Industrial^{IT} System 800xA
Asset Optimization
Asset Monitor

Data Sheet

Vendor:	**ABB**
Device:	**2600T Series - 262/264**
Protocol:	**FOUNDATION Fieldbus (FF H1)**

Type:	**Pressure Measurement**
Application:	**Absolute Pressure** **Differential Pressure** **Gauge Pressure**

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

Object Type Revision	**2.2**

262/264 Pressure Transmitter
FF H1 (FOUNDATION Fieldbus)

Asset Monitor based on NAMUR NE107 recommendations

Conditions monitored:

Condition	Description	Possible Cause	Suggested Action	Severity
CONFIGURATION				
	Device configuration related. Parameter setting error due to target mode is OOS	Pressure Transducer Block is Out of Service	The TARGET MODE of the Pressure Transducer Block must be switched in AUTO	1000
	Device configuration related. Parameter setting error due to target mode is OOS	Resource Block is Out of Service	The TARGET MODE of the Resource Block must be switched in AUTO	1000

Condition	Description	Possible Cause	Suggested Action	Severity
ELECTRONICS				
	Device functionality related. Device needs maintenance soon The device is reporting performance degradation that will soon require maintenance.	May be due to process/environmental conditions or period of time device has been in operation	Add device to maintenance schedule	100
	Device functionality related. Input or Output transducer channel has failed.	Input Failure: Either the input transducer channel has reported a failure, or the input parameter from an upstream block has reported a failure. For an AI block, this could be caused by an open circuit being detected on the FP-AI-100 input module. Output Failure: The output transducer channel has reported a failure. For an AO block, this could indicate that the FP-AO-200 cannot drive the current request, perhaps due to an open circuit.	Check transducer or transducer connections.	1000
	Device functionality related. Block Configuration Error: The block has detected an error in its configuration. This usually indicates a static parameter has been left uninitialized. Link Configuration Error: The logical connection between this block and another block is misconfigured.	Block configuration error: Invalid parameter setting in the block. Link Configuration error: link used in one of the function blocks is improperly configured.	Review the block configuration per the manufacturer guidelines. In case of Resource Block, possibly a feature in FEATURES_SEL is set that is not supported by FEATURES or an execution cycle in CYCLE_SEL is set that is not supported by CYCLE_TYPE. Review the function block link configuration. See manufacturer suggestion.	1000
	Device functionality related. Data or memory error The storage for nonvolatile and static parameters was corrupted.	Hardware electronic problem.	Electronics module may require replacement.	1000
	Device functionality related. Device needs maintenance now	May be due to process/environmental conditions or period of time device has been in operation	Carry out device maintenance now	1000
	Device functionality related. The block's faultstate behavior is active.	Fault state has been manually selected	Investigate if fault state can be reset via engineering tool	1000
	Device functionality related. The value read back from the output channel does not match the value the output channel was set to.	Positioner unable to achieve output position	Physical check of control valve, linkages and air supply	1000
	Device functionality related. Undefined block error condition.	Device specific diagnosis present.	Check device specific diagnostic information.	1000
	Device functionality related. After the next power cycle all new configurations/data will be lost.	Writing to the electronics EEPROM was not successful. (Non-Volatile memory of the secondary electronics)	The electronics should be replaced as soon as possible.	100
	Device functionality related. An electronic memory error was detected during start up. The FB application configuration data was lost (Link Objects, FB start List, Macrocycle, LAS data.....)	During start up of the device, a CRC error has been detected due to data corruption of the electronics EEPROM (Non-Volatile memory of the secondary electronics) OR during the start up, the device_ID read from the sensor EEPROM was different from the device_ID in the electronics EEPROM. This condition typically occurs when the electronics replacement was performed without the cold start-up procedure.	Reconfigure the device Function Block Application or perform a cold start-up. If the problem persists, replace the electronics	1000
	Device functionality related. Electronics is not compatible with the 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
	Device functionality related. The database in the NV memory (EEPROM) doesn't match the database in the RAM. This test is executed periodically during the normal operation of the transmitter.	The RAM and/or NV memory could be damaged. This could affect critical data used in the algorithms for the process value generation.	The electronics must be replaced.	1000

Condition	Description	Possible Cause	Suggested Action	Severity
PRESSURE SENSOR				
	Device functionality related. A Sensor memory error was detected during the start-up. The impact on the process value is not critical.	The data uploaded from the sensor memory is corrupted but this data is not used in the algorithms for the process value.	The sensor should be replaced as soon as possible.	100
	Device functionality related. 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
	Device functionality related. 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.	100
	Device functionality related. 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
	Device functionality related. 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
	Device functionality related. 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
IMPULSE LINES				
	Process and installation related. The 'PILD&HPM' function needs training.	The PILD function has not been trained yet.	Initiate 'PILD & HPM' training	100
	Process and installation related. Last training of the 'PILD&HPM' function failed due to changed process conditions	Process conditions have changed to an extent that new settings for the 'PILD & HPM' algorithm are needed.	Initiate 'PILD & HPM' training	500
	Process and installation related. The last training of the 'PILD&HPM' function failed due to process fluctuations.	The process conditions fluctuated during the last training to an extent that no useful result was obtained.	Check the process and initiate training. If this error persists, the process is not suitable for the 'PILD & HPM' function.	500
	Process and installation related. The last training of the 'PILD&HPM' function failed due to unsuitable process conditions.	Process conditions not suitable during last training. The 'PILD & HPM' function did not work properly with the process conditions prevalent at the last training	Adjust the process conditions and initiate training. If this error persists the process is not suitable for the 'PILD & HPM' function.	500
	Process and installation related. The last training of the 'PILD&HPM' function failed because the process noise level was too low	Sensor disconnected from the process or process conditions not suitable	Check the installation and the process and then initiate 'PILD & HPM' training	500
	Process and installation related. 'PILD&HPM' has detected one plugged impulse line.	One of the connections between the pressure sensor and the process is blocked either by plugging or closed valves.	Check valves and impulse line. Clean impulse line if necessary and initiate 'PILD & HPM' training	1000
	Process and installation related. 'PILD&HPM' has detected a plugged impulse line on the HIGH side.	The connection between the pressure sensor and the process on the HIGH side is blocked either by plugging or closed valves.	Check valves and impulse line. Clean impulse line if necessary and initiate 'PILD & HPM' training	1000
	Process and installation related. 'PILD&HPM' has detected a plugged impulse line on the LOW side.	The connection between the pressure sensor and the process on the LOW side is blocked either by plugging or closed valves.	Check valves and impulse line. Clean impulse line if necessary and initiate 'PILD & HPM' training	1000
	Process and installation related. 'PILD&HPM' has detected both impulse lines plugged.	Both connections between the pressure sensor and the process are blocked either by plugging or closed valves.	Check valves and impulse lines. Clean impulse lines if necessary and initiate 'PILD & HPM' training	1000

Condition	Description	Possible Cause	Suggested Action	Severity
COMPLIANCE WITH OPERATING CONDITIONS				
	Process and installation related. 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	500
	Process and installation related. 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	500
	Process and installation related. The temperature is too high. The sensor temperature is outside of its operational limits.	The temperature of the process environment affects the pressure transmitter; use of remote seals is suggested. 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.	500
	Process and installation related. The temperature is too low The sensor temperature is outside of its operational limits.	The temperature of the process environment influences the pressure transmitter; use of remote seals is suggested. 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.	500
	Process and installation related. The static pressure is above the 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
	Process and installation related. The pressure measured at the input exceeds the High Sensor Limit (110%).	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.	500
	Process and installation related. The pressure measured at the input is lower than the Low Sensor Limit (-110%).	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.	500

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