

## Calibration Terms & Conditions

All instruments need to be operational for calibration. If you know an instrument is not operating properly, please advise us. In certain instances we can bring repair parts for some E+H instruments. Repairs would be charged in addition to calibration if the technician is able to get the instrument operating properly while on-site. We may calibrate 3<sup>rd</sup> party instruments, but do not provide repairs for them.

Prior to coming on-site, it is our obligation to ensure we can perform the calibration you request to the specifications you have determined. We have documents we will ask you to complete to give us the information we will need for when we come on-site. This will include the quantities and types of equipment, the process connections, and the ranges required, the number of calibration points, the Maximum Permissible Error you need, and other information pertinent to performing the calibration correctly on the first trip.

If we are providing flow calibrations for meters generally in the size range of 3/8" (08 mm) to 2" (50 mm), or larger depending upon the flow rates, it is typical, and preferred, to use our Portable Flow Calibration Rig (PFCR) to create the most accurate calibrations in the most time efficient manner. We bring the PFCR and other pressure and temperature equipment on-site in a cargo trailer that is approximately 5 foot wide and 8 foot long (6' x 13' outside dimensions).



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The customer agrees to supply required utilities to complete the calibrations. For flow meter calibrations using the (PFCR), the <u>utilities consist of 120 VAC/20 Amp electrical power</u>, 60-80 gallons of potable water to fill the PFCR tank and system and a location to set up the PFCR (Approximately 10' x 15' provides adequate space to position PFCR and work around it). We can





provide for flows up to 100 gpm (834 lb/min) from our pump cart. In-line or off-line calibration of flow meters using the PFCR or a Master Meter reference in excess of 100 gpm will require that you, the customer, supply clean, potable water (up to 250 psi and 90°F maximum). It is necessary for you to provide hoses with adapters to mate to our PFCR (2" tri-clamp or 2" NPT female) or Master Meter (size required will dictate process connection) when flows need to exceed approximately 100 gpm (834 lb/min). All flow meter calibrations use water as the process fluid, with the exception of differential pressure flow; calibration is performed using pneumatic pressure for the range specified by the dP primary flow device (orifice plate, pitot tube, etc.).

You will provide an area (as determined by the equipment needs for this calibration) in which the Endress+Hauser technician may set up and operate the equipment and standards required to complete this calibration. For Accredited calibrations, the environment in the area provided must be between 15° - 27°C (59°-81°F) and less than 80% relative humidity. All calibrations must be performed in a non-hazardous area. We cannot operate our calibration standards in hazardous areas.

If this calibration requires more than one working day to complete, we will need you to provide a secure area (an exclusive area with the capability to attach our chains or cables to a permanent structure and secure with our lock(s)) in which the calibration standards and equipment may be stored over the period of time required to complete this calibration job.

Logistical resources (ramps, fork trucks, lifts and operator personnel) will be provided by you to assist moving instruments into calibration area and during calibration as required by the calibration technician.

It will be your responsibility to lock out/tag out of any instruments calibrated "in-line" and to provide the Endress+Hauser technician the ability to add his/her additional lock out device.



Additionally, if we have been contracted to remove and install the instrument after calibration, you will also assume the lock out responsibility as stated above.

If your plant has any safety and plant operation training or requires certain permits or certificates of our Calibration Technician, please inform us of the amount of time required or the specific documentation required prior to the arrival date of the technician at plant to perform calibrations. Training time is additional to quoted calibration time and will be billed at standard service rates.

Unless otherwise agreed, it is the customer's responsibility to disconnect, remove and deliver to the Endress+Hauser Calibration Technician for calibration. Upon completion of the calibration, E+H personnel will advise the instrument is ready to be reinstalled.

It is vital that you agree to clean and decontaminate all instruments used in processes other than clean water and that you will complete a "Decontamination Form" for each instrument to be calibrated prior to calibration. This sheet will be provided prior to the arrival of the Calibration Technician on-site.