

# FT18EL Series

PHOTOELECTRIC SENSORS 10 ÷ 30Vdc

CYLINDRICAL HOUSING M18X1  
FUNCTIONS NO + NC  
AXIAL BEAM  
90° BEAM

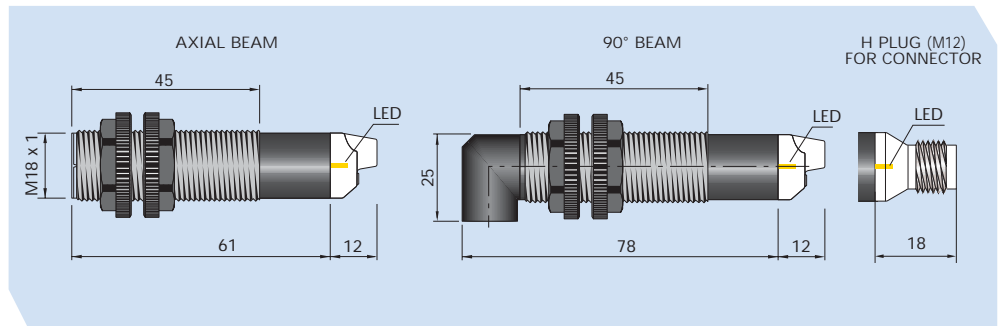


**\* MODELS WITH H PLUG (M12)  
CONNECTOR OUTPUT**

Please add 'H' to the description.  
es.: **FT18EL-CP NPN cable type**  
**FT18EL-CP NPN-H H plug type**

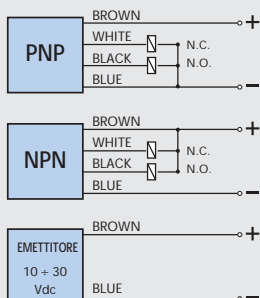
## TECHNICAL CHARACTERISTICS

Dimensions mm



TYPE		DIRECT REFLECTION	REFLECTION WITH REFLECTOR	POLARIZED REFLECTION WITH REFLECTOR	THRU BEAM		
					RECEIVER	EMITTER	
AXIAL BEAM WITH CABLE → (* WITH H PLUG)	NPN	FT18EL-CP NPN	FT18EL-CR NPN	FT18EL-CAR NPN	FT18EL-CBR NPN	FT18EL-CBE	
	PNP	FT18EL-CP PNP	FT18EL-CR PNP	FT18EL-CAR PNP	FT18EL-CBR PNP	FT18EL-CBE	
90° BEAM WITH CABLE → (* WITH H PLUG)	NPN	FT18EL-CP NPN-90	FT18EL-CR NPN-90	FT18EL-CAR NPN-90	FT18EL-CBR NPN-90	FT18EL-CBE-90	
	PNP	FT18EL-CP PNP-90	FT18EL-CR PNP-90	FT18EL-CAR PNP-90	FT18EL-CBR PNP-90	FT18EL-CBE-90	
Sensing range (Sn)	cm	10*	250**	100**	1500		
Output functions		NO + NC					-
Light source	Led	Infrared		Red	Infrared		
Power on delay	mSec	≤ 50			≤ 180		
Switching frequency	Hz	200			200		
Continuous voltage (Res. ripple ≤ 10%)	V	10 ÷ 30					
Max output current	mA	200					-
Max current consumption at 24 Vdc	mA	≤ 20	≤ 30			≤ 35	
Voltage drop (I out = 200mA)	V	≤ 1,5					-
Short circuit protection		Incorporated					-
Light immunity		> 10.000 Lux					-
Led		Operation indicator (Yellow led)					Power supply (Green led)
Temperature limits	°C	Storage -20 ÷ +90° • Working -20 ÷ +50°					
IP rating	IP	67					
Plastic housing		Black makrolon					
Cable	2m	4 x 0.25 mm <sup>2</sup>				2 x 0,50 mm <sup>2</sup>	
Connector plug		H					

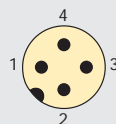
## WIRING DIAGRAMS



N.B.: Upon request cable for sensors with different lengths 5 - 10 metres is available.

## CONNECTIONS WITH H PLUG FOR CONNECTORS SEE PAGE 85

### VIEW OF MALE CONNECTOR H



2 WIRINGS (EMITTER)  
1 = Brown / +  
3 = Blue / --

4 FILI  
1 = Brown / +  
3 = Blue / --  
4 = Black / output NO  
2 = White / output NC

## TYPES

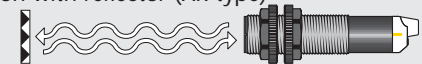
Direct reflection (P type)



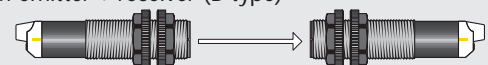
Reflection with reflector (R type)



Polarized reflection with reflector (AR type)



Thru beam emitter + receiver (B type)



\*The sensing distance is related to matt white paper dim. 10 x 10 cm. \*\*The sensing distance is related to CT80 reflector.