# Industrial<sup>IT</sup> System 800xA Asset Optimization

**Asset Monitor** 



| Vendor:                    | ABB                                   |                   |  |  |
|----------------------------|---------------------------------------|-------------------|--|--|
| Device:                    | TZIDC / TZIDC-200                     | TZIDC / TZIDC-200 |  |  |
| Protocol:                  | HART                                  | HART              |  |  |
| Туре:                      | Digital Positioner                    |                   |  |  |
| Application:               | Electro-Pneumatic<br>Valve Positioner |                   |  |  |
|                            | System 800xA                          | Asset Vision      |  |  |
| Supported System versions: | SV4.1 (RU-Jun06)<br>SV5.0             | v5.0              |  |  |
| Device Object Type         | ABB TZIDC-200 V2.2-HART               |                   |  |  |

For detail information about supported system versions refer to HART Device Object Type ABB TZIDC-200 Version 2.x Release Notes (2PAA100306)



## TZIDC/ TZIDC-200 **Digital Valve Positioner** HART

#### Conditions monitored:

| Condition ID | SubCond     | Description  | Possible Cause  | Suggested Action                                      | Severity |
|--------------|-------------|--|---|---|----------|
| DEVICE MAL   | UNCTION     |  |   |   |          |
|              | Yes         | Device self diagnostic has<br>detected a problem with the<br>device operation.   | The device has detected a hardware error or failure   | Read Additional Device<br>Status provided by its DTM. | 1000     |
| CONFIGURAT   | ION CHANGED | ·  | ·   |   |          |
|              | Yes         | Data belonging to the<br>device's non-volatile data<br>is altered and will got<br>lost without running the<br>device's non-volatile change<br>procedure. | Either A write or set<br>command has been executed<br>or stroke / travel counters<br>have increased | None  | 1        |
| COLD START   |             |  |   |   |          |
|              | Yes         | Either device restart, self test<br>or master reset has occurred.  | Power has been removed<br>and reapplied resulting in the<br>re-initialization of the device.        | If the problem persists, check power wiring.          | 1000     |



| available by using the .DTM.   is available than can be<br>returned in the Field Device<br>Status.   Status provided by its DTM.     ANALOG INPUT FIXED   Yes   Device ignores anatog input<br>is squal, so the device does<br>not respond to any septoint<br>changes.   The device's HART-address<br>is <>0,   Use a HART configurator<br>(DW + Hand held) to set<br>device's HART address to 0     ANALOG INPUT SATURATED   The anatog input is beyond its<br>intris. The device can't fulfill<br>the requested positioning.   Read Additional Device<br>Status provided by its DTM.     NON-PRIMARY VARIABLE OUT OF LIMITS   The process applied to a<br>sensor, other than that of the<br>primary Variable, is beyond<br>the operaing limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMITS   The input value applied<br>to the operaing limits of the<br>device.   The process applied to a<br>sensor, other than that of the<br>Primary Variable, is beyond<br>the operaing limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>to the operaing limits.   The input value applied<br>to the operaing limits.   Check the device's mounting<br>and configuration.     PRIMARY VARIABLE OUT OF LIMIT   The input value of the<br>primary variable is disturbed.   The input value applied<br>to the operaing limits.   Check the device's operaing<br>and configuration.     PRIMARY VARIABLE OUT OF LIMIT   The analog input value for the<br>primary variable is disturbed.   | tion ID Su | ubCond           | Description   | Possible Cause   | Suggested Action   | Severity |
|---|------------|------------------|---|--|--|----------|
| available by using the .DTM.   is available than can be<br>returned in the Field Device<br>Status.   Status provided by its DTM.     ANALOG INPUT FIXED   Yes   Device ignores anatog input<br>is squal, so the device does<br>not respond to any septoint<br>changes.   The device's HART-address<br>is <>0,   Use a HART configurator<br>(DW + Hand held) to set<br>device's HART address to 0     ANALOG INPUT SATURATED   The anatog input is beyond its<br>intris. The device can't fulfill<br>the requested positioning.   Read Additional Device<br>Status provided by its DTM.     NON-PRIMARY VARIABLE OUT OF LIMITS   The process applied to a<br>sensor, other than that of the<br>primary Variable, is beyond<br>the operaing limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMITS   The input value applied<br>to the operaing limits of the<br>device.   The process applied to a<br>sensor, other than that of the<br>Primary Variable, is beyond<br>the operaing limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>to the operaing limits.   The input value applied<br>to the operaing limits.   Check the device's mounting<br>and configuration.     PRIMARY VARIABLE OUT OF LIMIT   The input value of the<br>primary variable is disturbed.   The input value applied<br>to the operaing limits.   Check the device's operaing<br>and configuration.     PRIMARY VARIABLE OUT OF LIMIT   The analog input value for the<br>primary variable is disturbed.   | STATUS A   | VAILABLE         |   |  |  |          |
| Yes   Device ignores analog input<br>signal, so the device does<br>not respond to any sepoint<br>changes.   The device 3 HART-address<br>is <-0,   Use a HART configurator<br>(DTM - Hant held) to set<br>device's HART address to 0     ANALOG INPUT SATURATED   Yes   The analog input is beyond its<br>limits. The device can't fulfill<br>the requested positioning.   Read Additional Device<br>Status provided by its DTM.     NON-PRIMARY VARIABLE OUT OF LIMITS   The process applied to a<br>sensor, other than that of the<br>Primary Variable, is beyond<br>the operating limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>tor the Primary Variable is<br>beyond the device's operating<br>limits   The input value applied<br>tor the Primary Variable is<br>beyond the device's operating<br>limits.   Check the device's mounting<br>and configuration.     ANALOG INPUT VALIDATED   The analog input value for the<br>primary variable is disturbed.   Problem with the devices<br>operating<br>limits.   Check the system-<br>configuration.     POSITION SENSOR MALFUNCTION   Device Functionality related.<br>Maluccion in position<br>measurement   The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken   Replace device for repair<br>check due to blockades,<br>high friction or break down of<br>supply pressure   Check valve, positioner,<br>preumatic connections and<br>air supply     POSITIONING TIME   Installation and Process<br>related.<br>Position controller is<br>deactivated   1) Operation-Mode is set to<br>MANUAL or   | Ye         | es               |   | is available than can be returned in the Field Device  |  | 1000     |
| signal, so the device does<br>not respond to any setpoint<br>changes.   is <>0,   (DTM - Hand held) to set<br>device's HART address to 0     ANALOG INPUT SATURATED   Yes   The analog input is beyond its<br>limits. The device and t Utilit<br>the requested positioning.   Read Additional Device<br>Status provided by its DTM.     NON-PRIMARY VARIABLE OUT OF LIMITS   The process applied to a<br>sensor, other than that of the<br>device.   Read Additional Device<br>Status provided by its DTM.     Yes   One or more non-primary<br>variables are out of limits   The process applied to a<br>sensor, other than that of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits.   Check the device's mounting<br>and configuration.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits.   Check the device's mounting<br>and configuration.     ANALOG INPUT VALIDATED   The analog input value for the<br>primary variable is disturbed.   Problem with the devices<br>current source - the system's<br>Analog Output signal   Check the system-<br>configuration     POSITION SENSOR MALFUNCTION   The configured time-frame<br>when the value shall have<br>reacked the requested<br>position is exceeded   The device to slow or is<br>immobile due to blockades,<br>Orgention-Mode is set to<br>MANUAL, or MANUAL, SENS<br>2) The device's fuctory reset<br>vase prformed<br>3) The device's control and vange<br>asper  | OG INPUT F | FIXED            |   |  |  |          |
| Yes The analog input is beyond its<br>limits. The device can't fulfill<br>the requested positioning. Read Additional Device<br>Status provided by its DTM.   NON-PRIMARY VARIABLE OUT OF LIMITS The process applied to a<br>sensor, other than that of the<br>device. Read Additional Device<br>Status provided by its DTM.   Yes One or more non-primary<br>variables are out of limits The process applied to a<br>sensor, other than that of the<br>device. Read Additional Device<br>Status provided by its DTM.   PRIMARY VARIABLE OUT OF LIMIT The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits. The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits. Check the device's mounting<br>and configuration.   ANALOG INPUT VALIDATED The analog input value for the<br>primary variable is disturbed. Problem with the device's configuration. Check the system-<br>configuration.   POSITION SENSOR MALFUNCTION The analog input value for the<br>primary variable is disturbed. The device internal position<br>measurement The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken Replace device for repair<br>cable linking sensor and PCB<br>is broken   POSITIONING TIME Exceeded Installation and Process<br>related. Valve operates to slow or is<br>is broken Check valve, positioner,<br>neumatic connections and<br>air supply Check valve, positioner,<br>preached the requested<br>position is exceeded 1) Operation-Mode is set to<br>MANUAL or MANUAL_SENS<br>2) The device  | Ye         | es               | signal, so the device does not respond to any setpoint                                      |  | (DTM - Hand held) to set   | 1000     |
| limits. The device can't fulfill<br>the requested positioning.   Status provided by its DTM.     NON-PRIMARY VARIABLE OUT OF LIMITS   The process applied to a<br>sensor, other than that of the<br>Primary Variable, is beyond<br>the operating limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The process applied to a<br>sensor, other than that of the<br>Primary Variable, is beyond<br>the operating limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits.   The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits.   Check the device's mounting<br>and configuration.     ANALOG INPUT VALIDATED   The analog input value for the<br>primary variable is disturbed.   Problem with the device's<br>current source - the system's<br>Analog Output signal   Check the system-<br>configuration     POSITION SENSOR MALFUNCTION   Device Functionality related.   The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB   Replace device for repair<br>proute the valve shall have<br>reached the requested<br>position is exceeded   Valve operates too slow or is<br>upply pressure   Check valve, positioner,<br>pneumatic connections and<br>air supply     POSITIONING CONTROLLER   Installation and Process<br>related.   1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was peformed<br>3) The device's control and<br>workny range parameters are <td>og input s</td> <td>SATURATED</td> <td></td> <td></td> <td></td> <td></td>   | og input s | SATURATED        |   |  |  |          |
| Yes   One or more non-primary<br>variables are out of limits   The process applied to a<br>sensor, other than that of the<br>Primary Variable, is beyond<br>the operating limits of the<br>device.   Read Additional Device<br>Status provided by its DTM.     PRIMARY VARIABLE OUT OF LIMIT   The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits   The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits.   Check the device's mounting<br>and configuration.     ANALOG INPUT VALIDATED   The analog input value for the<br>primary variable is disturbed.   The device's operating<br>limits.   Check the system-'s<br>current source - the system's<br>Analog Output signal     POSITION SENSOR MALFUNCTION   Pevice Functionality related.<br>Malfunction in position<br>measurement   The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken   Replace device for repair<br>preumatic connections and<br>air supply     POSITIONING TIME   Installation and Process<br>related.<br>The configured time-frame<br>when the value shall have<br>reached the requested<br>position is exceeded   Valve operates too slow or is<br>immobile due to blockades,<br>high friction or break down of<br>supply pressure   Check device's operation<br>mode and change it to Mode<br>CTTEL_ADP or CTTL_FIX<br>2) % 3) Run the autoadjust<br>procedure or configure the<br>device's control and<br>working range parameters are<br>deactivated   1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factoria and<br>working range parameters are   | Ye         | es               | limits. The device can't fulfill  |  |  | 1        |
| variables are out of limits sensor, other than that of the<br>Primary Variable, is beyond<br>the operating limits of the<br>device. Status provided by its DTM.   PRIMARY VARIABLE OUT OF LIMIT The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits. The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits. Check the device's mounting<br>and configuration.   ANALOG INPUT VALIDATED The analog input value for the<br>primary variable is disturbed. Problem with the device's<br>ourrent source - the system's<br>Analog Output signal Check the system-<br>configuration   POSITION SENSOR MALFUNCTION The analog input value for the<br>primary variable is disturbed. The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken Replace device for repair   POSITIONING TIME Exceeded Installation and Process<br>related.<br>The configured time-frame<br>when the valve shall have<br>reached the requested<br>position is exceeded Valve operates too slow or is<br>immobile due to blockades,<br>high friction or break down of<br>supply pressure Check valve, positioner,<br>pneumatic connections and<br>air supply   POSITIONING CONTROLLER Installation and Process<br>related.<br>Position controller is<br>deactivated 1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factory resident is device's operation<br>mode and change it to Mode<br>CTRL_ADP or CTRL_FIX 1) Check device's operation<br>mode and change it to Mode<br>CTRL_ADP or control and<br>working range parameters are  | PRIMARY V  | ARIABLE OUT OF   | LIMITS  |  |  |          |
| Yes The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits The input value applied<br>for the Primary Variable is<br>beyond the device's operating<br>limits. Check the device's mounting<br>and configuration.   ANALOG INPUT VALIDATED No The analog input value for the<br>primary variable is disturbed. Problem with the device's<br>current source - the system's<br>Analog Output signal Check the system-<br>configuration.   POSITION SENSOR MALFUNCTION The analog input value for the<br>primary variable is disturbed. Problem with the device's<br>current source - the system's<br>Analog Output signal Check the system-<br>configuration   POSITION SENSOR MALFUNCTION The device Functionality related.<br>Malfunction in position<br>measurement The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken Replace device for repair   POSITIONING TIME Exceeded Installation and Process<br>related.<br>The configured time-frame<br>when the valve shall have<br>reached the requested<br>position is exceeded Valve operation to blockades,<br>high friction or break down of<br>supply pressure Check valve, positioner,<br>pneumatic connections and<br>air supply   POSITIONING CONTROLLER Installation and Process<br>related.<br>Position controller is<br>deactivated 1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was performed<br>3) The device's control and<br>working range parameters are 1) Check device's operation<br>mode and change it to Mode<br>CTRL_ADP or CTRL_FiX<br>2) & 3) Run the autoadjust<br>procedure or configure the<br>device's control-and range   | Ye         | ÐS               |   | sensor, other than that of the<br>Primary Variable, is beyond<br>the operating limits of the           |  | 1        |
| Image: Second | ARY VARIAE | BLE OUT OF LIMIT |   |  |  |          |
| No   The analog input value for the primary variable is disturbed.   Problem with the devices current source - the system's Analog Output signal   Check the system-configuration     POSITION SENSOR MALFUNCTION   Yes   Device Functionality related. Malfunction in position measurement   The device internal position sensor has a fault, or the cable linking sensor and PCB is broken   Replace device for repair     POSITIONING TIME   Exceeded   Installation and Process related. The configured time-frame when the valve shall have reached the requested position is exceeded   Valve operates too slow or is inmobile due to blockades, high friction or break down of supply pressure   Check device's operation and air supply     POSITIONING CONTROLLER   Installation and Process related. The configured time-frame when the valve shall have reached the requested position is exceeded   1) Operation-Mode is set to MANUAL on MANUAL_SENS (2) The device's factory reset was performed (3) The device's factory reset was performed (3) The device's control and working range parameters are   1) Check device's control and range   | Ye         | es               | for the Primary Variable is beyond the device's operating                                   | for the Primary Variable is beyond the device's operating  | 5  | 1        |
| primary variable is disturbed.   current source - the system's<br>Analog Output signal   configuration     POSITION SENSOR MALFUNCTION   Yes   Device Functionality related.<br>Malfunction in position<br>measurement   The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken   Replace device for repair     POSITIONING TIME   Exceeded   Installation and Process<br>related.<br>The configured time-frame<br>when the valve shall have<br>reached the requested<br>position is exceeded   Valve operates too slow or is<br>immobile due to blockades,<br>high friction or break down of<br>supply pressure   Check valve, positioner,<br>pneumatic connections and<br>air supply     POSITIONING CONTROLLER   Installation and Process<br>related.<br>The configured time-frame<br>when the valve shall have<br>reached the requested<br>position is exceeded   Valve operation or break down of<br>supply pressure   Check valve, positioner,<br>pneumatic connections and<br>air supply     POSITIONING CONTROLLER   Installation and Process<br>related.<br>Position controller is<br>deactivated   1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was performed<br>3) The device's control and<br>working range parameters are   1) Check device's operation<br>mode and change it to Mode<br>CTRL_ADP or CTRL_FIX<br>2) & 3) Run the autoadjust<br>procedure or configure the<br>device's control and<br>working range parameters are   |            | VALIDATED        | l   |  |  |          |
| Yes Device Functionality related.<br>Malfunction in position<br>measurement The device internal position<br>sensor has a fault, or the<br>cable linking sensor and PCB<br>is broken Replace device for repair   POSITIONING TIME Installation and Process<br>related.<br>The configured time-frame<br>when the valve shall have<br>reached the requested<br>position is exceeded Valve operates too slow or is<br>immobile due to blockades,<br>high friction or break down of<br>supply pressure Check valve, positioner,<br>pneumatic connections and<br>air supply   POSITIONING CONTROLLER Installation and Process<br>related.<br>Position controller is<br>deactivated 1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was performed<br>3) The device's control and<br>working range parameters are 1) Check device's operation<br>mode and change it to Mode<br>CTRL_ADP or CTRL_FIX<br>2) & 3) Run the autoadjust<br>procedure or configure the<br>device's control-and range  | No         | 0                |   | current source - the system's  |  | 1000     |
| Malfunction in position measurement sensor has a fault, or the cable linking sensor and PCB is broken   POSITIONING TIME Installation and Process related. The configured time-frame when the valve shall have reached the requested position is exceeded Valve operates too slow or is immobile due to blockades, high friction or break down of supply pressure Check valve, positioner, pneumatic connections and air supply   POSITIONING CONTROLLER Installation and Process related. The configured time-frame when the valve shall have reached the requested position is exceeded Valve operates too slow or is immobile due to blockades, high friction or break down of supply pressure Check valve, positioner, pneumatic connections and air supply   POSITIONING CONTROLLER Installation and Process related. 1) Operation-Mode is set to MANUAL on MANUAL_SENS 2) The device's factory reset was performed 3) The device's factory reset was performed 3) The device's control and working range parameters are 1) Check device's control-and range   | ION SENSO  | OR MALFUNCTION   |   |  |  |          |
| Exceeded Installation and Process related.<br>The configured time-frame when the valve shall have reached the requested position is exceeded Valve operates too slow or is immobile due to blockades, high friction or break down of supply pressure Check valve, positioner, pneumatic connections and air supply   POSITIONING CONTROLLER Installation and Process related. 1) Operation-Mode is set to MANUAL on MANUAL SENS 2) The device's factory reset was performed 3) The device's control and working range parameters are 1) Check device's operation mode and change it to Mode CTRL_ADP or CTRL_FIX 2) & 3) Run the autoadjust procedure or configure the device's control-and range   | Ye         | es               | Malfunction in position   | sensor has a fault, or the cable linking sensor and PCB  | Replace device for repair  | 1000     |
| related. The configured time-frame when the valve shall have reached the requested position is exceeded immobile due to blockades, high friction or break down of supply pressure pneumatic connections and air supply   POSITIONING CONTROLLER Inactive Installation and Process related. 1) Operation-Mode is set to MANUAL on MANUAL_SENS 2) The device's factory reset was performed 3) The device's control and working range parameters are 1) Check device's operation mode and change it to Mode CTRL_ADP or CTRL_FIX 2) & 3) Run the autoadjust procedure or configure the device's control and more intervent of the set of the device's control and more intervent of the device's control and more intervent of the device's control and range  | IONING TIM | ME               |   |  |  |          |
| InactiveInstallation and Process<br>related.1) Operation-Mode is set to<br>MANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was performed<br>3) The device's control and<br>working range parameters are1) Check device's operation<br>mode and change it to Mode<br>CTRL_ADP or CTRL_FIX<br>2) & 3) Run the autoadjust<br>procedure or configure the<br>device's control-and range  | Ex         | xceeded          | related.<br>The configured time-frame<br>when the valve shall have<br>reached the requested | immobile due to blockades,<br>high friction or break down of   | pneumatic connections and  | 1000     |
| related.<br>Position controller is<br>deactivated<br>NANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was performed<br>3) The device's control and<br>working range parameters are<br>deactivated  |            | ONTROLLER        |   |  |  |          |
| invalid parameters  | Ina        | active           | related.<br>Position controller is  | MANUAL on MANUAL_SENS<br>2) The device's factory reset<br>was performed<br>3) The device's control and | mode and change it to Mode<br>CTRL_ADP or CTRL_FIX<br>2) & 3) Run the autoadjust<br>procedure or configure the | 750      |

| Condition ID | SubCond               | Description  | Possible Cause   | Suggested Action  | Severity |
|--------------|-----------------------|--|--|---|----------|
| TOTAL VALVE  | STROKE                |  |  |   |          |
|              | Exceeded              | Configuration and process-<br>load related. The configured<br>limit for the applicable valve<br>load regarding strokes has<br>exceeded.  | The configured limit for<br>the applicable valve load<br>regarding strokes has<br>exceeded.  | Check the valve within a close time-schedule  | 500      |
|              | Significantly changed | Configuration and process-<br>load related. The number<br>of valve strokes / time has<br>significantly changed.  | The process or valve<br>conditions are supposed to<br>have changed, which causes<br>the valve to perform more<br>frequent stroking.                                    | Analyse the process data<br>trended for all TAGs trended<br>which are located around the<br>valve.<br>Check valve and installation. | 750      |
| TOTAL VALVE  | TRAVEL                |  |  |   |          |
|              | Exceeded              | Configuration and process-<br>load related. The configured<br>limit for the applicable valve<br>load regarding total travel has<br>exceeded.   | The configured limit for<br>the applicable valve load<br>regarding total travel has<br>exceeded.   | Check the valve within a close time-schedule  | 500      |
| VALVE LOAD   |                       |  |  |   |          |
|              | Will exceed           | Configuration and process-<br>load related. The configured<br>limit for the applicable valve<br>load regarding total travel and<br>total strokes will exceeded<br>within a AssetMonitor<br>configurable time-frame | The configured limit for<br>the applicable valve load<br>regarding total travel and total<br>strokes will exceeded within<br>a AssetMonitor configurable<br>time-frame | Schedule preventively a valve<br>maintenance task for the next<br>planned shutdown period   | 500      |
| POSITIONING  | SENSOR RANGE          |  |  |   |          |
|              | Out of Range          | Installation and Process<br>related.<br>Working range not adjusted   | If factory data were loaded<br>(after factory reset) the<br>working range settings would<br>have been deleted  | Adjust working range  | 500      |
|              | Out of Range          | Installation and Process<br>related.<br>Value Limit Switch SW1<br>exceeded   | Digital valve position /<br>behaviour  | to be described by application  | 500      |
|              | Out of Range          | Installation and Process<br>related.<br>Value Limit Switch SW2<br>exceeded   | Digital valve position /<br>behaviour  | to be described by application  | 500      |
| SETPOINT     |                       |  |  | •   |          |
|              | Out of Range          | Installation and Process<br>related.<br>Analog Setpoint >20 mA or<br><4 mA   | Error in system output or in wiring  | Check system output or wiring   | 500      |



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