

Web Tension Transducer

FEATURES

- Capacity range: 20, 50, 100, 200, and 500 lb (9.1, 22.7, 45.4, 90.1, and 227 kg)
- Full Wheatstone bridge design eliminates drift and recalibration problems
- Accommodates shaft misalignment up to 3°
- Rugged, compact size with high overload capability
- Measures low resultant tension forces with small wrap angles
- Scribe marked for precise alignment with resultant tension force
- Wide range of operating tensions
- Factory calibration eliminates need for on-site test weights
- Simple installation with pillow block or frame mounting
- Temperature compensated
- FM approved



APPLICATIONS

- Converting equipment
- Winders/unwinders/rewinders
- Coaters/laminators
- Printing presses

DESCRIPTION

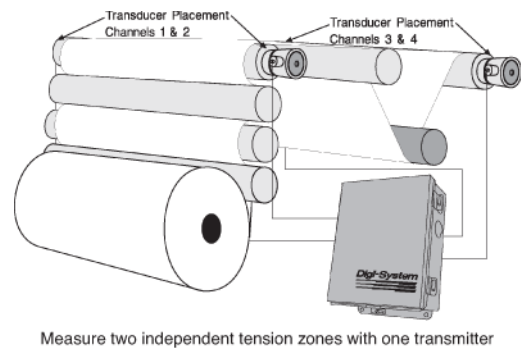
BLH Nobel GLT transducers provide stable, accurate, and repeatable performance for low force web tension applications with a wide range of operating tensions, a small wrap angle, or a high roller weight to tension force ratio. Performance improves by 50% versus half bridge semiconductor type cells and drift is basically eliminated. Factory calibration, with closely matched output signals, eliminates field calibration and costly recalibration after the initial setup. Zero and span settings remain stable for tension forces operating at the low end of wide rangeability applications. Scribe marks allow for

quick alignment of the GLT with the resultant tension force. Both frame (standard) and optional pillow block mounting configurations are available for dead shaft roller assemblies.

GLT series transducers for low-force web tension applications use a differential bending beam transducer with a full Wheatstone bridge for excellent stability, temperature, and performance specifications. Transducers are constructed of stainless steel for durability in corrosive environments.

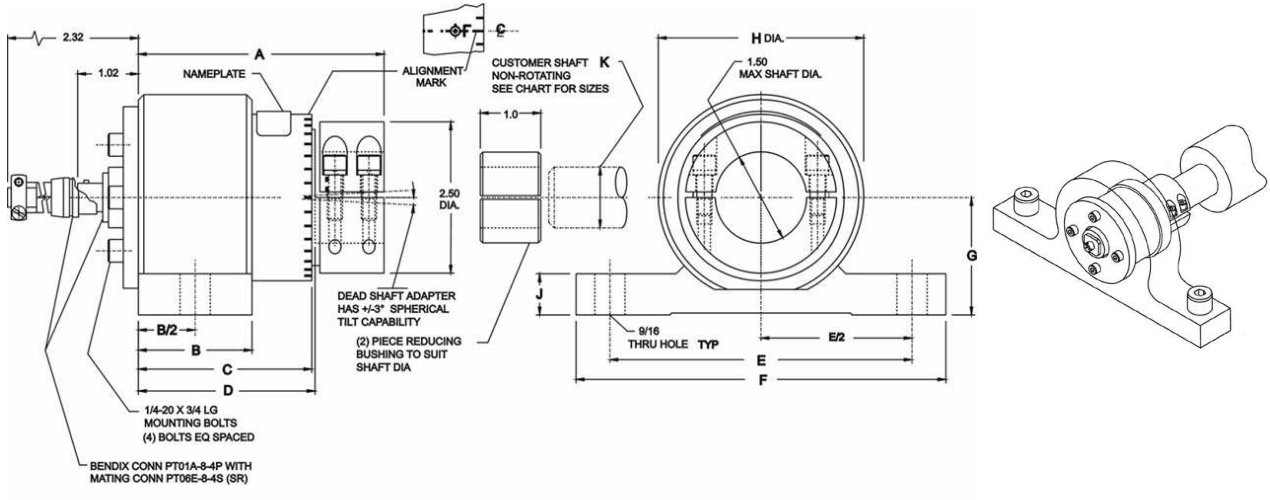
Each unit can be rotated to measure the resultant tension force, not just a component of the force. The full bridge electrical output of each unit is calibrated within a tolerance of better than 0.25%. When coupled with BLH Nobel instrumentation, system calibration can be accomplished without using dead weights or other sources of known force. Zero and span settings also remain stable for tension forces operating at the low end of wide rangeability applications.

CONFIGURATION



Web Tension Transducer

OUTLINE DIMENSIONS WITH PILLOW BLOCK OPTION

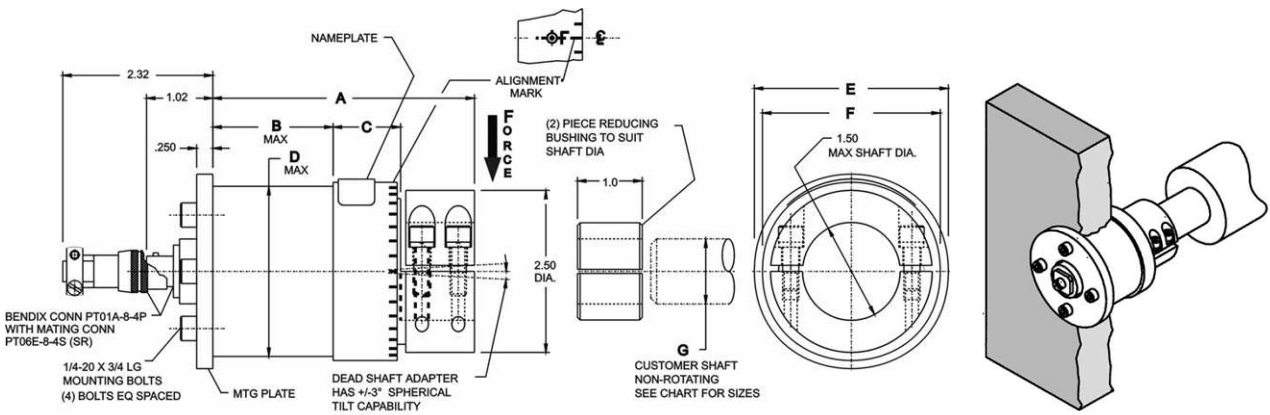


CONNECTOR COLOR CODE

EXCITATION	GREEN (+)	C
	BLACK (-)	B
OUTPUT	WHITE (+)	D
	RED (-)	A

CAPACITY (lbs)	A	B	C	D	E	F	G	H	J	K DIA.
20/50/100	3.63	1.75	2.44	2.60	4.00	5.38	1.63	3.00	.58	1/2, 3/4, 1, 1 1/4 & 1 1/2
200/500	4.04	1.88	2.85	2.98	5.00	6.12	1.94	3.40	.68	1, 1 1/4 & 1 1/2

TRANSDUCER OUTLINE DIMENSIONS






CAPACITY (lbs)	A	B	C	D Dia.	E Dia.	F	G Shaft Dia.
20/50/100	3.63	1.74	.87	2.375	2.75	2.50	1/2, 3/4, 1, 1 1/4 & 1 1/2
200/500	4.04	1.87	1.11	2.625	3.00	2.75	1, 1 1/4 & 1 1/2

CONNECTOR COLOR CODE

EXCITATION	GREEN (+)	C
	BLACK (-)	B
OUTPUT	WHITE (+)	D
	RED (-)	A

Web Tension Transducer

AVAILABLE INSTRUMENTATION		
<p>PS 2010T</p>  <p>High-Speed Display Transmitter</p>	<p>LCp-100</p>  <p>Precision Display Transmitter with Profibus or AB Remote I/O Interface</p>	<p>DXt-40</p>  <p>Tension Display Left, Right, or Total</p>

SPECIFICATIONS			
PARAMETER	VALUE	PARAMETER	VALUE
PERFORMANCE		TEMPERATURE	
Capacities	20, 50, 100, 200, 500 lb (9.1, 22.7, 45.4, 90.1, 227 kg)	Operating range	-40 to 220°F (-40 to 105°C)
Rated output (RO), nominal	2.000 mV/V ±0.25%	Compensated range	+30 to 130°F (-1 to 54°C)
Nonlinearity	0.25%	Effect on zero balance	0.0015% RO/°F
Hysteresis	0.10%	Effect on rated output	0.0050% of load/°F
Repeatability	0.02% RO	OVERLOAD RATING	
Creep (20 minutes)	0.05% RO	Safe load	200% rated capacity
Zero balance	5.0% RO	Ultimate load	500% rated capacity
ELECTRICAL		Safe Side load	100% rated capacity
Input resistance	350 Ω ±3 Ω	MATERIAL	
Output resistance	350 Ω ±3 Ω	All capacities	All Stainless Steel
Insulation resistance	<5000 MΩ	DEFLECTION AT RATED CAPACITY	
Recommended excitation	10 VAC/VDC	All capacities	0.003–0.020 in
Maximum excitation	15 VAC/VDC	SEALING	
Electrical connector	Bendix—PT-01-8-4P with mating half—PT06E-8-4S (SR)	All capacities	EC IP65

NOTE: Shaft coupling spherical tilt capability = 3° max.

NOTE: Intrinsically safe systems must be installed in accordance with Drawing # 468872-2

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

Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at vpgsensors.com.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.