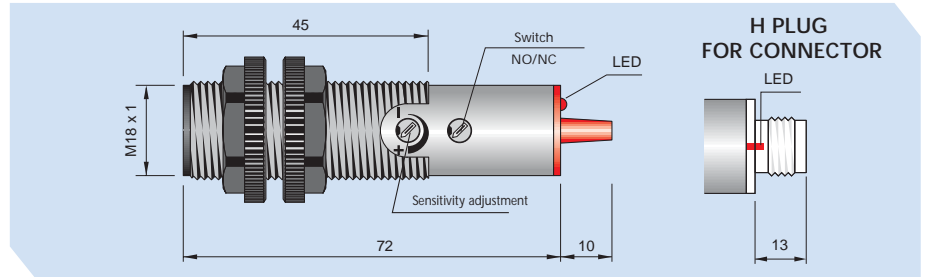


# FT18 Series

PHOTOELECTRIC SENSORS 20 ÷ 250 VAC



CYLINDRICAL HOUSING M18x1  
3 WIRES A.C.  
PROGRAMMABLE OUTPUT NO/NC  
SENSITIVITY ADJUSTMENT  
AXIAL BEAM

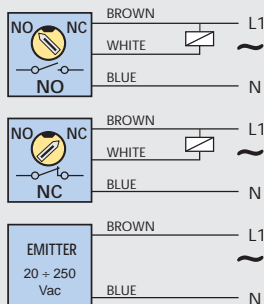


## TECHNICAL CHARACTERISTICS

Dimensions mm

TYPE	DIRECT REFLECTION		REFLECTION WITH REFLECTOR	POLARIZED REFLECTION WITH REFLECTOR	THRU BEAM RECEIVER EMITTER	
	FT18-AP2	FT18-AP4	FT18-AR	FT18-AAR	FT18-ABR	FT18-ABE
MODEL WITH CABLE	FT18-AP2	FT18-AP4	FT18-AR	FT18-AAR	FT18-ABR	FT18-ABE
MODEL WITH H PLUG	FT18-AP2-H	FT18-AP4-H	FT18-AR-H	FT18-AAR-H	FT18-ABR-H	FT18-ABE-H
Sensing range (Sn)	cm	20*	40*	250**	100**	1500
Programmable output	NO or NC					-
Light source	Led	Infrared		Red	Infrared	
Power ON delay	mSec	≤ 75				
Switching frequency	Hz	15				
Alternating voltage	V	20 ÷ 250				
Max output current	mA	300				
Max peak current for 20 ms	A	3				
Max current consumption	mA	≤10				
Voltage drop (Sensor ON) (Max)	V	1.5				
Short circuit protection		Incorporated				
Light immunity		> 10.000 Lux				
Led		Operation indicator				
Temperature limit	°C	Storage -20 ÷ +90°C • Working -20 ÷ +50°C				
IP rating	IP	67				
Plastic housing		Gray makrolon (On request stainless steel AISI 303)				
Cable	2m	3 x 0.35 mm <sup>2</sup>				
Connector plug		H				

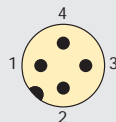
### WIRING DIAGRAMS



N.B.: Upon request cable for sensors with different lengths 3.5 - 5 - 7.5 - 10 metres is available.

### CONNECTIONS WITH H PLUG FOR CONNECTORS SEE PAGE 85

#### VIEW OF MALE CONNECTOR H

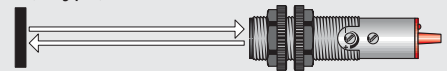


2 WIRINGS (EMITTER) 4 WIRINGS  
1 = L1 1 = Brown / L1  
3 = N 3 = Blue / N  
4 = White / NO - NC Programmable

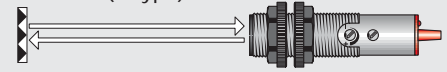
N.B.: Use female connector without led.

### TYPES

Direct reflection (P type)



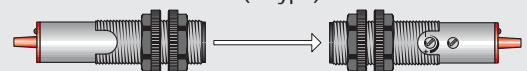
Reflection with reflector (R type)



Polarized reflection with reflector (AR type)



Thru beam emitter + receiver (B type)

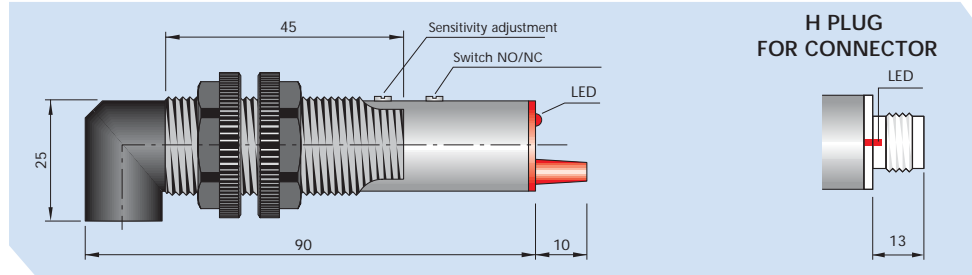


\*The sensing distance is related to matt white paper dim. 10 x 10 cm. \*\*The sensing distance is related to CT80 reflector.

# FT18 Series 90° Beam

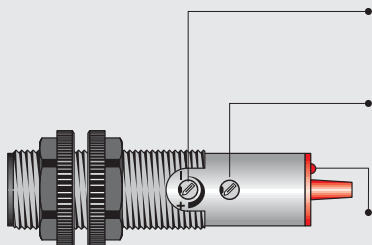
PHOTOELECTRIC SENSORS 20 ÷ 250 VAC

CYLINDRICAL HOUSING M18x1  
 3 WIRES A.C.  
 PROGRAMMABLE OUTPUT NO/NC  
 SENSITIVITY ADJUSTMENT  
 90° BEAM



DIRECT REFLECTION		REFLECTION WITH REFLECTOR	POLARIZED REFLECTION WITH REFLECTOR	THRU BEAM	EMITTER
FT18-AP2-90	FT18-AP4-90	FT18-AR-90	FT18-AAR-90	FT18-ABR-90	FT18-ABE-90
FT18-AP2-90-H	FT18-AP4-90-H	FT18-AR-90-H	FT18-AAR-90-H	FT18-ABR-90-H	FT18-ABE-90-H
20*	40*	250**	100**	1500	
NO or NC					-
Infrared			Red	Infrared	
≤ 75					
15					
20 ÷ 250					
300					
3					
≤ 10					
1.5					
Incorporated					-
> 10.000 Lux					-
Operation indicator					Power supply
Storage -20 ÷ +90°C • Working -20 ÷ +50°C					
67					
Gray makrolon (On request stainless steel AISI 303)					
3 x 0.35 mm <sup>2</sup>				2 x 0,50 mm <sup>2</sup>	
H					

## INSTRUCTIONS FOR THE PROGRAMMING AND ADJUSTMENT



**TRIMMER FOR THE SENSING RANGE ADJUSTMENT:** The photocell is supplied with max. sensing range with the trimmer totally rotated in the clockwise direction. The sensitivity reduces by rotating the trimmer in the anti-clockwise direction.

**SWITCH NO/NC:** The photocell is supplied with switch in NO position (In absence of the object to be detected the output is deactivated). To change to N.C. (In absence of the object to be sensed the output is activated) turn the switch to N.C. in the anti-clockwise direction.

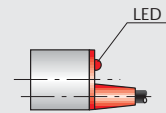
**LED FOR INDICATION OF OPERATION:** This indicates the output of the photocell, in the absence of the object to be sensed it is off with output N.O. and is on with output N.C. this changes state when the object to be sensed enters into the sensing area of the photocell.

**NOTE!** Before giving a power supply to the photocell it is recommended that the same unit be programmed by using the switch in the required function NO or NC.

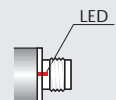
NOTE! It is recommended that the trimmer and the switch be rotated very carefully by using a proper tool otherwise these can be seriously damaged.

## EMITTER FT18-ABE

### POSITION OF POWER SUPPLY LED



### TYPES WITH CABLE



### TYPES WITH CONNECTOR