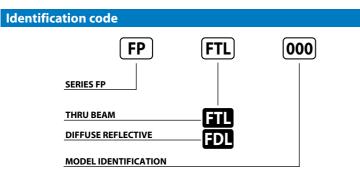
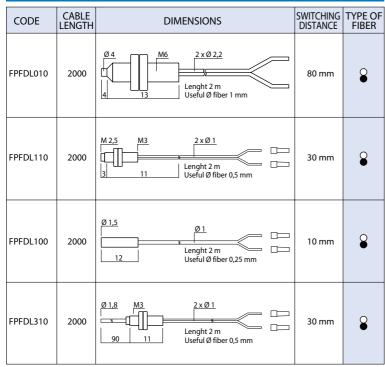
# **Optical Fibers**

# PLASTIC OPTICAL FIBERS

- Sensing distance: 80 mm Diffuse Reflective model
- Sensing distance: 200 mm Thru Beam model
- Use with amplifier AF10



# **Diffuse reflective selection table**



# Thru Beam selection table

CODE	CABLE LENGTH	DIMENSIONS	SWITCHING DISTANCE	TYPE OF FIBER
FPFTL000	2000	M 2,5 M 2,5 Lenght 2 m Useful Ø fiber 1 mm	200 mm	•
FPFTL200	2000	Ø 1,5 Ø 1 Lenght 2 m 12 Useful Ø fiber 0,5 mm	100 mm	•
FPFTL301	2000	Ø 1,8 M4 Ø 2,2	200 mm	•



# **FP Series**



### Optical fibers adjustment procedures and assembling

# 1) AMPLIFIER UNIT

- Make sure that the supply voltage complies with the given value ( $\pm$  10%) for a stable functioning.
- The connection cables of the amplifier must be separated from the power cables in order to avoid interferences in the net.
- Temperature and humidity must be within the given limits.

#### 2) SENSITIVITY ADJUSTMENT

- Even after the tuning, sensitivity may be slightly changed by the object to be detected and by environmental factors.
- Since the reflectivity changes according to the object, adjustment must be carried out using the object to be detected.
- Once the adjustment is completed, do not change the fixing or the bending radius.
- Make sure the adjustment has been carried out correctly.

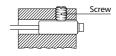
#### **3) OPTICAL FIBERS**

- Plastic fibers can be cut with the proper fiber cutter in the desired length.
- Cut the fibers before connecting them and be sure that the cut is perfect in order to avoid decrease of sensitivity.
- Do not use the same cutting hole for more than one cut.

	FIXING TORQUE	
M 3	6 Kgf - cm MAX.	
M 4		
M 5	10 Kgf - cm MAX.	

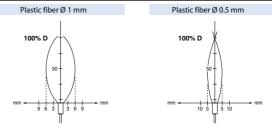
#### 4) FIBER FIXING

- Use the supplied nuts and washers. When screwing pay attention not to damage the fiber with excessive forcing.
- When fixing the smooth (not threaded) type of fiber, use a M3 max. screw and do not exceed torque force of 3 kg/cm 2 max.



# Caracteristic curves

#### Diffuse Reflective



#### Thru Beam

