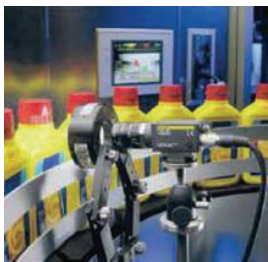


# TX2 Digital Load Cell Transmitters

Precise Digital Weighing Data to PLC / DCS or PC

- RS-232C
- RS-485
- Modbus RTU
- Modbus TCP/IP
- Profibus DP
- Profinet
- CANopen
- EtherNet/IP
- EtherCAT
- CC-Link
- Powerlink



## Features

- Communication: Reliable data transfer with industrial communication protocols for various PLC / DCS or PC systems
- High speed: 800 conversion/sec.
- Weighing functions: Zeroing & taring, power-on zero, AZT, net indication at power on, motion detection
- Software support: Windows based BAYKON xFace software for calibration and setup via PC
- eCal: Electronic calibration without test weight
- Vibration filter: Configurable active filter for stable weight



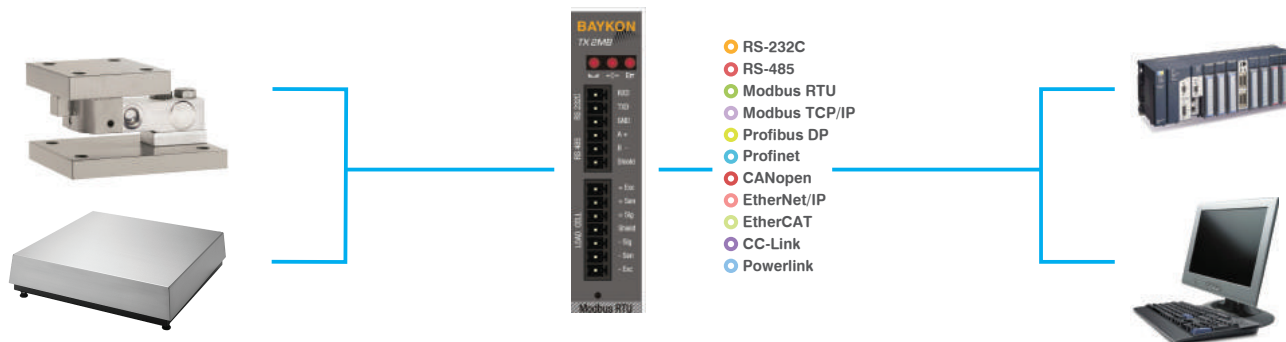
TX2 digital transmitter family is designed for static or dynamic weighing and force measurement processes to provide fast and accurate digital data through RS-232C, RS-485, Ethernet TCP/IP and bus systems as Profibus, Modbus TCP, Modbus RTU, Profinet, CANopen, EtherNet/IP, EtherCAT, CC-Link, Powerlink.

Weighing functions such as Zeroing, Taring, Power-On zero, Net indication at power on, Motion detection, etc. are integrated in TX2 transmitters. Configurable vibration suppression digital filter settings and calibration with test weight or electronic calibration without test weights (eCal) via Windows based BAYKON xFace software. DIN rail type enclosure provides easy montage in control panel.

# TX2 Specifications

|   |   |   |
|---|---|---|
| TX2 Series Instruments                    | TX2 AD : RS-232C / RS-485<br>TX2 EN : Ethernet / Modbus TCP/IP<br>TX2 MB : Modbus RTU<br>TX2 PB : Profibus DP<br>TX2 PN : Profinet  | TX2 CO : CANopen<br>TX2 EI : EtherNet/IP<br>TX2 EC : EtherCAT<br>TX2 CC : CC-Link<br>TX2 PL : Powerlink |
| <b>A/D Converter</b>                      |   |   |
| Type                                      | 24 bit Delta-Sigma ratiometric with integral analog and digital filters   |   |
| Conversion rate                           | Up to 800 measurements per second   |   |
| Minimum input voltage                     | < 1 mV  |   |
| Minimum input sensitivity                 | 0.1µV per interval  |   |
| Analogue input range                      | 0 mV to 18 mV unipolar or -18 mV to 18 mV bipolar   |   |
| Linearity                                 | Within 0.0015% FS, 2 ppm/°C   |   |
| Resolution                                | Internal up to 8 000 000; External up to 100 000 counts in Weighing / Force modes, 1 000 000 counts for unipolar input and for selected range in Count mode and 2 000 000 counts for bipolar input and for selected range in Count mode |   |
| <b>Calibration and Programming</b>        |   |   |
| Calibration                               | By etalon weights: Via xFace software or fieldbus<br>eCal: Electronic calibration without etalon weights via xFace<br>Count mode: All instruments are adjusted in production for equal performance. Calibration at PLC side             |   |
| Digital filter                            | 10 step adjustable digital adaptive filter  |   |
| Weighing functions                        | Tare, zero, auto zero tracking, motion detection, auto-zero at power-up, net indication at power on   |   |
| <b>Load Cell</b>                          |   |   |
| Excitation                                | 5 VDC, max. 100 mA  |   |
| Number of load cells                      | Up to 6 load cells 350 Ω or 18 load cells 1100 Ω in parallel  |   |
| Connection                                | 4 or 6 wire technique. Cable length 274 m/mm² for 6 wire connection   |   |
| <b>Communication</b>                      |   |   |
| Serial Interface RS-232C                  | 9600 baud, 8 None 1, Continuous or demand (BSI mode)  |   |
| Serial Interface RS-485 (TX2 AD / TX2 MB) | 1200 to 57600 baud, 7 even/odd, 8 None 1, demand (BSI mode) or Modbus RTU   |   |
| Modbus RTU interface (TX2 MB)             | Up to 31 units on the bus, Baudrate up to 57600   |   |
| Ethernet / Modbus TCP/IP (TX2 EN)         | 10Mbits (half duplex), galvanically isolated  |   |
| Profibus DP V1 interface (TX2 PB)         | 9,6 kbits/s to 12 Mbits/s automatic baudrate detection  |   |
| ProfiNet interface (TX2 PN)               | 100Mbits (full duplex), galvanically isolated   |   |
| CANopen interface (TX2 CO)                | 10 kbits/s to 1 Mbits/s automatic baudrate detection  |   |
| EtherNet/IP (TX2 EI)                      | 10 Mbit/s or 100 Mbit/s, full duplex, galvanically isolated<br>Addressing: Assign DHCP or manual IP with PC software  |   |
| EtherCAT (TX2 EC)                         | 100 Mbit/s, full duplex, galvanically isolated  |   |
| CC-Link (TX2 CC)                          | 156 kbps - 10 Mbps communication speed<br>Addressing: Up to 64 stations per network   |   |
| Powerlink (TX2 PL)                        | 100Mbit/s, half duplex  |   |
| <b>Power Supply and Others</b>            |   |   |
| Power Supply                              | 10 to 28 VDC, min 60mA – max. 600 mA (According to model and connected load cell units )  |   |
| Enclosure                                 | Polyamide, for DIN-rail mount, protection class IP20  |   |
| Operation Conditions                      | Between -15°C and +55°C at 85% RH max, non-condensing   |   |

## Typical Application



(Specifications are subject to change without notice. 05 -12 / 2020)