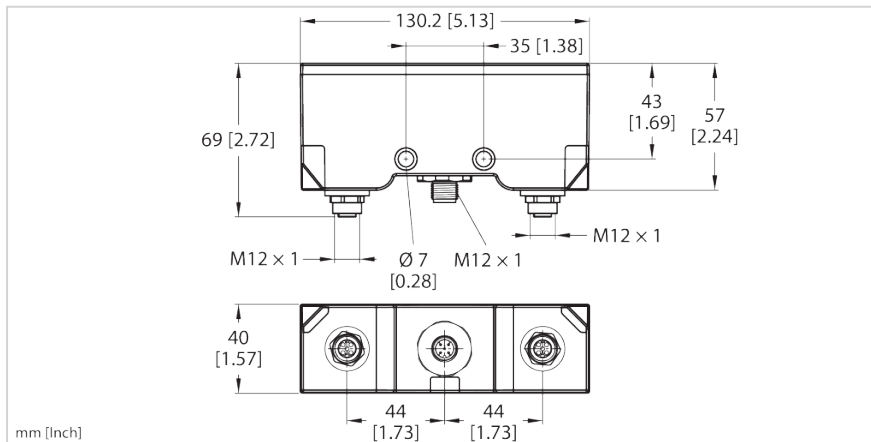


TNSLR-Q130-EN

HF Read/Write Head
Integrated-Interface Multiprotocol Ethernet



Typ	TNSLR-Q130-EN
Ident-No.	100004502

Technical data

Power supply	
Operating voltage	18...30 VDC
Voltage supply connection	1 × M12, A-coded
Electrical data	
Output function	4-wire, Read/Write
Short-circuit protection	yes
Inrush current	2400 für 1 ms
Data transfer	Inductive coupling
DC rated operational current	≤ 150 mA
Isolation test voltage	≤ 0,5 kV
Operating frequency	13.56 MHz
Technology	HF RFID
System data	
Transmission rate Ethernet	10/100 Mbps
Connection technology Ethernet	2 × M12, 4-pin, D-coded
Service interface	Ethernet via XF1 or XF2
Modbus TCP	
Addressing	Static IP, BOOTP, DHCP

Features

- Commissioning support through graphical display of the RSSI value and the detuning caused by metal in TAS (Turck Automation Suite, available free of charge at www.turck.com)
- PROFINET device, EtherNet/IP device or Modbus TCP server
- PROFINET S2 system redundancy
- Integrated Ethernet switch
- Supports 10 Mbps/100 Mbps
- Glass-fiber-reinforced housing
- Shock and vibration tested
- Fully encapsulated module electronics
- Protection class IP69K front, IP67 rear
- Integration in PLC systems without the use of a special function module
- Up to 128 bytes of user data per read/write cycle and use of fragments with 16 kilobytes of FIFO memory each
- Data interface for convenient use of the RFID functions
- Integrated web server with reader parameterization
- LEDs and diagnostics

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Technical data

Supported function codes	FC1, FC2, FC3, FC4, FC6, FC15, FC16, FC23
Number of TCP connections	8
EtherNet/IP	
Addressing	acc. to EtherNet/IP specification
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
Fast Start-Up (FSU)	< 500 ms
Diagnostics	acc. to PROFINET alarm handling
Automatic addressing	supported
Media Redundancy Protocol (MRP)	supported
System redundancy	S2
RFID	
RFID data interface	HF
Mechanical data	
Design	Rectangular, Q130
Construction type designation	Q130
Dimensions	130 mm x 69 mm x 40 mm
Housing color	Black
Housing material	Plastic, Black
Active area material	Plastic, PPS-GF30, black
Electrical connection	M12 × 1
Diagnostic display	Functional description of yellow range-restricted LED: If the read/write head is supplied with voltage, it briefly checks to see whether its resonance frequency is affected by surrounding metal. If this is the case, the oscillating circuit detunes its frequency to reach the (optimum) resonance frequency again. However, this is only possible within a certain range. With too much metal in the environment, the read/write head can no longer re-tune or the

Functional principle

The HF read/write devices operating at a frequency of 13.56 MHz form a transmission zone, the size of which (0...500 mm) varies depending on the combination of read/write device and tag used.

The read/write distances mentioned here only represent standard values measured under laboratory conditions, free from any influences caused by surrounding materials. The read/write distances of the tags for mounting in metal TW-R**-M(MF) were determined in metal.

Attainable distances may vary by up to 30 % due to component tolerances, mounting conditions, ambient conditions and material qualities (especially when mounted in metal). Testing of the application under real operating conditions is therefore essential, especially with on-the-fly reading and writing!

Technical data

	surrounding metal takes too much energy from the field and, due to the reduced range, the communication between the read/write head and the tag is cut off (the yellow "range restricted" LED lights up). However, if the LED is off, this does not mean that the range is not reduced. Rather, the lit LED is an indication of too much metal in the environment and a greatly reduced range (about 50 % less).
Mounting conditions	Non-flush, partially embeddable
Environmental conditions	
Ambient temperature	-40...+70 °C
Storage temperature	-40...+85 °C
Altitude	max. 5000 m
Pollution degree	3
Shock test	Acc. to EN 60068-2-27
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP69K front, IP67 rear
Display/operation	
Power-on indication	LED, Green
Switching state	LED, Green
General data	
Halogen-free	yes
Comments	
Packaging unit	1
Remark to product	Declaration of Conformity: https://www.turck.de/attachment/K5559M.pdf

LEDs

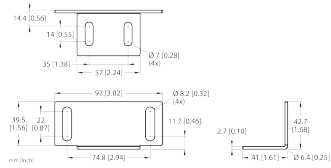
LED	Color/status	Color/status	Meaning
ETH1/ETH2	Green/off	Yellow/off	No connection
	Green/on	Yellow/off	100-Mbit connection
	Green/flashing	Yellow/off	100-Mbit connection and data exchange
	Green/off	Yellow/on	10-Mbit connection
	Green/off	Yellow/flashing	10-Mbit connection and data exchange

Mounting accessories

MB-Q130WD

A900166

Mounting clip for Q130WD sensors; material: stainless steel, 1.4401 (AISI 316)

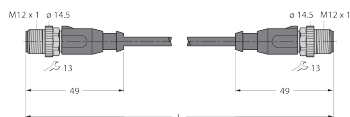


Connectivity accessories

RSSD-RSSD-4414-2M

6441405

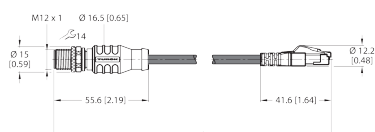
Cable for Industrial Ethernet, M12 male connector, D-coded, straight to M12 male connector, straight, cable length: 2 m, jacket material: PUR, green



RSSD-RJ45S-4422-2M

6635170

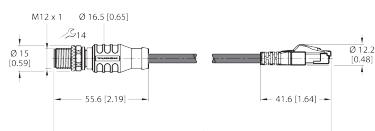
Cable for Industrial Ethernet, M12 male connector, D-coded, straight to RJ45 male connector, straight, cable length: 2 m, jacket material: PUR, green



RSSD-RJ45S-4422-7M

6635579

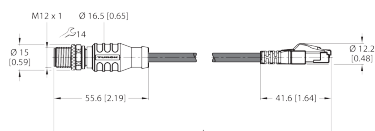
Cable for Industrial Ethernet, M12 male connector, D-coded, straight to RJ45 male connector, straight, cable length: 2 m, jacket material: PUR, green



RSSD-RJ45S-4422-8M

6635538

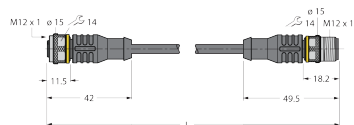
Cable for Industrial Ethernet, M12 male connector, D-coded, straight to RJ45 male connector, straight, cable length: 2 m, jacket material: PUR, green



RKC4.4T-2-RSC4.4T/TXL

6625608

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



RKC4.4T-2/TXL

6625503

Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval

