



Client:	Project Name:	Project No:	
Area:	Drawing No's:	Date:	Sheet: 1 of 3
Check Conducted By:	Signature:	Check Approved By:	Signature:

INTRODUCTION

The on-site commissioning procedure aims to check the operation of all Differential Pressure Water Switch inputs to verify their wiring and operation.

For each monitoring point, a change of status of the equipment should be simulated or produced, and the monitoring function of the Systems is be verified on the software online tool. The following procedures describe the best practice steps to commissioning each device to verify its correct operation.

It is expected that the point's lists are used to record the results of the point to point commissioning.

Procedure recommended general checks

1. Visibly check installation against approved shop drawings
2. Check that general construction and standard of finish is acceptable
3. Record name point information and compare against the approved specification
4. Confirm no damage to the electric components
5. Check cabling for insulation stripped back satisfactorily, no stray copper strands and terminals are tight with no loose wires
6. Check power supply is isolated, has the correct power source, voltage, cable sizing
7. Check pipework installation is complete and cleaned

Procedure recommended for testing operation

For each routine the digital inputs shall be tested in both manual and automatic modes.

1. Control the equipment being monitored to run under normal operating conditions by generating the appropriate control command.

If the differential pressure water switch digital input point displays the status and condition for normal operating conditions then this test has been successful and "S" should be recorded in the commissioning schedule/inspection and test plans. If the alarm point cannot be programmed to be active/normal then this test has failed and "F" should be recorded in the commissioning schedule/inspection and test plans.

2. Once input checked adjust calibration knob on pressure (if possible) to ensure switching point is at designed conditioned for area being sensed.
3. While the digital input point is displaying the status and condition for normal operating conditions activate the



command from the operator terminal to change the status of the equipment to cease normal operating conditions

If the differential pressure water switch digital input point changes state from normal operating conditions to the expected status change then this test has been successful and "S" should be recorded in the commissioning schedule/inspection and test plans. If the point does not change to expected status then this test has failed and "F" should be recorded in the commissioning schedule/inspection and test plans.

4. While the differential pressure Water switch digital input point is displaying the status and condition for normal operating conditions simulate a fault condition at the equipment or the FPU. E.g open circuit a data cable. (This test need only be performed on one point per virtual group).

If the differential pressure water switch digital input point changes state and reports a fault condition and an alarm is generated on the alarm summary then this test has been successful and "S" should be recorded in the commissioning schedule/inspection and test plans. If the digital input point does not change to fault condition or if an alarm is not generated on the alarm summary then this test has failed and "F" should be recorded in the commissioning schedule/inspection and test plans.

At the conclusion of the test return the equipment and the BMCS to displaying the status and condition for normal operating conditions.

When a point is commissioned tick the Checked Out box which will indicate the user, time and date checked out, then add comments in the Checkout Notes box (Status, Fault, VFC...)

GENERAL:

Status: If during commissioning the equipment cannot be physically started to verify Status then for:

Run Relay: Flag the run relay to close the contacts

Terminals: Bridge the two terminals allocated for status of that equipment

Fault: If during commissioning the equipment cannot be physically simulated into a fault condition to verify Fault then for:

Fault Relays: Flag the fault relay to close the contacts

Terminals: bridge the two terminals allocated for fault of that equipment

REFERENCE STANDARDS

CIBSE Commissioning Code C – Automatic Controls



CHECKLIST

Generic Binary Input Testing				
BMCS Drawing Number				
	ITEM	VERIFICATION METHOD	RESULT	RESULT
1	Check installation against approved shop drawings	Site Inspection		
2	Check that general construction and standard of finish is acceptable	Site Inspection		
3	Record name point information and compare against the approved specification	Site Inspection		
4	Confirm no damage to the electric components	Site Inspection		
5	Check cabling for insulation stripped back satisfactorily, no stray copper strands and terminals are tight with no loose wires	Site Inspection		
6	Check power supply is isolated, has the correct power source, voltage, cable sizing	Site Inspection		
7	Control the equipment being monitored to run under normal operating conditions by generating the appropriate control command	Data / Point Sheet Record		
8	Once input checked adjust calibration knob on pressure (if possible) to ensure switching point is at designed conditioned for area being sensed			
9	While the digital input point is displaying the status and condition for normal operating conditions activate the command from the operator terminal to change the status of the equipment to cease normal operating conditions			
10	While the differential pressure water switch digital input point is displaying the status and condition for normal operating conditions simulate a fault condition at the equipment or the FPU. E.g open circuit a data cable			
11	Confirm changes of states at differential pressure water switch are verified write Normal / Fault OK in the Checkout Notes. E.g. AHU Fault from a fault relay: Normal / Fault OK, Relay	Data / Point Sheet Record		
Certified By Sub Contractor (initial):				
Date:				
Confirmed By (Head Contractor / Client) (initial):				
Date:				