




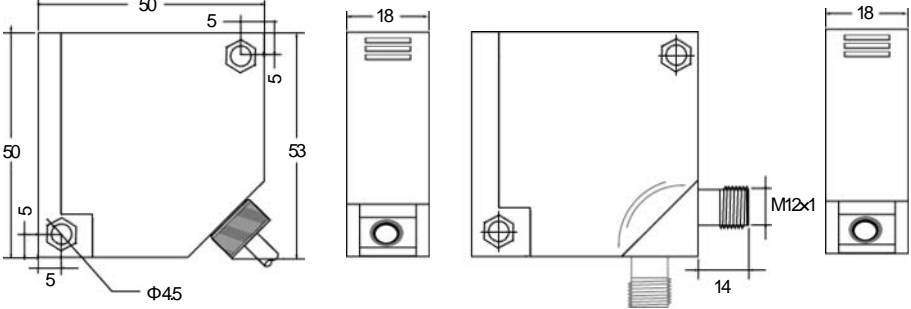
Q50 SERIES PHOTOELECTRIC SENSOR (12-240VDC/24/240VAC)

Series	Q50	Q50	
Sensing Mode	Diffuse	Diffuse	
Sensing Schematic			
Sensing Range	100mm~400mm	200mm~1000mm	
Supply Voltage	12-240VDC / 24-240VAC	12-240VDC / 24-240VAC	
Mains Frequency	50/60Hz	50/60Hz	
Tolerance	±10%	±10%	
Power Consumption	<2.5VA	<2.5VA	
Switching Hysteresis	<10%(Sr)	<10%(Sr)	
Output	Relay SPDT	Relay SPDT	
Max. Output Current	3A/30VAC, 1A/220VAC	3A/30VAC, 1A/220VAC	
Response Time	20ms	20ms	
Start Up Delay	≤300ms	≤300ms	
Emitting Element	Infrared (880nm)	Infrared (880nm)	
Protection Category	IP65	IP65	
Operating Temperature	-25°C - +55°C	-25°C - +55°C	
Light Immunity	>10.000Lux	>10.000Lux	
Sensitivity Adjustment	Trimmer 1 turn	Trimmer 1 turn	
Switching Frequency	10 Hz	10 Hz	
Indicator	Yellow LED: output; Green LED: Power Supply	Yellow LED: output; Green LED: Power Supply	
Weight	approx.165 g	approx.165 g	
Housing Material	PBT	PBT	
Sensing Object	20x20cm white paper	20x20cm white paper	
2m PVC Cable (5.0φ 4x0.25)	Diffuse	PPQ50-D04U-E3V2	PPQ50-D1U-E3V2
M12 Connector	Diffuse	PPQ50-D04U-E3E4	PPQ50-D1U-E3E4

Picture 

Dimensions (unit: mm)

- Cable Version
- M12 Connector Version

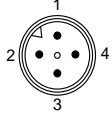


Wiring Diagram

- Cable version

Brown	↓ L(V+)
White	
Red	12-240VDC /
Black	24-240VAC
Blue	↑ N(V-)
- M12 Connector version

Output	Contact numbers			
	1	2	3	4
Relay	L(+)	Com	N(-)	N.O.
Wire colors	Brown	White	Blue	Black

Connector Face View 

Note: Photoelectric sensor not suitable for use with 90°connectors.

Q50 SERIES PHOTOELECTRIC SENSOR (12-240VDC/24/240VAC)

Series	Q50	Q50
Sensing Mode	Diffuse	Diffuse
Sensing Schematic		
Sensing Range	200mm~1800mm	300mm~2000mm
Supply Voltage	12-240VDC / 24-240VAC	12-240VDC / 24-240VAC
Mains Frequency	50/60Hz	50/60Hz
Tolerance	±10%	±10%
Power Consumption	<2.5VA	<2.5VA
Switching Hysteresis	<10%(Sr)	<10%(Sr)
Output	Relay SPDT	Relay SPDT
Max. Output Current	3A/30VAC, 1A/220VAC	3A/30VAC, 1A/220VAC
Response Time	20ms	20ms
Start Up Delay	≤300ms	≤300ms
Emitting Element	Infrared (880nm)	Infrared (880nm)
Protection Category	IP65	IP65
Operating Temperature	-25°C - +55°C	-25°C - +55°C
Light Immunity	>10.000Lux	>10.000Lux
Sensitivity Adjustment	Trimmer 1 turn	Trimmer 1 turn
Switching Frequency	10 Hz	10 Hz
Indicator	Yellow LED: output; Green LED: Power Supply	Yellow LED: output; Green LED: Power Supply
Weight	approx.165 g	approx.165 g
Housing Material	PBT	PBT
Sensing Object	20x20cm white paper	20x20cm white paper
2m PVC Cable (5.0φ 4x0.25)	Diffuse	Diffuse
	PPQ50-D18U-E3V2	PPQ50-D2U-E3V2
M12 Connector	Diffuse	Diffuse
	PPQ50-D18U-E3E4	PPQ50-D2U-E3E4

Picture

Dimensions (unit: mm)

- Cable Version
- M12 Connector Version

Wiring Diagram

- Cable version



Brown	↓ L(V+)
White	↓ L(V+)
Red	12-240VDC / 24-240VAC
Black	12-240VDC / 24-240VAC
Blue	↑ N(V-)
- M12 Connector version


Output	Contact numbers			
	1	2	3	4
Relay	L(+)	Com	N(-)	N.O.
Wire colors	Brown	White	Blue	Black

Connector Face View

Note: Photoelectric sensor not suitable for use with 90°connectors.

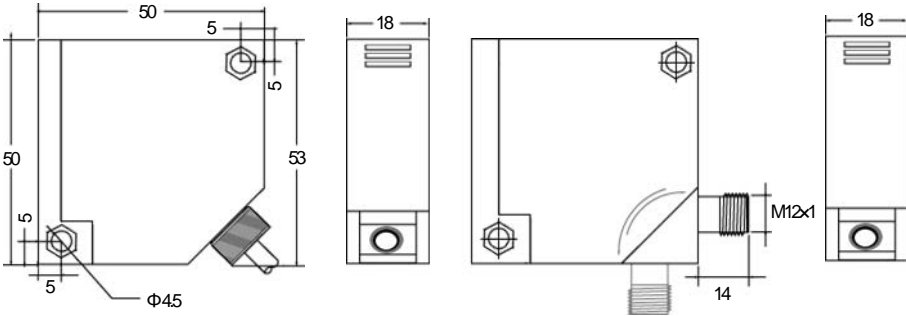
Q50 SERIES PHOTOELECTRIC SENSOR (12-240VDC/24/240VAC)

Series	Q50	Q50
Sensing Mode	Retro-reflective	Retro-reflective (With polarized filter)
Sensing Schematic		
Sensing Range	10M	6M
Supply Voltage	12-240VDC / 24-240VAC	12-240VDC / 24-240VAC
Mains Frequency	50/60Hz	50/60Hz
Tolerance	±10%	±10%
Power Consumption	<2.5VA	<2.5VA
Switching Hysteresis	<10%(Sr)	<10%(Sr)
Output	Relay SPDT	Relay SPDT
Max. Output Current	3A/30VAC, 1A/220VAC	3A/30VAC, 1A/220VAC
Response Time	20ms	20ms
Start Up Delay	≤300ms	≤300ms
Emitting Element	Infrared (880nm)	Infrared (880nm)
Protection Category	IP65	IP65
Operating Temperature	-25°C - +55°C	-25°C - +55°C
Light Immunity	>10.000Lux	>10.000Lux
Sensitivity Adjustment	Trimmer 1 turn	Trimmer 1 turn
Switching Frequency	10 Hz	10 Hz
Indicator	Yellow LED: output; Green LED: Power Supply	Yellow LED: output; Green LED: Power Supply
Weight	approx. 165 g	approx. 165 g
Housing Material	PBT	PBT
Sensing Object	D83 Mirror	D83 Mirror
2m PVC Cable (5.0φ 5x0.25)	Retro-reflective	Retro-reflective
M12 Connector	Retro-reflective	Retro-reflective

Picture 

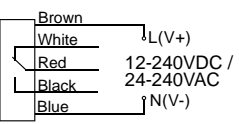
Dimensions (unit: mm)

- Cable Version
- M12 Connector Version

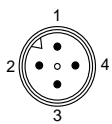


Wiring Diagram

- Cable version



- M12 Connector version



Output	Contact numbers			
	1	2	3	4
Relay	L(+)	Com	N(-)	N.O.
Wire colors	Brown	White	Blue	Black

Note: Photoelectric sensor not suitable for use with 90° connectors.

Q50 SERIES PHOTOELECTRIC SENSOR (12-240VDC/24/240VAC)

Series	Q50	Q50	
Sensing Mode	Through-beam	Through-beam	
Sensing Schematic			
Sensing Range	20M	40M	
Supply Voltage	12-240VDC / 24-240VAC	12-240VDC / 24-240VAC	
Mains Frequency	50/60Hz	50/60Hz	
Tolerance	±10%	±10%	
Power Consumption	<2.5VA	<2.5VA	
Switching Hysteresis	<10%(Sr)	<10%(Sr)	
Output	Relay SPDT	Relay SPDT	
Max. Output Current	3A/30VAC, 1A/220VAC	3A/30VAC, 1A/220VAC	
Response Time	20ms	20ms	
Start Up Delay	≤300ms	≤300ms	
Emitting Element	Infrared (880nm)	Infrared (880nm)	
Protection Category	IP65	IP65	
Operating Temperature	-25 °C - +55 °C	-25 °C - +55 °C	
Light Immunity	>10.000Lux	>10.000Lux	
Sensitivity Adjustment	Trimmer 1 turn	Trimmer 1 turn	
Switching Frequency	10 Hz	10 Hz	
Indicator	Yellow LED: output; Green LED: Power Supply	Yellow LED: output; Green LED: Power Supply	
Weight	approx.165 g	approx.165 g	
Housing Material	PBT	PBT	
Sensing Object	-	-	
2m PVC Cable (5.0 φ 5x0.25)	Emitter	PPQ50-T20MU-H3V2	PPQ50-T40MU-H3V2
	Receiver	PPQ50-T20MU-E3V2	PPQ50-T40MU-E3V2
M12 Connector	Emitter	PPQ50-T20MU-H3E4	PPQ50-T40MU-H3E4
	Receiver	PPQ50-T20MU-E3E4	PPQ50-T40MU-E3E4

