

# Multi-Zone Web Tension Transmitter

#### FEATURES

- Individually digitized transducer forces for up to 4 web tension zones
- View left, right, and total tension values
- 100% digital calibration no dead weight loading, no strapping
- · Internal diagnostics significantly reduce downtime
- Dynamic Digital Filtering for each tension zone
- Measure resultant force (F<sub>r</sub>) and angle of inclination for any or all wrap angles (HTU version only)

### **OPTIONAL FEATURES**

- Total, individual, and difference output control signals four 4–20 mA outputs
- 4 input/output dry contact relays
- Viewing window for internal vacuum fluorescent display
- Allen-Bradley Remote I/O or Modbus RTU interface

### APPLICATIONS

- Pulp and paper machinery
- Roofing machines
- Converting equipment
- Mining conveyors
- · Winders, rewinders, laminators, coaters, dryers, felts

#### DESCRIPTION

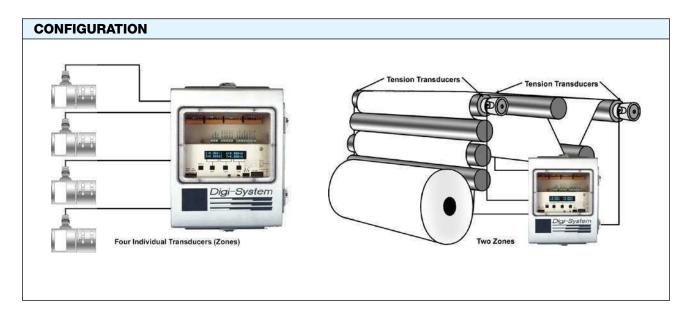
DXt-40 Tension Transmitters measure up to four independent web points, or zones, to ensure maximum operating speeds without belt, felt, or product breakage. Each zone is precisely measured with 750,000 count resolution and produces a corresponding, high resolution,



4–20 mA output. Total, individual, and differential outputs from two transducers (load cells) permit a comparison of tension signals on either side of a sheet, strip, or web.

Digital calibration eliminates time consuming dead weight loading and machine "strapping". With four integral operating modes, DXt-40 transmitters offer wide operating flexibility and easy installation. Simply select the mode that matches your application, enter the transducer zero and span values, and begin system operation.

When combined with unique HTU transducers, units measure both horizontal and vertical tension vectors. Based upon both measurements, software algorithms calculate the precise, resultant force vector and exact linear tension component.





## Multi-Zone Web Tension Transmitter

PARAMETERVALUEPERFORMANCEInternal Resolution4,194,304 total countsMax. Display Resolution3,000,000 total countsMax. Res. Per Channel750,000 countsGonversion Speed100 ms (10 updates/s)Full Scale Range±35 mV/channelBipolar Dead Load Range±000% (positive/negative signal)Linearity100 V (65 mA/channel max.)Software Filter (std)50 to 10,000 msOptional Auto-Tune Filtermultivariable upt o10,000 msRemote Sense0.6 µV per countStep Response0.6 µV per countStep Response0.6 µV per countUnits1.61 ko SS°C (12 to 131° F)Storage Temperature-20 to 8S°C (14 to 135° F)Porating Temperature-20 to 8S°C (14 to 135° F)Storage Temperature101 ko SS°C (12 to 131° F)Storage Temperature-20 to 8S°C (14 to 135° F)Storage Temperature101 ko SS°C (12 to 131° F)Storage Temperature-20 to 8S°C (14 to 135° F)Storage Temperature-20 to 8S°C (14 to 135° F)Storage Temperature-20 to 8S°C (14 to 135° F)Storage Temperature101 ko SondentarePower117/230 VAC +15% SONGHZInterface100 MQ, min, per channelPower100 MQ, min, per channelStorage Temperature100 dB above 35 HzInput Impedance100 dB above 35 HzPower100 dB above 35 HzFuenci100 dB above 35 HzPorter StorageEEPROMPorter StorageEEPROM <t< th=""><th colspan="2">SPECIFICATIONS</th></t<>	SPECIFICATIONS		
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ISOLATED ANALOG OUTPUT(S) – FOUR AVAILABLE     Type   16 bit digital to analog convertor     Current   4–20 mA (600 Ω max. load)	Normal Mode Rej.	100 dB above 35 Hz	
Type 16 bit digital to analog convertor   Current 4–20 mA (600 Ω max. load)	Parameter Storage	EEPROM	
Current     4-20 mA (600 Ω max. load)	ISOLATED ANALOG OUTPUT(S) – FOUR AVAILABLE		
	Туре	16 bit digital to analog convertor	
Voltage     0–10 VDC (25 kΩ min. load)	Current	4–20 mA (600 Ω max. load)	
	Voltage	0–10 VDC (25 kΩ min. load)	

PARAMETER	VALUE	
RELAY OUTPUTS (OPTIONAL)		
Solid State	110/220 VAC at 1.0 A	
Closed Contact	28 VAC/DC @ 0.4 A (max.)	
DIGITAL INPUTS		
Logic"0" (Low)	short circuit or less than 0.5 VDC, sink 3 mA (min.)	
Logic"1" (High)	open circuit or 10 to 28 VDC (TTL open collector)	
SIMPLEX DATA OUTPUT (STANDARD)		
Туре	RS-485 (Simplex)	
Baud	1200 or 9600	
Data Format (Selectable) ASCII	7 data bits, even parity, stop bit	
TERMINAL / COMPUTER INTERFACE (OPTIONAL)		
Interface Type	RS-485 half duplex (standard)	
Baud	1200 or 9600	
Protocol	duplex command / response format	
ASCII	7 data bits, even parity, stop bit	
SPECIAL PROTOCOLS (OPTIONAL)		
Modbus	RTU Protocol	
SPECIAL INTERFACE (OPTIONAL)		
Allen Bradley	Remote I/O – 1/4 logical rack	
ENCLOSURE		
Dimensions	11.5×8.0×4.3 in H×W×D NEMA 4/4X (292×203×109 mm H×W×D)	
Weight	12.0 lb (5.4 kg)	
Optional	EX 12.9×10.9×8.2 in H×W×D (328×277×208 mm H×W×D) (Explosion Proof)	
APPROVALS		
FM (Factory Mutual)	3611 (Class I, II, III; Div.1, 2; Groups A-G)	
CSA	C22.2 (Class I, II,III; Div.1, 2; Groups A-G)	

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