

Precision Force and Weight Measurement Transducers



FEATURES

- Capacity range: 500 to 100K lb (227 to 45K kg)
- Compact - rugged
- Operational: -30° to +175°F
- Low deflection
- Environmentally sealed
- FM and CSA approved

DESCRIPTION

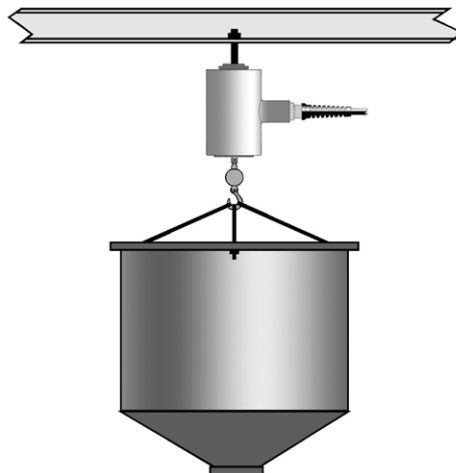
T3 type load cells, developed by Vishay BLH, are designed for various types of weighing and force measurement. Construction of the U3 and T3 load cell utilizes all of the advantages of SR-4® strain gages. All cells are fabricated with high strength 'ring' type elements to provide an output signal of 3 mV/V at rated capacity. Each cell is designed for minimum deflection and 150% safe overload without damage. U3G1 and U3G2 universal load cells are shipped with calibration data verifying accuracy in both tension and compression modes. U3G2 and T3P2 cells contain a

second bridge. The second bridge can be used simultaneously with the first bridge for dual output or be reserved as a backup in case of failure.

APPLICATIONS

- Dynamometers
- Tensile testing
- Tension and compression weighing

CONFIGURATION



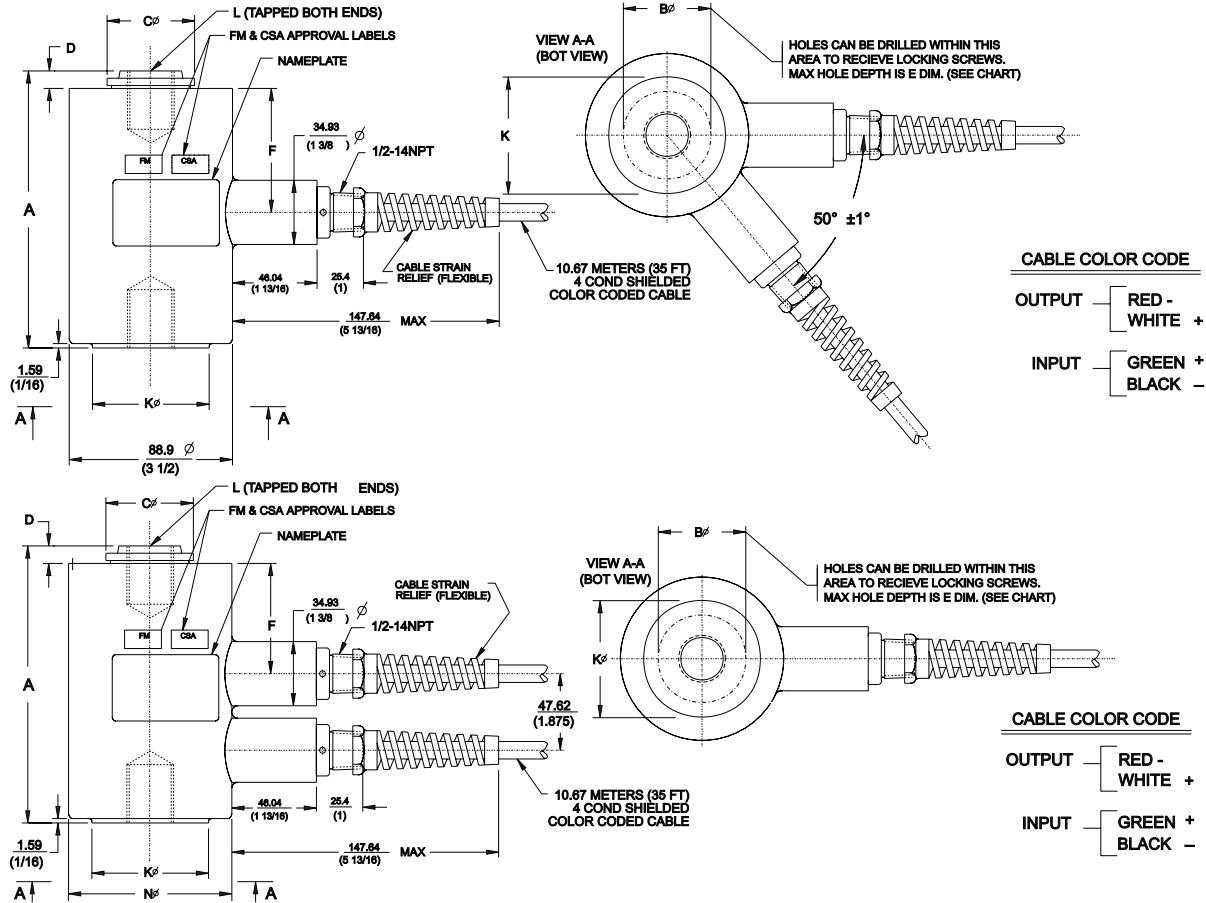
Model U3G1, U3G2, T3P1, T3P2

Vishay BLH

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DIMENSIONS



CAP (lb)	A	B DIA.	C DIA.	D	E	F	K DIA.	L (TAPPED)	N DIA.
500 - 3000	49/16	-	11/16	1/4	-	21/4	11/4	1/2-20UNF-2BX1/2DP	-
5000 - 10000	515/16	13/4	17/8	3/8	1/2	221/32	21/2	1-14UNS-2BX11/4DP	-
20000 - 30000	81/2	25/8	23/4	1/2	1	313/32	4	11/2-12UNF-2BX13/4DP	5
50000	117/16	33/4	4	5/8	1	415/32	53/4	2-12UN-2BX21/4DP	61/2
100000	173/4	43/4	51/2	11/8	1	73/8	73/4	3-8UN-2BX41/2DP	9

Capacity (lb)	500	1000	2/3000	5000	10000	20000	50000	100000
Weight (lb)	6	6	6	10	10	25	70	200
Deflection in.	0.007	0.006	0.005	0.007	0.005	0.007	0.010	0.013
Nat. Freq @ Eff. Wt Hz/lb	1250/0.45	1800/0.50	2600/0.56	2200/1.5	3400/1.7	2400/5	1900/15	1350/43



SPECIFICATIONS

Performance		Temperature		U3	T3
Capacity	500, 1K, 2K, 3K, 5K, 10K, 20K, 30K, 50K, and 100K lb (227, 454, 907, 1.4K, 2.3K, 4.5K, 9.1K, 13.6K, 22.7K, and 45.4K kg)	Safe Range	-30 to +175°F	-30 to +175°F	-30 to +175°F
		Compensated Range	+30 to +130°F	+30 to +130°F	+30 to +130°F
		Effect on Zero Balance	0.0015% RO/°F	0.0015% RO/°F	0.0015% RO/°F
		Effect on Rated Output	0.005% load/°F	0.008% load /°F	0.008% load /°F
Performance (cont)		Adverse Load Ratings			
Rated Output (RO)	U3 3mV/V - 0.25% T3 3mV/V ± 0.1%	Safe Overload - % RO	150	150	150
Non-Linearity - % RO	0.10	Max Overload - % RO	300	300	300
Hysteresis - % RO	0.02%1-100K 0.05% 500lb				
Repeatability - % RO	0.02	APPROVALS			
Creep - % RO (20 min.)	0.03	FM (Factory Mutual)	3611 (Class I, II, III; Div.1,2; Groups A-G)		
Variance Ten. - Cmp	0.015mV/V max. NA	CSA	C22.2 (Class I, II,III; Div.1,2; Groups A-G)		
Electrical					
Recommended Excitation	10Vac - dc	10Vac - dc			
Zero Balance - % RO	1.0	1.0			
Input Resistance (Ohms)	350 ± 3.5	350 ± 3.5			
Output Resistance (Ohms)	350 ± 3.5	350 ± 3.5			
Number of Bridges	single/double	single/double			
Min. Insulation Resistance-megohms (@ 50Vdc)					
Bridge to Ground	5000	5000			
Shield to Ground	2000	2000			
Electrical Connection	35 foot cable	35 foot cable			

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

VISHAY TRANSDUCERS (VT) SALES OFFICES

**VT Americas
System Products
Norwood, MA**
PH: +1-781-298-2200
FAX: +1-781-762-3988
vts.us@vishaymg.com

**VT Norway
System Products
Oslo**
PH: +47-22-884090
FAX: +47-22-884099
vt.no@vishaymg.com

**VT Canada
Toronto**
PH: +1-416-251-2554
FAX: +1-416-251-2690
vt.can@vishaymg.com

**VT Finland
System Products
Jorvas**
PH: +358-9-8194-220
FAX: +358-9-8194-2211
vt.fi@vishaymg.com

**VMG UK
Basingstoke**
PH: +44-125-646-2131
FAX: +44-125-647-1441
vt.uk@vishaymg.com

**VMG Israel
Netanya**
PH: +972-9-863-8888
FAX: +972-9-863-8800
vt.il@vishaymg.com

**VT Sweden
Karlskoga**
PH: +46-586-630-00
FAX: +46-586-630-99
vt.se@vishaymg.com

**VT China
Tianjin**
PH: +86-22-2835-3503
FAX: +86-22-2835-7261
vt.prc@vishaymg.com

**VMG Germany
Heilbronn**
PH: +49-7131-3901-260
FAX: +49-7131-3901-2666
vt.de@vishaymg.com

**VT Taiwan*
Taipei**
PH: +886-2-2696-0168
FAX: +886-2-2696-4965
vt.roc@vishaymg.com
*Asia except China

**VMG France
Chartres**
PH: +33-2-37-33-31-20
FAX: +33-2-37-33-31-29
vt.fr@vishaymg.com