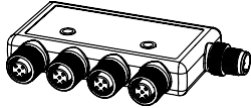


IO Link Master/Modbus Converter – 4 Channels

HE-IOLINK4CHRTU

Quick Start Guide

This guide is designed to help you set up and install the R45C-2K-MQ IO-Link Master/Modbus Converter. For complete information on programming, performance, troubleshooting, dimensions, and accessories, please refer to the User Manual **MAN1414-01** via the [Documentation Search](#) on the Horner Website. Use of this document assumes familiarity with pertinent industry standards and practices.



- Connects four IO-Link devices and provides access via Modbus RTU interface
- Rugged design; easy installation with no assembly or individual wiring required
- 5-pin M12 male quick-disconnect connector
- Four 4-pin M12 female quick-disconnect connectors
- Built-in indication for four IO-Link master ports
- Built-in indication for Modbus RTU connection status
- Rugged over-molded design meets IP65, IP67, and IP68

The R90C 4-Port Converter connects to four IO-Link devices and provides access to IO-Link data and functionality via a Modbus RTU connection.

Modbus registers allow for access to both IO-Link devices and their functions:

- Process Data In
- Process Data Out
- Connected device information
- ISDU data
- Discrete I/O configuration
- IO-Link events
- Data storage
- SIO mode

Specifications

Voltage Input Range	18 V DC to 30 V DC	Environmental Ratings	For Indoor Use Only IP65, IP67, IP68, UL Type 1
Input Power	24 VDC @ 4A	Operating Conditions	–40 °C to +70 °C (–40 °F to +158 °F) 90% at +70 °C maximum relative humidity (non-condensing) Storage Temperature: –40 °C to +80 °C (–40 °F to +176 °F)
Output Power	24 V DC at 100mA + 200mA/port = 900mA maximum	IO-Link Baud Rates	COM1: 4.8 kbps COM2: 38.4 kbps COM3: 230.4 kbps
Supply Protection Circuitry	Protected against reverse polarity and transient voltages	Compliant Standards	IO-Link interface and System Specification v 1.1.2 IO-Link Test Specification v 1.1.2
Leakage Current Immunity	400 µA	Master Communication Protocol	RS485 – Modbus RTU
Indicators	RGB1: IO-Link Port 1 Status RGB2: IO-Link Port 2 Status RGB3: IO-Link Port 3 Status RGB4: IO-Link Port 4 Status Amber: Modbus Communications	Digital Inputs (SIO [DI] Mode)	Input Current: 5 mA typical ON Voltage/Current: 15 V DC minimum/5 mA minimum OFF Voltage: 5 V DC maximum
Connections	(4) Integral 4-pin M12 female quick-disconnect connector (1) Integral 5-pin M12 male quick-disconnect connector	Digital Outputs (SIO [DO] Mode)	On-Resistance: 120 mΩ typical, 250 mΩ maximum Current Limit: 0.7 A minimum, 1.0 A typical, 1.3 A maximum Off Leakage Current: -10 µA minimum, 10 µA maximum
Construction	Coupling Material: Nickel-plated brass Connector Body: PVC translucent black	Vibration and Mechanical Shock	Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 1.0 mm amplitude, 5 minutes sweep, 30 minutes dwell)
Certifications	CE UL		Meets IEC 60068-2-27 requirements (Shock: 30G 11 ms duration, half sine wave)

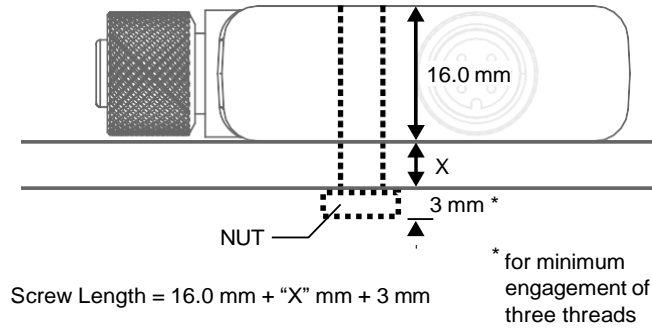
Maintenance and Service

Do not use alcoholic cleaning agents. The R90C 4-Port Converter is maintenance-free.

Mechanical Installation

Install the R90C 4-Port Converter to allow access for functional checks, maintenance, and service or replacement.

All mounting hardware is supplied by the user. Fasteners must be of sufficient strength to guard against breakage. Use of permanent fasteners or locking hardware is recommended to prevent the loosening or displacement of the device. The mounting hole (4.5 mm) in the R90C 4-Port Converter accepts M4 (#8) hardware. See the figure below to help in determining the minimum screw length.



FCC Part 15 Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada

This device complies with CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions: 1) This device may not cause harmful interference; and 2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la norme NMB-3(B). Le fonctionnement est soumis aux deux conditions suivantes : (1) ce dispositif ne peut pas occasionner d'interférences, et (2) il doit tolérer toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité du dispositif.

Technical Support

<p>North America: Tel: (317) 916-4274 Fax: (317) 639-4279 Website: https://hornerautomation.com Email: techsppt@heapg.com</p>	<p>Europe: Tel: (+353)-21-4321-266 Fax: (+353)-21-4321826 Website: http://www.hornerautomation.eu Email: technical.support@horner-apg.com</p>
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