**Referenced to Water Corporation Standards: DS26-41.**

**Ensure Manufacturer’s Set Up Manual is available for reference.**

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| **1. GENERAL DATA** |
| PROJECT NAME: | PROJECT NO: |
| IDENTIFICATION: |  |

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| **2. ACTUATOR DATA** |
| WC VALVE NO: | WC VALVE TYPE: |
| MAKE: | MODEL: |
| SERIAL NO: | DUTY: |
| TYPE: PART TURN [ ]  MULTI TURN [ ]  LINEAR TYPE: [ ]   |
| POWER SUPPLY: 1Φ [ ]  3Φ [ ]  DC [ ]  | KW: |
| NOM. TORQUE 100%: | RPM: or SECS/90º: |
| CURRENT In (40% Torque): | CURRENT Is (100% Torque): |
| CURRENT Icc (Locked Rotor): | VOLTAGE: |
| PROTECTION DEGREE: | Tamb. RANGE (ºC): |
| CERTIFICATE: | TAG: |
| WC DWG NO.: | MF DWG NO.: |

| **3. ACTUATOR SET UP** | **DONE****/YES** | **NO** | **N/A** | **COMMENTS/DETAILS** |
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| 1 | Follow the appropriate manufacturer’s manual for the setup procedure.  | [ ]  | [ ]  | [ ]  | MF Manual No: |
| 2 | Power up the actuator.Record no-load voltages at actuator terminals. | [ ]  | [ ]  | [ ]  | R - W = VR – B = VW – B = V |
| 3 | Confirm the alphanumeric display is active.  | [ ]  | [ ]  | [ ]  |  |
| 4 | Clear actuator alarm log. | [ ]  | [ ]  | [ ]  |  |
| 5 | Set language to “English”. | [ ]  | [ ]  | [ ]  |  |
| 6 | Confirm Default Password is correct. | [ ]  | [ ]  | [ ]  |  |
| 7 | Check and confirm correct Valve/Actuator phase rotation is as required. | [ ]  | [ ]  | [ ]  |  |
| 8 | Set Up Open/Closed Limits:Confirm Open/Close limit by Position/Torque dependant on Valve type. | [ ]  | [ ]  | [ ]  | Typically:Close direction = counter clockwise |
| 9 | Set Up Torque settings:Record closing torque limitRecord opening torque limit(Note should not exceed 65%) | [ ]  | [ ]  | [ ]  | Closing torque = %Opening Torque = % |
| 10 | Confirm Operations of Local Controls: | [ ]  | [ ]  | [ ]  |  |
| 11 | Set Up Remote Controls as required: | [ ]  | [ ]  | [ ]  |  |
| 12 | Set Up Local Indicator/Positioner as required. | [ ]  | [ ]  | [ ]  |  |
| 13 | Set Up Output Relays as required: | [ ]  | [ ]  | [ ]  |  |
| 14 | Set Up ESD Action as required: | [ ]  | [ ]  | [ ]  |  |
| 15 | Set Up Fail Safe settings as required: | [ ]  | [ ]  | [ ]  |  |
| 16 | Set Up 4-20mA position retransmission as required: | [ ]  | [ ]  | [ ]  | Typically:0% open = 4mA & 100% open = 20mA. |

| **4. TEST / INSPECTION** | **DONE****/YES** | **NO** | **N/A** | **COMMENTS/DETAILS** |
| --- | --- | --- | --- | --- |
| 1 | Manually open the valve by the hand wheel to say 50% (confirm by the local display) in preparation for electrical actuation of the valve. | [ ]  | [ ]  | [ ]  |  |
| 2 | Place actuator’s Local Selector Switch (LSS) in “Off” position. Confirm both local and remote controls will not operate the valve. | [ ]  | [ ]  | [ ]  |  |
| 3 | Place LSS in “local” position. Confirm that the open, close, and stop controls operate the actuator as expected (the valve should drop out of manual automatically). | [ ]  | [ ]  | [ ]  |  |
| 4 | Operate the valve through full stroke. Confirm the actuator stops when fully closed and fully open. Confirm the Local Indicators display as expected and record the position readings at fully closed/open (should be 0 & 100%). | [ ]  | [ ]  | [ ]  | Fully closed = %Fully open = % |
| 5 | Operate the valve through full stroke. Measure & record voltage and current in each direction. | [ ]  | [ ]  | [ ]  | R - W = V, R = AR – B = V, W = AW – B = V, B = A |
| 6 | Operate the valve through full stroke. Record the torque profile. If acceptable set as the reference values. | [ ]  | [ ]  | [ ]  | Opening Breakout %Opening Peak %Opening Ending %Closing Breakout %Closing Peak %Closing Ending % |
| 7 | Operate the valve through full stroke. Record the opening and closing travel times and confirm these are as expected. | [ ]  | [ ]  | [ ]  | Opening Time = sClosing Time = s |
| 8 | With the LSS in “local” confirm that the remote controls will not operate the valve and that the remote signal is OFF at the PLC input. Confirm this signal is also OFF when the LSS is in the “off” position. | [ ]  | [ ]  | [ ]  |  |
| 9 | Turn off mains supply to valve. Confirm that available signal is OFF at the PLC input. Turn on mains supply to valve. Confirm that available signal is ON at the PLC input. | [ ]  | [ ]  | [ ]  |  |
| 10 | Operate valve to fully open position. Check that open signal is ON and closed signal is OFF at the PLC input. | [ ]  | [ ]  | [ ]  |  |
| 11 | Operate valve to fully closed position. Check that closed signal is ON and open signal is OFF at the PLC input. | [ ]  | [ ]  | [ ]  |  |
| 12 | Confirm that the closed and open signals are never ON at the same time and that they are both OFF during mid travel. | [ ]  | [ ]  | [ ]  |  |
| 13 | Place LSS in “Remote” position”. Confirm that the local controls will not operate the valve and that the remote signal is ON at the PLC input. | [ ]  | [ ]  | [ ]  |  |
| 14 | With LSS in “remote” position. Confirm that an open signal simulated on PLC output causes the valve to open. | [ ]  | [ ]  | [ ]  |  |
| 15 | Confirm that a close signal simulated on PLC output causes the valve to close. | [ ]  | [ ]  | [ ]  |  |
| 16 | Position Control Command /Feedback (if applicable:With LSS in “remote”. Simulate at the PLC output and instruct valve to fully close, move to 25%, 50%, 75% and fully open position. Confirm valve moves to those positions and record position feedback signal. | [ ]  | [ ]  | [ ]  | Fully Closed = % position25% = % position50% = % position75% = % positionFully open = % Position |
| 17 | Replace all covers. Leave valve in required position and condition (i.e. selector locked and tagged off, valve closed, actuator de-energised etc). | [ ]  | [ ]  | [ ]  |  |

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| **5. REMARKS / REMEDIAL ACTIONS** |
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| **6. SIGNOFFS** |  |
| NAME (PRINT) | COMPANY / ROLE | SIGNATURE | DATE |
| NAME (PRINT) | COMPANY / ROLE | SIGNATURE | DATE |
| NAME (PRINT) | COMPANY / ROLE | SIGNATURE | DATE |