Release Note #85

Topic: Device Reading Disparities Pertaining to uM260-monitored Digital Panels.

General Information:

There are two conditions which can cause device reading disparities when a digital panel is being read remotely by a uM260 Micro Monitor™. In both cases the readings provided by the uM260, either when read directly or via PressureMAP, do not coincide with the panel's accurate LED output display. One of the conditions pertains to physical components on the uM260's circuit board; the other is a result of monitoring device pairs being transposed at the monitor's Termination Adapter.

Specifics:

Item #1 uM260 Resistors:

The original uM260 Micro Monitors manufactured by System Studies were equipped with blue surface-mount resistors located on the circuit board next to each relay. The purpose of these resistors was to simulate a busy signal when the device pairs were not being read by the monitor—to discourage unauthorized telco use of the pairs. The resistors were installed on uM260 monitors with firmware versions prior to version 1.16.

Unfortunately, uM260 monitors equipped with these resistors are not fully compliant with the System Studies Digital Panels. Reading discrepancies occur. For example, it is possible that a zero or near zero flow condition at the panel (as displayed on LED digital meter) could read 12 or 13 SCFH in PressureMAP or PressureWEB. This discrepancy is the result of the incompatibility of the uM260's on-board resistors with the digital panels—not the digital panel itself nor the PressureMAP software.

If you experience a reading error of this type, you should contact System Studies for instructions on how to check the firmware version of your uM260 monitor. If the firmware precedes version 1.16, arrangements will need to be made to return the monitor to System Studies so that the resistors can be removed. This procedure should not be attempted in the field.

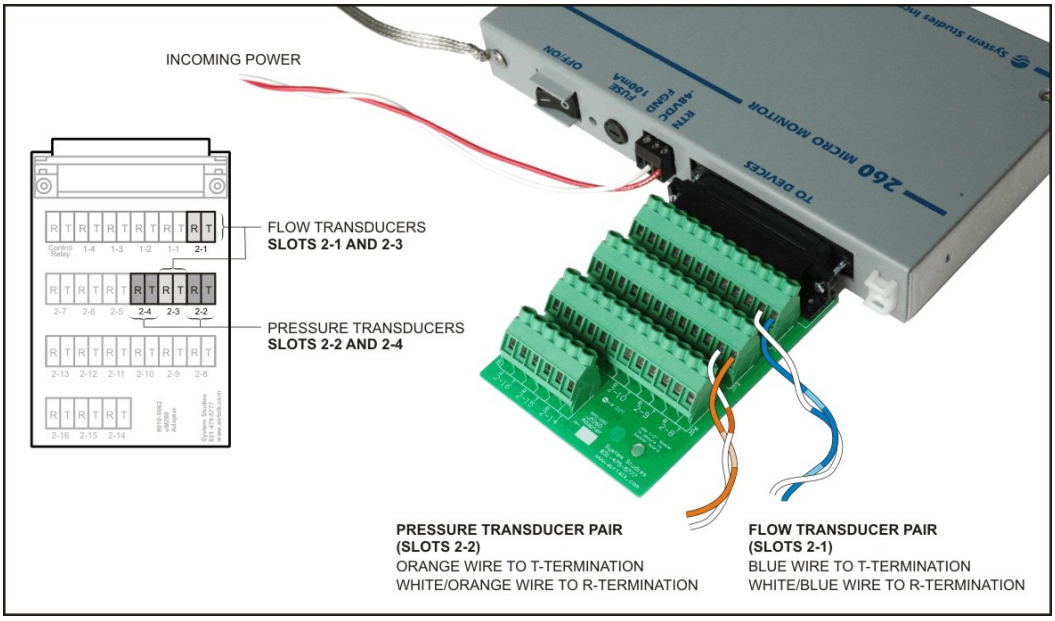
> ***Note***: With all versions of the uM260 that are used to monitor flow transducers on digital panels, you can expect to see a slight difference between the displayed flow value at the panel and the remote device reading. This is due to the tolerance percentage differential between the two devices. Differentials as much as 0.5 SCFH can be expected.

Item #2 Transposed Flow Transducer and Pressure Transducer Wiring

The second condition that can result in displayed digital panel output and corresponding remote device reading discrepancies is incorrect wiring at the uM260's Termination Adapter.

If you have a uM260 with firmware at or above Version 1.16 that is monitoring a digital panel and the monitor displays a reading in the negative range for a panel's pressure transducer, it is likely that the pressure and flow monitoring device pairs are transposed. For example, the pressure transducer pair (orange and white/orange conductors) may have been mistakenly punched down in the T and R slots designated as 2-1 on the Termination Adapter, and the panel's flow transducer pair (blue and white/blue) was terminated in slots 2-2.

When wiring panel High Resolution Dual Transducers on a Termination Adapter inserted into a version 1.16 or greater uM260, the flow sensor pairs (blue and white/blue) need to be terminated in the tip/ring locking jaws designated as 2-1, 2-3, 2-5, 2-7, etc. Connect the blue conductor to the T-termination and the white/blue conductor to the R-termination. The corresponding pressure sensor pairs (orange and white/orange) need to be wired to 2-2, 2-4, 2-6, 2-8, etc. Connect the orange conductor to the T-termination and the white/orange conductor to the R-termination. The image below shows the correct wiring for a digital panel's High Resolution Dual Transducer. Correcting wiring transpositions should eliminate the negative remote pressure transducer readings.



For addition information on determining the firmware version of your uM260 Micro Monitor or making sure that device pairs are correctly wired at the Termination Adapter, please contact System Studies Technical Support at 800-247-8255 or 831-477-8945.

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