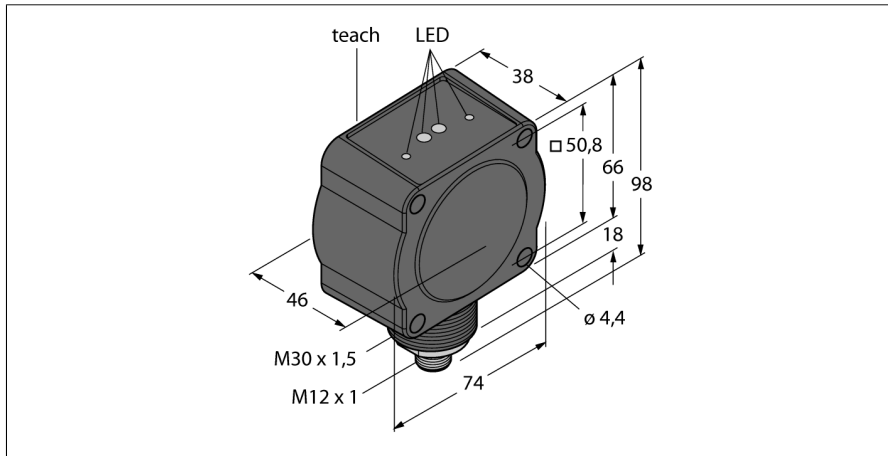
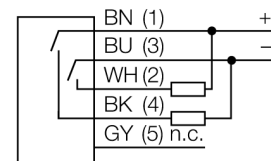


**Radar Sensor
retroreflective sensor
QT50R-EU-RHQ**



- FMCW radar (frequency-modulated continuous wave radar), detects stationary and moving objects
- Max. range 12 m
- Configuration via DIP switch
- Teach-in function for reflector position
- FMCW radar (frequency-modulated continuous wave radar) for detection of stationary and moving objects
- Approved for Europe (except UK), Australia, New Zealand, Japan and China
- Max. range 18 m
- With focusing attachment
- Configuration via DIP switch
- Operating voltage 12...30 VDC
- PNP/NPN switching output
- 4...20 mA analog output

Wiring Diagram



Functional principle

FMCW radar stands for frequency modulated continuous wave radar. FMCW is the English abbreviation for Frequency Modulated Continuous Wave. Non-modulated continuous wave radars have the disadvantage that they cannot measure distances due to lack of time reference. Such a time reference for distance measurement of stationary objects can be generated by means of frequency modulation. Using this method, a signal is emitted that continually changes the frequency. A periodic, linear frequency which varies upwards and downwards is used to limit the frequency range and to simplify the signal evaluation. The factor for the rate of change df/dt remains constant. A received echo signal has a runtime delay just as a pulse radar, and thus a differing frequency proportional to the distance.

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/RRR
- NCC

Type designation	QT50R-EU-RHQ
Ident no.	3054276
Operating mode	Radar scanner
Range	1000...12000 mm
Ambient temperature	-40...+65 °C
Operating voltage	12...30 VDC
No-load current I_0	≤ 100 mA
Short-circuit protection	yes/ Cyclic
Reverse polarity protection	yes
Output function	NC/NO programmable, PNP/NPN
Approvals	CE
Design	Rectangular, QT50
Dimensions	46.1 mm x 74.1 mm x 99.7 mm
Housing material	Plastic, ABS, Black
Electrical connection	Connector, M12 - 1
Protection class	IP67
MTTF	100 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Excess gain indication	LED red

**Radar Sensor
retroreflective sensor
QT50R-EU-RHQ**

TURCK

Industrial
Automation

Excess Gain Curve

