

# DXMR90 Industrial Controller

 **SNAP SIGNAL**



## IIoT Enabling Industrial Controller

- Collect and process device data right at the source for real-time condition monitoring, streamlining installation and reducing the size of the control cabinet
- Use with a wide range of serial devices and share data via EtherNet/IP™, Modbus® TCP, or PROFINET® networks
- Easily configure internal logic controller using simple action rules, plus MicroPython and ScriptBasic for programming, logging, and data manipulation
- Consolidate signals from sensors and other connected devices, including legacy devices converted by Snap Signal products, via the four Modbus client ports
- Share device data with cloud services, such as Banner's Cloud Data Services (CDS), for cloud-based monitoring and alerting to and from anywhere

**BANNER**<sup>®</sup>

# DXMR90

## Configurable Master/Slave Port

- Power Pass-Through
- Use as 5th Modbus Client port
- Can daisy-chain multiple DXMR90-X1E controllers

## Power/Configurable Modbus Port

- Power shared across all ports
- Modbus port can be Client or Server



## Ethernet Connection

- Rugged industrial grade connector
- Ethernet/IP, Modbus, Profinet

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## Connections

- Five female M12 ports
- One male M12 port
- Two D-Code Ethernet port

## Four Modbus Client Ports

- Independent device addressing
- Unique polling rates

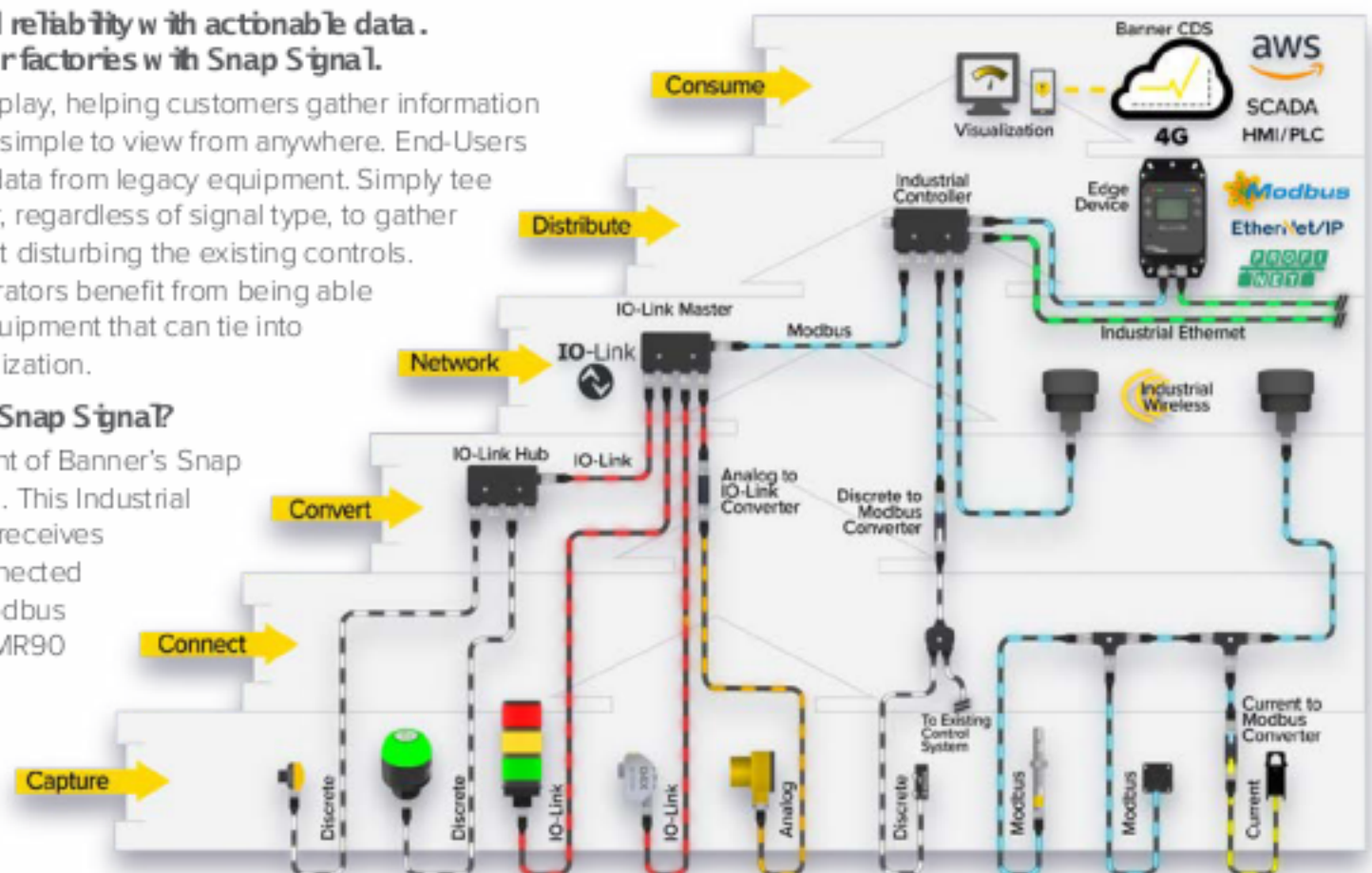
# SNAP SIGNAL

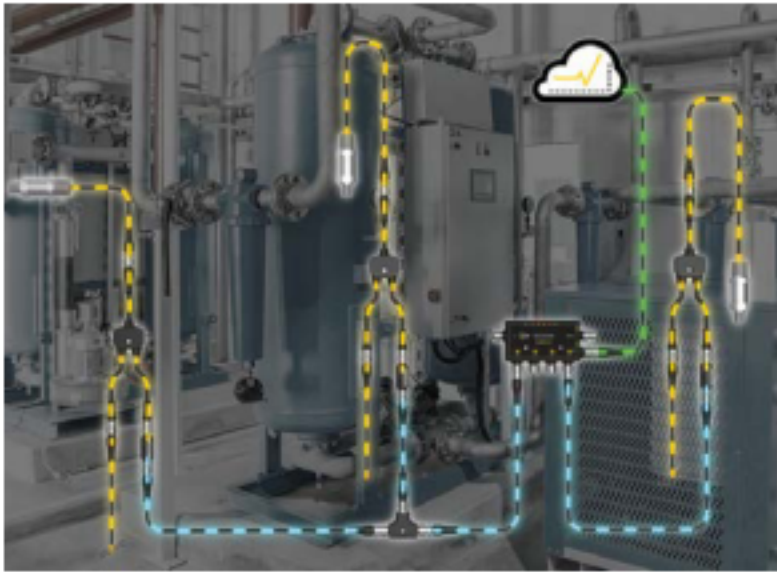
**Improve productivity, quality, and reliability with actionable data. Build smarter machines and smarter factories with Snap Signal.**

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.



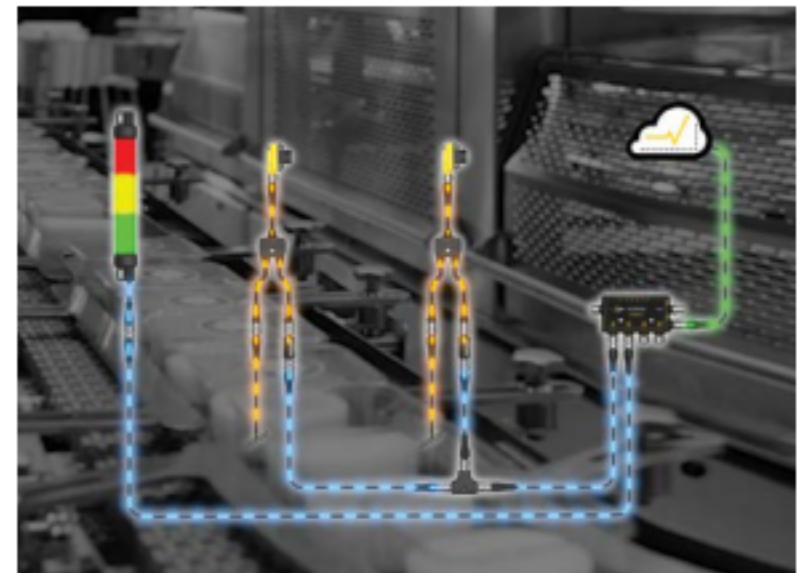


### Tap into Pressure Sensor Data for Immediate Insights

- 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

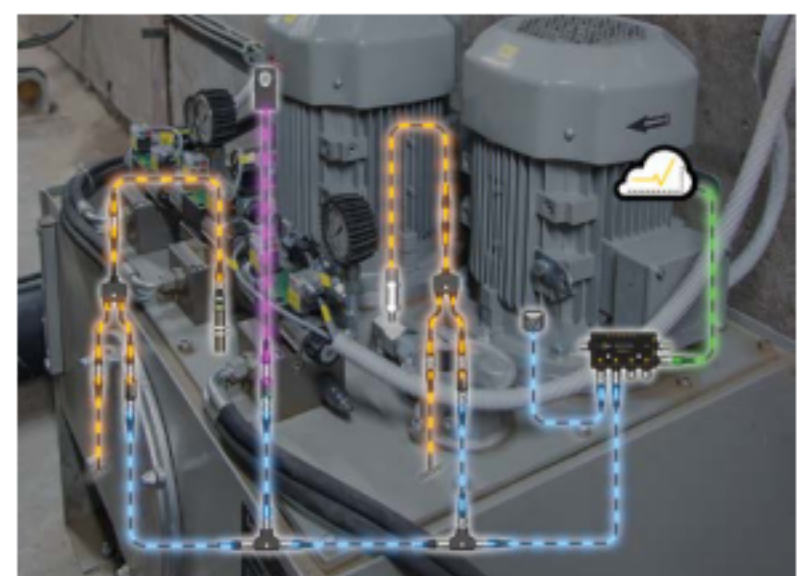


### Provide Real-time Tank Level Monitoring Data to Efficiently Manage Inventory

- 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



# DXMR90 Industrial Controller

Ethernet Connections	Modbus Connections	Other Connections	Model
One female M12 D-Code Ethernet Connector	Four female M12 connections for Modbus client connections	One male M12 (Port 0) for incoming power and Modbus RS-485, one female M12 for daisy chaining Port 0 signals.	<b>DXMR90-X1</b>
Two female M12 D-Code Ethernet Connectors	Four female M12 connections for Modbus client connections	One male M12 (Port 0) for incoming power and Modbus RS-485, one female M12 for outgoing power and daisy chaining Port 0 signals	<b>DXMR90-X1E</b>

## Specifications



<b>Power</b>	12 to 30 V DC
<b>Environmental Rating</b>	For Indoor Use Only IP65, IP67, NEMA 1, UL Type 1
<b>Operating Conditions</b>	-40 °C to +70 °C (-40 °F to +158 °F) 90% at +70 °C maximum relative humidity (non-condensing)
<b>Storage Temperature</b>	-40 °C to +80 °C (-40 °F to +176 °F)



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, Sparkplug B

## Accessories



**SM BR90S**  
Mounting Bracket

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

**STP-M 12D-406**  
1.83 m (6')  
**STP-M 12D-415**  
4.57 m (15')  
**STP-M 12D-430**  
9.14 m (30')

**4-pin M12 D-code Double-Ended Male Ethernet**

**BCD-M 12DM-M 12DM-0.3M**  
0.3 m (1')  
**BCD-M 12DM-M 12DM-1M**  
1 m (3.2')

**4-Pin M12 Double-Ended Straight Connector**

**BC-M 12F4-M 12M 4-2.2-2**  
2 m (6.5')  
**BC-M 12F4-M 12M 4-2.2-5**  
5 m (16.4')  
**BC-M 12F4-M 12M 4-2.2-10**  
10 m (32.8')

\* One two meter cordset is included with purchase



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