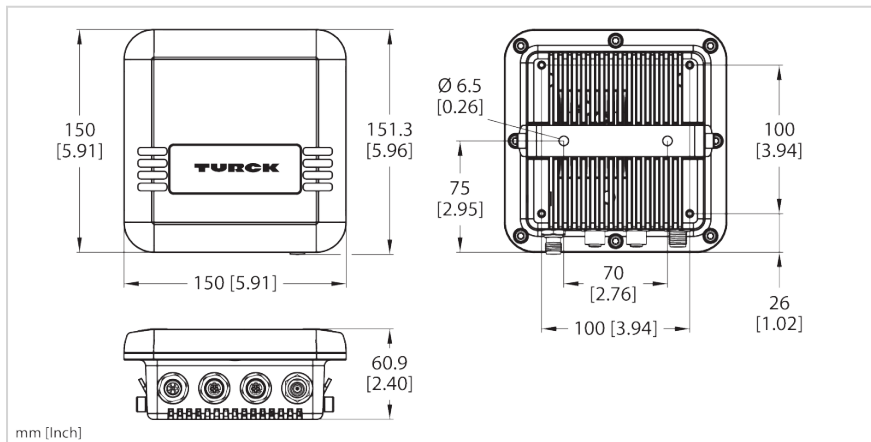


TN-UHF-Q150-EU-EN

UHF Reader



Typ	TN-UHF-Q150-EU-EN
Ident-No.	100018053

Technical data

Power supply	
Operating voltage U_B	12...30 VDC
Electrical data	
Antenna HPBW	90°
Antenna polarization	RHCP/LHCP, adjustable
Output function	Read/Write
Channel spacing	200 kHz
Data transfer	Alternating electromagnetic field
DC rated operational current	≤ 1200 mA
Output power	≤ 0.5 W (ERP), adjustable
Region (UHF)	Europe, India, Turkey, South Africa (865...868 MHz)
Technology	UHF RFID
System data	
Transmission rate Ethernet	10/100 Mbps
Connection technology Ethernet	2 x M12, 4-pin, D-coded
Web server	Default: 192.168.1.254
Modbus TCP	
Addressing	Static IP, BOOTP, DHCP

Features

- Integrated web server with reader parameterization
- PROFINET device, EtherNet/IP device or Modbus TCP slave
- PROFINET S2 system redundancy
- Integrated Ethernet switch
- Web-based UHF RFID test tool for easy air interface evaluation
- Active face in front, UV resistance
- 1 connection for passive UHF RFID antennas
- "U" data interface for convenient use of the RFID functionality
- Close-to-control integration in PLC systems without the use of a special function module
- LEDs and diagnostics
- Device only suitable for operation in the European Union (EU), Great Britain (GBR), India (IND), Türkiye (TUR) and South Africa (ZAF) at 865...868 MHz

Functional principle

The UHF readers form a transmission zone, the size of which may vary depending on the combination of reader and tag used. The achievable distances may be different due to component tolerances, mounting location in the application, ambient

Technical data

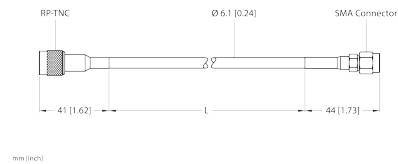
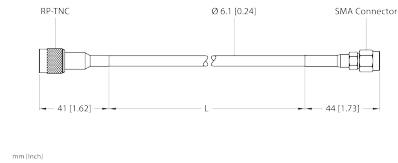
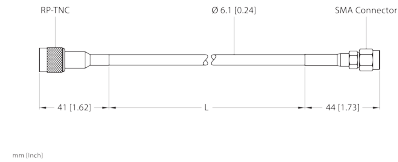
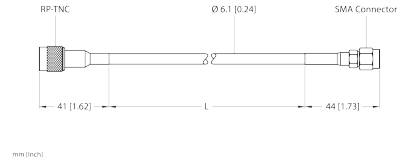
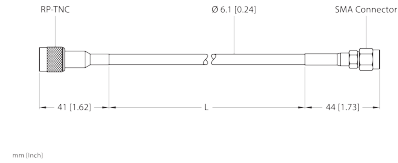
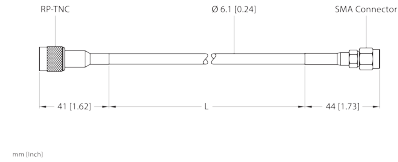
Supported function codes	FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23
Number of TCP connections	8
Input register start address	0 (0x0000 hex)
Output register start address	2048 (0x0800 hex)
EtherNet/IP	
Addressing	acc. to EtherNet/IP specification
Quick Connect (QC)	< 500 ms
Device Level Ring (DLR)	supported
Class 3 connections (TCP)	3
Class 1 connections (CIP)	10
Input Assembly Instance	103
Input Data Size	248 INT
Output Assembly Instance	104
Output Data Size	248 INT
Configuration Assembly Instance	106
PROFINET	
Addressing	DCP
Conformance class	B (RT)
MinCycleTime	4 ms
Fast Start-Up (FSU)	< 0 ms
Diagnostics	acc. to PROFINET alarm handling
Topology detection	supported
Automatic addressing	supported
Media Redundancy Protocol (MRP)	supported
System redundancy	S2
Input Data Size	max.512 BYTE
Output Data Size	max.512 BYTE
RFID	
RFID data interface	UHF
Mechanical data	
Design	Rectangular
Construction type designation	Q150
Dimensions	150 mm x 150 mm x 61,7 mm
Housing material	Aluminium, AL, Silver
Active area material	Glass fiber-reinforced polyamide, PA6-GF30, black
Electrical connection	RP-TNC

conditions and the effect of materials (particularly metal).
Testing of the application under real operating conditions is therefore essential, especially with on-the-fly reading and writing!

Technical data

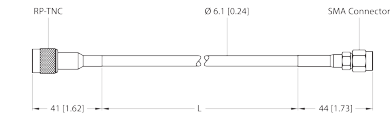
Input impedance	50 Ohm
Mounting conditions	Non-flush
Environmental conditions	
Ambient temperature	-30...+50 °C
Shock test	Acc. to EN 60068-2-27
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Vibration test	Acc. to EN 60068-2-6 - Acceleration up to 20 g
Protection class	IP67
Tests/approvals	
Approvals	CE
MTTF	acc. to SN 29500 (Ed. 99) 20 °C
Comments	
Packaging unit	1

Connectivity accessories

TN-UHF-CBL-HF240-RPTNC-1-SMA	100028191
HF240 coaxial cable, length 1 m	
	
TN-UHF-CBL-HF240-RPTNC-2-SMA	100028192
HF240 coaxial cable, length 2 m	
	
TN-UHF-CBL-HF240-RPTNC-4-SMA	100028193
HF240 coaxial cable, length 4 m	
	
TN-UHF-CBL-HF240-RPTNC-6-SMA	100028194
HF240 coaxial cable, length 6 m	
	
TN-UHF-CBL-HF240-RPTNC-8-SMA	100028195
HF240 coaxial cable, length 8 m	
	
TN-UHF-CBL-HF240-RPTNC-10-SMA	100028196
HF240 coaxial cable, length 10 m	
	
TN-UHF-CBL-HF240-RPTNC-12-SMA	100028197

Connectivity accessories

HF240 coaxial cable, length 12 m

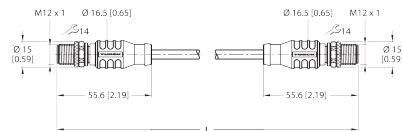


mm (inch)

RSSD-RSSD-4422-2M

6635150

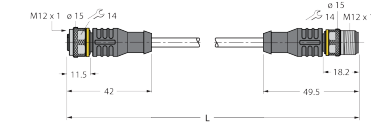
Cable for Industrial Ethernet, M12 male connector, D-coded, straight to M12 male connector, D-coded, straight, cable length: 2 m, jacket material: PUR, green



RKC5T-2-RSC5T/TXL

6625616

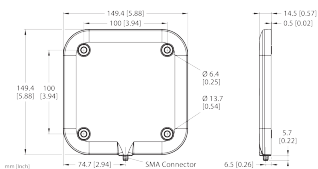
Extension cable, M12 female connector to M12 male connector, straight, 4-pin + PE, cable length: 2 m, jacket material: PUR, black; cULus approval



Functional accessories

TN-UHF-ANT-Q150-ETSI

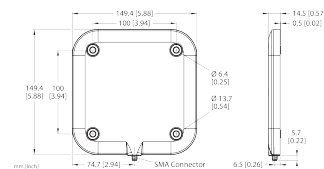
100028595



Passive UHF RFID antenna with dimensions of 150 × 150 mm

TN-UHF-ANT-NF-Q150-ETSI- FCC

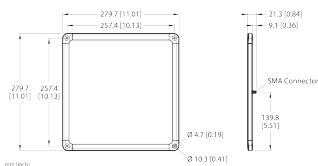
100028594



Passive UHF RFID near-field antenna with dimensions of 150 × 150 mm

TN-UHF-ANT-Q280-ETSI

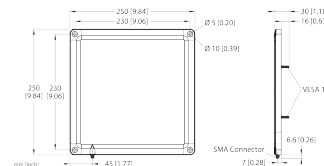
100028601



Passive UHF RFID antenna with VESA100 pins and dimensions of 280 × 280 mm

TN-UHF-ANT-Q250-ETSI

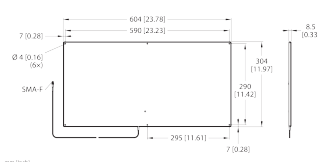
100028599



Passive UHF RFID antenna with dimensions of 250 × 250 mm

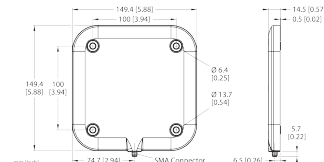
TN-UHF-ANT-Q300L600-ETSI

100047592



TN-UHF-ANT-Q150-MR-ETSI

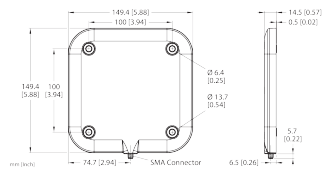
100047588



Passive UHF RFID antenna with dimensions of 150 × 150 mm

Functional accessories

TN-UHF-ANT-Q150-LX-ETSI 100047590



Passive UHF RFID antenna
with dimensions of
150 × 150 mm