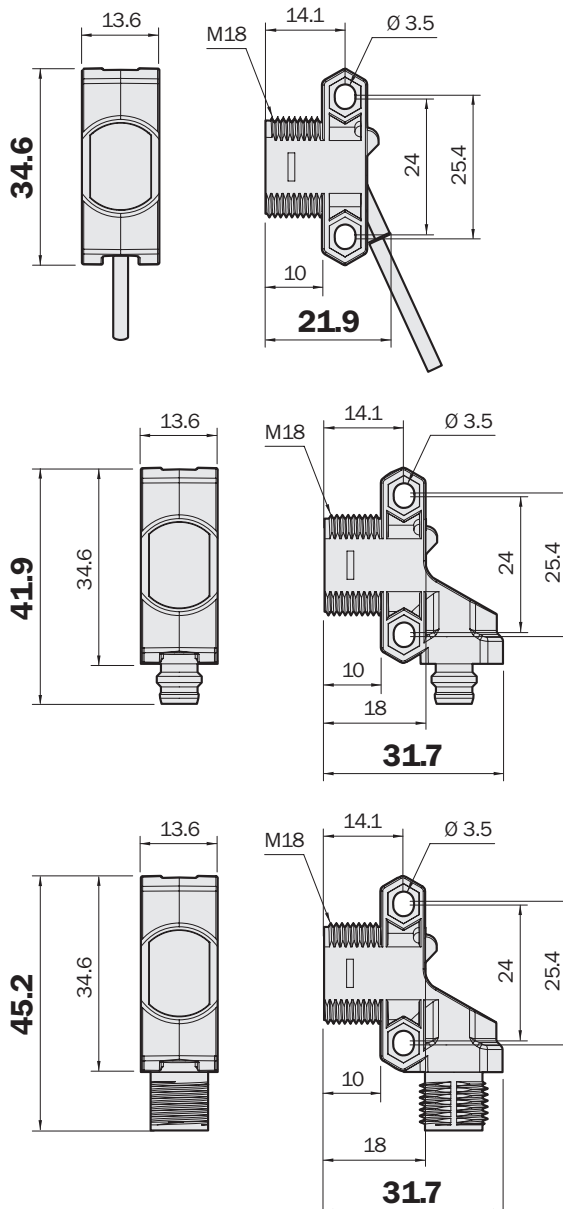
Order information

Type	Order no.
ZT1-N3215	1045562
ZT1-P3215	1045563
ZT1-F3215	1045564
ZT1-E3215	1045565
ZT1-N3221	1045578
ZT1-P3221	1045579
ZT1-N3231	1045594
ZT1-P3231	1045595



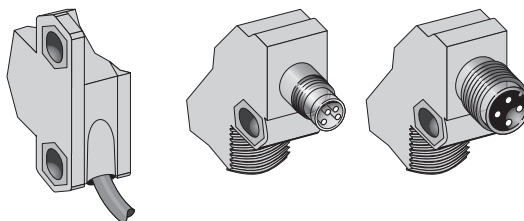
- Background suppression
- Infrared light
- Clear housing for perfect indicator LED visibility
- 18 mm front and flange mounting possibility
- Output indicator

Dimensional drawing



Connection type

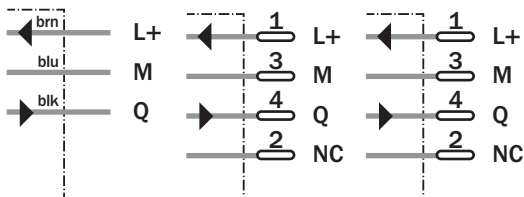
ZT2-N3215	ZT2-N3238	ZT2-N3228
ZT2-P3215	ZT2-P3238	ZT2-P3228



3 x 0.23 mm²

M8, 4-pin

M12, 4-pin

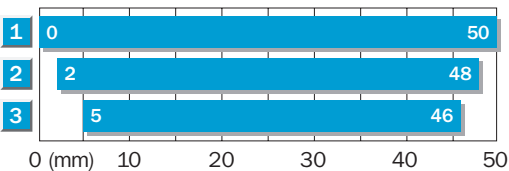


Accessories
Reflectors
Mounting systems

Technical data		ZT2-	N3215	P3215	N3238	P3238	N3228	P3228				
Scanning distance typ.	0 ... 50 mm											
Light source ¹⁾, light type	LED, infrared light, 880 nm											
Light spot diameter	Approx. 10.5 mm at 50 mm											
Supply voltage V_S ²⁾	10 ... 30 V DC											
Ripple ³⁾	< 5 V _{pp}											
Current consumption ⁴⁾	< 20 mA											
Switching outputs	Q: NPN											
	Q: PNP											
Switching mode	Light switching											
Output current I_A max.	50 mA											
Switching frequency ⁵⁾	200 Hz											
Connection type	Cable (PVC), 2 m, 3-wire											
	M8 plug, 4-pin											
	M12 plug, 4-pin											
VDE protection class ⁶⁾	⊕											
Circuit protection ⁷⁾	A, D											
Enclosure rating	IP 67											
Ambient temperature	Operation -25 ... +50 °C											
	Storage -40 ... +70 °C											
Housing material	ABS, fibreglass reinforced											
Included with delivery	Mounting nut M18											

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⁾ With light/dark ratio 1:1
⁶⁾ Reference voltage 50 V DC
⁷⁾ A = V_S connections reverse-polarity protected
D = Outputs overcurrent and short-circuit protected

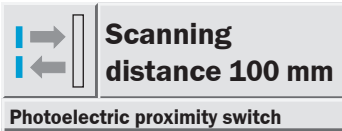
Scanning distance



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

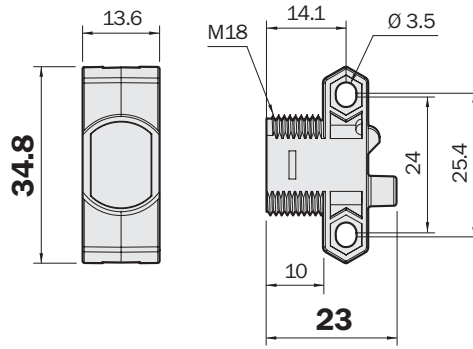
Order information

Type	Order no.
ZT2-N3215	1045407
ZT2-P3215	1045408
ZT2-N3238	1045488
ZT2-P3238	1045489
ZT2-N3228	1045472
ZT2-P3228	1045473



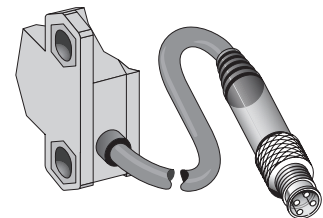
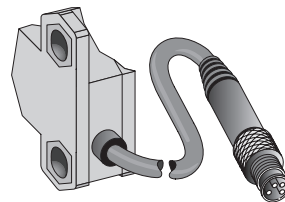
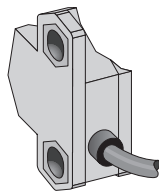
- Energetic type
- Infrared light
- Clear housing for perfect indicator LED visibility
- 18 mm front and flange mounting possibility
- Output indicator

Dimensional drawing



Connection type

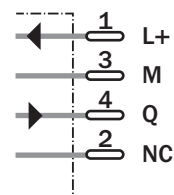
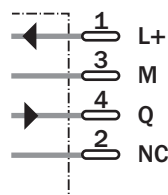
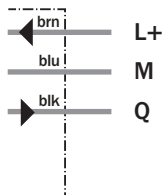
ZT1-N4215	ZT1-N4231	ZT1-N4221
ZT1-P4215	ZT1-P4231	ZT1-P4221
ZT1-F4215		
ZT1-E4215		



3 x 0.23 mm²

M8, 4-pin

M12, 4-pin



Accessories

Reflectors
Mounting systems

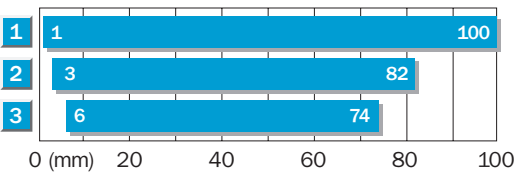
Technical data		ZT1-	N4215	P4215	F4215	E4215	N4221	P4221	N4231	P4231
Scanning distance typ.	1 ... 100 mm									
Light source ⁴⁾, light type	LED, infrared light, 880 nm									
Light spot diameter	Approx. 20 mm at 100 mm									
Supply voltage V_S ²⁾	10 ... 30 V DC									
Ripple ³⁾	< 5 V _{PP}									
Current consumption ⁴⁾	< 20 mA									
Switching outputs	Q: NPN									
	Q: PNP									
Switching mode	Light switching									
	Dark switching									
Output current I_A max.	50 mA									
Switching frequency ⁵⁾	200 Hz									
Connection type	Cable (PVC), 2 m, 3-wire									
	Cable with plug 150 mm, M8, 4-pin									
	Cable with plug 150 mm, M12, 4-pin									
VDE protection class ⁶⁾	⊕									
Circuit protection ⁷⁾	A, D									
Enclosure rating	IP 67									
Ambient temperature	Operation -25 ... +50 °C									
	Storage -40 ... +70 °C									
Housing material	ABS, fibreglass reinforced									
Included with delivery	Mounting nut M18									

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) With light/dark ratio 1:1
 6) Reference voltage 50 V DC

7) A = V_S connections reverse-polarity protected
 D = Outputs overcurrent and short-circuit protected


Scanning distance



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

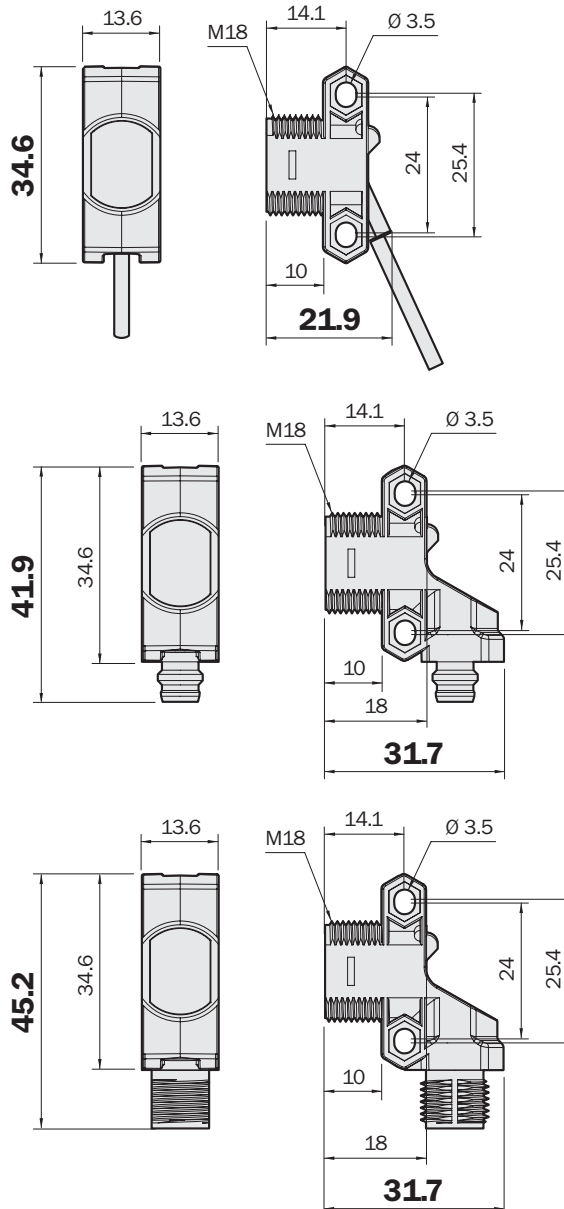
Order information

Type	Order no.
ZT1-N4215	1045566
ZT1-P4215	1045567
ZT1-F4215	1045568
ZT1-E4215	1045569
ZT1-N4221	1045582
ZT1-P4221	1045583
ZT1-N4231	1045598
ZT1-P4231	1045599


Scanning distance 100 mm
 Photoelectric proximity switch

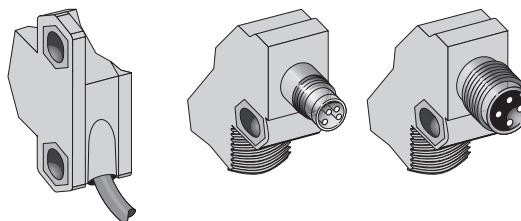
- Energetic type
- Infrared light
- Clear housing for perfect indicator LED visibility
- 18 mm front and flange mounting possibility
- Output indicator

Dimensional drawing



Connection type

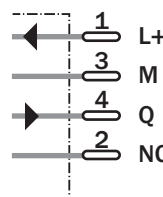
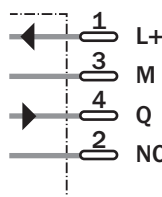
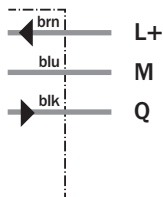
ZT2-N4215	ZT2-N4238	ZT2-N4228
ZT2-P4215	ZT2-P4238	ZT2-P4228



3 x 0.23 mm²

M8, 4-pin

M12, 4-pin



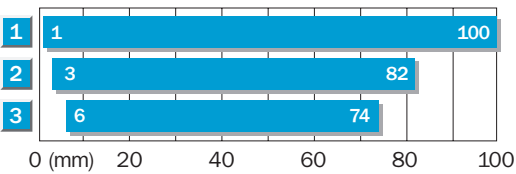
Accessories

Reflectors
Mounting systems

Technical data		ZT2-	N4215	P4215	N4238	P4238	N4228	P4228				
Scanning distance typ.	1 ... 100 mm											
Light source ¹⁾, light type	LED, infrared light, 880 nm											
Light spot diameter	Approx. 20 mm at 100 mm											
Supply voltage V_S ²⁾	DC 10 ... 30 V											
Ripple ³⁾	< 5 V _{PP}											
Current consumption ⁴⁾	< 20 mA											
Switching outputs	Q: NPN											
	Q: PNP											
Switching mode	Light switching											
Output current I_A max.	50 mA											
Switching frequency ⁵⁾	200 Hz											
Connection type	Cable (PVC), 2 m, 3-wire											
	M8 plug, 4-pin											
	M12 plug, 4-pin											
VDE protection class ⁶⁾	⊕											
Circuit protection ⁷⁾	A, D											
Enclosure rating	IP 67											
Ambient temperature	Operation -25 ... +50 °C											
	Storage -40 ... +70 °C											
Housing material	ABS, fibreglass reinforced											
Included with delivery	Mounting nut M18											

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⁾ With light/dark ratio 1:1
⁶⁾ Reference voltage 50 V DC
⁷⁾ A = V_S connections reverse-polarity protected
D = Outputs overcurrent and short-circuit protected

Scanning distance



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

Order information

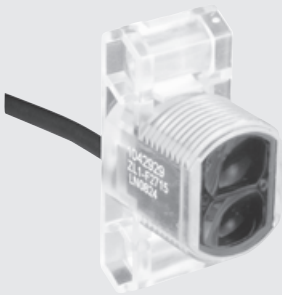
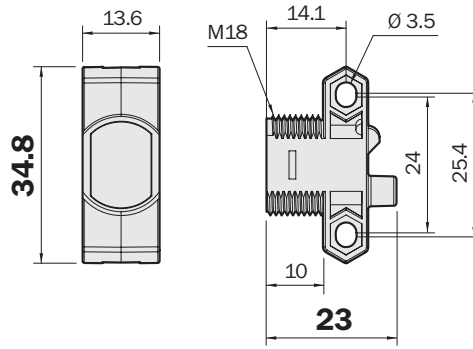
Type	Order no.
ZT2-N4215	1045411
ZT2-P4215	1045412
ZT2-N4238	1045492
ZT2-P4238	1045493
ZT2-N4228	1045476
ZT2-P4228	1045477

Scanning distance 155 mm

Photoelectric proximity switch

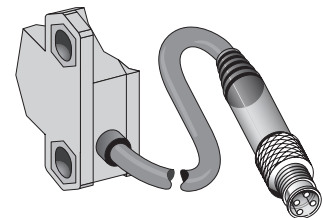
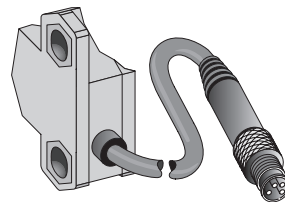
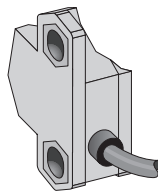
- Energetic type with V-optic
- Infrared light
- Clear housing for perfect indicator LED visibility
- 18 mm front and flange mounting possibility
- Power and output indicator

Dimensional drawing



Connection type

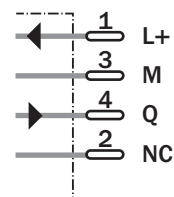
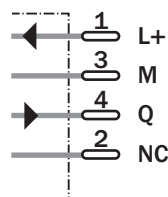
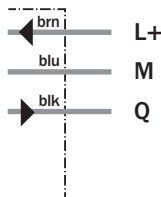
ZT1-N5215	ZT1-N5231	ZT1-N5221
ZT1-P5215	ZT1-P5231	ZT1-P5221
ZT1-F5215		
ZT1-E5215		



3 x 0.23 mm²

M8, 4-pin

M12, 4-pin



Accessories

- Reflectors
- Mounting systems

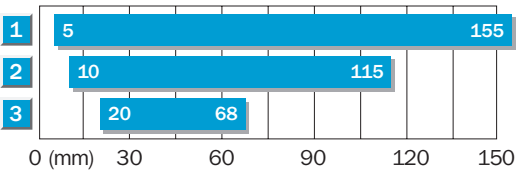
Technical data		ZT1-	N5215	P5215	F5215	E5215	N5221	P5221	N5231	P5231
Scanning distance typ.	5 ... 155 mm									
Light source ⁴⁾, light type	LED, infrared light, 880 nm									
Light spot diameter	Approx. 31 mm at 100 mm									
Supply voltage V_S ²⁾	10 ... 30 V DC									
Ripple ³⁾	< 5 V_{PP}									
Current consumption ⁴⁾	< 20 mA									
Switching outputs	Q: NPN									
	Q: PNP									
Switching mode	Light switching									
	Dark switching									
Output current I_A max.	50 mA									
Switching frequency ⁵⁾	200 Hz									
Connection type	Cable (PVC), 2 m, 3-wire									
	Cable with plug 150 mm, M8, 4-pin									
	Cable with plug 150 mm, M12, 4-pin									
VDE protection class ⁶⁾	⊕									
Circuit protection ⁷⁾	A, D									
Enclosure rating	IP 67									
Ambient temperature	Operation -25 ... +50 °C									
	Storage -40 ... +70 °C									
Housing material	ABS, fibreglass reinforced									
Included with delivery	Mounting nut M18									

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) With light/dark ratio 1:1
 6) Reference voltage 50 V DC

7) A = V_S connections reverse-polarity protected
 D = Outputs overcurrent and short-circuit protected


Scanning distance



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

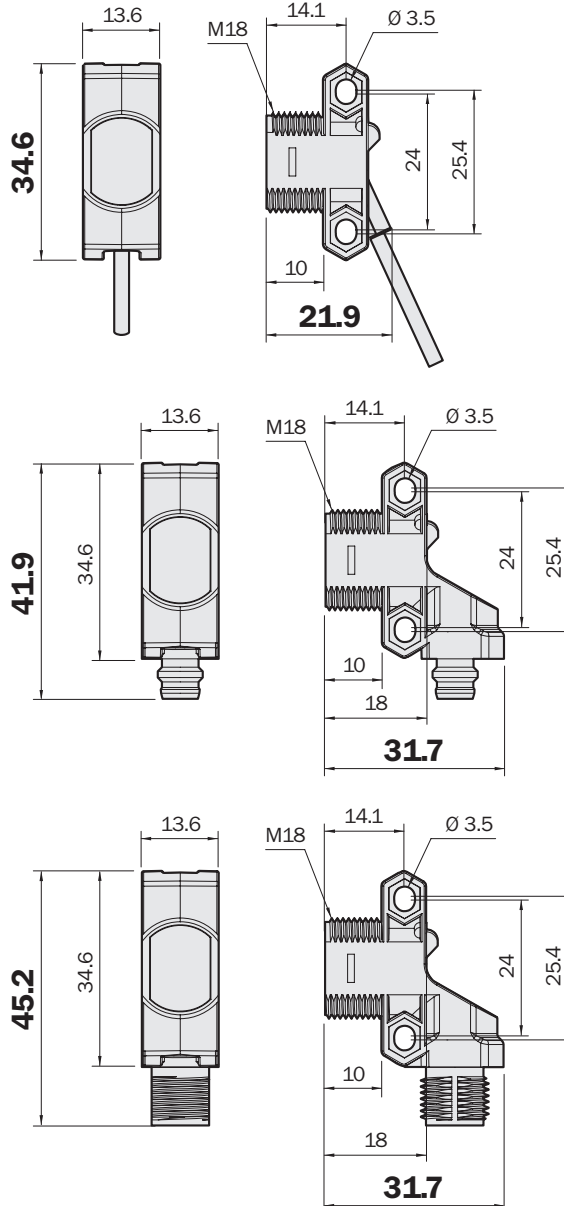
Order information

Type	Order no.
ZT1-N5215	1045558
ZT1-P5215	1045559
ZT1-F5215	1045560
ZT1-E5215	1045561
ZT1-N5221	1045574
ZT1-P5221	1045575
ZT1-N5231	1045590
ZT1-P5231	1045591


Scanning distance 155 mm
 Photoelectric proximity switch

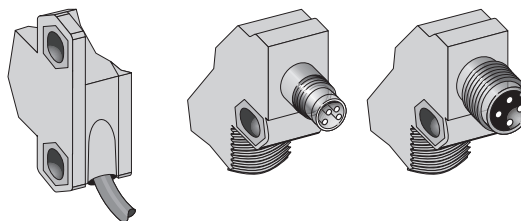
- Energetic type with V-optic
- Infrared light
- Clear housing for perfect indicator LED visibility
- 18 mm front and flange mounting possibility
- Power and output indicator

Dimensional drawing



Connection type

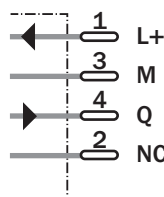
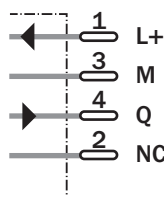
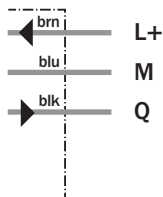
ZT2-N5215	ZT2-N5238	ZT2-N5228
ZT2-P5215	ZT2-P5238	ZT2-P5228



3 x 0.23 mm²

M8, 4-pin

M12, 4-pin



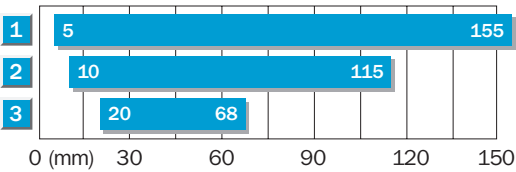
Accessories

Reflectors
Mounting systems

Technical data		ZT2-	N5215	P5215	N5238	P5238	N5228	P5228				
Scanning distance typ.	5 ... 155 mm											
Light source ¹⁾, light type	LED, infrared light, 880 nm											
Light spot diameter	Approx. 31 mm at 100 mm											
Supply voltage V_S ²⁾	10 ... 30 V DC											
Ripple ³⁾	< 5 V _{PP}											
Current consumption ⁴⁾	< 20 mA											
Switching outputs	Q: NPN											
	Q: PNP											
Switching mode	Light switching											
Output current I_A max.	50 mA											
Switching frequency ⁵⁾	200 Hz											
Connection type	Cable (PVC), 2 m, 3-wire											
	M8 plug, 4-pin											
	M12 plug, 4-pin											
VDE protection class ⁶⁾	⊕											
Circuit protection ⁷⁾	A, D											
Enclosure rating	IP 67											
Ambient temperature	Operation -25 ... +50 °C											
	Storage -40 ... +70 °C											
Housing material	ABS, fibreglass reinforced											
Included with delivery	Mounting nut M18											

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⁾ With light/dark ratio 1:1
⁶⁾ Reference voltage 50 V DC
⁷⁾ A = V_S connections reverse-polarity protected
D = Outputs overcurrent and short-circuit protected


Scanning distance



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

Order information

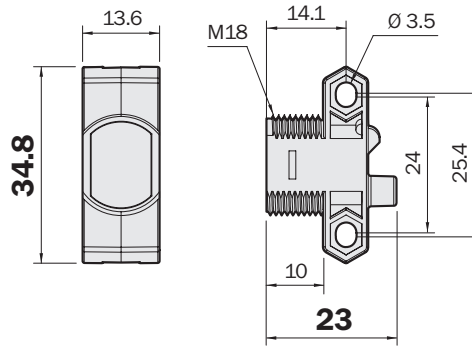
Type	Order no.
ZT2-N5215	1045403
ZT2-P5215	1045404
ZT2-N5238	1045484
ZT2-P5238	1045485
ZT2-N5228	1045468
ZT2-P5228	1045469


Scanning range
0.1 ... 4.8 m

Photoelectric reflex switch

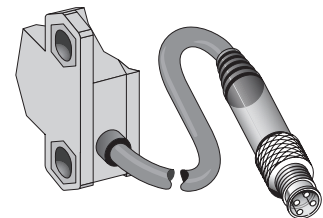
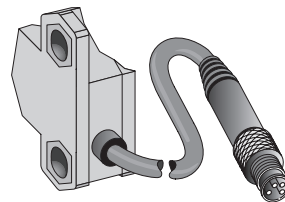
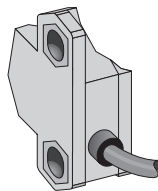
- Visible red light
- With polarization filter
- Cross talk immunity
- 18 mm front and flange mounting possibility
- Power and output indicator
- Clear housing for perfect indicator LED visibility

Dimensional drawing



Connection type

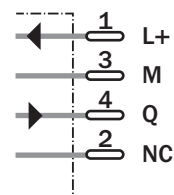
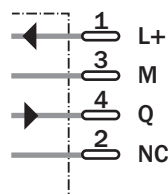
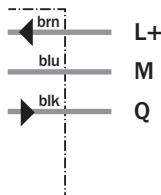
ZL1-N2415	ZL1-F2431	ZL1-F2421
ZL1-P2415	ZL1-E2431	ZL1-E2421
ZL1-F2415		
ZL1-E2415		



3 x 0.23 mm²

M8, 4-pin

M12, 4-pin



Accessories

- Reflectors
- Mounting systems

Technical data		ZL1-	N2415	P2415	F2415	E2415	F2421	E2421	F2431	E2431
Scanning range typ. max.	0.1 ... 4.8 m (on PL80A)									
Operating range, recommended	0.1 ... 3 m (on PL80A)									
Light source ¹⁾, light type	LED, red light, 660 nm									
Light spot diameter	Approx. 125 mm at 1 m									
Polarization filter	✓									
Supply voltage V_S ²⁾	10 ... 30 V DC									
Ripple ³⁾	< 5 V _{PP}									
Current consumption ⁴⁾	< 20 mA									
Switching outputs	Q: NPN									
	Q: PNP									
Switching mode	Light switching									
	Dark switching									
Output current I_A max.	50 mA									
Switching frequency ⁵⁾	400 Hz									
Connection type	Cable (PVC), 2 m, 3-wire									
	Cable with plug 150 mm, M8, 4-pin									
	Cable with plug 150 mm, M12, 4-pin									
VDE protection class ⁶⁾	⚡									
Circuit protection ⁷⁾	A, D									
Enclosure rating	IP 67									
Ambient temperature	Operation -25 ... +50 °C									
	Storage -40 ... +70 °C									
Housing material	ABS, fibreglass reinforced									
Included with delivery	Mounting nut M18									

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) With light/dark ratio 1:1
 6) Reference voltage 50 V DC
 7) A = V_S connections reverse-polarity protected
 D = Outputs overcurrent and short-circuit protected

Scanning distance		Order information	
1	0.1 3.0 4.8	Type	Order no.
2	0.1 2.0 3.5	ZL1-N2415	1045496
3	0.1 1.8 3	ZL1-P2415	1045497
4	0.1 1.0 1.8	ZL1-F2415	1045498
5	0.2 1.0 1.5	ZL1-E2415	1045499
		ZL1-F2421	1045502
		ZL1-E2421	1045503
		ZL1-F2431	1045506
		ZL1-E2431	1045507

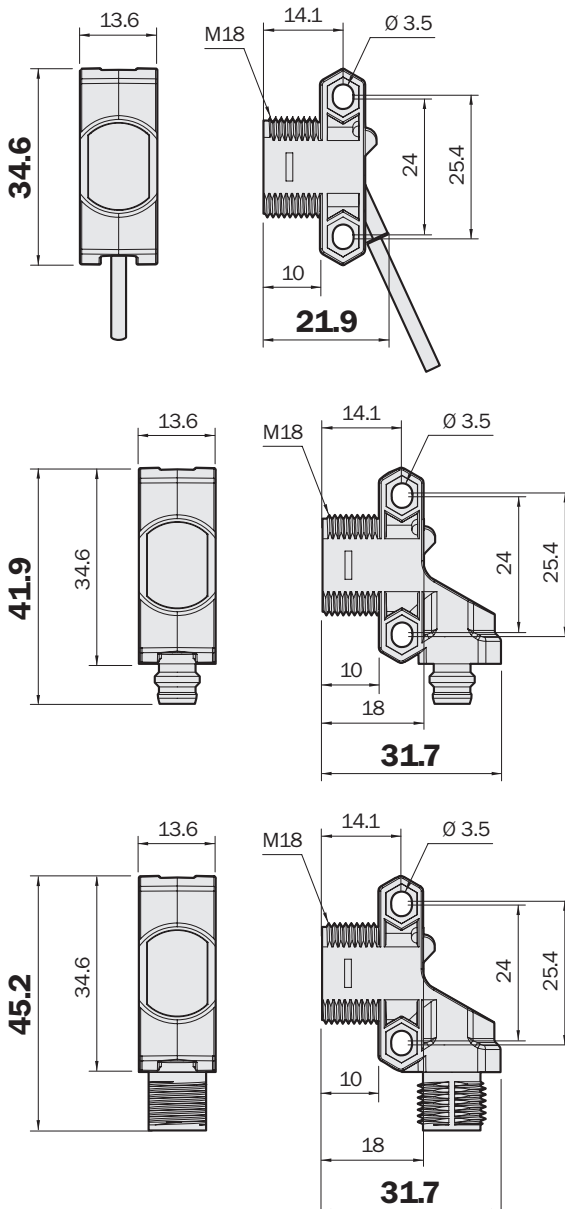
Reflector type	Operation range
1 PL80A	0.1 ... 3.0 m
2 P250	0.1 ... 2.0 m
3 PL40A	0.1 ... 1.8 m
4 PL20A	0.1 ... 1.0 m
5 REF-PLUS	0.2 ... 1.0 m

Scanning range
0.1 ... 4.8 m

Photoelectric reflex switch

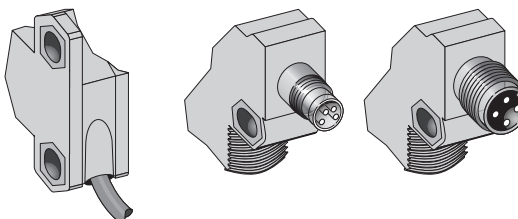
- Visible red light
- With polarization filter
- Cross talk immunity
- 18 mm front and flange mounting possibility
- Power and output indicator
- Clear housing for perfect indicator LED visibility

Dimensional drawing



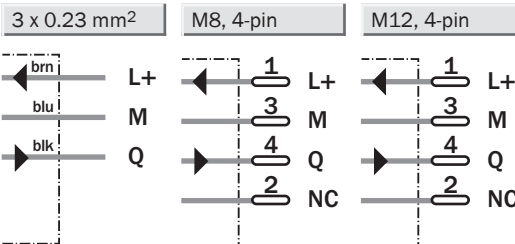
Connection type

ZL2-F2415	ZL2-F2438	ZL2-F2428
ZL2-E2415	ZL2-E2438	ZL2-E2428



Accessories

Reflectors
Mounting systems



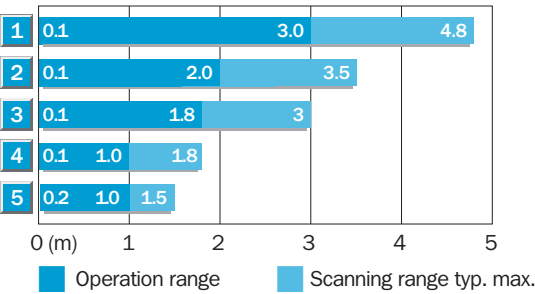
Technical data		ZL2-	F2415	E2415	F2438	E2438	F2428	E2428				
Scanning range typ. max.	0.1 ... 4.8 m (on PL80A)											
Operating range, recommended	0.1 ... 3 m (on PL80A)											
Light source ¹⁾, light type	LED, red light, 660 nm											
Light spot diameter	Approx. 125 mm at 1 m											
Polarization filter	✓											
Supply voltage V_S ²⁾	10 ... 30 V DC											
Ripple ³⁾	< 5 V _{pp}											
Current consumption ⁴⁾	< 20 mA											
Switching outputs	Q: NPN											
	Q: PNP											
Switching mode	Dark switching											
Output current I_A max.	50 mA											
Switching frequency ⁵⁾	400 Hz											
Connection type	Cable (PVC), 2 m, 3-wire											
	M8 plug, 4-pin											
	M12 plug, 4-pin											
VDE protection class ⁶⁾	ⓘ											
Circuit protection ⁷⁾	A, D											
Enclosure rating	IP 67											
Ambient temperature	Operation -25 ... +50 °C											
	Storage -40 ... +70 °C											
Housing material	ABS, fibreglass reinforced											
Included with delivery	Mounting nut M18											

1) Average service life 100,000 h, at T_A = +25 °C
 2) Limit values
 3) Must be within V_S tolerances

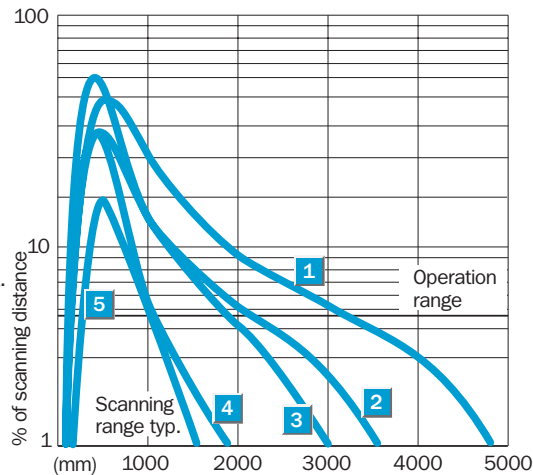
4) Without load
 5) With light/dark ratio 1:1
 6) Reference voltage 50 V DC

7) A = V_S connections reverse-polarity protected
 D = Outputs overcurrent and short-circuit protected

Scanning distance




Reflector type	Operation range
1 PL80A	0.1 ... 3.0 m
2 P250	0.1 ... 2.0 m
3 PL40A	0.1 ... 1.8 m
4 PL20A	0.1 ... 1.0 m
5 REF-PLUS	0.2 ... 1.0 m



Order information

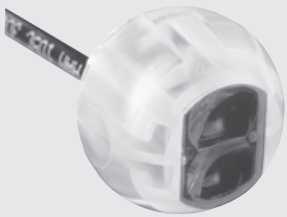
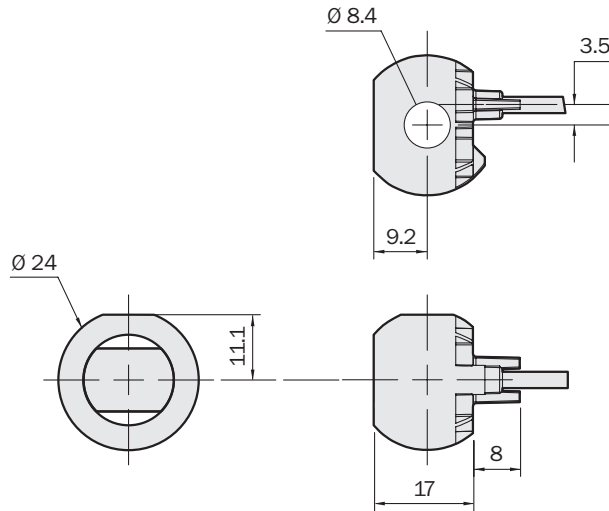
Type	Order no.
ZL2-F2415	1045389
ZL2-E2415	1045390
ZL2-F2438	1045385
ZL2-E2438	1045386
ZL2-F2428	1045371
ZL2-E2428	1045372


Scanning range
0.1 ... 4.8 m

Photoelectric reflex switch

- Visible red light
- With polarization filter
- Cross talk immunity
- Mounting with special bracket for stepless positioning
- Power and output indicator
- Clear housing for perfect indicator LED visibility

Dimensional drawing



Connection type

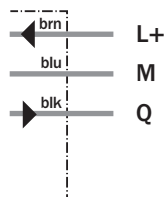
ZL3-F2415	ZL3-F2431	ZL3-F2421
ZL3-E2415	ZL3-E2431	ZL3-E2421
ZL3-N2415		
ZL3-P2415		



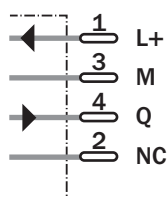
Accessories

- Reflectors
- Mounting systems

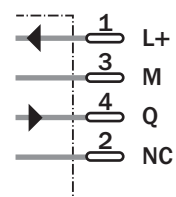
3 x 0.23 mm²



M8, 4-pin



M12, 4-pin



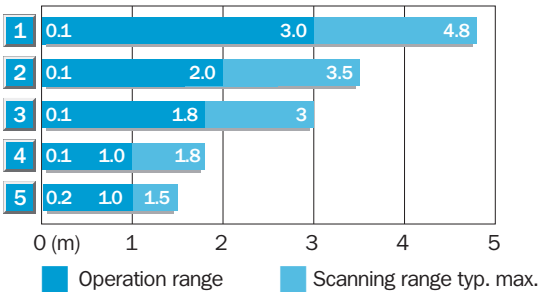
Technical data		ZL3-	F2415	E2415	N2415	P2415	F2421	E2421	F2431	E2431
Scanning range typ. max.	0.1 ... 4.8 m (on PL80A)									
Operating range, recommended	0.1 ... 3 m (on PL80A)									
Light source ⁴⁾, light type	LED, red light, 660 nm									
Light spot diameter	Approx. 125 mm at 1 m									
Polarization filter	✓									
Supply voltage V_S ²⁾	10 ... 30 V DC									
Ripple ³⁾	< 5 V _{pp}									
Current consumption ⁴⁾	< 20 mA									
Switching outputs	Q: NPN									
	Q: PNP									
Switching mode	Light switching									
	Dark switching									
Output current I_A max.	50 mA									
Switching frequency ⁵⁾	400 Hz									
Connection type	Cable (PVC), 2 m, 3-wire									
	Cable with plug 150 mm, M8, 4-pin									
	Cable with plug 150 mm, M12, 4-pin									
VDE protection class ⁶⁾	⊕									
Circuit protection ⁷⁾	A, D									
Enclosure rating	IP 67									
Ambient temperature	Operation -25 ... +50 °C									
	Storage -40 ... +70 °C									
Housing material	ABS, fibreglass reinforced									

1) Average service life 100,000 h, at T_A = +25 °C
 2) Limit values
 3) Must be within V_S tolerances

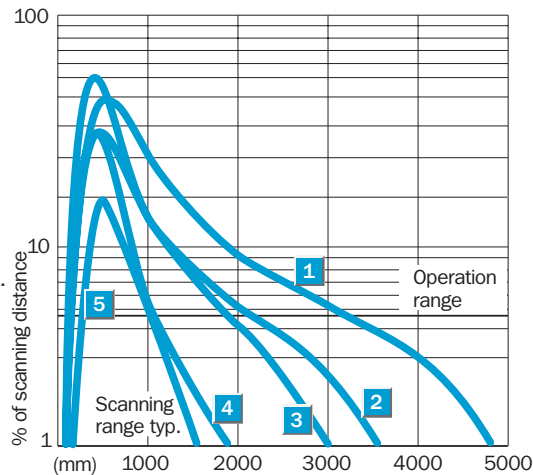
4) Without load
 5) With light/dark ratio 1:1
 6) Reference voltage 50 V DC

7) A = V_S connections reverse-polarity protected
 D = Outputs overcurrent and short-circuit protected

Scanning distance



Reflector type	Operation range
1 PL80A	0.1 ... 3.0 m
2 P250	0.1 ... 2.0 m
3 PL40A	0.1 ... 1.8 m
4 PL20A	0.1 ... 1.0 m
5 REF-PLUS	0.2 ... 1.0 m



Order information

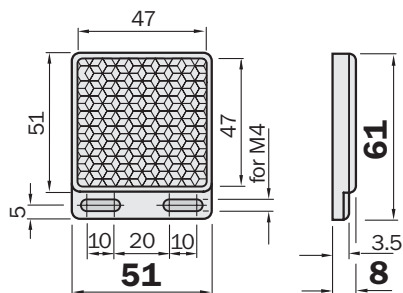
Type	Order no.
ZL3-F2415	1045531
ZL3-E2415	1045532
ZL3-N2415	1045529
ZL3-P2415	1045530
ZL3-F2421	1045535
ZL3-E2421	1045536
ZL3-F2431	1045539
ZL3-E2431	1045540

Dimensional drawings and order information

Reflectors, plastic design, for temperatures 65 °C

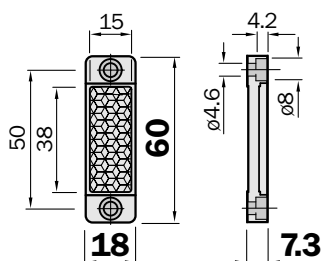
Reflector 47 x 47 mm, screwable

Type	Order no.
P250	5304812



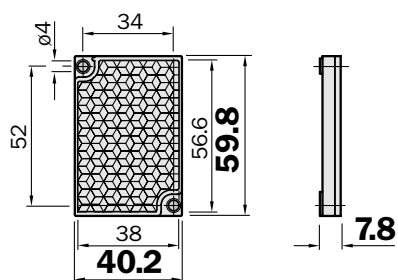
Reflector 20 x 40 mm, screwable

Type	Order no.
PL20A	1012719



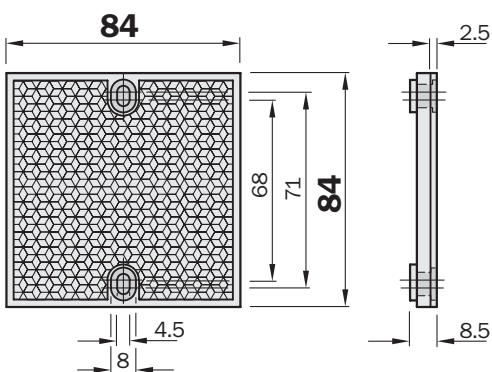
Reflector 40 x 60 mm, screwable

Type	Order no.
PL40A	1012720



Reflector 80 x 80 mm, screwable

Type	Order no.
PL80A	1003865

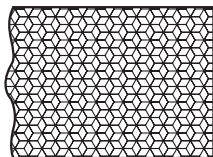


Dimensional drawings and order information

Reflectors, plastic design, for temperatures 65 °C

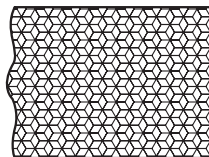
Reflective tape, self-adhesive, length of roll 22.8 m

Type	Order no.	Width
REF-PLUS-R25	5319929	25 mm
REF-PLUS-R50	5319981	50 mm



Reflective tape, self-adhesive, cut to size

Type	Order no.
REF-PLUS-R25-K	4051184
REF-PLUS-R50-K	4051185

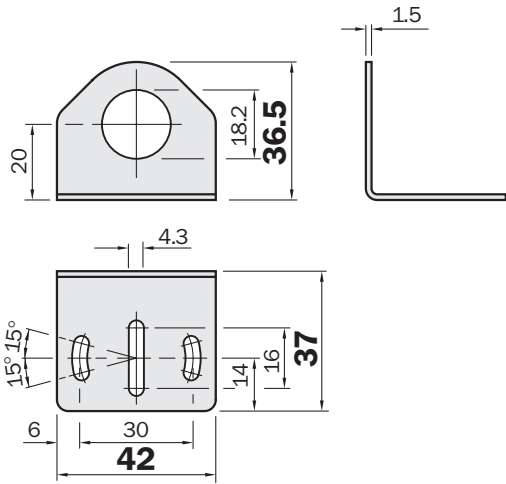


Dimensional drawings and order information

Mounting systems

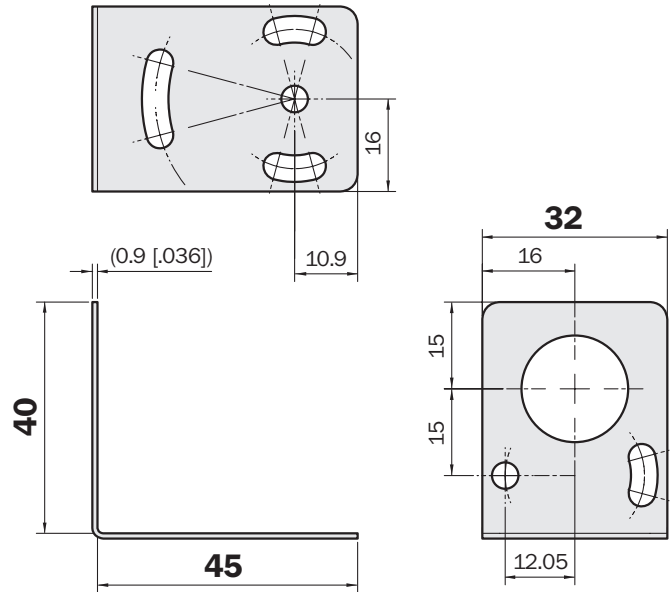
Mounting bracket for ZT1, ZT2, ZL1, ZL2

Type	Order no.
BEF-WN-M18	5308446



Mounting bracket for ZT1, ZT2, ZL1, ZL2

Type	Order no.
MB-W1000	7023800

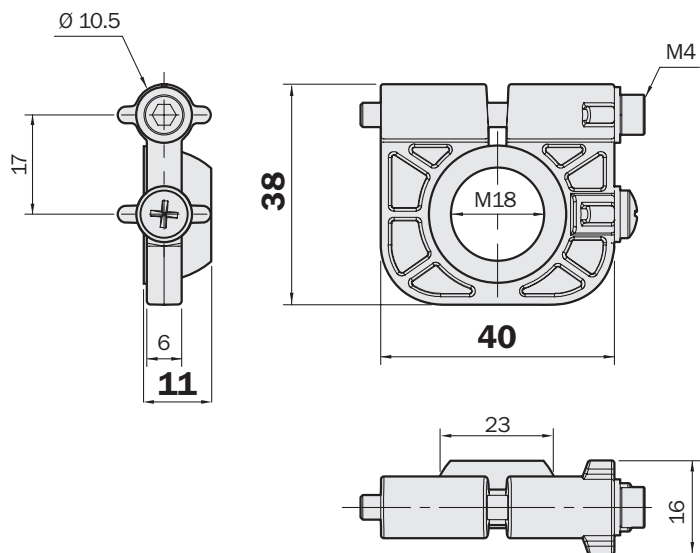


Dimensional drawings and order information

Mounting systems

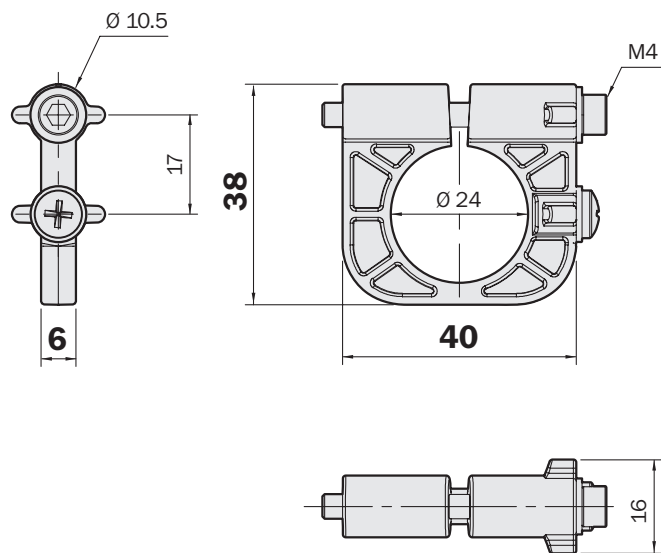
Mounting bracket with rotary insert, for ZT1, ZT2, ZT3, ZL1, ZL2, ZL3

Type	Order no.
MB-BS18MM-M4	2049694



Mounting bracket for ZT3, ZL3

Type	Order no.
MB-BS24MM-M4	2049695



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