

F70R series

FIBER OPTIC SENSORS

- LCD Display Fiber optic sensor sensitivity status is visible
- Anti Mutual interference

Ease of installation.

Wide range of usage.

- Self diagnosis

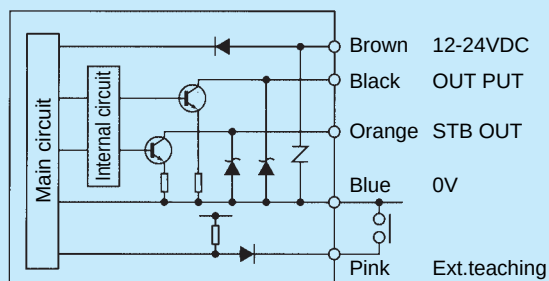
Will the sensor be okay after starting the operation?

Even after continuous operation for 24 hours, if the operation becomes "unstable" the stability output is generated. Convenient for maintenance.

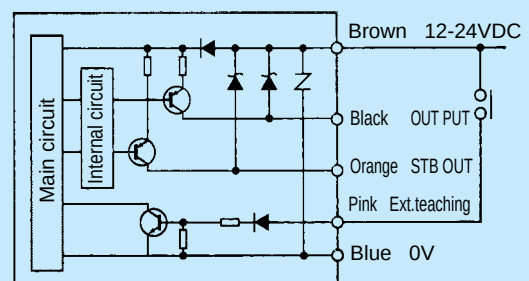


■ OUTPUT CIRCUIT

NPN output



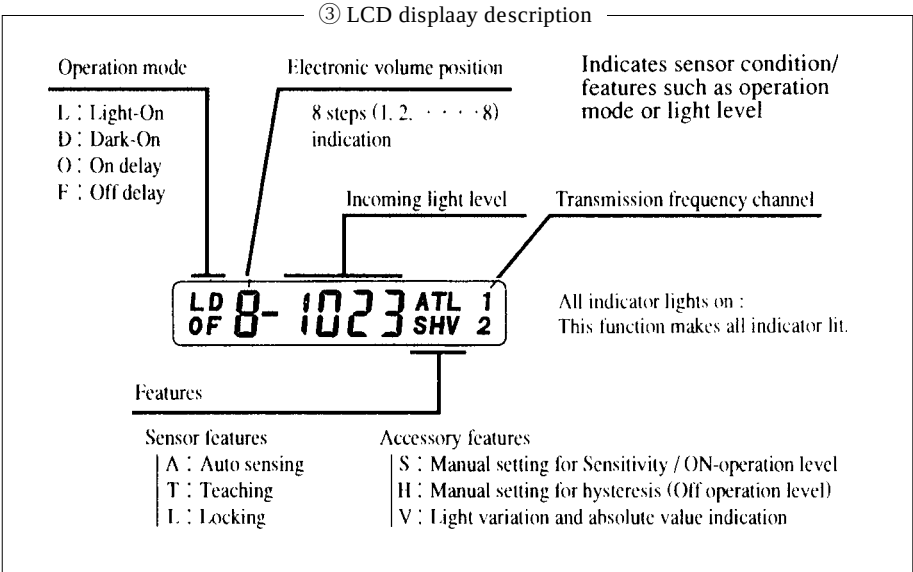
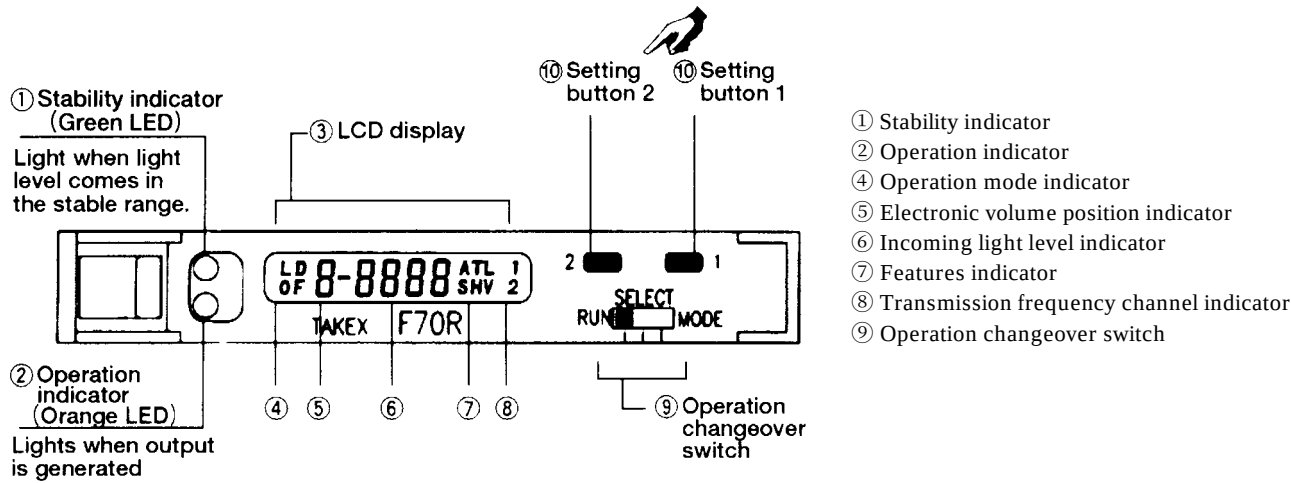
PNP output



SPECIFICATIONS

Model	NPN type	F70R	F70G	F70B
	PNP type	F70RPN	F70GPN	F70BPN
Detection		Through beam/Reflection(by fiber unit)		
Range		Depending on fiber unit		
Power supply		12—24VDC ±10% Ripple 10% or less		
Current consumption		NPN type : 39mA or less PNP type : 50mA or less		
Output mode	Output	Open collector		
		NPN:Rated : Sink current 100mA(30VDC)Max. Residual voltage : 1V or less PNP:Rated : Source current 100mA(30VDC)Max. Residual voltage : 2V or less		
	Stability Output	Opne collector		
		NPN:Rated : Sink current 50mA(30VDC)Max. Residual voltage : 1V or less PNP:Rated : Source current 50mA(30VDC)Max. Residual voltage : 2V or less		
Operation mode		Light-On/Dark-On selectable		
Timer		On delay/Off delay/On-Off delay/non-delay selectable Timer time:10/20/40/60/80/100/120ms. selectable 40ms. set at factory		
External teaching input		Non voltage(contact/non-contact)		
Response time		Transmission frequency Channel 1 : 500 μ s. or less Channel 2 : 600 μ s. or less		
Light source (wave length)		Red LED (660nm)	Green LED (565nm)	Blue LED (470nm)
Indicator		Operation indicator : Orange LED,Stability indicator : Green LED		
Display		LCD with back light		
Switch		Setting button : 2	Operation changeover switch:RUN/SELECT/MODE	
Teaching system		Full auto teaching/Auto teaching		
Teaching input		Setting button/External input		
Features		• Sensor feature : Auto sensing/Teaching/Locking • Accessory feature : S-Manual setting for sensitivity/ON-operation level H-Manual setting for hysteresis V-Light variation indication mode/Absolute value indication mode • Interference protection built-in • Self-diagnostic built-in • Short curcuit protection built-in		
Material		Polycarbonate		
Wiring		Cable(outer dimension:dia.4.8) 0.2sq. 5 core 2m length		
Weight		Approx.80g(including mounting bracket)		
Ambient illumination		Incandescent lamp : 10,000lx or less Sun light : 20,000lx or less		
Ambient temperature		—25～+55℃(storage:—40～+70℃) in case of installed some pieces closely, 1-4pcs : —25～+55℃ 5pcs or more : —25～+45℃		

■ PANEL DESCRIPTION



⑨ Operation changeover switch



Sensor function
Functioning as a normal sensor



Selecting function
*Light-On/Dark-On/Timer selectable
*Sensor features selectable
*Accessory features selectable



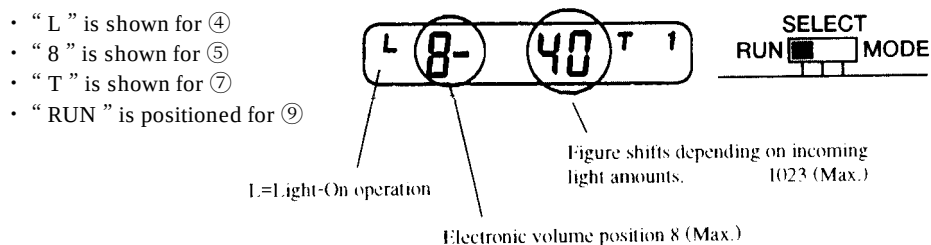
Mode function
*Sensitivity setting on locking mode (Teaching)
*Operation of accessory features selected at SELECT

BASIC OPERATION

*Check operation in factory set condition prior to use.

1) Install the fiber unit, correctly make wiring and supply the power.

Factory set condition will show the following indication.



2) Incoming light level indicator⑥ shows the figure which presents incoming light amount at that moment.

The differential (1 or 2) may occur between the indicated value and the actual operating value.

DIMENSIONS

