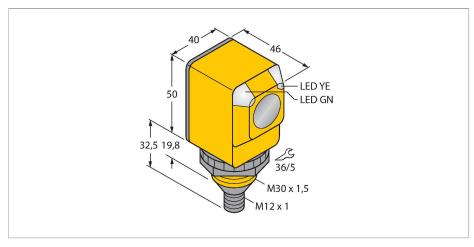


Q40AW3FF400Q4 Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



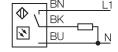
Technical data

ID no. 3036802	Туре	Q40AW3FF400Q4
Function Proximity switch Operating mode Background suppression, non-adjustable Light type IR Wavelength 880 nm Range 0400 mm Electrical data Operating voltage 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms Mechanical data Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	ID no.	3036802
Operating mode Background suppression, non-adjustable Light type IR Wavelength 880 nm Range 0400 mm Electrical data 0perating voltage Operating voltage 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms	Optical data	
Light type IR Wavelength 880 nm Range 0400 mm Electrical data Operating voltage 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms Mechanical data Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Function	Proximity switch
Wavelength 880 nm Range 0400 mm Electrical data 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms	Operating mode	Background suppression, non-adjustable
Range 0400 mm Electrical data Operating voltage 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical <16 ms Mechanical data Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Light type	IR
Electrical data Operating voltage 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms Mechanical data Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Wavelength	880 nm
Operating voltage 20250 VAC AC rated operational current ≤ 200 mA Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms	Range	0400 mm
AC rated operational current Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay Response time typical Mechanical data Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Lens Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Electrical data	
Output function Light operation, Relay output Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms	Operating voltage	20250 VAC
Switching frequency ≤ 40 Hz Readiness delay ≤ 100 ms Response time typical < 16 ms	AC rated operational current	≤ 200 mA
Readiness delay ≤ 100 ms Response time typical < 16 ms	Output function	Light operation, Relay output
Response time typical < 16 ms Mechanical data Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Switching frequency	≤ 40 Hz
Mechanical dataDesignRectangular, Q40DimensionsØ 30 x 46 x 40.1 x 82.5 mmHousing materialPlastic, Thermoplastic materialLensplastic, PolycarbonateElectrical connectionConnectors, 7/8", PVCNumber of cores3Ambient temperature-40+70 °CProtection classIP69Special featuresWash down	Readiness delay	≤ 100 ms
Design Rectangular, Q40 Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Response time typical	< 16 ms
Dimensions Ø 30 x 46 x 40.1 x 82.5 mm Housing material Plastic, Thermoplastic material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Mechanical data	
Housing material Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Design	Rectangular, Q40
Lens plastic, Polycarbonate Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Dimensions	Ø 30 x 46 x 40.1 x 82.5 mm
Electrical connection Connectors, 7/8", PVC Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Housing material	Plastic, Thermoplastic material
Number of cores 3 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Lens	plastic, Polycarbonate
Ambient temperature -40+70 °C Protection class IP69 Special features Wash down	Electrical connection	Connectors, 7/8", PVC
Protection class IP69 Special features Wash down	Number of cores	3
Special features Wash down	Ambient temperature	-40+70 °C
	Protection class	IP69
Power-on indication LED, Green	Special features	Wash down
	Power-on indication	LED, Green

Features

- ■M12 × 1 Micro male connector (AC), 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C

Wiring diagram

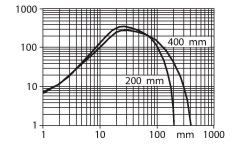


Functional principle

The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

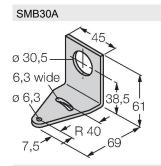
Excess gain curve

Excess gain in relation to the distance



Switching state	LED, Yellow
Excess gain indication	LED
Tests/approvals	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, UL, CSA

Accessories



3032723 Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread



3011185 Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm



Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

3052521



Mounting bracket, stainless steel, for sensors with 30 mm thread

3073135