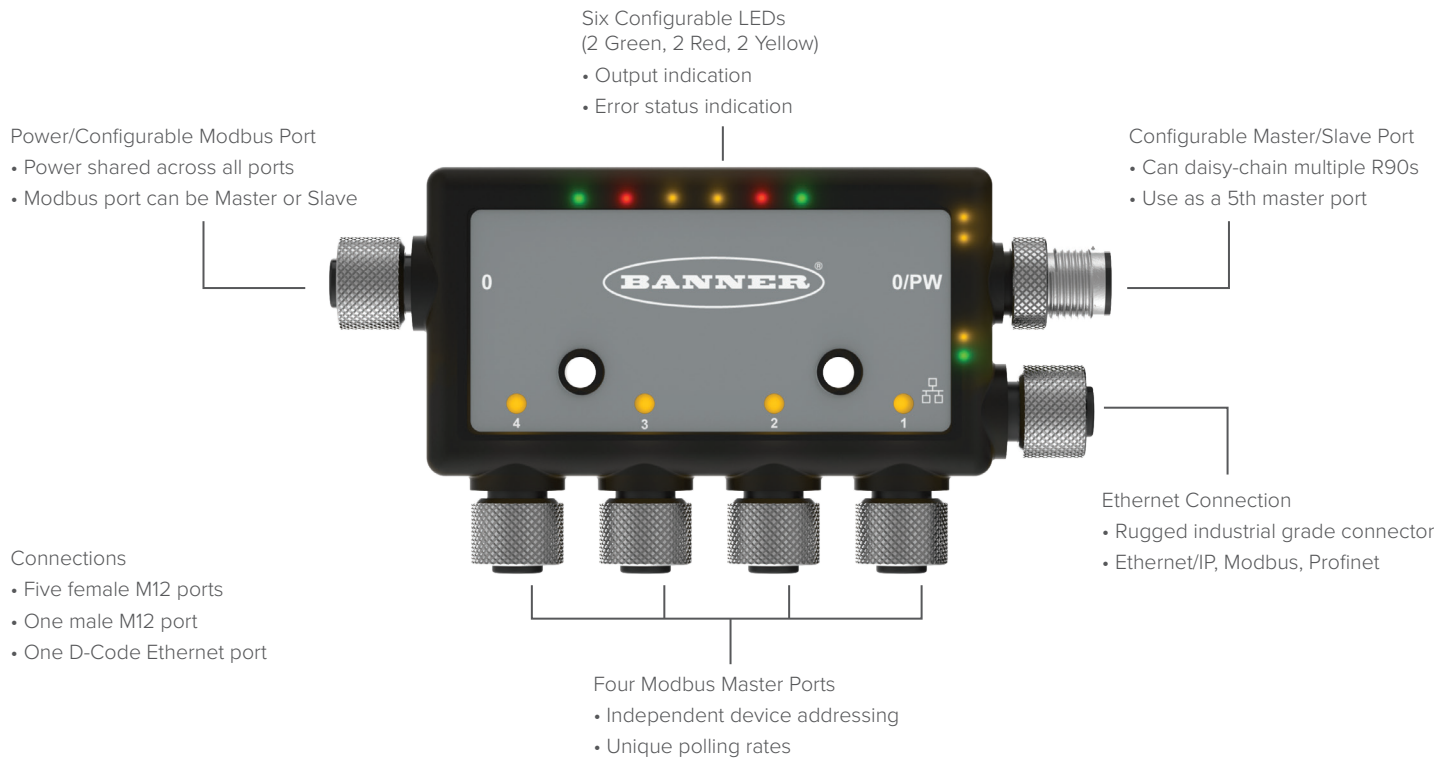# DXMR90 Industrial Controller

SNAP **SIGNAL**

IIoT Enabling Industrial Controller

- Configurable industrial controller works with a wide range of Serial devices
- Internal logic controller with simple action rules for programming, logging, and data manipulation
- Compact housing saves space and weight compared to traditional block style form factors
- Rugged IP67/IP68 housing provides simplified installation by eliminating the need for a control cabinet
- Four dedicated master ports for concurrent communication to four independent networks for faster response times
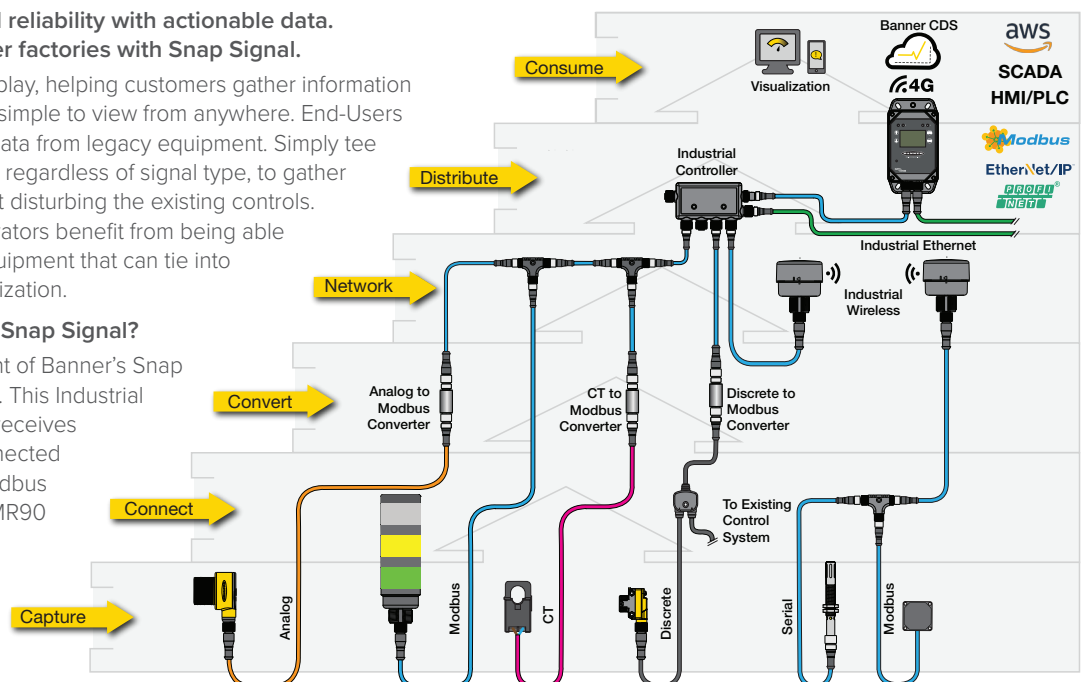
BANNER ®

more sensors, more solutions

DXMR90

Six Configurable LEDs
(2 Green, 2 Red, 2 Yellow)
• Output indication
• Error status indication

Power/Configurable Modbus Port
• Power shared across all ports
• Modbus port can be Master or Slave

Configurable Master/Slave Port
• Can daisy-chain multiple R90s
• Use as a 5th master port

Connections
• Five female M12 ports
• One male M12 port
• One D-Code Ethernet port

Ethernet Connection
• Rugged industrial grade connector
• Ethernet/IP, Modbus, Profinet

Four Modbus Master Ports
• Independent device addressing
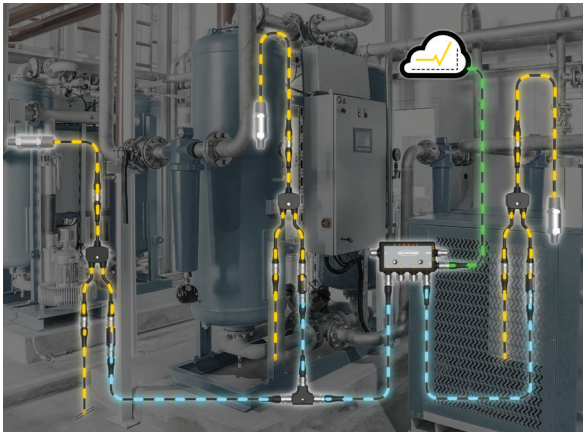• Unique polling rates

⊙SNAP **SIGNAL**

Improve productivity, quality, and reliability with actionable data. Build smart machines and smarter factories with Snap Signal.

Snap Signal products are plug-and-play, helping customers gather information from their equipment and making it simple to view from anywhere. End-Users can use it as an overlay to harvest data from legacy equipment. Simply tee into existing devices using a splitter, regardless of signal type, to gather enriched machine-level data without disturbing the existing controls. Machine Builders and System Integrators benefit from being able to add monitoring technology to equipment that can tie into any upstream system for data visualization.

Where does the DXMR90 fit into Snap Signal?

The DXMR90 is a central component of Banner's Snap Signal system for device monitoring. This Industrial Controller houses a processor that receives signals from sensors and other connected devices, through four dedicated Modbus ports. As a centralized hub, the DXMR90 combines all of these signals into one unified stream of insightful diagnostic data which can be exported out through industrial Ethernet protocols.

Consume

Visualization

Banner CDS

aws

SCADA
HMI/PLC

Distribute

Industrial
Controller

Modbus

Ethernet/IP

PROFINET

Industrial Ethernet

Network

Industrial
Wireless

Convert

Analog to
Modbus
Converter

CT to
Modbus
Converter

Discrete to
Modbus
Converter

To Existing
Control
System

Connect

Capture

Analog

Modbus

CT

Discrete

Serial

Modbus

Tap into Pressure Sensor Data for Immediate Insights

- Monitor system pressure at various locations in real-time
- Use active monitoring to quickly identify potential failures or leaks
- Combine incoming pressure sensor information for a comprehensive data stream to the cloud

Maximize Throughput and Reduce Downtime by Harnessing Sensor Data from Your Equipment

- Monitor production throughput and performance using existing sensors and Snap Signal converters
- Calculate OEE metrics, such as availability, performance, and quality, locally on the DXMR90 industrial controller
- Send actionable data to the cloud directly from the DXMR90
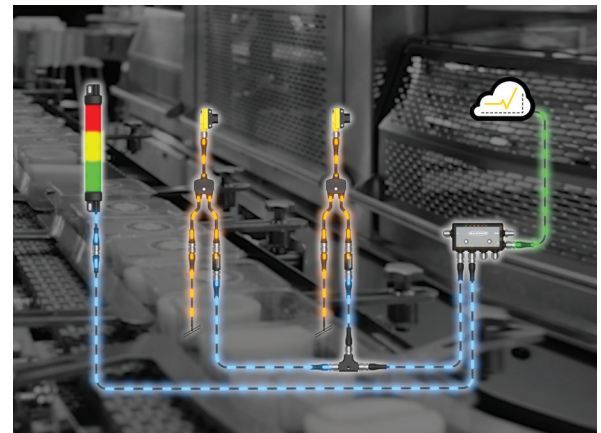
Provide Real-Time Tank Level Monitoring Data to Efficiently Manage Inventory

- Connect existing ultrasonic or radar tank-level sensors
- Monitor tank volume and make decisions at the sensor level with the DXMR90
- Send actionable tank-level data and alerts to Banner CDS

Keep Hydraulic Power Units Running at Peak Performance

- Add Snap Signal converters to sensors measuring any machine condition, such as pressure, current, oil temperature, and vibration
- Send data from hydraulic machinery to the DXMR90 for real-time condition monitoring
- Set alerts locally or in the cloud to respond to potential failures quickly

BANNER®
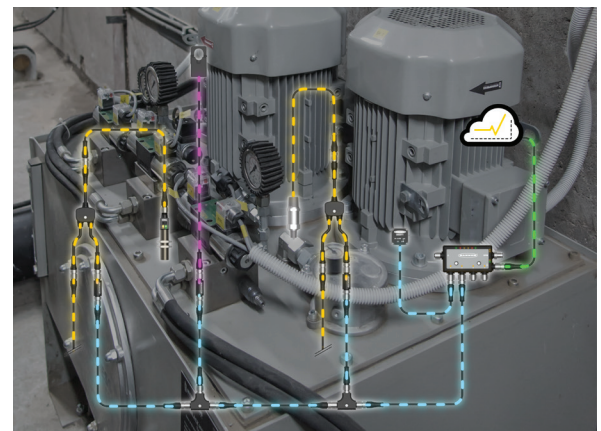
DXMR90 Industrial Controller

Model	Ethernet Connection	Modbus Master Connections	Other Connections
DXMR90-X1	One female M12 D-Code Ethernet Connector	Four female M12 connections for Modbus master connections	One male M12 (Port 0) for incoming power and Modbus RS-485, one female M12 for daisy chaining Port 0 signals.

Specifications

122 mm
63.5 mm
16 mm

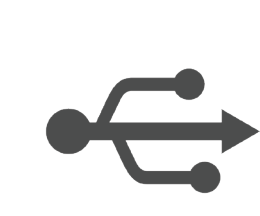|	
Power	12 V DC to 30 V DC
Environmental Rating	For Indoor Use Only IP65, IP67, NEMA 1, UL Type 1
Operating Conditions	−40 °C to +70 °C (−40 °F to +158 °F) 90% at +70 °C maximum relative humidity (non-condensing)
Storage Temperature	−40 °C to +80 °C (−40 °F to +176 °F)
Connections	Five integral 5-pin M12 female quick disconnect One integral 4-pin M12 male quick disconnect One integral 5-pin M12 female D-Code quick disconnect
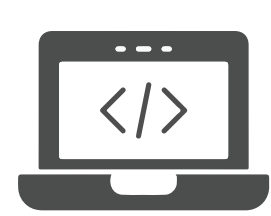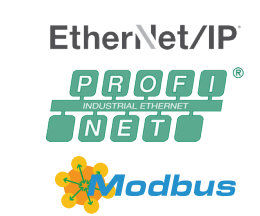
On-board Programming and Scripting – Micro Python, Script Basic	Industrial Ethernet – Ethernet/IP, ProfiNet, Modbus TCP	Logic and Math operations	Serial Communications	Cloud Connectivity – Banner CDS, AWS IoT Core

Accessories

SMBR90S
Mounting Bracket

4-pin M12 D-code to RJ45 Shielded Ethernet*

STP-M12D-406
1.83 m (6')
STP-M12D-415
4.57 m (15')
STP-M12D-430
9.14 m (30')

* One two meter cordset is included with purchase

4-pin Threaded M12 Cordsets Double Ended

MQDEC-406SS
1.83 m (6')
MQDEC-412SS
3.66 m (12')
MQDEC-430SS
9.14 m (30')

5-pin Threaded M12 Cordsets Single Ended

MQDC1-506
2 m (6.5')
MQDC1-515
5 m (16.4')
MQDC1-530
9 m (29.5')

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