

Vendor:	<b>ABB</b>
Device:	<b>TZIDC-120 / TZIDC-220</b>
Protocol:	<b>FOUNDATION Fieldbus (FF H1)</b>

Type:	<b>Digital Positioner</b>
Application:	<b>Electro-Pneumatic Valve Positioner</b>

	System 800xA	Asset Vision
Supported System versions:	<b>SV4.1 (RU-Jun06) SV5.0</b>	<b>v5.0</b>

Device Object Type	<b>ABB TZIDC-x20 V1.1-FF</b>
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For detail information about supported system versions refer to *FF H1 Device Object Type ABB TZIDC-x20 Version 1.x Release Notes (2PAA100026)*.



**TZIDC-120/ TZIDC-220  
Digital Valve Positioner  
FF H1 (FOUNDATION Fieldbus)**

#### Conditions monitored:

Condition	SubCond	Description	Possible Cause	Suggested Action	Severity
<b>DEVICE OUT OF SERVICE OR INITIALIZING</b>					
	Yes	The device has just powered up.	Resource Block is Out of Service or in Initialization Manual mode	Check the Target mode for function blocks. If actual mode is different from the target mode check PV status and block configuration.	1000
<b>BLOCK(S) OUT OF SERVICE OF POWERING-UP</b>					
	Yes	The block is currently out of service.	Error in block configuration	Check block configuration for details.	1000
<b>INPUT OR OUTPUT FAILURE</b>					
	Yes	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

Condition	SubCond	Description	Possible Cause	Suggested Action	Severity
<b>BLOCK CONFIGURATION ERROR OR LINK CONFIGURATION ERROR</b>					
	Yes	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
<b>DATA OR MEMORY ERROR</b>					
	Yes	The storage for nonvolatile and static parameters was corrupted.	Hardware electronic problem.	Electronics module may require replacement.	1000
<b>DEVICE NEEDS MAINTENANCE</b>					
	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	1000
	Now	The device needs to be maintained now.	May be due to process/ environmental conditions or period of time device has been in operation	Carry out device maintenance now	1000
<b>FAULT STATE SET</b>					
	Yes	The block's faultstate behavior is active.	Fault state has been manually selected	Investigate if fault state can be reset via engineering tool	1000
<b>READBACK CHECK FAILED</b>					
	Yes	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
<b>UNSPECIFIED ERROR</b>					
	Yes	Undefined block error condition.	Device specific diagnosis present.	Check device specific diagnostic information.	1000
<b>POSITION SENSOR MALFUNCTION</b>					
	Yes	Device Functionality related. Malfunction in position measurement	Error in mechanical mounting of device or error in position sensor or connection electronics to sensor	Check mounting or replace device	1000
<b>POSITIONING TIME</b>					
	Exceeded	Installation and Process related. Positioning time exceeded	Valve operation blocked or high friction; air supply interrupted	Check valve or power supply	1000
<b>POSITIONING CONTROLLER</b>					
	Inactive	Installation and Process related. Position controller is inactive - Control Operation is interrupted	Mode not in Automatic	Check device mode and change it to Mode Auto	750
<b>TEMPERATURE ELECTRONIC</b>					
	Out of Range	Installation and Process related. Electronic temperature limit exceeded	Environment temperature too high	Check environment, Electronic temperature out of range	750

Condition	SubCond	Description	Possible Cause	Suggested Action	Severity
<b>VALVE MAINTENANCE</b>					
	Required now	Installation and Process related. Valve Travel Counter Limit exceeded	Mechanical Load / Cumulated Valve Stroke/Movements limit reached (dynamic stress)	Valve Maintenance required.	500
	Required now	Installation and Process related. Valve Movement Counter Limit exceeded	Mechanical Load / Cumulated Valve Stroke/Movements limit reached (dynamic stress)	Valve Maintenance required.	500
<b>POSITIONING MAX WORK RANGE</b>					
	Out of Range	Installation and Process related. Position out of max work range	Mounting and wear at valve seat increased; Wear on the closure member or seat contamination	Check mechanical mounting and adjust working range	500
<b>POSITIONING SENSOR RANGE</b>					
	Out of Range	Installation and Process related. Working range not adjusted	If factory data were loaded (after factory reset) the working range settings would have been deleted	Adjust working range	500
	Out of Range	Installation and Process related. Position Switchpoint 1 Active	Digital valve position / behaviour	to be described by application	500
	Out of Range	Installation and Process related. Position Switchpoint 2 Active	Digital valve position / behaviour	to be described by application	500



**ABB**  
**Process Automation Division**  
Västerås, Sweden  
Phone: +46 (0) 21 32 50 00  
Fax: +46 (0) 21 13 78 45  
[www.abb.com/controlsystems](http://www.abb.com/controlsystems)  
email: [processautomation@se.abb.com](mailto:processautomation@se.abb.com)

**ABB**  
**Process Automation Division**  
Singapore  
Phone: +65 6776 5711  
Fax: +65 6778 0222  
[www.abb.com/controlsystems](http://www.abb.com/controlsystems)  
email: [processautomation@sg.abb.com](mailto:processautomation@sg.abb.com)

**ABB**  
**Process Automation Division**  
Wickliffe, Ohio, USA  
Phone: +1 440 585 8500  
Fax: +1 440 585 8756  
[www.abb.com/controlsystems](http://www.abb.com/controlsystems)  
email: [industrialitsolutions@us.abb.com](mailto:industrialitsolutions@us.abb.com)

**ABB**  
**Process Automation Division**  
Mannheim, Germany  
Phone: +49 (0) 1805 26 67 76  
Fax: +49 (0) 1805 77 63 29  
[www.abb.de/controlsystems](http://www.abb.de/controlsystems)  
email: [marketing.control-products@de.abb.com](mailto:marketing.control-products@de.abb.com)