# Thru Beam Photoelectric Sensors







· Double beam thru beam sensors-single or dual channel

• Conforming to EN 12978

• 1 Sec OFF delay timer, selectable

12-24 AC/DC inputSensitivity adjustment

6 m long integral cables

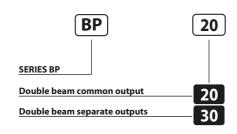
# **BP Series**







#### **Identification code**

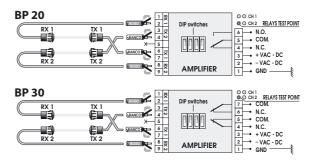


Note: Each package includes two pairs of projectors.

AVAILABLE	DOUBLE BEAM SELECTION
NOMINAL SWITCHING DISTANC	E (Sn) 0.3 ÷ 10 m
TOLERANCE	+10/-10 %Sn
EMISSION	Infrared (875 ηm)
NOMINAL VOLTAGE	12 ÷ 24 V AC DC ± (-15 / +10%)
FREQUENCY	50 ÷ 60 Hz
OUTPUT	2 Relay
N° OF OPERATIONS	Mec. = $5x10^6$ ops min Elect. = $3x10^5$ ops min; (1A 28 VDC) $1x10^5$ ops min. (0.5A 120VAC)
MAX OUTPUT CURRENT	1A 28 VDC - 0.5A 120 VAC (28W 60V A)
ABSORPTION	80 mA
YELLOW LED	Output and activated thru beam indicator
GREEN LED	Supply indicator
SWITCHING FREQUENCY	5 Hz
START UP DELAY	≤ 300 mS
TEMPERATURE LIMITS	-20 ÷ +60°C
LIGHT IMMUNITY	> 5000 Lux <sup>(1)</sup>
PROTECTION DEGREE Amplifiers	IP 50
PROTECTION DEGREE Projectors	IP 65
CONNECTIONS	with connectors
HOUSING MATERIAL Amplifiers	ABS
HOUSING MATERIAL Projectors	Body - Lenses: methacrylate
WEIGHT (Approximately)	430 g

<sup>&</sup>lt;sup>(1)</sup> Determined with halogen tungsten lamp 3000° K.

### **Wiring diagrams**



#### One beam selection

DIP (



In case the photoelectric thru beam is used with just one emitter or one receiver, chek that the selection DIP-Switch 3 (DIP 3) is in position ON.



#### **Duoble beam selection**

DIP 3



In case the photoelectric thru beam is used with two emitters and two receivers, check that the selection DIP-Switch (DIP 3) is in position OFF.



#### Reduced working distance (BP20 mod.)

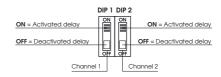
DIP 4



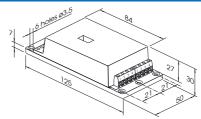
In order to reduce the working (switching) distance to 50% set the dip switch "DIP 4" in position ON.

## **Delay at sensor deactivation**

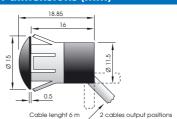
Operating on the suitable DIP-Switches it is possible to select on each channel a delay to the sensor deactivation, it permits to keep the sensor excited for abaut 1 second once the obstacle has passed the active area. Regulating the DIP-Switches (DIP 1 and DIP 2) in position ON, the delay is activated.



# **Amplifier dimensions (mm)**



#### **Projector dimensions (mm)**



## **Important warning**

The thru beam photoelectric sensor can be used as a sensor to detect the presence of an obstacle if the sensing beam gets interrupted.

In no case this device can substituted the obbligatory safety devices that must be applied on all dangerous equipments.

### **Characteristics curve**

For the latest updated specifications see our web-site: www.infrainternational.com

