# **Optical Fibers**

# **PLASTIC OPTICAL FIBERS**

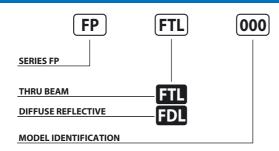
- Sensing distance: 80 mm Diffuse Reflective model
- · Sensing distance: 200 mm Thru Beam model
- Use with amplifier AF10



# **FP Series**



# **Identification code**



# Diffuse reflective selection table

CODE	CABLE LENGTH	DIMENSIONS	SWITCHING DISTANCE	TYPE OF FIBER
FPFDL010	2000	M6  2 x Ø 2,2  Lenght 2 m Useful Ø fiber 1 mm  Possible cutting	80 mm	•
FPFDL110	2000	M2,5 M3 2 x Ø 1 Lenght 2 m Useful Ø fiber 0,5 mm  Possible cutting	30 mm	8
FPFDL100	2000	Ø 1,5  Lenght 2 m Useful Ø fiber 0,25 mm  Not possible cutting	10 mm	8
FPFDL310	2000	Ø 1,8 M3 2 x Ø 1  90 11 Lenght 2 m Useful Ø fiber 0,5 mm  Possible cutting	30 mm	•

# Thru Beam selection table

CODE	CABLE LENGTH	DIMENSIONS	SWITCHING DISTANCE	TYPE OF FIBER
FPFTL000	2000	M 2,5  M4  Described a market of the second	200 mm	•
FPFTL200	2000	Ø 1,5  Ø 1  Lenght 2 m Useful Ø fiber 0,5 mm  Not possible cutting	100 mm	•
FPFTL301 2000		Ø 1,8 M4 Ø 2,2  Substituting Description of the property of th	200 mm	•

# 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.

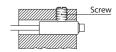
#### 3) OPTICAL FIBERS

- 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	
F	M 3	C Kerk area MAN	
	M 4	6 Kgf - cm MAX.	
	M 5	10 Kgf - cm MAX.	

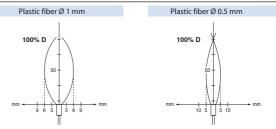
#### 4) FIBER FIXING

- 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**

