

# Photoelectric Switch

## FBX SERIES $\text{CE}$

Width 25mm, repeatability  $\pm 0.1\text{mm}$

- Unnecessary to adjust.
- High response time and high repeatability.
- Conformity to EMC directive.



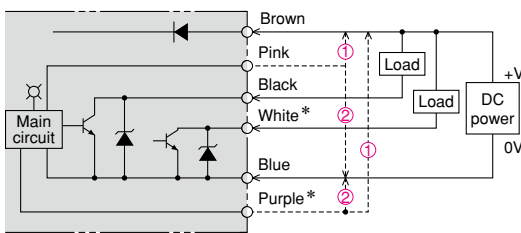
### Specifications

Type	Through-beam type			
Model No.	FBX-25JC	FBX-25JA	FBX-25DC	FBX-25DA
Power source	12 to 24VDC ( $\pm 10\%$ , ripple 5% or less)			
Power consumption	20mA or less	25mA or less	35mA or less	40mA or less
Light source	Infrared LED (880nm)			
Detecting distance	25mm $\times$ 1 beam		25mm $\times$ 2 beam	
Detectable object	Opaque objects with $\phi$ 1mm or more			
Operating mode	Changeover by control wire (FBX-25JC/25JA: Pink, FBX-25DC/25DA: Pink, purple) Light-ON: Connected control wire to +V (brown), Dark-ON: Connected control wire to 0V (Blue)			
Control output	NPN transistor open-collector	PNP transistor open-collector	NPN transistor open-collector	PNP transistor open-collector
Protective circuit	Allowable load voltage: 33V or less, allowable load current: 100mA or less Residual (ON) voltage: 1.0V/100mA or less, 0.5V/10mA or less			
Response time	Protection for power reverse connection, Protection for output counter-voltage			
Repeatability	1msec or less			
Indication lamps	$\pm 0.1\text{mm}$			
Connection	Power lamp: Green LED (Lights up when power-ON), Light-entering lamp: Orange LED (Lights up when light-entering)		Cable type (2m long, 0.2mm <sup>2</sup> , 6-core vinyl cable with oil-proof and cold-proof)	
Ambient illuminance	Cable type (2m long, 0.2mm <sup>2</sup> , 4-core vinyl cable with oil-proof and cold-proof)			
Ambient temperature/humidity	Sun light: 10,000lux or less, Incandescent lamp: 5,000lux or less			
Protective structure	-25 to +55°C (-30 to +70°C when stored), 45 to 85%RH (Not icing/not condensing)			
Case material	IP67 (IEC standard)			
Weight	Polycarbonate		Approx. 60g	
			Approx. 65g	

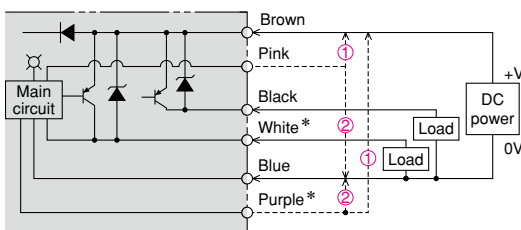
★ Protective cover is available as an option. Ask us for details.

### Output circuit

NPN output type



PNP output type

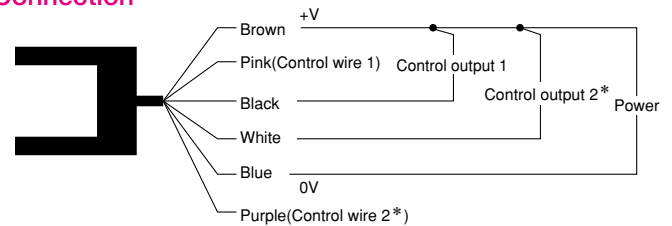


Operation mode changeover (Pink but pink/purple for FBX-25DC/25DA):

Output transistor ON when light-entering (connected to +V side),  
output transistor ON when light-interrupting (connected to 0V side)

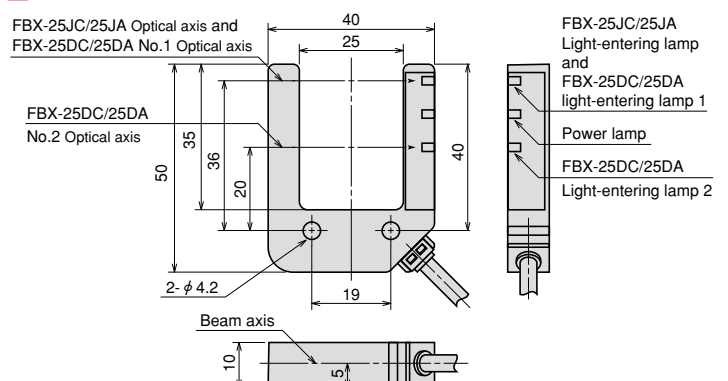
\* Only FBX-25DC/25DA is provided.

### Connection



\* Only FBX-25DC/25DA is provided.

### External dimensions



FBX-25JC/25JA  
Light-entering lamp  
and  
FBX-25DC/25DA  
light-entering lamp 1  
Power lamp  
FBX-25DC/25DA  
Light-entering lamp 2