



## FL series

“T-style” housing photoelectric sensors with M18 optical head for car washes



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### features

- Sensors for car washes
- IP protection degree: head IP69K (sensor IP67)
- Wide angular range for an easy alignment
- Totally fulfilled resin
- Two versions: high and standard distance
- Synchronization through cable
- Coded emission: anti mutual-interference



### web contents



- Application notes
- Photos
- Catalogue / Manuals



### code description

	FL	I	E	/	0	0	-	0	C
series	FL	“T-style” housing photoelectric sensors with M18 optical head for car washes							
emission	I	Infrared emission							
emitter / receiver	E	Standard distance emitter							
	H	High distance emitter							
	R	Standard distance receiver							
	D	High distance receiver							
type	0	Emitter							
	L	LightON output state							
	D	DarkON output state							
output logic	0	Emitter							
	N	NPN logic							
	P	PNP logic							
	T	PushPull logic							
housing	0	Plastic housing							
cable / plug exit	C	Radial cable (5 m lenght)							

### available models

range	output	emitter	receiver					
			NPN D <sub>on</sub>	NPN L <sub>on</sub>	PNP D <sub>on</sub>	PNP L <sub>on</sub>	Pushpull D <sub>on</sub>	Pushpull L <sub>on</sub>
8 m	cable	FLIE/00-0C	FLIR/DN-0C	FLIR/LN-0C	FLIR/DP-0C	FLIR/LP-0C	FLIR/DT-0C	FLIR/LT-0C
30 m	cable	FLIH/00-0C	FLID/DN-0C	FLID/LN-0C	FLID/DP-0C	FLID/LP-0C	FLID/DT-0C	FLID/LT-0C

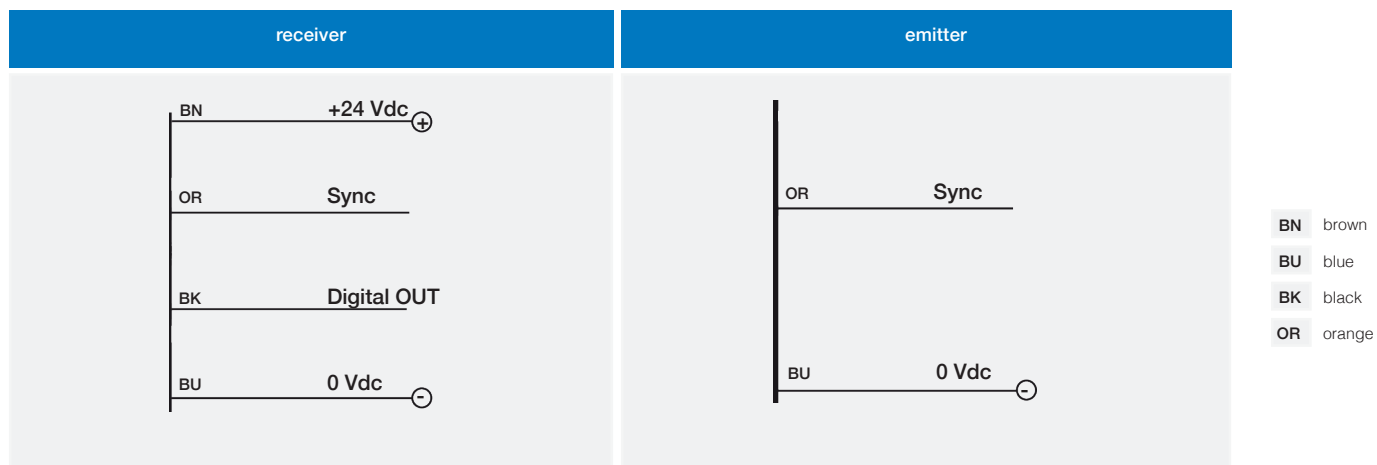


## technical specification

“T-style” housing photoelectric sensors  
with M18 optical head for car washes

	Standard distance		High distance	
	FLIE	FLIR	FLIH	FLID
nominal sensing distance (m)	8 (3 m for car washes)		30 (3 m for car washes)	
operating distance	24 Vdc +/- 20%			
response time	-	<10 ms	-	<12 ms
histeresys	-	+/- 1%	-	+/- 1%
output type	-	NPN or PNP or Push Pull/Lon or Don	-	NPN or PNP or Push Pull/Lon or Don
digital resolution	-	12 bit	-	12 bit
emission	Infrared (850 nm)	-	Infrared (850 nm)	-
no load supply current	< 60 mA			
load current	-	< 30 mA	-	< 30 mA
operative temperature range	-20..70°C (without freeze)			
storage temperature range	-30..90°C (without freeze)			
protection degree	IP67 (front-head IP69K)			
EMC	in coformity with the EMC Directive according to EN 60947-5-2			
housing material	PBT + PC			
optic material	PC			
Leds	Green: RUN; Red: problem with output, Yellow: output			
electrical protections	polarity reversal transient			
output protection	short circuit protection			
connections	cable PVC diam. 6.2 mm			
tightening torque	1 Nm			
weight	570 g (the pair)			

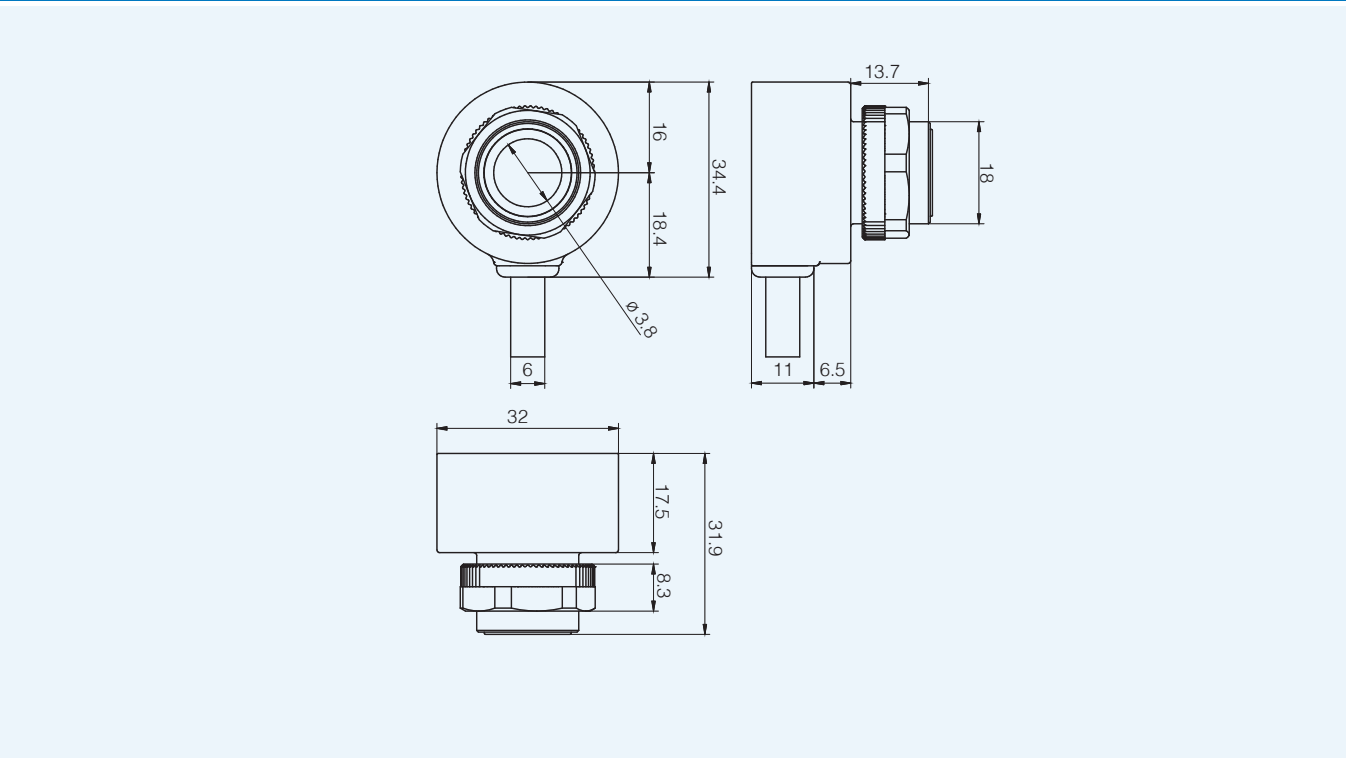
## electrical diagram of the connections





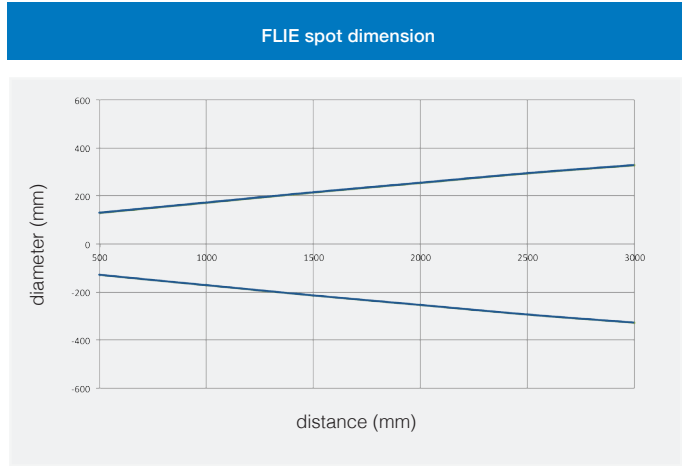
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FL\*\*



response diagram

standard distance



response diagram

high distance

