

IFPX SERIES

INSTALLATION MANUAL



INPROX SENSORS

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Declaration of conformity
INPROX Corporation
Declare under our sole responsibility
that these products are in conformity
with the following EEC directive: 89/336
and 73/23 and successive emendments.

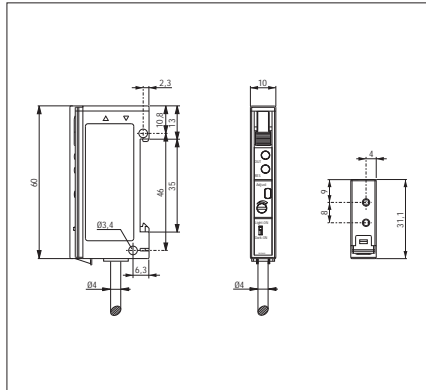
WARNING These products are NOT safety sensors
and are NOT suitable for use in personal safety
application

CONNECTOR



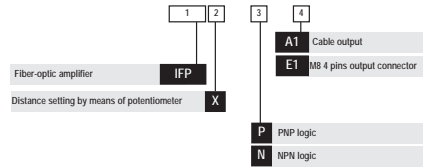
MECHANICAL DRAWINGS

IFPX-A1

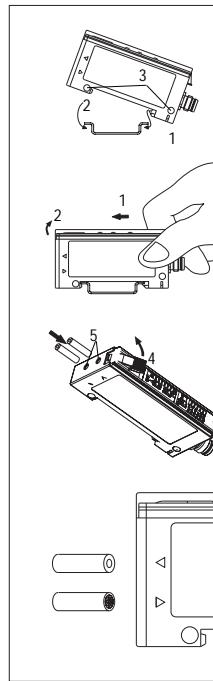
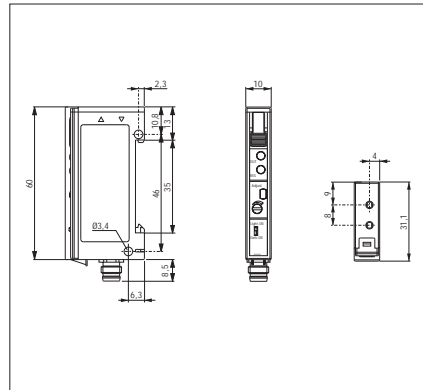


SPECIFICATIONS (ACC. TO IECEN 60947-5-2 / DIN 44030)

Model	IFPX
Rated operating distance S_n	200 mm (+CF/IB1-20)
Setting range:	20 ... 200 mm
Hysteresis	10 % typ.
Standard target	100x100mm white
Emitter (regulated light power)	LED red 680 nm
Output (switchable)	LONDON
Excess light output	Light ON
Output state indication	LED yellow
Excess light indication	LED green
Supply voltage range UB	10 ... 30 VDC
Max. ripple content	< 20% V al / UB
Output current	< 200 mA
Output voltage drop	< 2.0 V a / at 200 mA
No-load supply current	< 15 mA typ. a / at UB = 24 V
Leakage current	< 0.1 mA
Switching frequency	1500 Hz
Switching time	330 µsec
Modulation frequency	15 kHz
Time delay before availability	300 ms
Max. ambient light, halogen	5000 Lux
Max. ambient light, sun	10000 Lux
Sensitivity setting	Potentiometer
Ambient temperature range	-25 ... +55 °C
Temperature drift of s_n	0.2 % / °C
Voltage reversal protection	built-in
Induction protection	built-in
Short-circuit protection	built-in
Shocks and vibration	IEC 60947-5-2 / 7.4
Cable length	300 m max.
Weight (cable / connector)	69 g / 18 g
Degree of protection	IP 64
EMC protection: IEC 60255-5	5 kV
IEC 61000-4-2	Level 2
IEC 61000-4-3	Level 3
IEC 61000-4-4	Level 2
Optical fiber connection	Ø 2.2 mm
Housing material	PBTP
Connection cable (IFPX-A1)	2m PVC 4x0,25mm/128x0,05 mm Ø
Connector type (IFPX-E1)	S8 4p



IFPX-E1

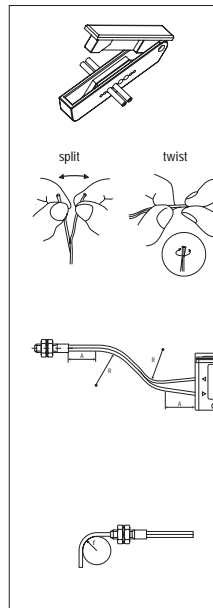


Device mounting

- Mounting of the device is most easily effected by snapping 1/ 2 onto a top-hat rail (according to DIN / EN 50022).
- To remove the device, push towards the optical fiber 1, and lift 2.

Fixing the optical fibers

- Lift catch 4.
- Insert the optical fibers through the two holes 5 provided into the device.
- Lower catch 4.
- Important:
 - When inserting the optical fibers, the resistance of the device's internal O-ring seal must be overcome.
 - The optical fibers must be fedrig to the stop without fail.
 - The optical fibers must not be crushed.
 - The sequence (emitter / receiver) is usually immaterial, however:
 - With coaxial optical fibers, the optical fiber bundle must be connected on the receiver side. The emitter and receiver openings are marked with arrows on the housing.



Cutting the optical fibers

- Cut synthetic optical fibers to the desired length. Use only the cutting tool.
- A maximum of 3 cuts should be made per cutting-tool hole.

Separating the optical fibers

- Grasp the optical fiber ends with both hands and pull both strands apart to a length of about 50 mm.
- According to the type (above all for thin-fiber executions), prior twisting helps.

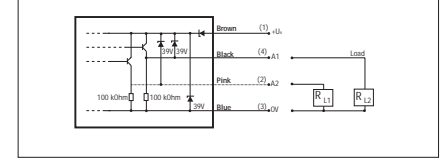
Optical fiber mounting

(All diameters refer to the optical diameter.)

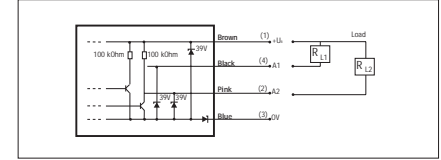
- No bending should occur in zone "A"
 - Fiber Ø 1 mm A 20 mm
 - Fiber Ø 0.5 mm A 10 mm
- The bending radius should not be less than "R"
 - Fiber Ø 1 mm R 25 mm
 - Fiber Ø 0.5 mm R 10 mm
- Bendable light-outlet tubes should be bent as little as possible; best bent around a cylindrical object.
- Maximum 3 bends.

ELECTRIC DIAGRAMS OF THE CONNECTIONS

IFPX PNP



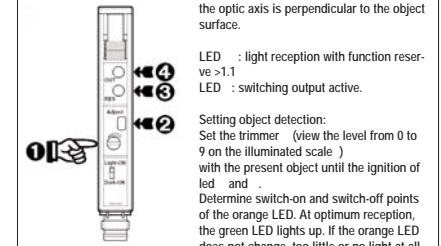
IFPX NPN



A1 Output (Light-ON/Dark-ON switchable)

A2 Excess light output Light-ON

ADJUST



LIGHT-ON

