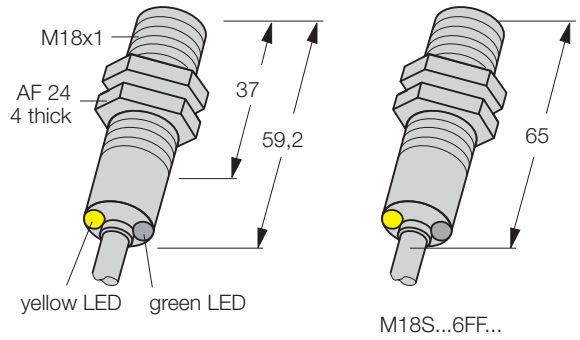
EZ-BEAM™ sensors

M18 series
dc operation

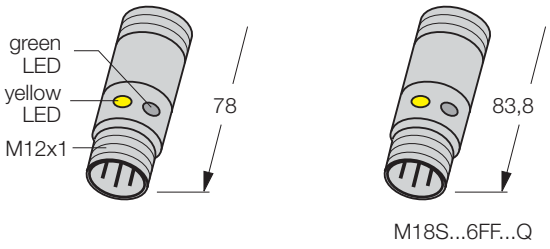
Wave length	
IR (infrared)	880 nm
IR (infrared)	950 nm (opposed, retro)
Red	680 nm
Supply	
Supply voltage	10…30 V dc
Ripple V_{pp}	≤ 10 %
No load current	≤ 25 mA ≤ 20 mA (receiver) ≤ 30 mA (polarised retro) ≤ 35 mA (background suppression)
Delay upon power up	100 ms
Protection	reverse polarity short-circuit (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	stainless steel
Lens	acrylic Lexan® (PC) (opposed)
Protection class (IEC 60529/EN 60529)	IP67
Temperature range	-40…+70 °C
Cable	2 m, PVC, 4 x 0,5 mm²
Connector	*eurocon* (M12 x 1)
Indicator LED's	
Yellow	light sensed
Green	supply voltage
Yellow flashing	low gain
Green flashing	output overload

Dimensions [mm]

● **Cable**

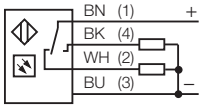


● **Connector**

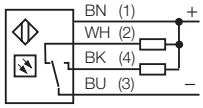


Wiring

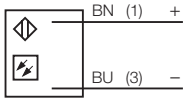
pnp complementary



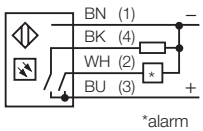
npn complementary



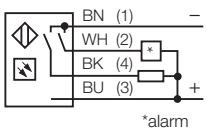
emitter



pnp light op. + alarm



npn light op. + alarm



Accessories

Brackets		
SMB18A	34 702 00	angle bracket
SMB18SF	30 525 19	swivel mount bracket
SMB18C	34 700 00	split clamp bracket
Connectors		
WAK4-2/P00	80 070 46	straight type
WWAK4-2/P00	80 071 48	right-angled type
WAKE4-2/P00	80 161 41	straight type, VA stainless, PVC
WWAKE4-2/P00	80 119 24	right-angled type, VA stainless, PVC
WAKE4-2/S90	80 177 14	straight type, VA stainless, PUR
WWAKE4-2/S90	80 142 34	right-angled type, VA stainless, PUR

M18 series
dc operation

Excess gain curve:
Excess gain in relation to the distance

Max. range	Light source	Output function	Connection	Type	Ident number
Retro-reflective					
2 m	IR	pnp	cable	**M18SP6L**	30 486 54
2 m	IR	pnp	connector	**M18SP6LQ**	30 486 55
2 m	IR	npn	cable	**M18SN6L**	30 486 52
2 m	IR	npn	connector	**M18SN6LQ**	30 486 53
				with polarising filter	
2 m	red	pnp	cable	**M18SP6LP**	30 486 58
2 m	red	pnp	connector	**M18SP6LPQ**	30 486 59
2 m	red	npn	cable	**M18SN6LP**	30 486 56
2 m	red	npn	connector	**M18SN6LPQ**	30 486 57
Diffuse					
100 mm	IR	pnp	cable	**M18SP6D**	30 486 62
100 mm	IR	pnp	connector	**M18SP6DQ**	30 486 63
300 mm	IR	pnp	cable	**M18SP6DL**	30 486 66
300 mm	IR	pnp	connector	**M18SP6DLQ**	30 486 67
100 mm	IR	npn	cable	**M18SN6D**	30 486 60
100 mm	IR	npn	connector	**M18SN6DQ**	30 486 61
300 mm	IR	npn	cable	**M18SN6DL**	30 486 64
300 mm	IR	npn	connector	**M18SN6DLQ**	30 486 65
Fixed-field					
25 mm	IR	pnp	cable	**M18SP6FF25**	30 584 29
25 mm	IR	pnp	connector	**M18SP6FF25Q**	30 584 33
50 mm	IR	pnp	cable	**M18SP6FF50**	30 486 70
50 mm	IR	pnp	connector	**M18SP6FF50Q**	30 486 71
100 mm	IR	pnp	cable	**M18SP6FF100**	30 486 74
100 mm	IR	pnp	connector	**M18SP6FF100Q**	30 486 75
25 mm	IR	npn	cable	**M18SN6FF25**	30 584 28
25 mm	IR	npn	connector	**M18SN6FF25Q**	30 584 32
50 mm	IR	npn	cable	**M18SN6FF50**	30 486 68
50 mm	IR	npn	connector	**M18SN6FF50Q**	30 486 69
100 mm	IR	npn	cable	**M18SN6FF100**	30 486 72
100 mm	IR	npn	connector	**M18SN6FF100Q**	30 486 73
Opposed					
20 m	IR	(emitter)	cable	**M186E**	30 483 46
		pnp	cable	**M18SP6R**	30 483 50
		npn	cable	**M18SN6R**	30 483 48
20 m	IR	(emitter)	connector	**M186EQ**	30 483 47
		pnp	connector	**M18SP6RQ**	30 486 51
		npn	connector	**M18SN6RQ**	30 483 49

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.