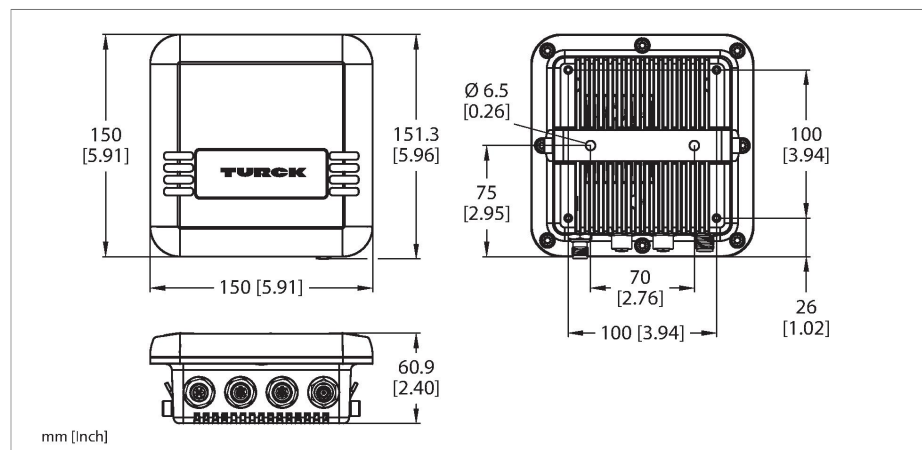


TN-UHF-Q150-NA-EC

UHF Reader



Technical data

Type	TN-UHF-Q150-NA-EC
ID	100018056
Approvals	UL FCC IC IFETEL
Electrical data	
Operating voltage U_B	12...30 VDC
DC rated operating current I_B	≤ 1200 mA
Data transfer	Alternating electromagnetic field
Technology	UHF RFID
Region (UHF)	USA, Canada, Mexico (902...928 MHz)
Radio communication and protocol standards	ISO 18000-63 EPCglobal Gen 2
Channel spacing	500 kHz
Output power	≤ 0.5 W (ERP), adjustable
Antenna polarization	RHCP/LHCP, adjustable
Antenna HPBW	90°
Output function	Read/Write
Mechanical data	
Mounting conditions	Non-flush
Ambient temperature	-30...+50 °C
Design	Rectangular
Dimensions	150 x 150 x 61.7 mm
Housing material	Aluminium, AL, Silver
Active area material	Glass fiber-reinforced polyamide, PA6-GF30, black

Features

- Integrated web server with reader parameterization
- EtherCAT slave according to Modular Device Profile
- 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 North America (NA) at 902...928 MHz (USA, Canada, Mexico)

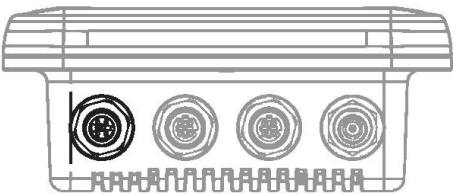
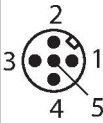
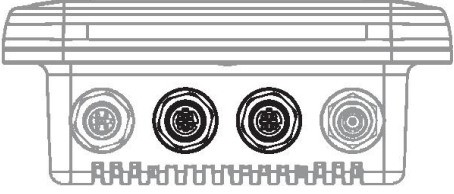
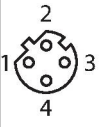
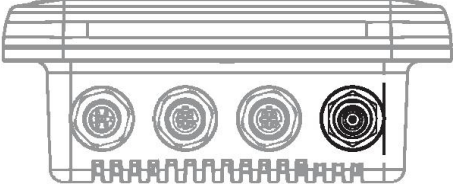
Functional principle

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 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

Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Electrical connection	RP-TNC
Input impedance	50 Ohm
MTTF	49 years acc. to SN 29500 (Ed. 99) 20 °C
RFID data interface	UHF
System data	
Transmission rate Ethernet	10/100 Mbps
Connection technology Ethernet	2 x M12, 4-pin, D-coded
EtherCAT	
CAN over EtherCAT	acc. to modular device profile (ETG.5001.1)
Diagnostics	CoE Emergencies, DiagnosisHistory
Address allocation	automatic
Packaging unit	1

	Accessories Power supply cable (example): RK 4.5T-2-RS 4.5T Ident no. U2187-1	Power supply M12 × 1  1 = V1 2 = n.c. 3 = GND 4 = n.c. 5 = PE 24 VDC
	Accessories Ethernet cable (example): RSSD RSSD 441-2M Ident no. U-02482	Ethernet M12 × 1  1 = TX + 2 = RX + 3 = TX - 4 = RX - flange = FE ETH
	Accessories Coaxial cable (example): TN-UHF-CBL-HF240-RPTNC-2-SMA	RP-TNC (male)