



INTEGRATED
FLOW SOLUTIONS

INPUT/OUTPUT CHECK
FACTORY ACCEPTANCE TEST PROCEDURE

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Sheet 1 of 1

PURPOSE: The factory acceptance test procedure is for verifying that all inputs and outputs are connected per the specifications, piping and instrument diagrams (P&ID), and electrical drawings issued for the particular project.

P&ID Drawing(s): _____ Electrical
Drawing(s): _____

Tested By (Please Print & Sign): _____ Date Tested: _____

FUNCTION TEST:

Discrete Inputs:

- Actuate the discrete field devices to generate the input signal to the PLC.
- Where actuation of the field device is impossible or impractical, jumper (or disconnect, depending on the normal state of the contacts) the field wiring to simulate the actuation of the field device.
- Using the PLC software, verify the input point of the PLC responds to the actuation of the field device.
- Verify the HMI responds to the actuation of the field device. (If Applicable)

Discrete Outputs:

- Using the PLC software, force on each of the discrete outputs.
- Verify the field device responds to the output signal of the PLC.
- Verify the HMI responds to the output signal. (If Applicable)
- Remove each force after the output point is verified.

Analog Inputs:

- Actuate the analog field device to generate the input signal to the PLC.
- Where actuation of the field device is impossible or impractical, simulate the 4-20 mA or thermocouple input signal to the PLC.
- Verify that the device is wired with the correct polarization and that when the input is increasing, the value is increasing.
- Verify the input point of the PLC responds to the actuation of the field device.
- Verify the HMI responds to the actuation of the field device. (If Applicable)

Analog Outputs:

- Using the PLC software, force each of the analog outputs to the low, mid, and high range values.
- Measure the 4-20 mA output signal of the PLC, and verify the response of the field device.
- Verify the HMI responds to the output signal. (If Applicable)
- Remove each force after the output point is verified.

- Sign and date the procedure.