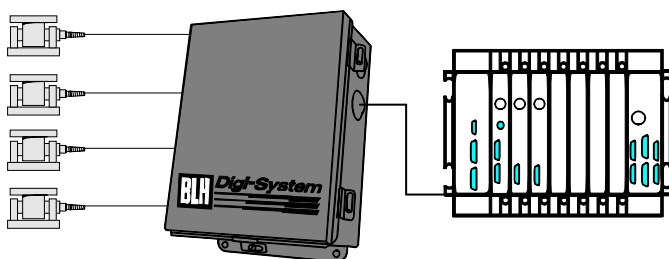


Applications:

**Inventory Weighing
Process Weighing
Web Tension Measurement**



- **Microprocessor Based Weight Transmitter**
- **Integral Multi-Cell Summing Circuit**
- **Standard Digital RS-485 Output**
- **Optional Analog 0-10V and 4-20 mA Outputs**
- **Optional Modbus RTU or Allen Bradley Remote I/O Protocol**
- **Fault Protected Transducer Excitation**



Product Description

The DXp-10 and DXp-15 Transmitters are self-contained microprocessor based weight transmitters. Both units contain an internal multi-cell summing circuit, 10 or 15 volt excitation, and a digital RS-485 output. Analog 0-10 volt and 4-20 mA outputs are available as an option. DXp transmitters are designed to be field mounted within the standard cable length of the load cells and are available with NEMA 4, 4X, or explosion proof enclosures. The DXp-10 offers 20,000 counts of digital resolution with a response time of 400 milliseconds. For high speed batch and packaging applications, the DXp-15 offers 50,000 counts of digital resolution with a response time of 50 milliseconds.

DXp-15 units are available with Allen-Bradley Remote I/O or Modbus RTU protocol for convenient interface with host PLC/DCS systems.

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DXp Advantages

Applications

The DXp-10 and DXp-15 transmitters are designed for inventory and process weighing, as well as web tension measurement systems requiring analog and/or digital transmission of high accuracy weight data to a computer or other control device. Availability of a wide variety of digital interface options simplifies communication of weight data to a host computer or PLC. The result is improved product quality and material control.

Serial Communication

The RS 485 serial output is DIP switch selected to transmit one of four data formats. The transmit-only mode is designed for simple point-to-point communication to a single receiver. The optional interface mode is available for connection to a terminal for calibration or for operation on a multi-vendor baseband network. Available MODBUS RTU protocol or the Allen-Bradley Remote I/O interface options provide a seamless interface to most DCS and PLC systems (DXp-15 only).

Analog Communication

The optional analog voltage and current outputs are based on a 12 bit D-A conversion providing up to 4096 counts of gross weight resolution. The isolated analog output will drive up to a 1000 ohm load for connection to an analog input card, loop controller and/or digital indicator.

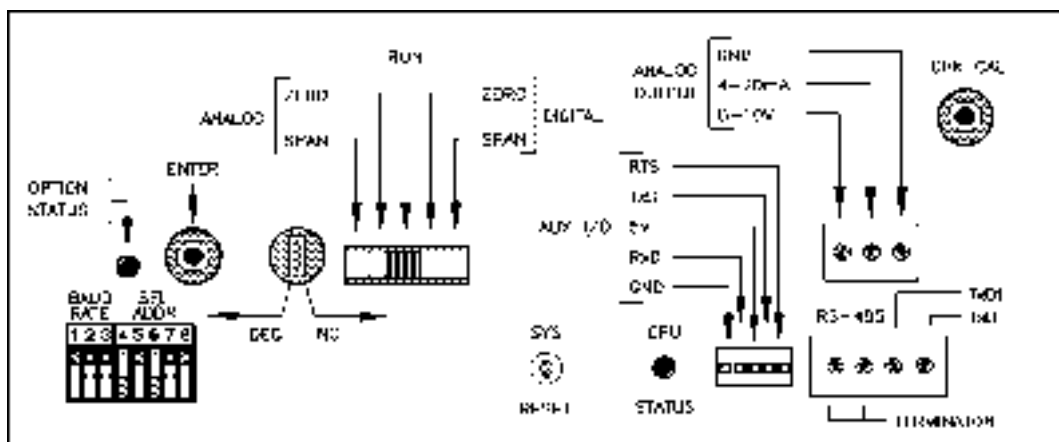
Because the analog weight data is based on a digitized weight signal it can be ranged to any portion of the gross weight capacity. This solves many problems previously encountered with high dead-load/small live-load applications.

Set-Up and Calibration

Simple set up and calibration of both the analog and digital outputs is accomplished without a programmer by using the various internal switches to set zero, span, etc.. In addition, an internal calibration circuit with a Check Cal switch is provided. Remote calibration can be accomplished using the LCp-40 Network Controllers or with a terminal capable of transmitting ASCII in an RS 485 format.

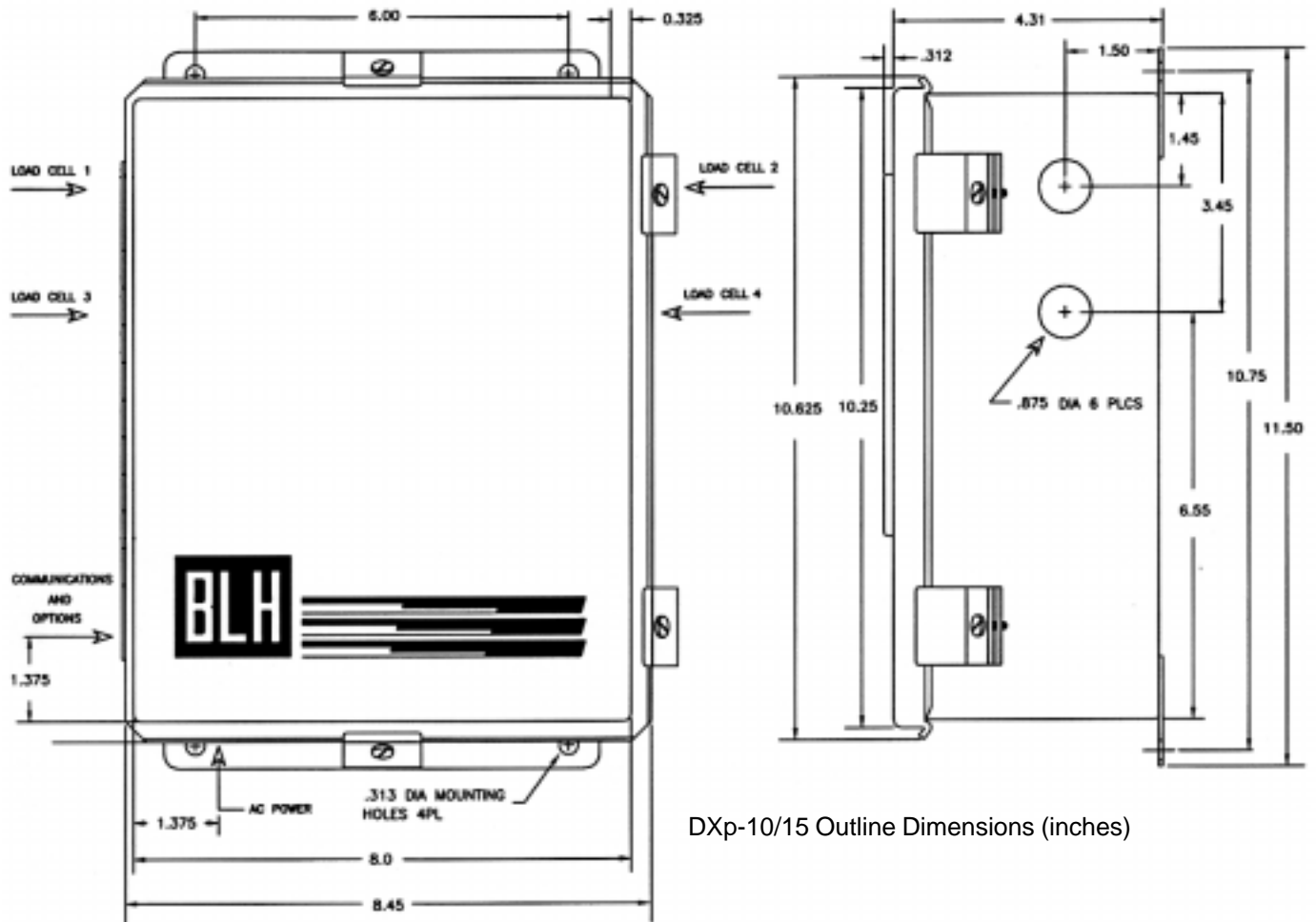
Hybrid Technology

Mating a muHi-cell summing unit to a transmitter with both analog and digital output capabilities offers the user the flexibility of using traditional analog control strategies with existing equipment and the opportunity to take future advantage of digital control networks without replacing the transmitter.



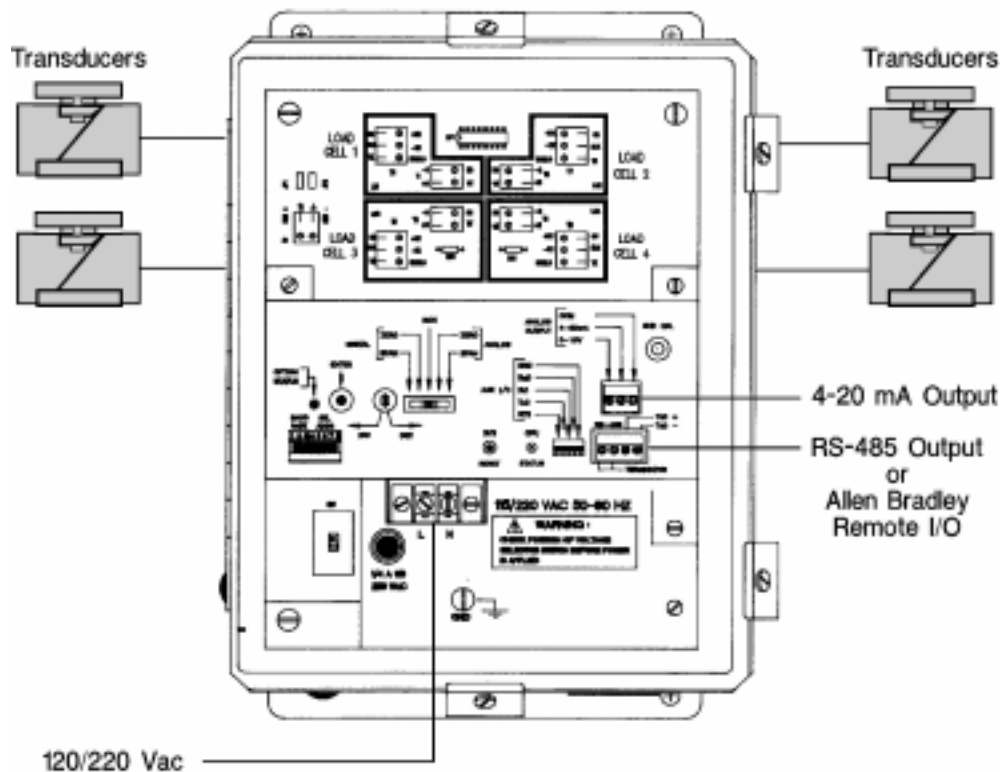
DXp-10/15 Control Panel

Outline and Wiring Diagrams



DXp-10/15 Outline Dimensions (inches)

Internal Wiring Locations



DXp-10/15 Specifications

Performance

Resolution:	
DXp-10	20,000 counts
DXp-15	50,000 counts
Sensitivity:	
DXp-10	1.0 microvolt/count
DXp-15	0.5 microvolt/count
Full Scale Range	25 or 35 mV (selectable)
Dead Load Range	100%
Input Impedance	10 M-ohms, min
Load Cell Excitation	10 V for up to eight 350 ohm
(Selectable)	load cells (250 mA)
	15 V for up to six 350 ohm
	load cells (260 mA)
Linearity	+/- 0.01% of full scale
Humidity	5 to 90% rh, non-condensing
Common Mode Rej.	100 db or better at or below 35Hz
Normal Mode Rej.	100 db or better at or below 35Hz
Conversion Speed	DXp-10 - 400 msec
	DXp-15 - 50 msec

Temperature Effects

Span	+/-2ppm/°C typical, 7ppm/°C max
Zero	+/-2ppm/°C
Operating Temperature	-10 to 55°C (12 to 131°F)
Storage Temperature	-20 to 85°C (4 to 185°F)

Electrical

Voltage	117/230 + 15% 50/60 Hz
Power	10 watts max
Parameter Storage	EEPROM
EMI/RFI	Shielded from typical industrial interference

Enclosure

Dimensions (NEMA 4/4X)	11.5 x 8.0 x 4.3 HWD
Explosion Proof	12.875x 10.875x8.188 HWD

OPTIONS

Isolated Analog Output

Type	12 bit D/A conversion
Voltage	0 to 10 volt (25K ohm min load)
Current	4 to 20 mA (1000 ohm max load)

SERIAL COMMUNICATION

Simplex Data Output (Standard)

Interface Type	RS-485 (simplex)
Data Format	simplex ASCII data
	7 Data Bit
	Even Parity
	1 Stop Bit

Terminal/Computer Interface (Optional)

Interface Type	RS-485 Half Duplex (Standard)
Baud	1200 or 9600
Protocol	ASCII duplex command/ response format

Modbus RTU Protocol (DXp-15 Option Only)

See manual TM002 for function codes and register locations

Allen-Bradley Remote I/O (DXp-15 Option Only)

See manual TM010 or technical note TD078 for details

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Modbus is a trademark of Schneider Automation.

BLH is continually seeking to improve product quality and performance. Specifications may change accordingly.

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Ordering Specification Code

**DXP-10- [M]-[C]-[P]-[S] Blind Weigh Transmitter
with 20,000 Count Resolution**

**DXP-15- [M]-[C]-[P]-[S] Blind Weigh Transmitter
with 50,000 Count Resolution**



DXP-10 DXP-15

[M] MOUNTING

[1] NEMA 4 PAINTED STEEL ENCLOSURE	STD	STD
[2] NEMA 4X STAINLESS STEEL ENCLOSURE		
[3] NEMA 7/9 EX ENCLOSURE [Class I II, Div 1 2, Group BCDEFG]		
[8] #1 & FM/CSA Approved [Class I II III, Div 2, Group ABCD FG]		
[9] #2 & FM/CSA Approved [Class I II III, Div 2, Group ABCD FG]		

[C] COMMUNICATION

[1] RS-485 DIGI-SYSTEM ENABLED	STD	STD
[2] #1 & RS-485 ASCII PROTOCOL	N/A	
[4] ALLEN-BRADLEY REMOTE I/O (NOTE: [1] & [2] DELETED)	N/A	
[5] #1 AND MODBUS RTU PROTOCOL *	N/A	

[P] PROCESS OUTPUTS

[1] NO PROCESS OUTPUT	STD	STD
[2] 0-10 V & 4-20 mA ANALOG		

[S] SOFTWARE

[1] STANDARD	STD	STD
[2] DYNAMIC DIGITAL FILTERING	N/A	

ACCESSORIES:

Conduit Fitting Kit (6 connectors) P/N 465231

Cable Fitting Kit (6 connectors) P/N 465232

* May Require RS-485 to RS-232 Serial Converter. See Section VI