PACSystems™ RSTi-OM IP67 I/O
On-Machine I/O with Edge Capabilities

Introduction

With edge connectivity and a user-friendly configuration, RSTi-OM I/O helps you easily communicate with the intelligent sensors and devices that your operations rely on. RSTi-OM modules are IP67 so they are protected from water, dust, and other extreme conditions. This rugged design allows you to place advanced I/O where you need it, without the use of a control cabinet.

Perfect for low density, single location applications like assembly lines and bottling applications, RSTi-OM provides powerful on- machine I/O control and comprehensive connectivity options. This gives you the opportunity to modernize your systems communications for an improved and more flexible system.

I/O Where You Need It

RSTi-OM provides rugged connectivty regardless of any harsh environmental conditions. Instead of needing to connect your devices to a distant control cabinet, you can now directly connect sensors and actuators closer to the point of use. Whether you're a machine builder or system integrator, this solution is powerful and adaptive so you can eliminate the need for control cabinets in your installation.

Advanced Connectivity

RSTi-OM has an ability to be part of simultaneous control and edge applications, giving you flexibility like never before. Now you can take your I/O connectivity to the next level with IO- Link while still being able to interface with discrete I/O. You'll have increased flexibility to control and advise your application with simultaneous connectivity to PROFINET, Modbus TCP, OPC - UA, and MQTT. This collection of communication protocols makes modernizing your system easier than ever.

Easy Configuration

Boasting a best-in-class configuration process, RSTi-OM is designed to get your system operational with ease. Flexible hardware and intuitive configuration software allow you to grow and adjust your operations as you demands change. Using the highly integrated PAC Machine Edition (PME) software, you can easily program RSTi-OM I/O with the same tool as all PACSystems CPUs.
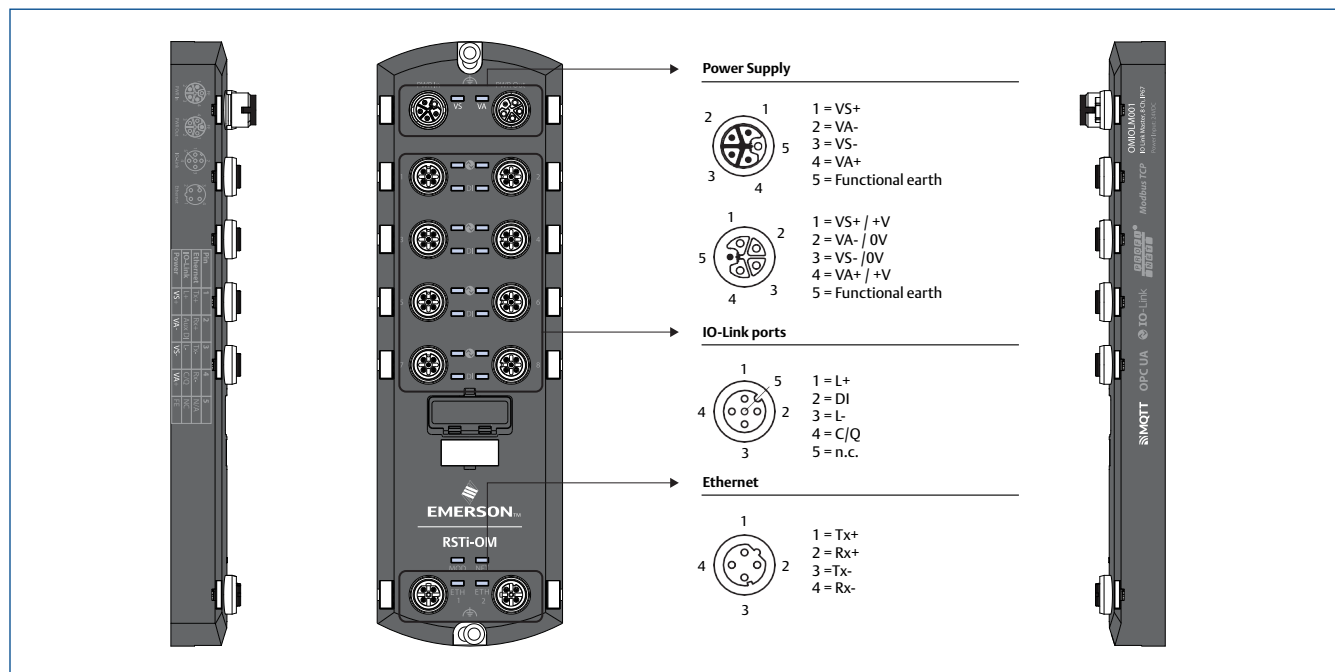
IIoT and Edge Capabilities

RSTi-OM is built to enable edge communications so you can connect your machines to your preferred cloud service. This approach lets you optimize your processes for better outcomes by providing access to real time information. This is an important component of Emerson's comprehensive PACEdge architecture which is critical to OEMs and machine builders looking to get the most from their equipment.

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Specifications

IO-Link Master	OMIOLM001
Dimensions (W x H x D)	65 x 212 x 29.8mm
Electrical	
Rated Operating Voltage	20...30 V DC
Nominal Voltage	24 V DC
Current Consumption	typ.120mA
Current Loading Capacity	Max. 2 x 16 A per module (Loop-through current via L-coded power supply) Total current: max. 6.7 A per module
Interface Type	Industrial Ethernet, M12, D-coded
Protocols	PROFINET, Modbus TCP, OPCUA, MQTT
Inputs/Outputs	
Number/Type	8x IO-Link Class A (X1 – X8) Configurable as: Max.8 IO-Link and 8 digital inputs Max.16 digital inputs Max.8 digital inputs and 8 digital outputs short-circuit protected
Sensor Supply	Port 1: max. 1.6A Via L+ (pin 1) Port 3: max. 1A via L+ (pin 1) Ports 2 and 4 – 8: max. 500 mA per port via L+ (pin 1)
Output Rated Operating Current	max. 200mA Per port via C/Q (pin 4)
Ambient Conditions	
Ambient Temperature	-25...60°C (-13...140°F)
Storage Temperature	-40...85°C (-40...185°F)
Relative Humidity	max. 95%
Altitude	0...2000m
Mechanical	
Housing Length	30mm
Housing Width	65mm
Housing Height	212mm
Degree of Protection	IP 67
Connection	Power Supply M12, L-Coded Fieldbus M12, D-Coded Inputs/Outputs M12, A-Coded
Housing	Molded Polyamide 66
Mass	454g
Tightening torque, Panel Screws	8Nm
TighteningTorque, M12 Connector	max. 0.5Nm

IO-Link Master Diagram

Power Supply

1 = VS+
2 = VA-
3 = VS-
4 = VA+
5 = Functional earth

1 = VS+ / +V
2 = VA- / 0V
3 = VS- / 0V
4 = VA+ / +V
5 = Functional earth

IO-Link ports

1 = L+
2 = DI
3 = L-
4 = C/Q
5 = n.c.

Ethernet

1 = Tx+
2 = Rx+
3 = Tx-
4 = Rx-

I/O Family Comparison

Product	PACSystems RSTi	PACSystems RSTi-EP	VersaPoint	VersaMax Modular	RSTi-OM	PAC8000	PACSystems RX3i
Type	Distributed Slice	Distributed Slice	Distributed Slice	Chassis Based	On-machine Distributed	Intrinsically Safe	Chassis Based
Network Interfaces	PROFINET PROFIBUS DP Modbus/TCP Modbus/RTU DeviceNet	PROFINET P ROFIBUS DP Modbus/TCP EtherCAT Ethernet/IP	PROFINET PROFIBUS DP Modbus/TCP DeviceNet	PROFINE PROFIBUS DP Modbus/TCP EGD DeviceNet GENIUS	PROFINET Modbus TCP OPC UA MQTT (simultaneous on same device)	PROFINET Modbus/TCP	PROFINE PROFIBUS DP Modbus/TCP EGD CMX
System Redudancy	Modbus/TCP Modbus/RTU DeviceNet	PROFINET PROFIBUS DP	-	PNSR, EGD or GENIUS	-	PNSR or Modbus/TCP	PNSR or EGD
Hot Swap	No	Yes	No	Yes	No	Yes	Yes
Environmentals	PROFINET PROFIBUS DP	IP20 -20°C to 60°C	IP20 -20°C to 55°C	IP20 0°C to 60°C -40°C to 60°C (opt.) Conformal Coat (opt.)	IP67 -20°C to 60°C	IP20 -40°C to 70°C Conformal Coat	IP20 0°C to 60°C -40°C to 60°C (opt.) Conformal Coat (opt.)
Agency Approvals	Modbus/TCP DeviceNet	PROFINET PROFIBUS DP	UL UL HazLoc C1D2 CE ATEX Zone 2 TUVSIL3	UL UL HazLoc C1D2 CE ATEX Zone 2	UL UL HazLoc C1D2 CE ATEX Zone 2	UL UL HazLoc C1D1 CE ATEX Zone 1 Intrinsically Safe	UL UL HazLoc C1D2 CE ATEX Zone2
Marine	Modbus/TCP EGD	DNV GL	-	ABS, BV, DNVGL, LR (only select models)	-	LR	ABS, BV, DNVGL (only select models)
I/O Module Size (W x H x D)	12 x 99 x 70mm	11.5 x 120 x 76mm	12 x 120 x 70mm	66.8 x 163.5 x 70mm	65 x 212 x 29.8mm	42 x 110 x 106mm	34 x 145 x 140mm
Typical Applications	Basic Machine	Machine Control Light Process Control General Automation	Functional Safety	Machine and Light Process Control General Automation	On-machine Cabinetless I/O	Harsh Environment Process Control	Complex Machine Process Control Motion Control General Automation
Level of Diagnostics	Good	Better	Best	Better	Better	Best	Best

Ordering Information

Part Number	Description
OMIOLM001	IO-LINK MASTER, 8 CH, CLASS A, IP67

Accessories	Description
ICA-16DI-G60A-IO	IO-LINK 16-PORT DIGITAL IN HUB, IP67
ICA-16DIO-G60AL-IO	IO-LINK 16-PORT DIGITAL IN/OUT HUB, IP67
ICA-10DI6DO-G60A-IO	IO-LINK 10 DIGITAL IN, 6 DIGITAL OUT HUB, IP67
V1S-T-V1	M12 A-CODE SPLIT PLUG TO ADD DI TO CABLE
V15S-YEE-V15/V15	M12 A-CODE SPLIT PLUG FOR CLASS B POWER
V15L-G-1M-PUR-U-V15L-G	CBL PWR L-CODE, STR M M12-FLY 1.0M
V15L-G-3M-PUR-U	CBL PWR L-CODE, STR M M12-FLY 3.0M
V15L-G-5M-PUR-U	CBL PWR L-CODE, STR M M12-FLY 5.0M
V15L-W-5M-PUR-U	CBL PWR L-CODE, 90D M M12-FLY 5.0M
V15L-W-1M-PUR-U-V15L-W	CBL PWR L-CODE, 90D M M12-90D F M12 1.0M
V15L-G-1M-PUR-U-V15L-G	CBL PWR L-CODE, STR M M12-FLY 1.0M
V1SD-G-GN1M-TPE-A1S-V45-G	CBL ETH D-CODE, STR M M12-M RJ45 1.0M
V1SD-G-GN2M-TPE-A1S-V45-G	CBL ETH D-CODE, STR M M12-M RJ45 3.0M
V1SD-G-GN5M-TPE-A1S-V45-G	CBL ETH D-CODE, STR M M12-M RJ45 5.0M
V1SD-W-2M-PUR-ABG-V45-G	CBL ETH D-CODE, 90D M M12-M RJ45 2.0M
V1SD-W-5M-PUR-ABG-V45-G	CBL ETH D-CODE, 90D M M12-M RJ45 5.0M
V1SD-W-5M-PUR-ABG-V45-G	CBL ETH D-CODE, 90D M M12-M RJ45 5.0M
V1SD-G-GN1M-TPE-A1S-V1SD-G	CBL ETH D-CODE, 90D M M12-90D F M12 1.0M
V1SD-W-1M-PUR-ABG-V1SD-W	CBL ETH D-CODE, STR M M12-STR F M12 1.0M
V1-G-BK1M-PUR-U-V1-G	CBL 4P A-CODE, STR M M12-STR F M12, 1.0M
V1-G-BK3M-PUR-U-V1-G	CBL 4P A-CODE, STR M M12-STR F M12, 3.0M
V1-G-BK5M-PUR-U-V1-G	CBL 4P A-CODE, STR M M12-STR F M12, 5.0M
V1-W-BK1M-PUR-U-V1-G	CBL 4P A-CODE, 90D M M12-STR F M12, 1.0M
V1-W-BK3M-PUR-U-V1-G	CBL 4P A-CODE, 90D M M12-STR F M12, 3.0M
V1-W-BK5M-PUR-U-V1-G	CBL 4P A-CODE, 90D M M12-STR F M12, 5.0M
V1-W-BK5M-PUR-U-V1-W	CBL 4P A-CODE, 90D M M12-90D F M12, 5.0M
V15-G-BK2M	CBL 5-PIN A-CODE, STR F M12-5PIN FLY, 2M
V15S-G-1M-PUR-V15S-G	CBL 5-PIN A-CODE, STR M M12-STR F M12,1M
IC676ACC002	IP67 M12 PROTECTIVE CAPS, FEMALE, QTY 5
IC676ACC003	IP67 M12 PROTECTIVE CAPS, MALE, QTY 5

Americas Support – Technical and Commercial
Phone: 1-888-565-4155 or 1-434-214-8532 (if toll free 800 option is unavailable)
Email for Technical Support: **support.mas@emerson.com**
Email for Commercial Support: **customercare.mas@emerson.com**
Primary language of support: English

Europe, Middle East, & Africa Support – Technical and Commercial
Phone: +800-4-444-8001 or +420-225-379-328
(if toll free 800 option is unavailable or dialing from a mobile telephone)
Email for Technical Support: **support.mas.emea@emerson.com**
Email for Commercial Support: **customercare.emea.mas@emerson.com**
Primary languages of support: English, German, Italian, Spanish

Asia Support – Technical and Commercial
Phone: +86-400-842-8599 for Greater China
+65-6955-9413 (All Other Countries)
Email for Technical Support: **support.mas.apac@emerson.com**
Email for Commercial Support Asia: **customercare.cn.mas@emerson.com**
Primary languages of support: Chinese, English

Support Website: www.emerson.com/iac-support

Home Website: www.Emerson.com/PACSystems

United States Office
Emerson Automation Solutions
Intelligent Platforms, LLC
2500 Austin Dr
Charlottesville, VA 22911

Germany Office
Emerson Automation Solutions
ICC Intelligent Platforms GmbH
Memminger Straße 14
Augsburg, DE 86159

China Office
Emerson Automation Solutions Intelligent
Platforms (Shanghai) Co., Ltd
No.1277, Xin Jin Qiao Rd, Pudong,
Shanghai, China, 201206

Brazil Office
Emerson Automation Solutions
Av. Hollingsworth, 325 – Iporanga
Sorocaba – SP, 18087-105

Italy Office
Emerson Automation Solutions
Progea Srl
Via D' Annunzio 295,
1-41123 Modena, Italy

Singapore Office
Emerson Automation Solutions Intelligent
Platforms Asia Pacific Pte. Ltd.
1 Pandan Cres,
Singapore, 128461

Australia Office
Emerson Automation Solutions 4
71 Mountain Hwy,
Bayswater VIC 3153, Australia
+61 3 9721 0200

India Offices
Emerson Automation Solutions
Intelligent Platforms Pvt. Ltd.,
Building No.8, Ground Floor
Velankani Tech Park, No.43
Electronics City Phase I, Hosur Rd
Bangalore-560100

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