Industrial^{IT} System 800xA Asset Optimization

Asset Monitor



Vendor:	ABB
Device:	2600T Series - 262/264
Protocol:	HART

Туре:	Pressure Measurement
Application:	Absolute Pressure Differential Pressure Gauge Pressure

	System 800xA	Asset Master
DMS Calibration Supported:	SV4.1 (RU) SV5.0 (Obj. Type R1 only)	v5.0
MRO Maximo CMMS Supported:	SV4.1 (RU) SV5.0	v5.0
SAP/PM CMMS Supported:	SV4.1 (RU) SV5.0 (Obj. Type R2 only)	v5.0

3.0



262/264 Pressure Transmitter HART

Asset Monitor based on NAMUR NE107 recommendations

Conditions monitored:

Object Type Revision

Condition	Description	Possible Cause	Suggested Action	Severity
CONFIGUR	CONFIGURATION STATUS			
	Analog output current fixed. The primary analog and digital analog outputs will not respond to the applied process.	The analog and digital analog outputs for the Primary Variable are held at the requested value. Device is in fixed current (Loop Test) mode.	Use a HART configurator (DTM - Hand held) to place device back into normal operating mode (Remove from Loop Test - Fixed output mode)	750
	Device configuration changed.	A write or set command has been executed that changed the device's configuration.	Using the Device Management aspect to perform a comparison between the configuration in the device and the one in the DTM. Perform a configuration upload or download as required to synchronize to clear the configuration changed condition.	100



Condition	Description	Possible Cause	Suggested Action	Severity
HARDWARE STATUS - PRESSURE SENSOR				
	A Sensor memory error was detected during the start-up. The impact on the process value is critical.	The data uploaded from the sensor memory is corrupt and not usable in the algorithms for the process value.	The sensor must be replaced	1000
	The sensor signal value is incorrect due to a mechanical failure.	Mechanical damage to the sensor. Loss of fill fluid from the cell; ruptured diaphragm	The sensor must be replaced.	1000
	The primary signal of the sensor is no longer available. The transducer is not in a condition to generate a valid signal.	The sensor signal is not being updated correctly as a result of an electronics failure, sensor error or a poorly connected sensor cable.	Check cable connection, check sensor and if problem persists, the sensor must be replaced.	1000
	The measurement accuracy is decreased. The current value is only compensated with the last known values of the static pressure or temperature sensor.	The circuitry for the sampling of the static pressure or the temperature has failed.	The sensor should be replaced as soon as possible.	250
	After the next power cycle the new configuration will be lost	Writing to the Sensor EEPROM was not successful. (Non-Volatile memory of the sensor)	The sensor should be replaced as soon as possible.	100

HARDWARE STATUS - ELECTRONICS				
	The electronics is not compatible with the connected sensor.	The electronics and the sensor data base are of different versions and not compatible, OR the electronics is for a different model of sensor	The electronics must be replaced.	1000
	An Electronics memory error was detected during the start-up. The impact on the process value is critical.	The data uploaded from the electronics memory is corrupt and not usable in the algorithms for the process value.	The electronics must be replaced	1000
	A malfunction of the Digital to Analog Converter stage was detected and the correct 4-20 mA signal cannot be produced.	The Digital to Analog Converter is not properly calibrated, OR the Digital to Analog Converter is failed	Perform a new Digital to Analog Converted Trimming, OR if the trimming doesn't solve the problem, replace the electronics	1000
	The Accuracy of the D/A conversion could be decreased. The Output 4/20 mA signal representing the measure is compensated with last valid electronics temperature value.	The circuitry for the sampling of the Electronics Temperature has failed.	The Electronics should be replaced as soon as possible.	250
	After the next power cycle the new configuration will be lost	Writing to the electronics EEPROM was not successful. (Non-Volatile memory of the electronics)	The electronics should be replaced as soon as possible.	100

Condition	Description	Possible Cause	Suggested Action	Severity	
OPERATING	3 CONDITIONS				
	An overpressure has been detected on the HIGH side.	This effect could be produced by other equipment on the process, (valves). Exceeding the pressure range can cause reduced accuracy or mechanical damage to the diaphragm material and may require calibration/replacement.	The compatibility of pressure transmitter model and process conditions has to be checked. A different transmitter type could be required	1000	
	An overpressure has been detected on the LOW side.	This effect could be produced by other equipment in the process, (valves). Exceeding the pressure range can cause reduced accuracy or mechanical damage to the diaphragm material and may require calibration/replacement.	The compatibility of pressure transmitter model and process conditions has to be checked. A different transmitter type could be required	1000	
	The Process value is outside the sensor limits and no longer representing the true applied process value.	The measurement range has not been correctly calculated OR an incorrect transducer model has been selected.	The compatibility of pressure transmitter model and process conditions has to be checked. Probably a different transmitter type is required.	1000	
	Process value is outside its High working range	The analog output for the Primary Variable is beyond its High scaling limit and no longer represents the true applied process. The Analog Output (4-20 mA) is saturated to the configured Saturation Limit High	Adjust the working range if possible.	1000	
	Process value is outside its Low working range	The analog output for the Primary Variable is beyond its Low scaling limit and no longer represents the true applied process. The Analog Output (4-20 mA) is saturated to the configured Saturation Limit Low.	Adjust the working range if possible.	1000	
	The sensor temperature is outside of its operational limits.	The temperature of the process environment affects the pressure transmitter; Excess temperature can reduce accuracy, degrade device components and may require calibration/ replacement.	The compatibility of pressure transmitter model and process conditions has to be checked. A different installation type could be required e.g. use of remote seals.	500	
	The Electronics temperature is outside of its operational limits.	An Electronics Temperature out of the acceptable Working limit has been detected. Excess Electronics Temperature can cause reduced accuracy or damage of the components of the electronics and may require calibration/replacement	Check the transmitter installation and verify which is the overheating cause, e.g. transmitter installation, steam leakage directed on to transmitter housing	500	
	The static pressure is above its operational limit.	The static pressure of the process exceeds the limit of the pressure transmitter. Exceeding the Static Pressure can reduce accuracy, mechanically damage the diaphragm and may require calibration/replacement. An incorrect transducer model could have been selected.	The compatibility of pressure transmitter model and process conditions has to be checked. Probably a different transmitter type is required.	500	
	Power has been reapplied resulting in the re-initialization of the device.	Power has been removed and reapplied resulting in the re-initialization of the device.	If the problem persists, check power wiring.	100	



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