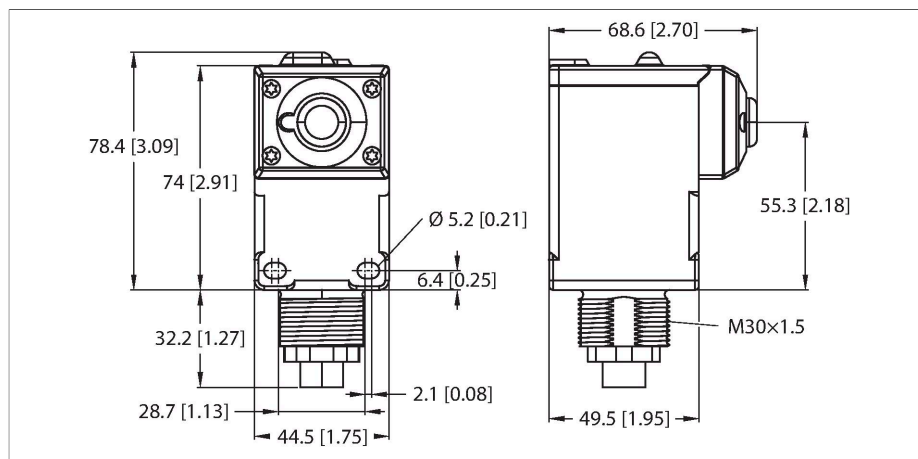# DX80N2Q45TH
Radio Transmission System – Base Unit for Serial Sensors Node for Connecting External Sensors

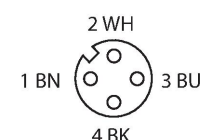

Technical data

Type	DX80N2Q45TH
ID	3026123
Wireless data	
Type of radio	short-range
Installation	stationary
Topology	Star topology
Function	Temperature sensor
Device type	Node
Frequency band	2.4-GHz ISM band
Frequency range	2.402…2.483 GHz
Number of radio channels	27
Channel width	2 MHz
Spread spectrum technology	FHSS (Frequency Hopping Spread Spectrum)
Single-Carrier Residence Time	7.8 ms
Response time typical	< 250 ms
Output power ERP	18 dB/65 mW
Output power EIRP	18 dB/65 mW
Range	1000000 mm
I/O data	
Number of channels	1/1
Input type	Temperature/humidity
Number of channels	2
Output type	2-color LED indicator (red/green)
Communication protocol	1-wire-serial

Features

- Protection class IP67
- Mechanical screw-in thread M30 × 1.5
- Connection via M12 × 1 female connector, 4-pin
- Integrated multi-color display lights
- 2.4 GHZ frequency band
- Frequency hopping FHSS
- Time division multiplex access - TDMA
- Operating voltage: 3.6…5.5 VDC
- Current consumption: ≤ 100 μA
- Supply via 2x 3.6 V Li-ion AA batteries, supplied with the device
- FCC-ID UE300DX80-2400 This device complies with FCC para. 15, sub para. C, 15.247 ETSI/EN: In compliance with EN 300 328: V1.7.1 (2006-05)IC: 7044A-DX8024
- Radiation protection 10 V/m for 80-2700 MHz acc. to EN 61000-6-2

Wiring diagram

Functional principle

The Q45 wireless nodes can be integrated into a DX80 wireless network in star topology. Thanks to the integrated battery, these devices work fully autonomously and can be connected directly with any DX80 gateway or DXM controller. Some models include a sensor element or can be connected to external sensors or other transducers. Depending on the type of operation, the battery service life may last several years.

Technical data

Electrical data	
Runs with battery	Yes
Operating voltage U_B	3.6…5.5 VDC
DC rated operating current I_e	≤ 0.1 mA
Excess gain indication	LED, red
Power-on indication	LED, Green
Mechanical data	
Design	Rectangular, Q45
Dimensions	68.9 x 44.5 x 110.6 mm
Housing material	Plastic, PBT Lexan, Black
Electrical connection	Connector, M12 × 1, 4-pin
Antenna connection	Internal (wire loop)
Ambient temperature	-40…+70 °C
Storage temperature	-40…+70 °C
Relative humidity	0…90 %
Protection class	IP67
Tests/approvals	
MTTF	67 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus, CSA

Accessories

QM42VT1	3094597

Vibration and temperature sensor, metal case, protection class IP67, serial interface

BWA-BATT-006	3017987

Lithium-ion battery, 3.6 VDC, 2400 mAh, AA, GGV UN3090/CL9

Hans Turck GmbH & Co. KG | 45466 Mülheim an der Ruhr, Germany | T +49 208 4952-0 | F +49 208 4952-264 | more@turck.com | www.turck.com 2|2

DX80N2Q45TH | 05-03-2025 00-42 | Technical modifications reserved