

ETX Transducer Operation Instructions

Rev 1.0

ETX Application Examples

The ETX transducer is designed to measure torque. The ETX is bi-directional and can be used for a variety of torque measurement applications like “just-move” and “break-away”. Ideal for installation or test of fasteners.



Operating ETX

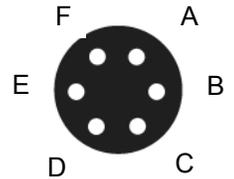
Fit a socket or suitable drive element to the square drive of the ETX. Connect the ETX to a Torque Analyzer and follow the instructions in the Torque Analyzer manual for accessing external transducers. Select the appropriate operating mode and then operate the ETX by applying a load to the handgrip.

Using Hand Tools

Make sure the application is within the torque range of the ETX model. If the application is under the torque range, then the accuracy may not be reliable. If the application is over the torque range, then you may overtorque the ETX and damage the transducer. Place the square drive of the wrench into the application apply torque. You may require adapters for the application or for calibration. Always make certain adapters are as short as possible and fit properly, with little “play.”

ETX Pin Diagram

| Wiring Code | |
|------------------|---|
| Signal (-) : | A |
| Signal (+) : | B |
| Excitation (-) : | C |
| Excitation (+): | D |
| Memory Circuit | |
| Digital Clock: | E |
| Memory Circuit | |
| Digital I/O: | F |



Calibration Procedures

1. Attach the ETX securely to a special fixture device.
2. Connect the ETX to a torque analyzer/display. Review the torque range of the transducer and select the appropriate measurement units.
3. Determine type of calibration to be performed.

| | |
|------------------------------|--|
| <i>Calibration at 3 Pts.</i> | <i>Test at 10%, 50% and 100 of Full Scale.</i> |
| <i>Calibration at 6 Pts.</i> | <i>Test at 10%, 20%, 40%, 60% 80% and 100 of Full Scale.</i> |
| <i>Direction</i> | <i>Clockwise and/or Counter Clockwise</i> |
4. Select the appropriate Calibration Arm or Wheel and attach it.
5. Gently connect the Hanger to the Calibration Arm or wheel.
6. Load 3 times to minimum 80% FS in direction of operation and reset to zero after loading.
7. Apply series of increasing torques in direction of operation starting from the lowest test point.
8. Record readings from the test device at each test point prior to performing any adjustments.
9. Repeat steps 6-8 in the opposite direction (if required).
10. Perform calibration adjustments. Repeat test as described above until readings at all test points are within tolerances.
11. Repeat test as described above and record 5 readings from test device at each test point. Compile all necessary details to generate test report.
12. Remove old calibration label and place new label on transducer.


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