**IDS 410**

**SPECIFICATIONS**

### STANDARD FEATURES

#### SCALE SPECIFICATIONS
- **Display**: Bright red LED; 1-inch x 6-digit numeric
- **Status Indicators**: Gross, Net, Motion, Zero, LB, kg (LED)
- **Keyboard**: 5-key sealed tactile feel membrane
- **Internal Resolution**: 24-bit A/D Sigma-Delta; 8,000,000 d
- **Display Resolution**: 200,000 dd industrial; 10,000 dd HB44
- **Display Increments Selectable**: 1, 2, 5, 10, 20, 50, 100
- **Decimal Point Selectable**: 0, 1, 2, 3, 4 decimal places
- **Conversation Rate**: 60 samples/second typical
- **Signal Sensitivity**: 0.1 uV/graduation (min)
- **Signal Range**: 0.5 mV/V to 6mV/V
- **Load Cell Excitation**: 10 ± 0.5VDC (-5 to +5)
- **Load Cell Power**: 12 x 350 W or 24 x 700 W load cells
- **Auto Zero Tracking**: 0-60 dd in 1/4 dd increments
- **Auto Zero Delay**: 0-25 seconds in 0.1 second increments
- **Motion Detect**: 0-60 dd in 1/4 dd increments
- **Motion Delay**: 0-25 seconds in 0.1 second increments
- **Digital Filter**: 0-18 selectable filter (DSP) levels
- **Calibration**: Selectable multi-point (up to 5) digital calibration to lineearize input signal
- **Watchdog Timer**: Enable/disable fault tolerant operation
- **RFI Protection**: Signal, excitation and sense lines
- **RAM**: 32K provides 500 ID storage (parts, etc)

#### COMMUNICATIONS
- **Serial Port 1**: Simplex RS232 or 20mA current loop
- **Serial Port 2**: Full duplex RS232, 20mA or RS485
- **Digital Port**: 3 inputs and 3 outputs; Low active (TTL)
- **Print Formats**: 4 user configurable print formats

#### GENERAL SPECIFICATIONS
- **Power**: 110/220VAC ±10% @ 50/60Hz or 12-28 VDC
- **Power Consumption**: 10W @ 115VAC; 6W @ 12VDC
- **Operating Temperature**: -10 to +40 ºC.
- **Weight**: 6 lbs (2.72 kg)
- **Warranty**: One-year limited

#### OPTIONS
- **Analog Output Module**: Fully isolated 0-10VDC or 4-20mA; 16-bit resolution; 650Ω load resistance
- **Relay Box**: 4-channel external relay box
- **Relay Modules**: Input/output solid-state (AC/DC) relays
- **Clock Module**: Time and Date Clock Y2K and Leap Year compliant
- **High speed (HS)**: 100 samples/second conversion rate; high-speed process control applications
- **EZ-LINK™**: PC software; facilitates configuration and Scale Basic programming
- **IS Barriers**: Hazard location intrinsic safety barriers
- **Panel Mount Kit**: Mounts enclosure to user panel (for future release)
- **DeviceNet**: PLC/COM interface (for future release)
- **Profibus**: PLC/COM interface (for future release)

#### APPROVALS
- **NTEP COC#: 96-133-A3**

### MODES OF OPERATION

The IDS 410 is the only digital weight meter in its class that is fully programmable in an easy and flexible macro language called Scale Basic™. In addition to the built-in modes of operation, Scale Basic allows you to customize the operation of the IDS 410 to meet your application requirements. The Scale Basic language provides various commands and functions that include: math operations, I/O control, setpoints, timers, data entry, ID storage, message display, and program sequence control among others. Programming the IDS 410 can be performed through the keyboard or a PC using the optional EZ-LINK™ software that greatly facilitates setup and programming.

**MODE 0 - Normal**
- Basic gross, tare and net weighing

**MODE 1 – Print Weight and Total (Numbered Weights)**
- Prints numbered weights with a total of accumulated gross, tare or net weights

**MODE 2 - Auto Print and Total Weighing/Multi-Container/Pallet**
- Auto prints multiple numbered gross or net weights and keep a running total for a job, lot, pallet, truck etc. Prints accumulated gross tare and net totals when finished.

**MODE 3 - Unattended Axle Weigh and Print (Short Scale)**
- Unattended short scale vehicle axle weighing application provides traffic light control, remote display interface and auto finish totaling

**MODE 4 - Auto Axle Weigh (Long Scales)**
- Same as Mode 3 but previous axles are auto zeroed for long scale.

**MODE 5 - Peak Hold Mode (Force Measurement)**
- Display or print the gross or net of detected peak force/weight

**MODE 6 - Over/Under Checkweigh**
- Provides 3 TTL outputs and 2 setpoints to indicate over, under and between weight conditions. Outputs can activate lights or alarms

**MODE 7 - Bulkweigh**
- Provides setpoint entry and relay output to control fill process. Remote start/stop operation with configurable scale empty and draft weights. Use for multiple drafts with subtotal and total printing

### DIMENSIONS

| A | 7.63” (19.38 cm) |
| B | 6.88” (17.48 cm) |
| C | 8.56” (21.74 cm) |
| D | 2.00” (5.08 cm) |
| E | 3.00” (7.62 cm) |
APPLICATIONS
- Gross, tare and net weighing
- Vehicle and railroad weighing
- Multi-container or axle weighing
- Weigh system interface to Distributed Control System
- Batching and process control systems
- Drum filling, tank, hopper, bench and floor scales
- Over/Under check-weighing and material-testing
- Chemical and washdown environments
- Hazardous environments with optional IS barriers

FEATURES
- NEMA 4/4x stainless steel enclosure
- One-inch-high bright, bold, 6-digit LED display
- 8 selectable modes of operation: Normal Gross, Tare & Net, Print weight and total, Auto print weight and total, Unattended axle weighing short and long scales with traffic light control, peak hold, over/under checkweigh, and bulkweigh
- Programmable in Scale Basic™ macro language for application development (event driven)
- Simulates A&D, Condec, Weigh-Tronix, Ohaus communication protocols; user configurable protocol
- Selectable 5-point calibration for improved accuracy
- 24-bit A/D with 60 or 100 samples/second conversion rate
- Signal sensitivity to 0.1 uV/graduation
- Selectable digital filter to eliminate weight vibrations
- Powers up to 12 x 350 W or 24 x 700 W load cells
- Two serial ports: RS232, 20mA current loop and RS485
- Digital port for relay control and remote operation
- Primary and secondary units with conversion factor
- 32K RAM provides 500 ID storage for part, truck, etc.
- Selectable address for multi-drop RS485 network interface

OPTIONS
- Time and Date Clock Y2K and Leap Year compliant
- 4-20mA/0-10VDC isolated analog output with 16-bit resolution
- 4-channel relay box for setpoint control or remote operation
- Input/output solid-state relay modules (AC/DC)
- High-speed 100 samples/second conversion rate
- EZ-LINK™ PC software; facilitates configuration and Scale Basic programming; Windows® 3.1/95/98/2000/XP/Vista compatible
- Intrinsic safety barriers for hazardous locations Class I / II / III Div. 1 and 2 Groups A-G
- Panel mount kit

MADE IN U.S.A.