



**S18 series
dc operation**

Wave length

IR (infrared)	880 nm
IR (infrared)	950 nm (opposed, retro)
Red	680 nm

Supply

Supply voltage	10...30 V dc
Ripple V_{pp}	≤ 10 %
No load current	≤ 25 mA
	≤ 20 mA (receiver)
	≤ 30 mA (polarised retro)
	≤ 35 mA (background suppression)

Delay upon power up 100 ms

Protection

reverse polarity
short-circuit (pulsed)

Output

Programmable (see wiring)	light and dark operate or light operate and alarm
Continuous load current	≤ 150 mA
Overload trip point	≥ 220 mA typical at 20 °C
Switching frequency	≤ 160 Hz

Material

Housing	PBT
Lens	acrylic Lexan® (PC) (opposed)
	IP69K

Protection class

(DIN 40050)

Temperature range

-40...+70 °C

Cable

2 m, PVC, 4 x 0,5 mm²

Connector

4-pin M12x1 Euro-style

Indicator LED's

Yellow	light sensed
Green	supply voltage
Yellow flashing	low gain
Green flashing	output overload

Accessories

Brackets

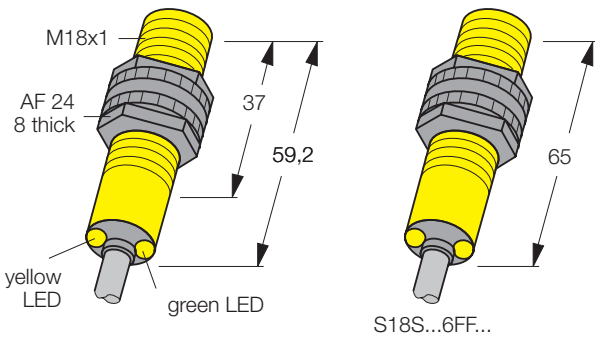
SMB18A	34 702 00	angle bracket
SMB18SF	30 525 19	swivel mount bracket
SMB18C	34 700 00	split clamp bracket

Connectors

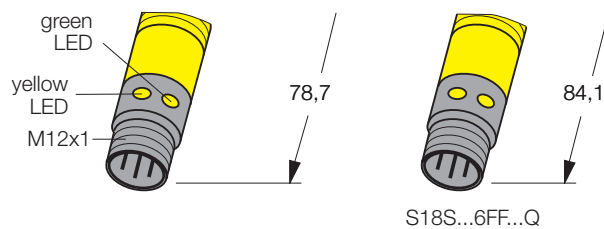
MQDC-406	30 451 36	straight type
MQDC-406RA	30 471 04	right-angled type

Dimensions [mm]

● **Cable**

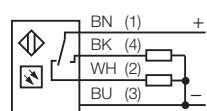


● **Connector**

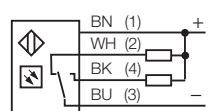


Wiring

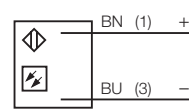
pnp complementary



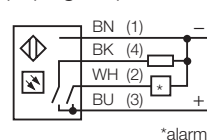
nnp complementary



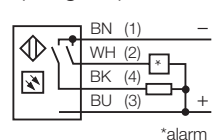
emitter



pnp light op. + alarm



nnp light op. + alarm



*alarm

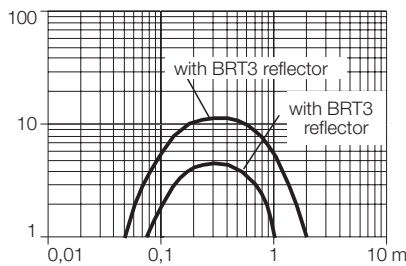
*alarm

S18 series

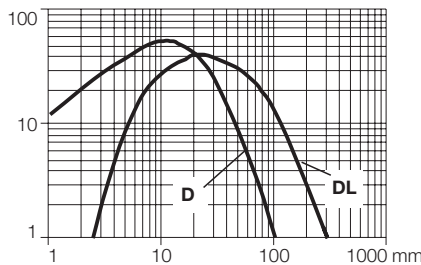
dc operation

Excess gain curve:
Excess gain in relation to the distance

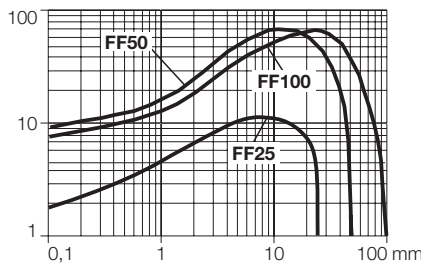
Retro-reflective



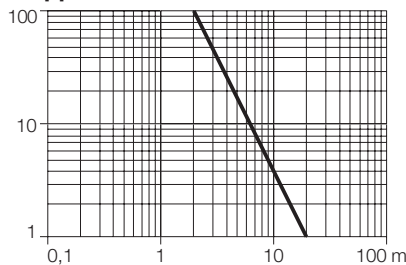
Diffuse



Fixed-field



Opposed



	Max. range	Light source	Output function	Connection	Type	Ident number	
Retro-reflective	2 m	IR	pnp	cable	S18SP6L	38 450 00	
	2 m	IR	pnp	connector	S18SP6LQ	38 452 00	
	2 m	IR	nnp	cable	S18SN6L	38 451 00	
	2 m	IR	nnp	connector	S18SN6LQ	38 453 00	
	2 m	red	pnp	cable	S18SP6LP	38 442 00	
	2 m	red	pnp	connector	S18SP6LPQ	38 443 00	
	2 m	red	nnp	cable	S18SN6LP	38 440 00	
	2 m	red	nnp	connector	S18SN6LPQ	38 441 00	
	Diffuse	100 mm	IR	pnp	cable	S18SP6D	38 454 00
		100 mm	IR	pnp	connector	S18SP6DQ	38 456 00
300 mm		IR	pnp	cable	S18SP6DL	38 446 00	
300 mm		IR	pnp	connector	S18SP6DLQ	38 447 00	
100 mm		IR	nnp	cable	S18SN6D	38 455 00	
100 mm		IR	nnp	connector	S18SN6DQ	38 457 00	
300 mm		IR	nnp	cable	S18SN6DL	38 444 00	
300 mm		IR	nnp	connector	S18SN6DLQ	38 445 00	
Fixed-field		25 mm	IR	pnp	cable	S18SP6FF25	30 584 15
		25 mm	IR	pnp	connector	S18SP6FF25Q	30 505 61
	50 mm	IR	pnp	cable	S18SP6FF50	38 465 00	
	50 mm	IR	pnp	connector	S18SP6FF50Q	38 485 00	
	100 mm	IR	pnp	cable	S18SP6FF100	38 464 00	
	100 mm	IR	pnp	connector	S18SP6FF100Q	38 487 00	
	25 mm	IR	nnp	cable	S18SN6FF25	30 566 07	
	25 mm	IR	nnp	connector	S18SN6FF25Q	30 372 98	
	50 mm	IR	nnp	cable	S18SN6FF50	38 466 00	
	50 mm	IR	nnp	connector	S18SN6FF50Q	38 486 00	
	100 mm	IR	nnp	cable	S18SN6FF100	38 467 00	
	100 mm	IR	nnp	connector	S18SN6FF100Q	38 488 00	
	Opposed	20 m	IR	(emitter) pnp	cable cable	S186E S18SP6R	38 462 00 38 458 00
		20 m	IR	nnp	cable	S18SN6R	38 460 00
20 m		IR	(emitter) pnp	connector connector	S186EQ S18SP6RQ	38 463 00 38 459 00	
20 m		IR	nnp	connector	S18SN6RQ	38 461 00	

Subject to changes without notice • Edition 07.03 • P/N ED019



These sensors do not include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can result in either an energised or de-energised output condition. These products should not be used as sensing devices for personnel safety.