

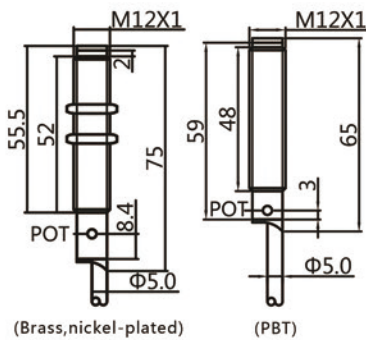


Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- M12*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III
- Ingress protection : IP67



Dimensioned drawing

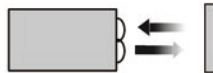


Model No.

Housing material	PBT	Metal
NPN Light/Dark-on	FM12-T02N-P31P2	FM12-T02N-C31P2
PNP Light/Dark-on	FM12-T02P-P31P2	FM12-T02P-C31P2

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

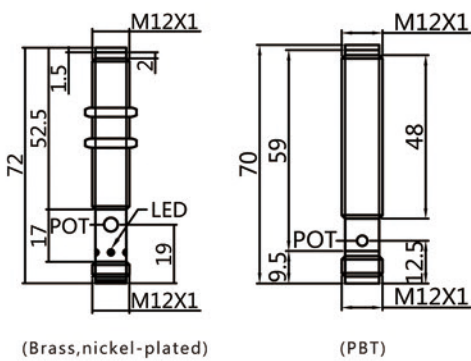


Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- M12*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III
- Ingress protection : IP67



Dimensioned drawing

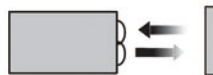


Model No.

Housing material	PBT	Metal
NPN Light/Dark-on	FM12-T02N-P31S12	FM12-T02N-C31S12
PNP Light/Dark-on	FM12-T02P-P31S12	FM12-T02P-C31S12

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring





Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions ;
- M12*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

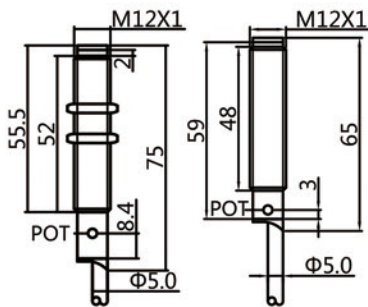
Ultrasonic Sensors

Connectors

Accessories

Index Of Types

Dimensioned drawing



(Brass,nickel-plated)

(PBT)

Model No.

Housing material	PBT	Metal
NPN Light/Dark-on	FM12-R2N-P31P2	FM12-R2N-C31P2
PNP Light/Dark-on	FM12-R2P-P31P2	FM12-R2P-C31P2

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install aspect, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occluded, generate a switch change.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	FR-Q51 (to be ordered separately)

Wiring

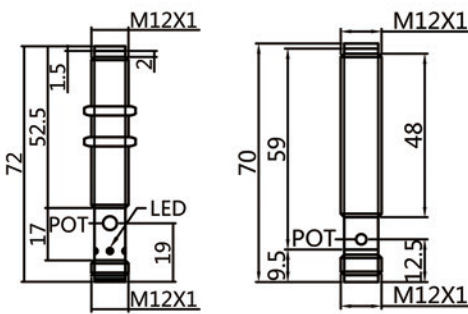


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions ;
- M12*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



(Brass,nickel-plated)

(PBT)

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install aspect, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occluded, generate a switch change.

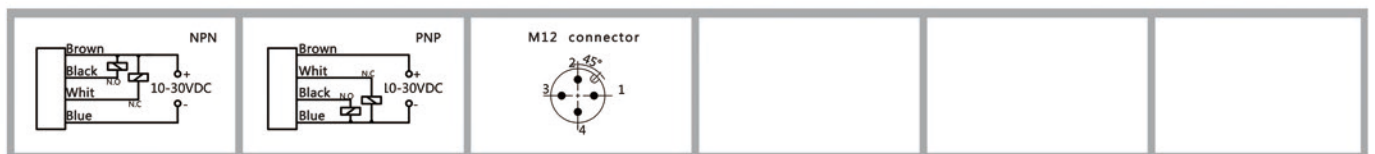
Model No.

Housing material	PBT	Metal
NPN Light/Dark-on	FM12-R2N-P31S12	FM12-R2N-C31S12
PNP Light/Dark-on	FM12-R2P-P31S12	FM12-R2P-C31S12

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2/FR-Q51
		(to be ordered separately)

Wiring





Features :

- Through-beam , Emitter/receiver set , DC3-wire discrete output;
- Cable & connector versions ;
- M12*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

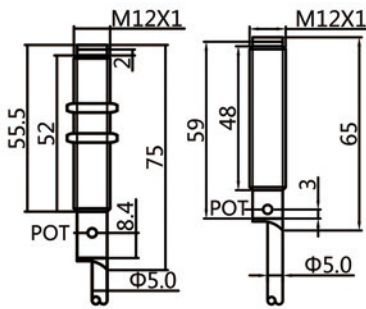
Ultrasonic Sensors

Connectors

Accessories

Index Of Types

Dimensioned drawing



(Brass,nickel-plated)

(PBT)

Model No.

Housing material	PBT	Metal
Transmitter	FM12-L52D-P51P2	FM12-L52D-C51P2
NPN Dark-on	FM12-L52N-P11P2	FM12-L52N-C11P2
NPN Light-on	FM12-L52N-P21P2	FM12-L52N-C21P2
PNP Dark-on	FM12-L52P-P11P2	FM12-L52P-C11P2
PNP Light-on	FM12-L52P-P21P2	FM12-L52P-C21P2

Background suppression

Through-beam sensors

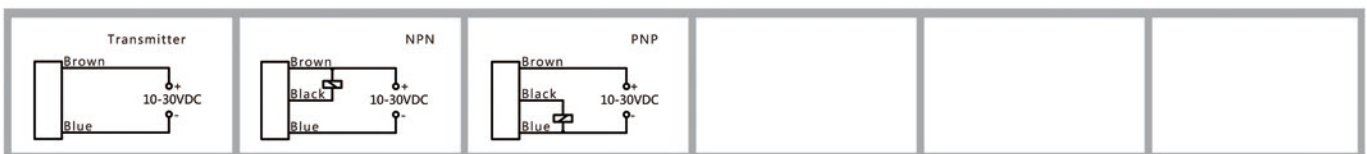


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 3*0.35mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

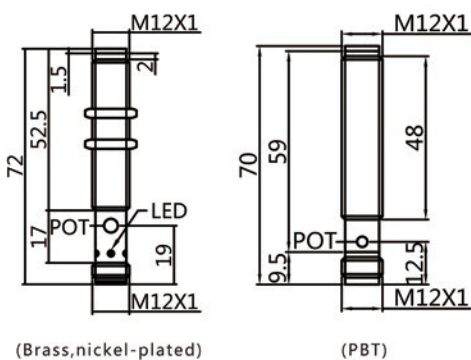


Features :

- Through-beam , Emitter/receiver set , DC3-wire discrete output;
- Cable & connector versions ;
- M12*1mm,plastic/nickel-plated brass housing;
- VDE safety class : 3;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Housing material	PBT	Metal
Transmitter	FM12-L52D-P51S12	FM12-L52D-C51S12
NPN Dark-on	FM12-L52N-P11S12	FM12-L52N-C11S12
NPN Light-on	FM12-L52N-P21S12	FM12-L52N-C21S12
PNP Dark-on	FM12-L52P-P11S12	FM12-L52P-C11S12
PNP Light-on	FM12-L52P-P21S12	FM12-L52P-C21S12

Background suppression

Through-beam sensors

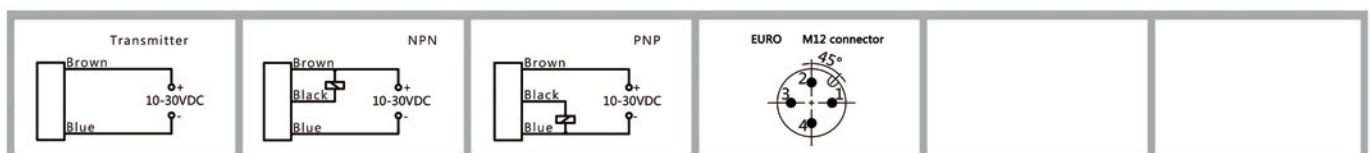


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	
	Ambient temperature	<5000Lux.
	Ambient humidity	-25...55°C
Mechanical data	Housing material	35--85%
	Lens material	Brass,nickel-plated/PBT
	Operating indicator	PMMA
Electrical connection	Connectors	Yellow
		M12 connector
Accessories	Accessories	
	(to be ordered separately)	B12-4GV2/B12-4WV2

Wiring





Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III
- Ingress protection : IP67



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

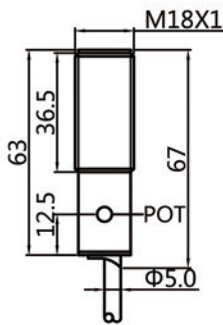
Ultrasonic Sensors

Connectors

Accessories

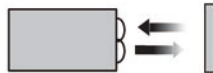
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Dimensioned drawing



Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Model No.

Sensing range	Sn: 150 mm	Sn: 150 mm
Housing material	PBT	Metal
NPN Light/Dark-on	FM18-T015N-P31P2-E	FM18-T015N-C31P2-E
PNP Light/Dark-on	FM18-T015P-P31P2-E	FM18-T015P-C31P2-E

Sensing range	Sn: 500 mm	Sn: 500 mm
Housing material	PBT	Metal
NPN Light/Dark-on	FM18-T05N-P31P2-E	FM18-T05N-C31P2-E
PNP Light/Dark-on	FM18-T05P-P31P2-E	FM18-T05P-C31P2-E

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring



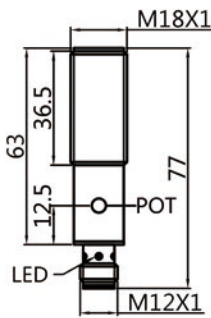


Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III
- Ingress protection : IP67

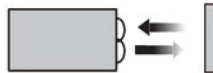


Dimensioned drawing



Background suppression

Diffuse type sensors



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Model No.

Sensing range	Sn: 150 mm	Sn: 150 mm
Housing material	PBT	Metal
NPN Light/Dark-on	FM18-T015N-P31S12-E	FM18-T015N-C31S12-E
PNP Light/Dark-on	FM18-T015P-P31S12-E	FM18-T015P-C31S12-E

Sensing range	Sn: 500 mm	Sn: 500 mm
Housing material	PBT	Metal
NPN Light/Dark-on	FM18-T05N-P31S12-E	FM18-T05N-C31S12-E
PNP Light/Dark-on	FM18-T05P-P31S12-E	FM18-T05P-C31S12-E

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring





Features :

- Diffuse type , AC 3-wire discrete output;
- Cable & connector versions;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III ;
- Ingress protection : IP67



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

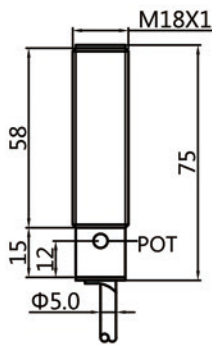
Ultrasonic Sensors

Connectors

Accessories

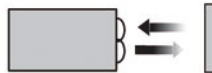
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Dimensioned drawing



Background suppression

Diffuse type sensors



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Model No.

Sensing range	Sn: 150 mm	Sn: 150 mm
Housing material	PBT	Metal
Light/Dark-on	FM18-T015A-P14P2	FM18-T015A-C14P2
Light/Dark-on	FM18-T015A-P24P2	FM18-T015A-C24P2

Sensing range	Sn: 500 mm	Sn: 500 mm
Housing material	PBT	Metal
Light/Dark-on	FM18-T05A-P14P2	FM18-T05A-C14P2
Light/Dark-on	FM18-T05A-P24P2	FM18-T05A-C24P2

Technical data

Electrical data	Operating voltage	24-240V AC
	Switching frequency	25Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	200mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 3*0.35mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

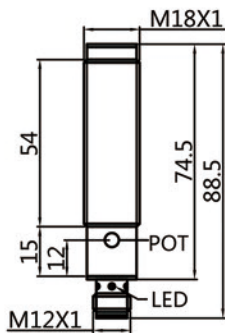


Features :

- Diffuse , AC 3-wire discrete output;
- Cable & connector versions;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III
- Ingress protection : IP67



Dimensioned drawing



Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Model No.

Sensing range	Sn: 150 mm	Sn: 150 mm
Housing material	PBT	Metal
Light/Dark-on	FM18-T015A-P14S12	FM18-T015A-C14S12
Light/Dark-on	FM18-T015A-P24S12	FM18-T015A-C24S12

Sensing range	Sn: 500 mm	Sn: 500 mm
Housing material	PBT	Metal
Light/Dark-on	FM18-T05A-P14S12	FM18-T05A-C14S12
Light/Dark-on	FM18-T05A-P24S12	FM18-T05A-C24S12

Technical data

Electrical data	Operating voltage	24-240V AC
	Switching frequency	25Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	200mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

Wiring



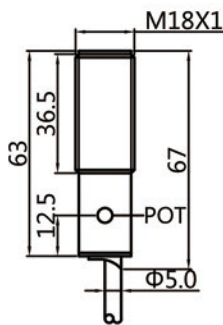


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector version ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : 3;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Housing material	PBT	Metal
NPN Light/Dark-on	FM18-R3N-P31P2-E	FM18-R3N-C31P2-E
PNP Light/Dark-on	FM18-R3P-P31P2-E	FM18-R3P-C31P2-E

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass, nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	FR-Q51 (to be ordered separately)

Wiring

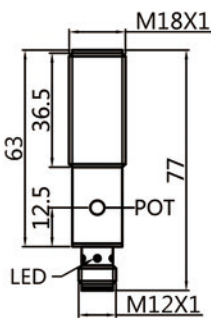


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing

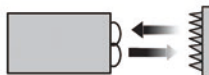


Model No.

Housing material	PBT	Metal
NPN Light/Dark-on	FM18-R3N-P31S12-E	FM18-R3N-C31S12-E
PNP Light/Dark-on	FM18-R3P-P31S12-E	FM18-R3P-C31S12-E

Background suppression

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Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

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	Response time	<2ms
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	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass, nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2/FR-Q51
		(to be ordered separately)

Wiring



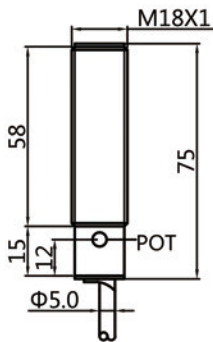


Features :

- Retro-reflective , AC3-wire discrete output;
- Cable & connector versions ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Housing material	PBT	Metal
Light/Dark-on	FM18-R3A-P14P2	FM18-R3A-C14P2
Light/Dark-on	FM18-R3A-P24P2	FM18-R3A-C24P2

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

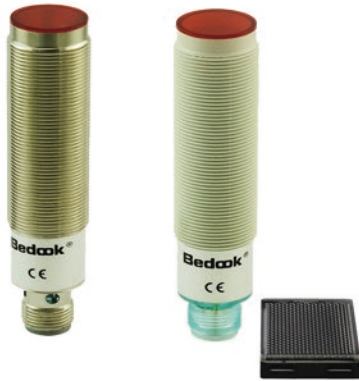
Electrical data	Operating voltage	24-240V AC
	Switching frequency	25Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	200mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass, nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 3*0.35mm ²
Accessories	Accessories	FR-Q51 (to be ordered separately)

Wiring

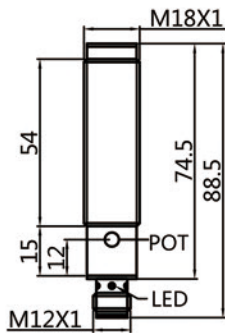


Features :

- Retro-reflective , AC3-wire discrete output;
- Cable & connector versions ;
- M18*1mm , plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Housing material	PBT	Metal
Light/Dark-on	FM18-R3A-P14S12	FM18-R3A-C14S12
Light/Dark-on	FM18-R3A-P24S12	FM18-R3A-C24S12

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install aspeculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	24-240V AC
	Switching frequency	25Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	200mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass, nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2/FR-Q51
		(to be ordered separately)

Wiring





Features :

- Through-beam , Emitter/receiver set , DC4-wire discrete output;
- Cable & connector versions ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

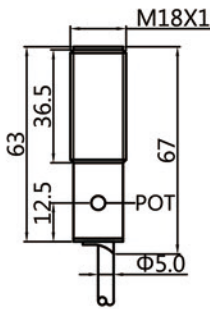
Ultrasonic Sensors

Connectors

Accessories

Index Of Types

Dimensioned drawing



Model No.

Housing material	PBT	Metal
Transmitter	FM18-L15MD-P51P2-E	FM18-L15MD-C51P2-E
NPN Light/Dark-on	FM18-L15MN-P31P2-E	FM18-L15MN-C31P2-E
PNP Light/Dark-on	FM18-L15MP-P31P2-E	FM18-L15MP-C31P2-E

Background suppression

Through-beam sensors

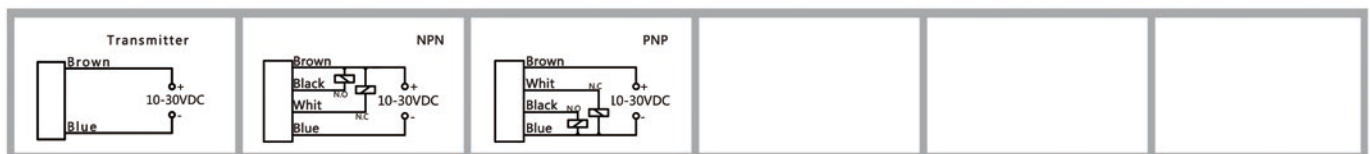


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 2*0.5mm ² /4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring



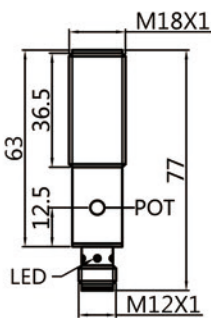


Features :

- Through-beam , Emitter/receiver set , DC4-wire discrete output;
- Cable & connector versions ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : 3;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Housing material	PBT	Metal
Transmitter	FM18-L15MD-P51S12-E	FM18-L15MD-C51S12-E
NPN Light/Dark-on	FM18-L15MN-P31S12-E	FM18-L15MN-C31S12-E
PNP Light/Dark-on	FM18-L15MP-P31S12-E	FM18-L15MP-C31S12-E

Background suppression

Through-beam sensors

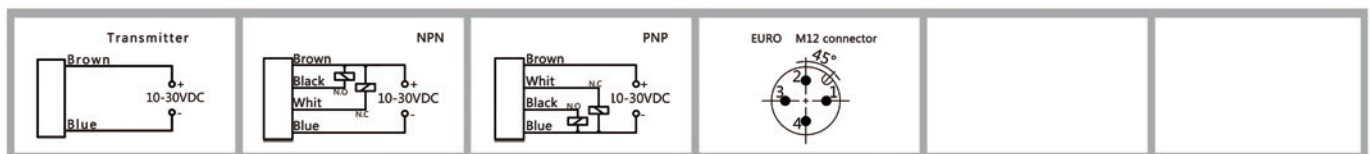


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring



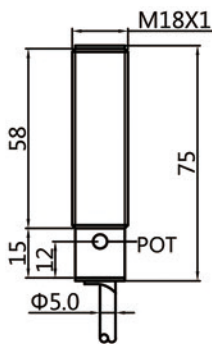


Features :

- Through-beam , Emitter/receiver set , AC3-wire discrete output;
- Cable & connector versions ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : 3;
- Ingress protection : IP67



Dimensioned drawing



Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Model No.

Housing material	PBT	Metal
Transmitter	FM18-L15MD-P54P2	FM18-L15MD-C54P2
NPN Light/Dark-on	FM18-L15MA-P14P2	FM18-L15MA-C14P2
PNP Light/Dark-on	FM18-L15MA-P24P2	FM18-L15MA-C24P2

Technical data

Electrical data	Operating voltage	24-240V AC
	Switching frequency	50Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	200mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 3*0.35mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

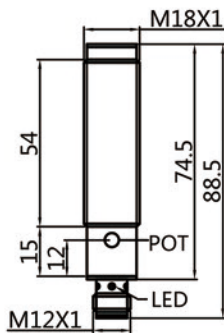


Features :

- Through-beam , Emitter/receiver set , AC3-wire discrete output;
- Cable & connector versions ;
- M18*1mm,plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Housing material	PBT	Metal
Transmitter	FM18-L15MD-P54S12	FM18-L15MD-C54S12
NPN Light/Dark-on	FM18-L15MA-P14S12	FM18-L15MA-C14S12
PNP Light/Dark-on	FM18-L15MA-P24S12	FM18-L15MA-C24S12

Background suppression

Through-beam sensors

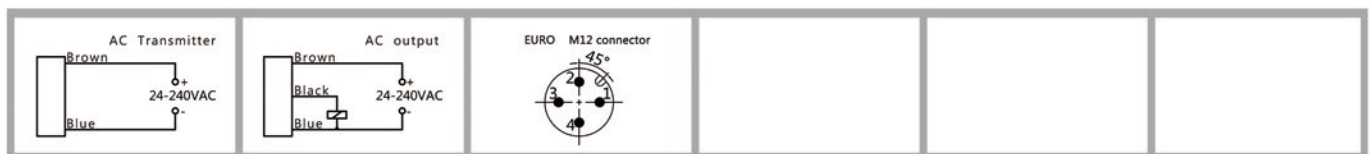


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking th- e light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	24-240V AC
	Switching frequency	50Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	200mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring

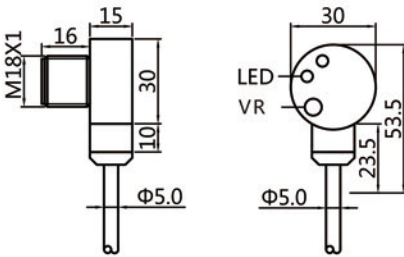


Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- M18*1mm, Right-angle plastic housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing

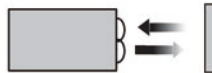


Model No.

Sensing range	Sn: 150 mm	Sn: 500 mm
NPN Dark/Light-on	FQ18-T015N-P31P2-E	FQ18-T05N-P31P2-E
PNP Dark/Light-on	FQ18-T015P-P31P2-E	FQ18-T05P-P31P2-E

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

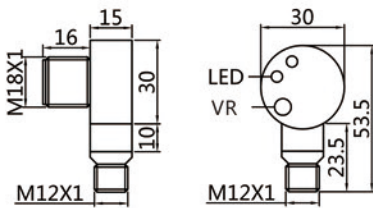


Features :

- Diffuse type,DC 4-wire discrete output;
- Cable & connector versions;
- M18*1mm, Elbow plastic housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing

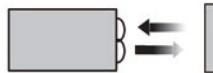


Model No.

Sensing range	Sn: 150 mm	Sn: 500 mm
NPN Dark/Light-on	FQ18-T015N-P31S12-E	FQ18-T05N-P31S12-E
PNP Dark/Light-on	FQ18-T015P-P31S12-E	FQ18-T05P-P31S12-E

Background suppression

Diffuse type sensors

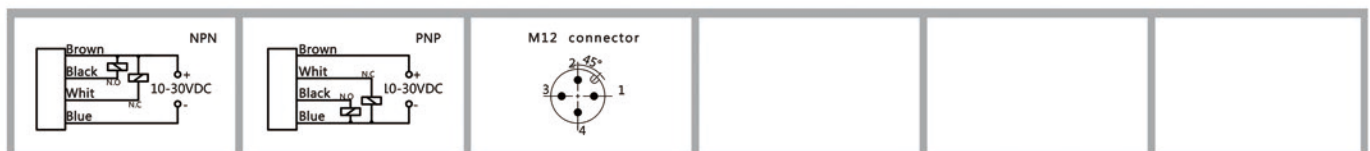


Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring

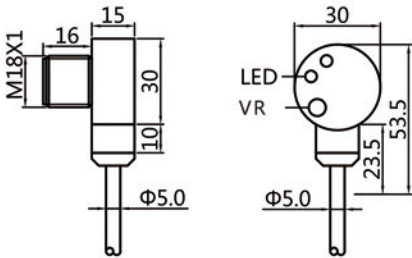


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions;
- M18*1mm, right-angle plastic housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	FR-Q51 (to be ordered separately)

Wiring

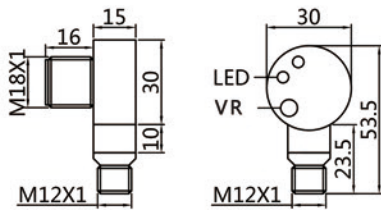


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions;
- M18*1mm, Right-angle plastic housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Sensing range	Sn : 0.1-3 m
NPN Dark/Light-on	FQ18-R3N-P31S12-E
PNP Dark/Light-on	FQ18-R3P-P31S12-E

Background suppression

Retro-reflective sensors



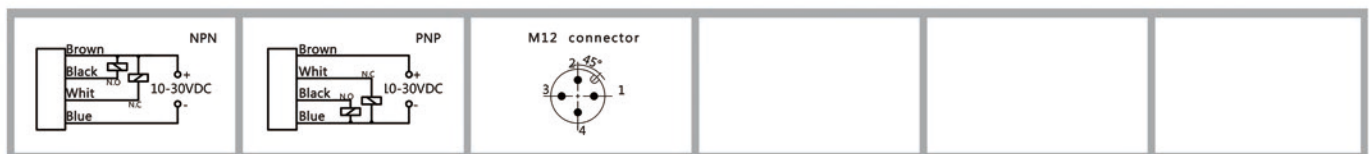
Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35-85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	FR-Q51/B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring

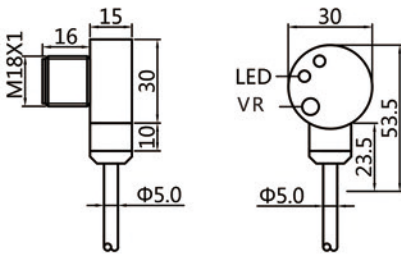


Features :

- Through-beam , Emitter/receiver set , DC4-wire discrete output;
- Cable & connector versions;
- M18*1mm, right-angle plastic housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Sensing range	Sn : 15 m
Transmitter	FQ18-L15MD-P51P2-E
NPN Dark/Light-on	FQ18-L15MN-P31P2-E
PNP Dark/Light-on	FQ18-L15MP-P31P2-E

Background suppression

Through-beam sensors

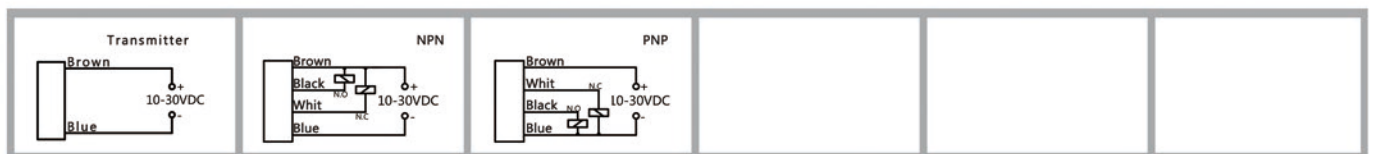


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
Environment	Adjustment	Single-turn potentiometer
	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow
	Connectors	PVC cable/2m; 4*0.25mm ² /2X0.5mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring

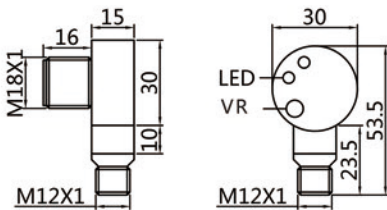


Features :

- Through-beam , Emitter/receiver set , DC3-wire discrete output;
- Cable & connector versions;
- M18*1mm, right-angle plastic housing;
- VDE safety class : 3;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Sensing range	Sn: 15 m
Transmitter	FQ18-L15MD-P51S12-E
NPN Dark/Light-on	FQ18-L15MN-P31S12-E
PNP Dark/Light-on	FQ18-L15MP-P31S12-E

Background suppression

Through-beam sensors

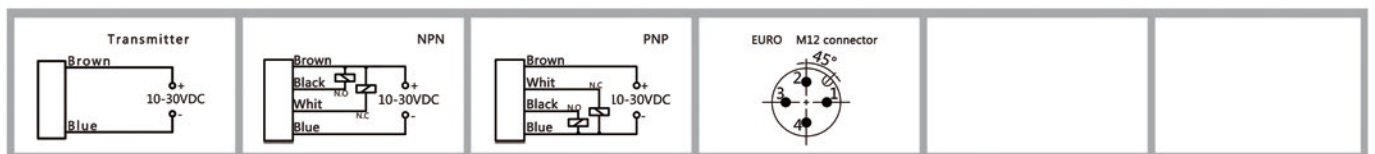


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Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2
		(to be ordered separately)

Wiring

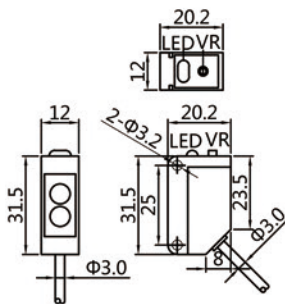


Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- Q31 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 110mm	Sn: 350mm
NPN Dark/Light-on	FQ31-T011N-P31P2	FQ31-T035N-P31P2
PNP Dark/Light-on	FQ31-T011P-P31P2	FQ31-T035P-P31P2
Sensing range	Sn: 800mm	
NPN Dark/Light-on	FQ31-T08N-P31P2	
PNP Dark/Light-on	FQ31-T08P-P31P2	

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	红外线 880 nm/ 红光 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
	Housing material	ABS
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow : output/ Green : power supply
	Connectors	PVC cable/2m; 4*0.18mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring

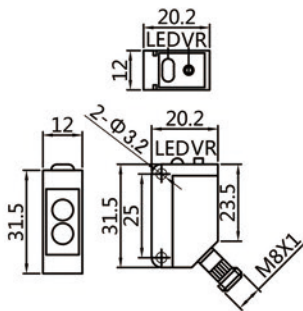


Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- Q31 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing

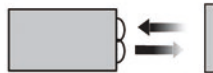


Model No.

Sensing range	Sn: 110 mm	Sn: 350 mm
NPN Dark/Light-on	FQ31-T011N-P31S8	FQ31-T035N-P31S8
PNP Dark/Light-on	FQ31-T011P-P31S8	FQ31-T035P-P31S8
Sensing range	Sn: 800 mm	
NPN Dark/Light-on	FQ31-T08N-P31S8	
PNP Dark/Light-on	FQ31-T08P-P31S8	

Background suppression

Diffuse type sensors

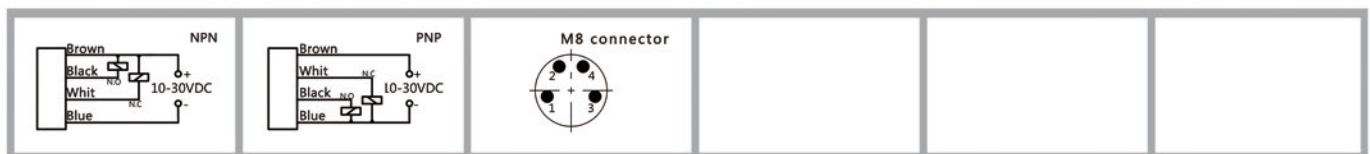


Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green : power supply
Electrical connection	Connectors	M8 connector
Accessories	Accessories	B8-4GV2/B8-4WV2
	(to be ordered separately)	

Wiring

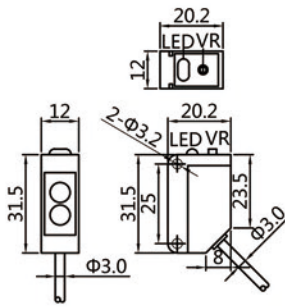


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions;
- Q31 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 2 m	Sn: 4 m
NPN Dark/Light-on	FQ31-R2N-P31P2	FQ31-R4N-P31P2
PNP Dark/Light-on	FQ31-R2P-P31P2	FQ31-R4P-P31P2

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.18mm ²
Accessories	Accessories	FR-Q51 (to be ordered separately)

Wiring

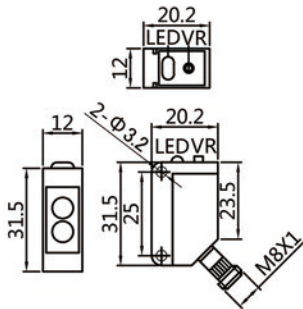


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions;
- Q31 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 2 m	Sn: 4 m
NPN Dark/Light-on	FQ31-R2N-P31S8	FQ31-R4N-P31S8
PNP Dark/Light-on	FQ31-R2P-P31S8	FQ31-R4P-P31S8

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	M8 connector
Accessories	Accessories	B8-4GV2/B8-4WV2/FR-Q51 (to be ordered separately)

Wiring

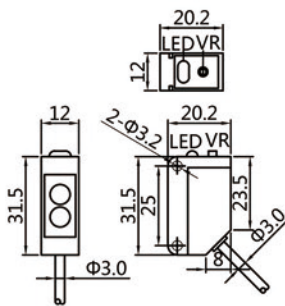


Features :

- Through-beam , Emitter/receiver , DC4-wire discrete output
- Cable & connector versions;
- Q31 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 5 m	Sn: 10 m
Transmitter	FQ31-L5D-P51P2	FQ31-L10HP-P51F2
NPN Dark/Light-on	FQ31-L5N-P31P2	FQ31-L10HP-P31F2
	FQ31-L5P-P31P2	

Background suppression

Through-beam sensors

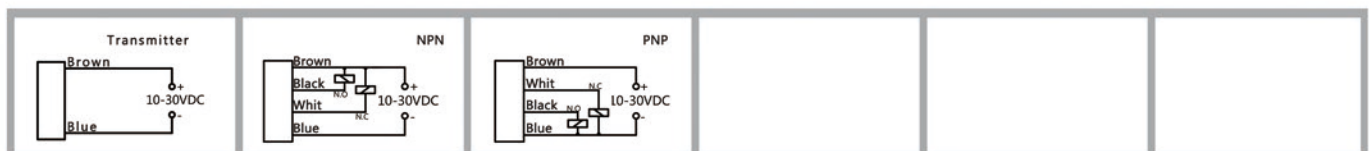


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.18mm ² /2X0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

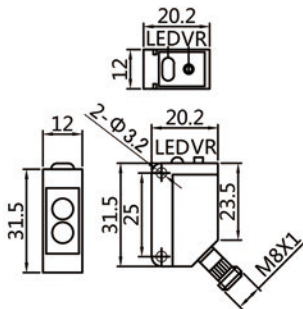


Features :

- Through-beam , Emitter/receiver set , DC4-wire discrete output;
- Cable & connector versions;
- Q31 plastic housing;
- VDE safety class : 3;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 5 m	Sn: 10 m
Transmitter	FQ31-L5D-P51S8	FQ31-L10MD-P51S8
NPN Dark/Light-on	FQ31-L5N-P31S8	FQ31-L10MN-P31S8
PNP Dark/Light-on	FQ31-L5P-P31S8	FQ31-L10MP-P31S8

Background suppression

Through-beam sensors

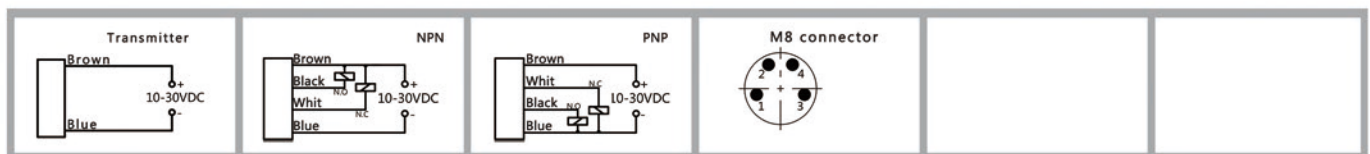


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking th e light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	M8 connector
Accessories	Accessories	B8-4GV2/B8-4WV2
	(to be ordered separately)	

Wiring



Features :

- Diffuse type , DC4-wire discrete output;
- Cable & connector versions;
- Q50 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

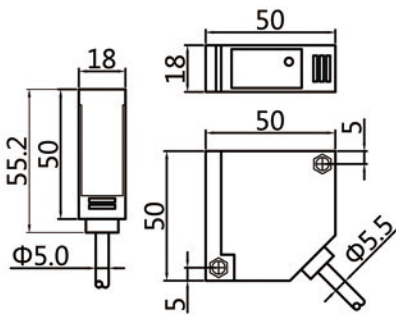
Ultrasonic Sensors

Connectors

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Dimensioned drawing

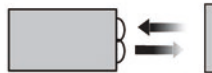


Model No.

Sensing range	Sn: 20 cm - 1 m	Sn: 30 cm - 2 m
NPN/PNP Dark/Light-on	FQ50-T1D-P31P2	FQ50-T2D-P31P2
NPN Dark/Light-on	FQ50-T1N-P31P2	FQ50-T2N-P31P2
PNP Dark/Light-on	FQ50-T1P-P31P2	FQ50-T2P-P31P2

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	200Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<100ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Red:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

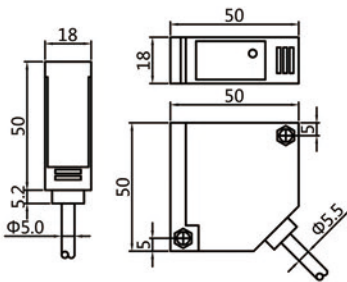


Features :

- Diffuse type , DC/AC 5-wire;
- Cable & connector versions;
- Q50 plastic housing;
- VDE safely class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 20 cm - 1 m	Sn: 30 cm - 2 m
Dark/Light-on	FQ50-T1U-P45P2	FQ50-T2U-P45P2

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	12-240V DC/24-240V AC
	Switching frequency	10Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	3A/30VDC; 1A/220VAC
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 5*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

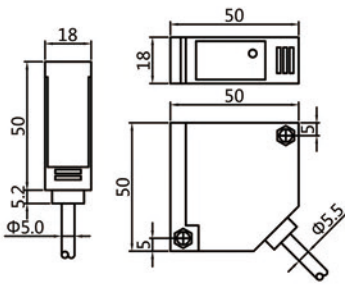


Features :

- Retro-reflective , DC4-wire discrete output;
- Cable & connector versions;
- Q50 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 6 m	Sn: 10 m
NPN/PNP Dark/Light-on	FQ50-R6D-P31P2	FQ50-R10MD-P31P2
Dark/Light-on	FQ50-R6D-P31P2-F	

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	200Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<100ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	FR-D83 (to be ordered separately)

Wiring

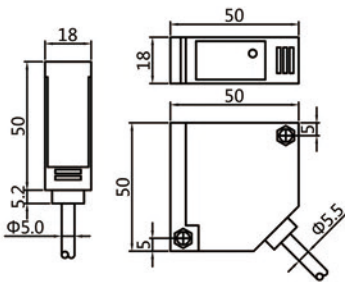


Features :

- Retro-reflective , AC/DC 5-wire;
- Cable & connector versions;
- Q50 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 6 m	Sn: 10 m
NPN/PNP Dark/Light-on	FQ50-R6U-P45P2	FQ50-R10MU-P45P2
Dark/Light-on	FQ50-R6U-P45P2-F	

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	12-240V DC/24-240V AC
	Switching frequency	10Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	3A/30VDC; 1A/220VAC
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 5*0.25mm ²
Accessories	Accessories	FR-D83
		(to be ordered separately)

Wiring



Features :



- Through-beam , Emitter/receiver set , DC4-wire discrete output;
- Cable & connector versions;
- Q50 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

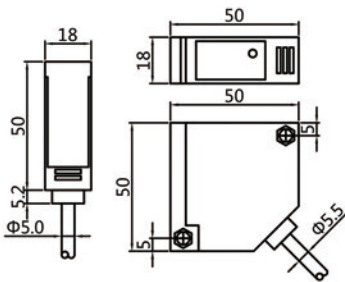
Ultrasonic Sensors

Connectors

Accessories

Index Of Types

Dimensioned drawing



Model No.

Sensing range	Sn: 20 m	Sn: 40 m
Transmitter	FQ50-L20MD-P51P2	FQ50-L40MD-P51P2
NPN/PNP Dark/Light-on	FQ50-L20MD-P31P2	FQ50-L40MD-P31P2

Background suppression

Through-beam sensors

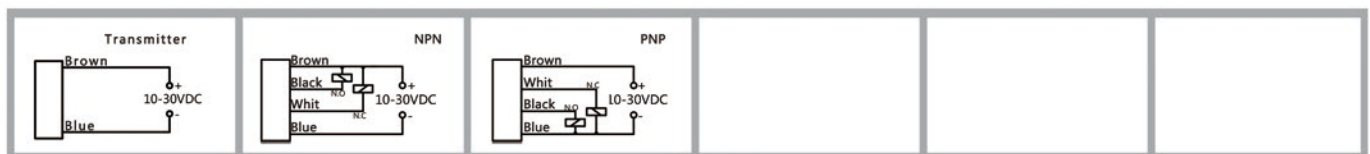


Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking th e light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	200Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	200mA
	Power-up delay	<100ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Electrical connection	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring

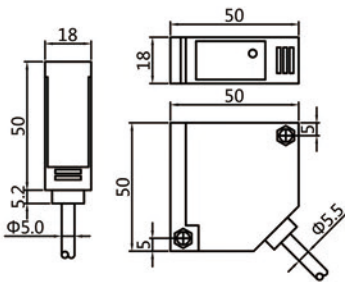


Features :

- Through-beam , Emitter/receive set , DC/AC 5-wire;
- Cable & connector versions;
- Q50 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Model No.

Sensing range	Sn: 20 m	Sn: 40 m
Transmitter	FQ50-L20MU-P55P2	FQ50-L40MU-P55P2
NPN/PNP Dark/Light-on	FQ50-L20MU-P45P2	FQ50-L40MU-P45P2

Model No.

Housing material	Operating voltage	12-240V DC/24-240V AC
	Switching frequency	10Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	3A/30VDC; 1A/220VAC
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PBT
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 5*0.25mm ² /2*0.5mm ²
Accessories	Accessories	NO
		(to be ordered separately)

Wiring





Features :

- Diffuse type , DC3-wire discrete output;
- Cable & connector versions;
- Q78 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

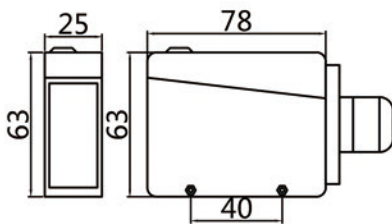
Ultrasonic Sensors

Connectors

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Dimensioned drawing



Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Model No.

Sensing range	Sn: 2 m	Sn: 2 m
NPN Dark/Light-on	FQ78-T2N-P31T	FQ78-T2N-P31T-D
PNP Dark/Light-on	FQ78-T2P-P31T	FQ78-T2P-P31T-D

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	200Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	200mA
	Power-up delay	<100ms
	Adjustment	Single-turn potentiometer
Environment	Time control	0.1s-7s±2s
	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow:output/Green:power supply
	Connectors	Terminal up to 2.5 mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring



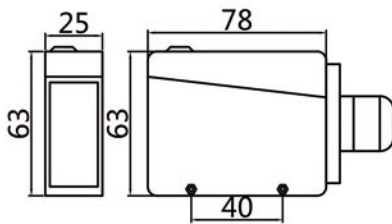


Features :

- Diffuse type , DC/AC 5-wire;
- Cable & connector versions;
- Q78 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing

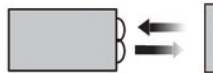


Model No.

Sensing range	Sn: 2 m	Sn: 2 m
Realy Dark/Light-on	FQ78-T2U-P35T	FQ78-T2U-P35T-D

Background suppression

Diffuse type sensors



Diffuse reflection type photoelectric sensor principle and the principle of mirror reflection type photoelectric sensor is the same , but it doesn't take reflective lenses , The light emitted by the transmitter directly sending back receiver by the analyte .Receiver estimate detection of objects reflected back to the light rays , the positioning of objects is not very strict When object under test enter into effective light rays area, output state changes. The detection range depends on object under test size , shape , color and surface properties.

Technical data

Electrical data	Operating voltage	12-240V DC/24-240V AC
	Switching frequency	10Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	5A/30VDC; 5A/220VAC
	Power-up delay	<30ms
	Adjustment	Single-turn potentiometer
Environment	Time control	0.1s-7s±2s
	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow:output/Green:power supply
	Connectors	Terminal up to 2.5 mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring



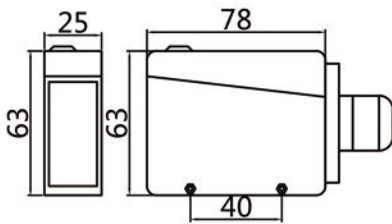


Feature :

- Retro-reflective , DC3-wire discrete output;
- Cable & connector versions;
- Q78 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Sensing range	Sn: 10 m	Sn: 10 m
NPN Dark/Light-on	FQ78-R10MN-P31T-F	FQ78-R10MN-P31T-FD
PNP Dark/Light-on	FQ78-R10MP-P31T-F	FQ78-R10MP-P31T-FD

Sensing range	Sn: 15 m	Sn: 15 m
NPN Dark/Light-on	FQ78-R15MN-P31T	FQ78-R15MN-P31T-D
PNP Dark/Light-on	FQ78-R15MP-P31T	FQ78-R15MP-P31T-D

Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	200Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	200mA
	Power-up delay	<100ms
	Adjustment	Single-turn potentiometer
Environment	Time control	0.1s-7s±2s
	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow:output/Green:power supply
	Connectors	Terminal up to 2.5 mm ²
Accessories	Accessories	FR-D83
	(to be ordered separately)	

Wiring



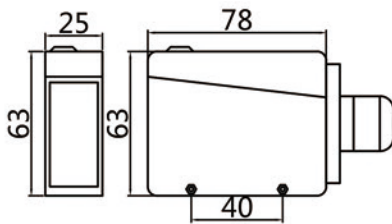


Features :

- Retro-reflective , DC/AC 5-wire;
- Cable & connector versions;
- Q78 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65

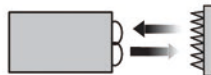


Dimensioned drawing



Background suppression

Retro-reflective sensors



Retro-reflective sensor put transmitter and receiver encapsulated into same shell, in the opposite install a speculum, the light emitted by the reflector is reflected through the reflector back to the receiver.

When the beam is occlusion, generate a switch changes.

Model No.

Sensing range	Sn: 10 m	Sn: 10 m
Relay Dark/Light-on	FQ78-R10MU-P35T-F	FQ78-R10MU-P35T-FD
Sensing range	Sn: 15 m	Sn: 15 m
Relay Dark/Light-on	FQ78-R15MU-P35T	FQ78-R15MU-P35T-D

Technical data

Electrical data	Operating voltage	12-240V DC/24-240V AC
	Switching frequency	10Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	3A/30VDC; 1A/220VAC
	Power-up delay	<30ms
	Adjustment	Single-turn potentiometer
Environment	Time control	0.1s-7s±2s
	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow:output/Green:power supply
	Connectors	Terminal up to 2.5 mm ²
Accessories	Accessories	FR-D83
		(to be ordered separately)

Wiring





Features :

- Through-beam , Emitter/receiver set , DC3-wire discrete output;
- Cable & connector versions;
- Q78 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



General Information

Inductive Sensors

Capacitive Sensors

Photoelectric Sensors

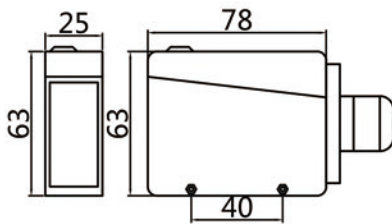
Ultrasonic Sensors

Connectors

Accessories

Index Of Types

Dimensioned drawing



Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

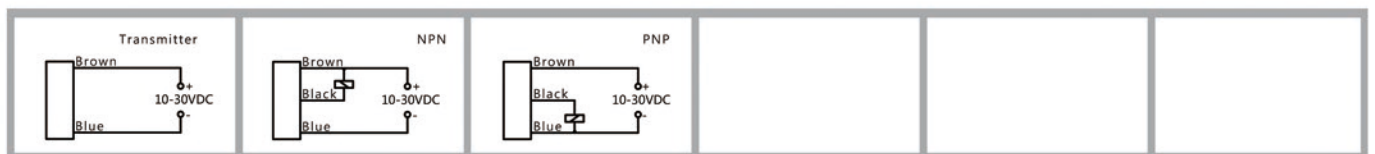
Model No.

Sensing range	Sn: 50 m	Sn: 50 m
Transmitter	FQ78-L50MD-P51T	FQ78-L50MD-P51T-D
NPN Dark/Light-on	FQ78-L50MN-P31T	FQ78-L50MN-P31T-D
PNP Dark/Light-on	FQ78-L50MP-P31T	FQ78-L50MP-P31T-D

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	200Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	200mA
	Power-up delay	<100ms
	Adjustment	Single-turn potentiometer
Environment	Time control	0.1s-7s±2s
	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow:output/Green:power supply
	Connectors	Terminal up to 2.5 mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring



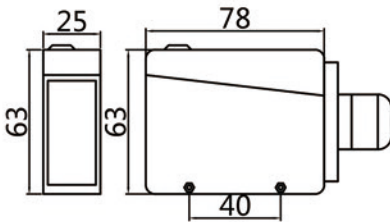


Features :

- Through-beam , Emitter/receiver set , DC/AC 5-wire;
- Cable & connector versions;
- Q78 plastic housing;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Model No.

Sensing range	Sn: 50 m	Sn: 50 m
Transmitter	FQ78-L50MU-P55T	FQ78-L50MU-P55T-D
Relay Dark/Light-on	FQ78-L50MU-P35T	FQ78-L50MU-P35T-D

Technical data

Electrical data	Operating voltage	12-240V DC/24-240V AC
	Switching frequency	10Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<5ms
	Load current	5A/30VDC; 5A/220VAC
	Power-up delay	<30ms
	Adjustment	Single-turn potentiometer
Environment	Time control	0.1s-7s±2s
	Light immunity	<10000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow:output/Green:power supply
	Connectors	Terminal up to 2.5 mm ²
Accessories	Accessories	NO
		(to be ordered separately)

Wiring

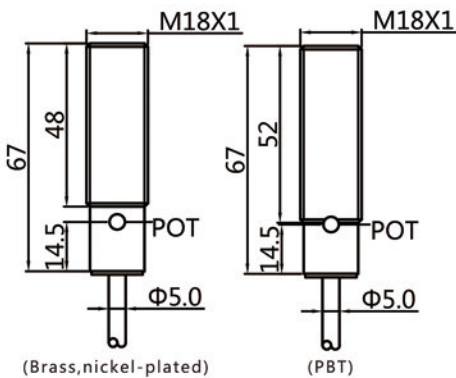


Features :

- 100mm, Background suppression, DC4-wire discrete output ;
- Cable & connector versions ;
- M18*1mm , plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing

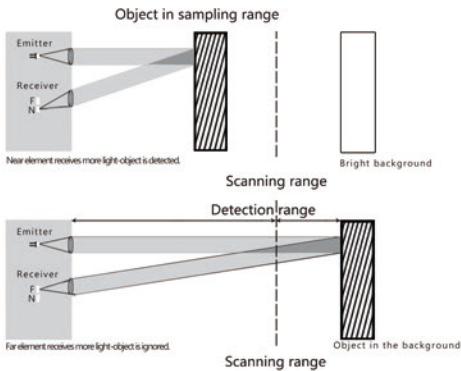


Model No.

Housing material	PBT	Metal
NPN Dark/Light-on	FM18-H01N-P31P2	FM18-H01N-C31P2
PNP Dark/Light-on	FM18-H01P-P31P2	FM18-H01P-C31P2

Background suppression

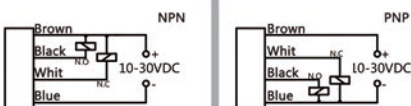
Background suppression sensors were developed to reach a defined detection range for any object, regardless of its brightness, color, or other characteristics such as the brightness of the background. The following figure illustrates the functional principle of a background suppression sensor. The light emitted by the emitter is directed by the lens and hits the object. If the object is located within the detection range, a portion of the reflected light, bundled by the receiver lens, is mapped to the near element. As the object's distance increases, this light spot moves in the direction of the far element (F). At the detection range limit, one half of the light spot is on the near element and the other on the far element and the sensor registers "off". If the object moves further away, the light only hits the far element and the sensor still registers "off".



Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	1000Hz
	Light type	Red light 624nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
Environment	Adjustment	Single-turn potentiometer
	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
Mechanical data	Ambient humidity	35--85%
	Housing material	Brass,nickel-plated/PBT
	Lens material	PMMA
Electrical connection	Operating indicator	Yellow
	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO
	(to be ordered separately)	

Wiring

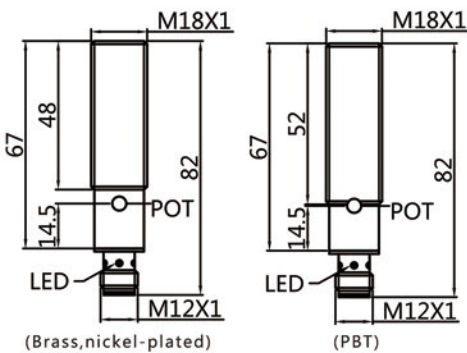


Features :

- 100mm, Background suppression, DC4-wire discrete output ;
- Cable & connector versions ;
- M18*1mm , plastic/nickel-plated brass housing;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing

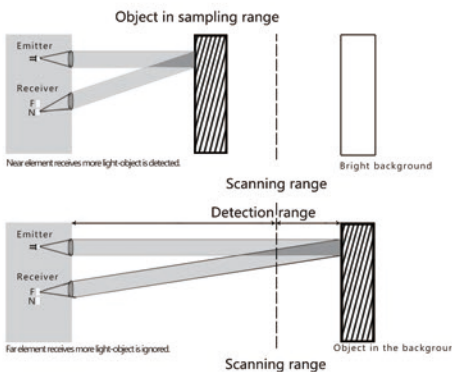


Model No.

Housing material	PBT	Metal
NPN Dark/Light-on	FM18-H01N-P31S12	FM18-H01N-C31S12
PNP Dark/Light-on	FM18-H01P-P31S12	FM18-H01P-C31S12

Background suppression

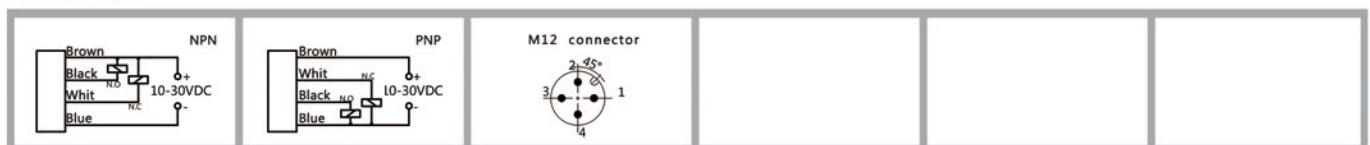
Background suppression sensors were developed to reach a defined detection range for any object, regardless of its brightness, color, or other characteristics such as the brightness of the background. The following figure illustrates the functional principle of a background suppression sensor. The light emitted by the emitter is directed by the lens and hits the object. If the object is located within the detection range, a portion of the reflected light, bundled by the receiver lens, is mapped to the receiver. As the object's distance increases, this light spot moves in the direction of the far element (F). At the detection range limit, one half of the light spot is on the near element, the other on the far element and the sensor registers "off". If the object moves further away, the light only hits the far element and the sensor still registers "off".



Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	1000Hz
	Light type	Red light 624nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	Brass, nickel-plated/PBT
	Lens material	PMMA
	Operating indicator	Yellow
Electrical connection	Connectors	M12 connector
Accessories	Accessories	B12-4GV2/B12-4WV2 (to be ordered separately)

Wiring



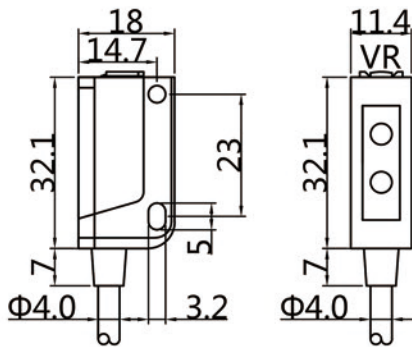


Features :

- 200mm, Background suppression, DC3-wire discrete output ;
- Q31, plastic housing;
- Cable & connector versions;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing

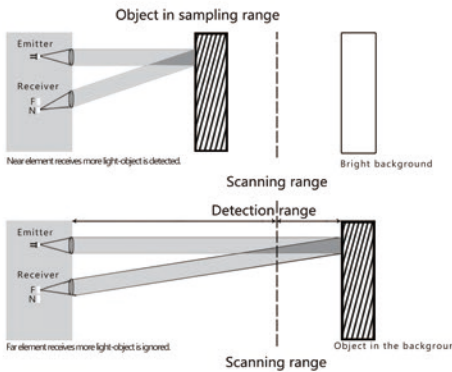


Model No.

Sensing range	Sn: 10-200mm
NPN Dark/Light-on	FQ31-H02N-P31P2
PNP Dark/Light-on	FQ31-H02P-P31P2

Background suppression

Background suppression sensors were developed to reach a defined detection range for any object, regardless of its brightness, color, or other characteristics such as the brightness of the background. The following figure illustrates the functional principle of a background suppression sensor. The light emitted by the emitter is directed by the lens and hits the object. If the object is located within the detection range, a portion of the reflected light, bundled by the receiver lens, is mapped to the near element. As the object's distance increases, this light spot moves in the direction of the far element (F). At the detection range limit, one half of the light spot is on the near element and the other on the far element and the sensor registers "off". If the object moves further away, the light only hits the far element and the sensor still registers "off".



Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	1000Hz
	Light type	Red light 624nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

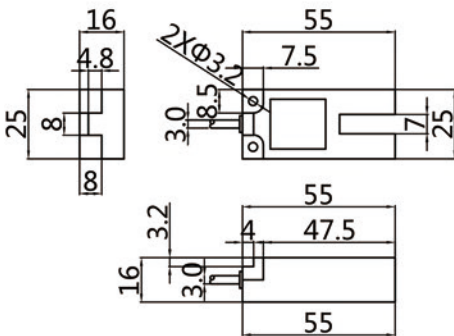


Features :

- Rectangular plastic housing;
- DC 4-wire, switching output;
- Cable version;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Model No.

Sensing range	Sn: 7 mm
NPN Dark/Light-on	FG25-G07N-P31P2
PNP Dark/Light-on	FG25-G07P-P31P2

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.15mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

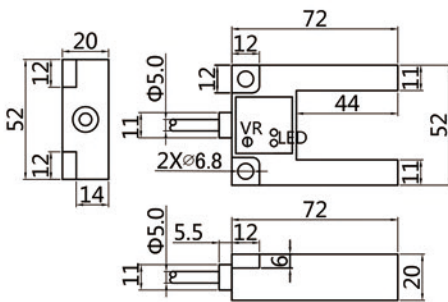


Features :

- Rectangular plastic;
- DC 4-wire, switching output;
- Cable versions;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter (E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Model No.

Sensing range	Sn: 30 mm
NPN Dark/Light-on	FG50-G30N-P31P2
PNP Dark/Light-on	FG50-G30P-P31P2

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring



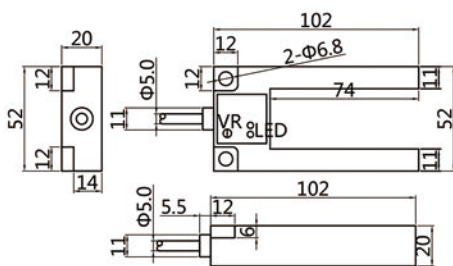


Features :

- Rectangular plastic housing;
- DC 4-wire, switching output;
- Cable versions;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Sensing range	Sn: 30 mm
NPN Dark/Light-on	FG50-G30N-P31P2-L
PNP Dark/Light-on	FG50-G30P-P31P2-L

Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter-(E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking the light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

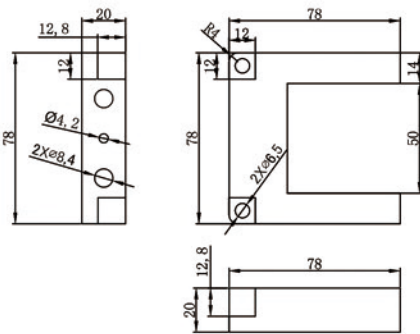


Features :

- Rectangular plastic housing;
- DC 4-wire, switching output;
- Cable versions;
- VDE safety class : III;
- Ingress protection : IP67



Dimensioned drawing



Model No.

Sensing range	Sn: 50 mm
NPN Dark/Light-on	FG78-G50N-P31P2
PNP Dark/Light-on	FG78-G50P-P31P2

Background suppression

Through-beam sensors



Through-beam photoelectric sensors has independent transmitters and receivers,structure two are separated from each other,the emitter (E)directly transmitted to the receiver(R).At the time of installation,must be bothaligned establish light path. No matter any objectblocking th e light,the voltage of the receiver drops,switch changes.

Technical data

Electrical data	Operating voltage	10-30V DC
	Switching frequency	500Hz
	Light type	Infrared light 880 nm/ Red light 650nm
	Response time	<2ms
	Load current	100mA
	Power-up delay	<300ms
	Adjustment	Single-turn potentiometer
Environment	Light immunity	<5000Lux.
	Ambient temperature	-25...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	ABS
	Lens material	PMMA
	Operating indicator	Yellow:output/Green:power supply
Electrical connection	Connectors	PVC cable/2m; 4*0.25mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring



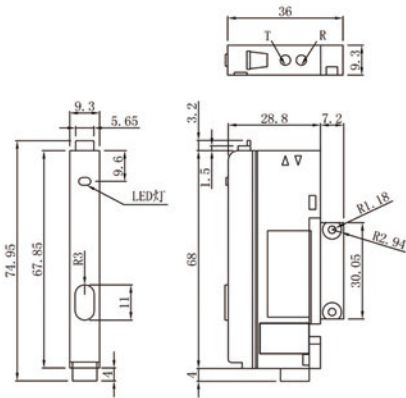


Features :

- Plastic housing;
- DC 3-wire, switching output;
- Cable version;
- VDE safety class : III;
- Ingress protection : IP65



Dimensioned drawing



Model No.

Light source	Red LED	Green LED	Blue LED
Housing material	Polycarbonate	Polycarbonate	Polycarbonate
NPN	FQ10-FRN-P31P2	FQ10-FGN-P31P2	FQ10-FBN-P31P2
PNP	FQ10-FRP-P31P2	FQ10-FGP-P31P2	FQ10-FBP-P31P2

Technical data

Electrical data	Operating voltage	10-30V DC
	Light type	Red LED/Green LED/Blue LED
	Load current	100mA
	No load current	<50mA
	Voltage drop	<1.0V
Environment	Light immunity	Incandescent Lamp : Max 10000lux; Fluorescent : Max 20000lux
	Ambient temperature	-10...55°C
	Ambient humidity	35--85%
Mechanical data	Housing material	PC
	Operating indicator	Output indicator : Red LED
		Digital Display : Red LED
		Square LED display : Green / Orange LED
	Calibration indicator : Orange LED	
Electrical connection	Connectors	PVC cable 2m; 3*0.35mm ²
Accessories	Accessories	NO (to be ordered separately)

Wiring

