

Wiring exchange from MC-III to F103

In this technical note we will show you how to wire the F103 weatherproof Flow logger / Totalizer when switching from an MC-III weatherproof Flow Analyzer. Take careful notice of all safety and precautionary measures indicated in the manual and follow the local Lockout Tagout procedures before exchanging any field or power supply wiring.

Disconnect from MC-III

Connect to F103

	Disconnect from MC-III	Connect to F103
External power supply	Positive DC wire. Negative DC or ground wire.	The power supply will be connected to the F103 as final step of the replacement.
Turbine flowmeter (TFM) coil input *	Positive flowmeter wire. Negative flowmeter wire.	Negative flowmeter wire to terminal 10. Positive flowmeter wire to terminal 11. Cable-shield to terminal 9. <i>(Set the sensor input signal of the F103 in the configuration menu 5.1)</i>
Isolated pulse input *	Positive pulse input wire. Negative pulse input wire.	Negative pulse input wire to terminal 17. Positive pulse input wire to terminal 18. <i>(Set the sensor input signal of the F103 in the configuration menu 5.1)</i>
Remote (isolated) reset total input	Positive reset pulse input wire. Negative reset pulse input wire.	Negative reset pulse input wire to terminal 19. Positive reset pulse input wire to terminal 20. <i>(For a passive (not isolated) signal, connect it to terminal 12 and 13.)</i>
Scaled (isolated) pulse output	Positive pulse output wire. Negative pulse output wire.	Negative pulse output wire to terminal 15. Positive pulse output wire to terminal 16. Pulse output frequency: max. 50Hz. <i>(For a passive scaled pulse output, max. 500Hz, connect it to terminal 3 and 4.)</i>
Isolated analog output**	Positive analog output wire. Negative analog output wire.	Negative analog output wire to terminal 7. Positive analog output wire to terminal 8. <i>(If this output is required as non-isolated, connect terminal 7 to common ground.)</i>
Flowmeter frequency output (Amp & Square)**	"A&S" frequency output wire. Ground wire.	Ground wire to terminal 5. "A&S" frequency output wire to terminal 6.
Modbus RS485 Communication	Positive or "B" wire. Negative or "A" wire.	Negative or "A" wire to terminal C3. Positive or "B" wire to terminal C4. If required, ground to C1.
External power supply	Disconnect the power supply before exchanging any other wiring.	Negative DC or ground wire to terminal 00. Positive DC wire to terminal 1.

* Install the flowmeter coil input OR the isolated pulse input, they cannot be connected at the same time.

** The analog output and the flowmeter frequency output of the MC-III cannot be used simultaneously. However, both the analog and the unscaled pulse retransmission output of the F103 can be used together.