



916-091A

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Follow these guidelines for the initial setup of your PT878:

Transducer Tab:

- The simplest way to determine your transducer type is to check the pipe for a clamping fixture. If your transducers are mounted on the outside of the pipe with a clamping fixture, you have *clamp-on transducers*. If your transducers are inserted through the pipe wall via nozzles, you have *wetted transducers*.
- If your transducers have a 2- or 3-digit transducer number engraved on the body, you have *standard transducers*. If there are no engraved numbers, you have *special transducers* and must use the factory data sheet to set up the transducers.

Pipe Tab:

- Complete the prompts in this menu.

Note: If you have wetted transducers and your pipe has a lining, be sure to account for the lining thickness when entering the pipe wall thickness.

Lining Tab:

- Complete the prompts in this menu only if you have clamp-on transducers and your pipe has a lining.

Fluid Tab:

- If your process involves a single fluid with minimal pressure and temperature fluctuations, leave *tracking windows OFF* and follow the prompts for your fluid.
- If you process multiple fluids or there are large pressure or temperature fluctuations, turn *tracking windows ON* and follow the prompts for your fluid.

Path Tab:

- Follow the prompts for your transducer type.

Energy Tab:

- If you wish to measure only the *flow rate* through your pipeline, skip this menu.
- If you wish to measure the *energy transferred* in a closed-loop heating or cooling system, be sure the PT878 has analog inputs for supply and return temperatures available. Then, complete the prompts in this menu.

User Function Tab:

- If you wish to add a *custom calculation* to the standard ones already available in the PT878, complete this menu.

Correction Factors Tab:

- The *Reynolds Correction* factor corrects the raw fluid velocity measurement for the shape of a non-linear flow profile. It should be enabled whenever the ultrasonic beam is directed across the diameter of the pipe. This includes all clamp-on and most wetted installations.
- The single-point *Calibration Factor* is used to calibrate the PT878 by compensating for any small site parameter inaccuracies. The factor is determined by calibration against a known flow reference, and it is applied linearly to all velocity calculations performed by the meter.
- The multi-point *Calibration Table* is rarely needed. It is used when the single-point correction does not adequately correct the raw velocity measurements across the full range of flow rates.

See your *User's Manual* for a more thorough discussion.

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