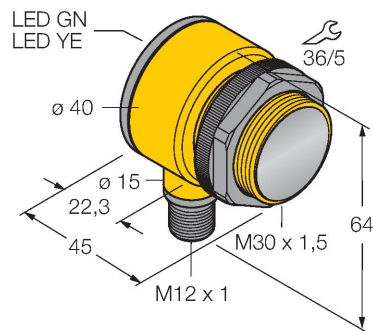


T30R-4545-KUQ

Radar Sensor

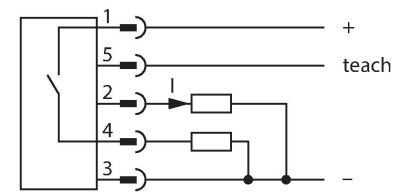
With Switching and Analog Output and IO-Link



Features

- Protection class IP67
- Male connector, M12 × 1, 5-pin
- FMCW radar (frequency-modulated continuous wave radar), detects stationary and moving objects
- Approved for USA, Europe, UK, Australia and New Zealand
- Max. range 10 m
- Operating voltage 12...30 VDC
- PNP/NPN switching output, IO-Link
- 0...10 V analog output

Wiring diagram



Functional principle

A PCR (Pulse Coherent Radar) device transmits a short, powerful pulse lasting a few microseconds and receives the reflected echo from objects. In contrast to continuously transmitting wave radars, the transmitter is already switched off before the end of the measurement process. The distance measurement to the object is carried out using a transit time method. As a result, unlike Continuous Wave (CW) radars, both stationary and moving objects can be detected.

Conformity

CE

ISM defined in ITU-R 5.138, 5.150 and 5.280

ETSI/EN 300 440

FCC Part 15

RSS-210

ANATEL Category II

CMIIT Category G

ARIB STD T-73

KC mark — MSIP/RRA

NCC

Technical data

Type	T30R-4545-KUQ
ID	3808904
Radar data	
Function	Proximity switch
Frequency band	F band, ISM region
Frequency range	122.25–123 GHz
Modulation	FMCW (Frequency Modulated Continuous Wave)
Range	150...10000 mm
Number of radio channels	1
Antenna connection	Internal, planar
Output power EIRP	20 dBm/100 mW EIRP
Repeatability	1 mm
Electrical data	
Operating voltage	12...30 VDC
No-load current	≤ 100 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Communication protocol	IO-Link
Output function	NO/NC programmable, PNP/NPN
Output 2	Analog voltage
Readiness delay	≤ 300 ms
Response time typical	< 2 ms
Setting option	Vision Software and Firmware Push Button

Technical data

Mechanical data	
Design	Rectangular with thread, T30R
Dimensions	52.9 x 40.6 x 63.8 mm
Housing material	Plastic, PBT, Yellow
Electrical connection	Connector, M12 × 1
Ambient temperature	-40...+65 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED, red
Tests/approvals	
Approvals	CE UKCA UL Listed