



**HIM**  
Smart HART® Loop  
Interface and Monitor

**DP Harp EJX™**

## Use the HIM HART® Loop Interface and Monitor to Get More Information From the EJX910A HART Multivariable Transmitter

Moore Industries' **HIM HART Loop Interface and Monitor** lets you take full advantage of the high performance **YOKOGAWA EJX910A Multivariable Transmitter**.

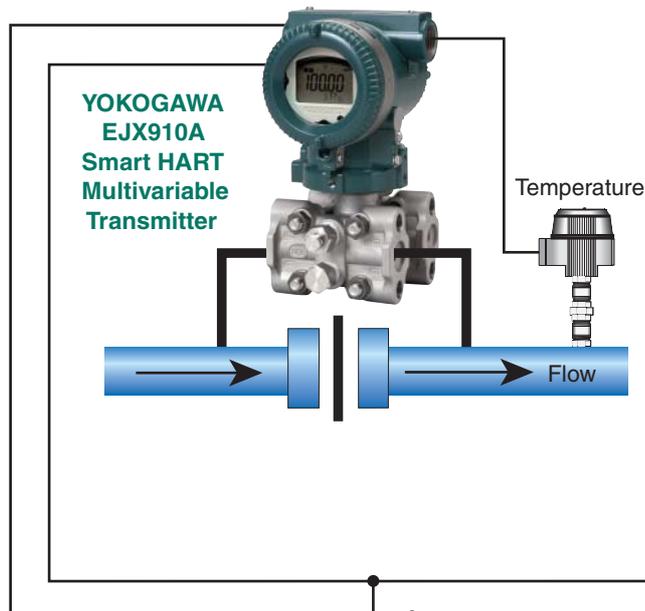
The EJX910A simultaneously measures Differential Pressure (DP), Static Pressure (SP) and External Temperature (T). It provides one of these measurements to the control system via a 4-20mA signal or, based on these measurements, calculates Mass Flow and sends a 4-20mA signal as the Primary Variable measurement.

### "Break Out" Additional Measurements

The HIM lets you see all of the EJX910A measurements at your control system. Installed transparently across the 4-20mA HART loop, the HIM extracts up to three of the transmitter's process variable measurements by reading the HART digital data that "rides" on the loop wires. It converts the data to isolated analog (4-20mA) signals ready for input to a DCS or PLC.

### High/Low Process and Loop Diagnostic Alarms

The HIM's optional relay outputs can be used to trip on high/low process conditions, or trip when transmitter fault diagnostic conditions are sensed.



### Advantages

- Extracts up to three variables (Mass Flow, Differential Pressure, Static Pressure or Process Temperature) from the EJX910A, and provides proportional and isolated 4-20mA signals.
- Operates in Normal and Burst HART modes.
- Large, 5-digit display shows a selected process variable in engineering units (input or output), or toggles between two variables.
- Supplies 24Vdc loop power to the EJX910A (transmitter excitation).

Moore Industries'  
**HIM Smart HART  
Loop Monitor**  
"Breaks Out" Data

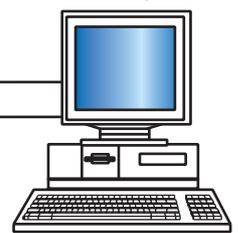


HART Digital Signal Carrying  
Primary, Second, Third, Fourth  
Variable Process Data, and Instrument  
Diagnostic Information

- 4-20mA Proportional to 2nd Variable (DP) ---
- 4-20mA Proportional to 3rd Variable (P) ---
- 4-20mA Proportional to 4th Variable (T) ---
- High Alarm in Response to 4th Variable (T)
- HART Transmitter Diagnostics Fault Alarm  
or Additional Process Alarm

4-20mA Representing the  
Primary Variable (Mass Flow)

Control System



Bulletin 22A00R01-01E

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**Specifications** For detailed specifications, please refer to each reference document.

Channel	Output	Description
1	0-20mA 4-20mA	<b>Convert HART Digital Data to 4-20mA Signals</b> —Each user-programmable channel provides an analog value proportional to any available HART variable of the EJX910A Multivariable Transmitter (Primary, Second, Third and Fourth Variable); Outputs are fully scaleable for any range, such as 4-20mA, between 0-20mA (4mA span minimum) into 1100 ohms; internally- or externally-powered, sink or source.
2	0-20mA 4-20mA	
3 (Optional)	0-20mA 4-20mA	
4 (Optional)	Relay	<b>Process and Diagnostic Fault (Relay) Alarms</b> —User-programmable alarm (relay) outputs are individually configurable: <b>•Process and Status High/Low Alarm</b> with user-selectable trip point(s) that respond to any available dynamic HART variable of the EJX910A Multivariable Transmitter (Primary, Second, Third and Fourth Variable). <b>•HART Instrument Diagnostic/Fault Alarm</b> that responds to one, some, or all (user-selectable) of the following HART Status Bit conditions: Primary Variable out of limits; Non-Primary Variable out of limits; Primary Variable analog output out of limits; Primary Variable analog output fixed; cold start; field device malfunction; more diagnostic information available; and based on additional status bits using HART Command 48. <b>•HIM Self-Diagnostic/Fault Alarm</b> continuously monitors its own status, and initiates an alarm if it senses an abnormal condition.
5 (Optional)	Relay	

**EJX910A Transmitter HART Variable Assignment:**

Model	Primary Variable	Second Variable	Third Variable	Fourth Variable
EJX-MV Multi-Sensing	Differential Pressure (DP)	Static Pressure (SP)	External Temperature (T)	Not Used
EJX-MV Mass Flow	Flow Rate	Differential Pressure (DP)	Static Pressure (SP)	External Temperature (T)

**Basic HIM Characteristics\***

**Input:** HART digital protocol from EJX910A HART Multivariable Transmitter

**Analog Outputs:** Two or three (optional) isolated 4-20mA signals

**Alarm Outputs:** Optional one or two alarms (contact closure) warn of high/low process conditions or loop diagnostic problems

**Power Supply:** 24DC, ±10%

**Ambient Storage and Operating Range:** -40°C to +85°C (-40°F to +185°F)

\*For complete HIM information and specifications, see Moore Industries' HIM data sheet.

**NOTICE** Before operating the product, read the user's manual thoroughly for proper and safe operation.

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