

Installation Instructions

Original Instructions



Allen-Bradley
by ROCKWELL AUTOMATION

58UHF RFID Long-range Transceiver

Catalog Numbers 58UHF-TR-200-LR50US, 58UHF-TR-200-LR50EU



WARNING: Never disassemble or modify the scanner. Doing so could result in an accident such as fire or electric shock.

Features

- Global Ultra-High Frequency (UHF) RFID solution
 - 865...868 MHz EU and UK model (CE)
 - 902...928 MHz US and North America model (FCC)
- Tag compatibility: ISO 18000-63 (EPC global Gen2) compliant
- Inventory speed up to 500 tags/sec (FCC)
- Sensing range up to 5 m (16.4 ft)
- Built-in status indicators for diagnostics
- All-in-one linear and circular antennas
- Excellent reliability in harsh environments
- EtherNet/IP™ and DLR support

Typical Applications

- Asset tracking
- Data acquisition
- Product handling
- Automotive
- Food and pharmaceutical
- As part of track and trace solution
- Traceability control
- Gate control
- Location control (warehouse)
- Pallet and returnable package management (for sustainability)

Specifications

Attribute	Value
General	
Enclosure rating	IP66/67
Operating temperature [°C (°F)]	-20...+55 (-4...+131)
Storage temperature [°C (°F)]	-40...+85 (-40...+185)
Relative humidity	<ul style="list-style-type: none">• Operating: 35...95%• Storage: 25...85%
Vibration	10 g at 10...500 Hz
Shock resistance [g]	50
Tag compatibility	ISO 18000-63
Sensing distance, max ⁽¹⁾ [m (ft.)]	5 (16.4)
Compliance	FCC, UL, CE, UKCA, and IC
Electrical	
Connector	<ul style="list-style-type: none">• EtherNet/IP: M12 4-pin plug DC micro• Power and I/O: M12 4-pin socket DC micro
Communication systems	EtherNet/IP
Supply voltage	19.2...26.4V DC
Current consumption at 24V DC, max	<ul style="list-style-type: none">• Supply: 1A CLASS2/SELVS• Input: 15 mA• Output: 0.5 A
Communication rate (host) [kbyte/sec]	0.125
Frequency	<ul style="list-style-type: none">• 865.7...867.5 MHz EU and UK model• 902.75...927.25 MHz US and North America model

(1) The setting limits depend on the country or the function. This reference value can vary depending on the operating environment.

Status Indicator Functionality

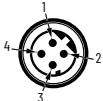


Name	Description	State	Indicates
MOD	Indicates status of the transceivers	Off	No power
		Steady green	Device operational
		Flashing green	Standby
		Flashing red	Major recoverable fault
		Steady red	Major nonrecoverable fault
		Flashing green/red	Self-test
Link1/2	Indicates status of Ethernet (E1/E2) port	Off	No link
		Steady green	Link
		Steady yellow	Port disabled
		Flashing green	Port activity
		Flashing yellow	Collision
		Steady red	Major NIC fault
NET	Indicates status of the connections	Off	No power
		Flashing green	No connections
		Steady green	Connected
		Flashing red	Connection timeout
		Steady red	Duplicate IP
		Flashing green/red	Self-test
R/W	Indicates status of the read/write commands	Off	No power
		Steady green	Powered but idle
		Flashing green	Transmitting RF carrier wave - no tags detected
		Steady yellow	Succeeded at tag operation - tag read/write complete
		Flashing yellow	Failed at tag operation - tag read/write incomplete
		Flashing red	RF transmit failure

IMPORTANT Installation must be in accordance with local and/or national codes. Servicing energized industrial control equipment can be hazardous if not in accordance to recommended safety procedures.

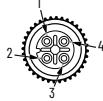
Connector Pinouts

Table 1 - EtherNet/IP ⁽¹⁾

DC M12, D-coded, 4-pin Plug	Pin	Signal	Color
	1	TxDATA +	White/orange
	2	Recv Data +	White/green
	3	TxDATA -	Orange
	4	Recv Data -	Green

(1) E1 - Standard right-angle Ethernet cables point left.
E2 - Standard right-angle Ethernet cables point right.

Table 2 - Power I/O

DC M12, D-coded, 4-pin Socket	Pin	Signal	Color
	1	+24V DC	Brown
	2	Input	White
	3	0V DC	Blue
	4	Output	Black

FCC Notice (For U.S. Customers)

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device will not cause harmful interference; and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Changes and modifications not expressly approved by Rockwell Automation can void your authority to operate this equipment under Federal Communications Commissions rules.

This equipment is tested and found to comply with the limits for a Class A digital device, according to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.



ATTENTION: This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, can cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you must correct the interference at your own expense.

Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

For technical support, visit rok.auto/support.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

Rockwell Otomasyon Ticaret A.Ş. Kar Plaza İş Merkezi E Blok Kat:6 34752, İçerenköy, İstanbul, Tel: +90 (216) 5698400 EEE Yönetmeliğine Uygundur

Connect with us. 

rockwellautomation.com

expanding **human possibility**®

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

UNITED KINGDOM: Rockwell Automation Ltd. Pitfield, Kiln Farm Milton Keynes, MK11 3DR, United Kingdom, Tel: (44)(1908) 838-800, Fax: (44)(1908) 261-917

Allen-Bradley, expanding human possibility, and Rockwell Automation are trademarks of Rockwell Automation, Inc.

EtherNet/IP is a trademark of OWA, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

Publication 58UHF-IN002A-EN-P - December 2022

Copyright © 2022 Rockwell Automation, Inc. All rights reserved. Printed in the Japan

10007114406 Ver 00