

## Tension &amp; Compression Force Transducer



## 3540 SERIES

- Available in a variety of sizes and shapes to fit almost any application
- Measuring ranges from 0 kN to 1 kN through 0 kN to 500 kN
- Several outputs are available in both amplified and unamplified to interface with most electrical systems
- 316 stainless steel construction on many versions provides corrosion-resistance and durability - ideal for harsh environments
- Sputtered thin film sensor for maximum repeatability and stability

## APPLICATIONS

- Cable or rod tension
- Weight measurement
- Overload protection
- Clamping force
- Fill level measurement

## SPECIFICATIONS

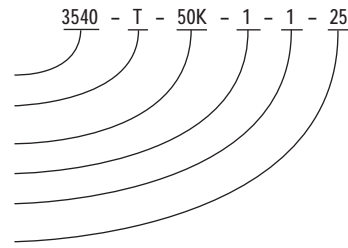
Series	3540								
Nominal load	kN	2	5	10	20	30	50	100	500
	lb <sub>f</sub>	450	1124	2248	4496	6744	11240	22481	112404
Limit load	150% full scale								
Fracture load	>300% full scale								
Permissible oscillation	±80% full scale according to DIN 50100								
Output signal	4 mA to 20 mA, 2-wire or 3-wire; 0 Vdc to 10 Vdc, 3-wire								
Accuracy	<±0.2% F.S.								
Hysteresis	<±0.1% F.S.								
Stability	<±0.1% F.S. at $F_{nom}$								
Ambient temperature range	-4 °F to 176 °F (-20 °C to 80 °C)								
Storage temperature range	-4 °F to 212 °F (-20 °C to 100 °C)								
Temperature effect	-span	<±0.01% $F_{nom} / °F$							
	-zero	<±0.01% $F_{nom} / °F$							
Vibration effect	20 g, 100h, 50 Hz to 150 Hz according to IEC68-2-6-Fc								
Environmental protection	IP 67 according to EN 60 529 /IEC 529								
Electrical connection	M12 x 1 or cable								
Power supply	10 Vdc to 30 Vdc for 4 mA to 20 mA output								
	14 Vdc to 30 Vdc for 0 Vdc to 10 Vdc output								
Current consumption	4 mA to 20 mA, signal								
	0 to 10 Vdc, 8 mA								
Response time	<1 ms (within 10% to 90% $F_{nom}$ )								
Noise protection	CE compliant; RFI, EMI and ESD protected according to EN 61326								
Electrical protection	Short circuit, overvoltage and reverse polarity protection								
Material	17-4PH Stainless steel								

ORDERING INFORMATION				
SERIES	3540			
FORCE TYPES	T Tension	C Compression	TC Tension/compression	
MEASURING RANGES	1K	0 kN to 1 kN	10K	0 kN to 10 kN
	2K	0 kN to 2 kN	20K	0 kN to 20 kN
	5K	0 kN to 5 kN	30K	0 kN to 30 kN
ACCURACY	1 ±0.2% full scale			
OUTPUT SIGNALS	1	4 mA to 20 mA	5	0 Vdc to 10 Vdc
ELECTRICAL CONNECTION	25 M12 x 1 (4-pin)			

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

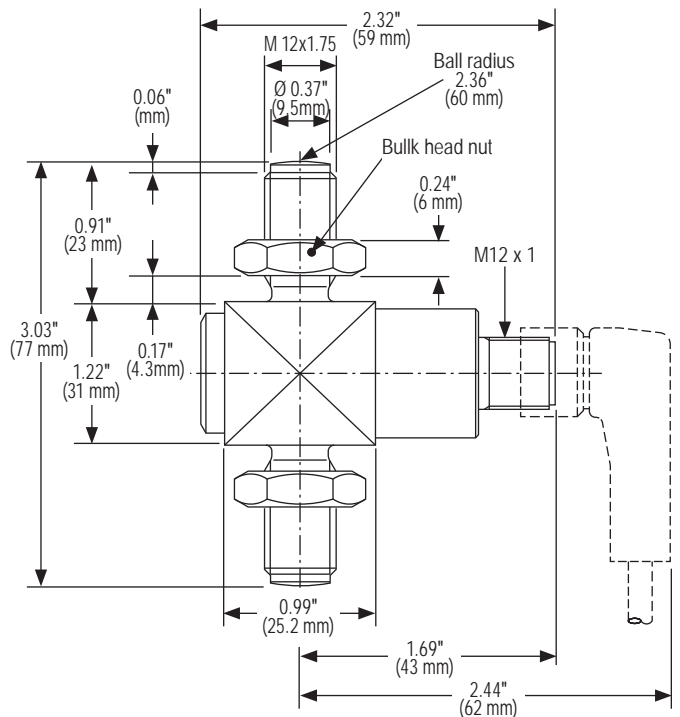
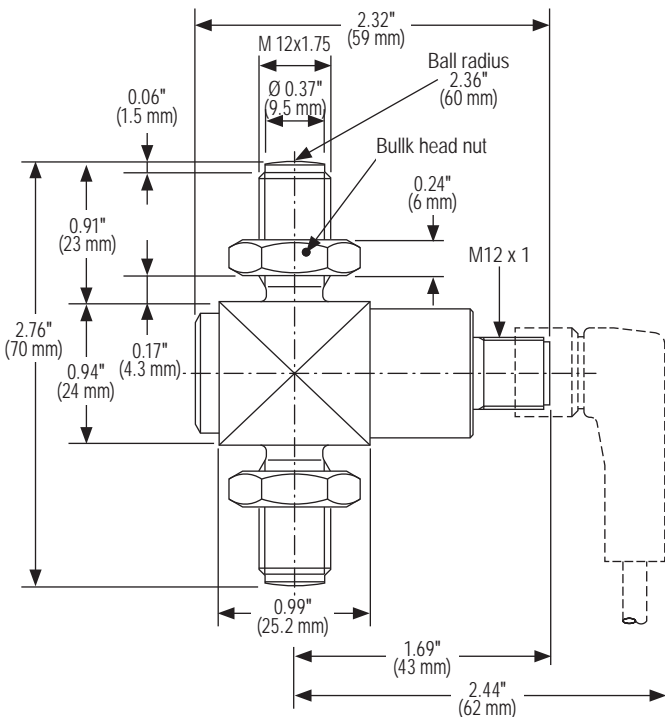
EXAMPLE

Series .....3540 Series  
 Force type..... Tension  
 Measuring range.....0 kN to 50 kN  
 Accuracy..... ±0.2% full scale  
 Output signal.....4 mA to 20 mA  
 Electrical connection.....M12 x 1 (4-pin)



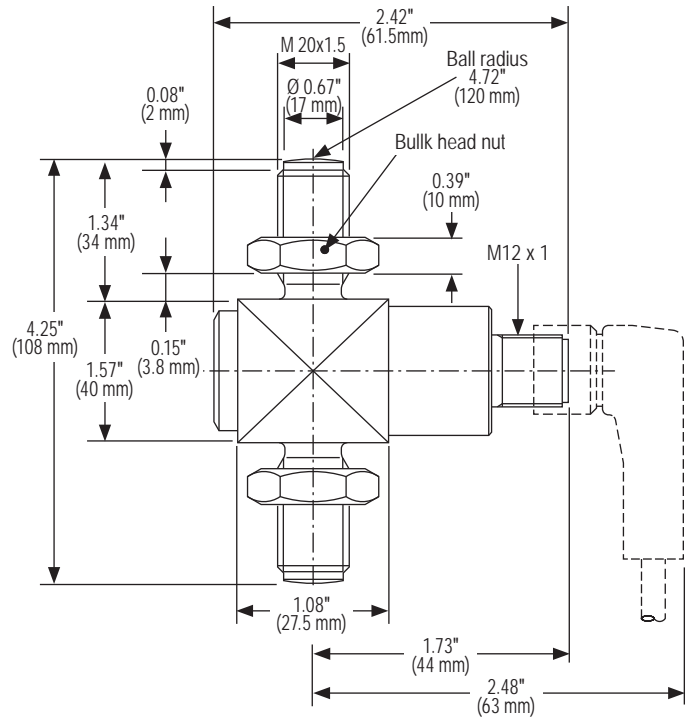
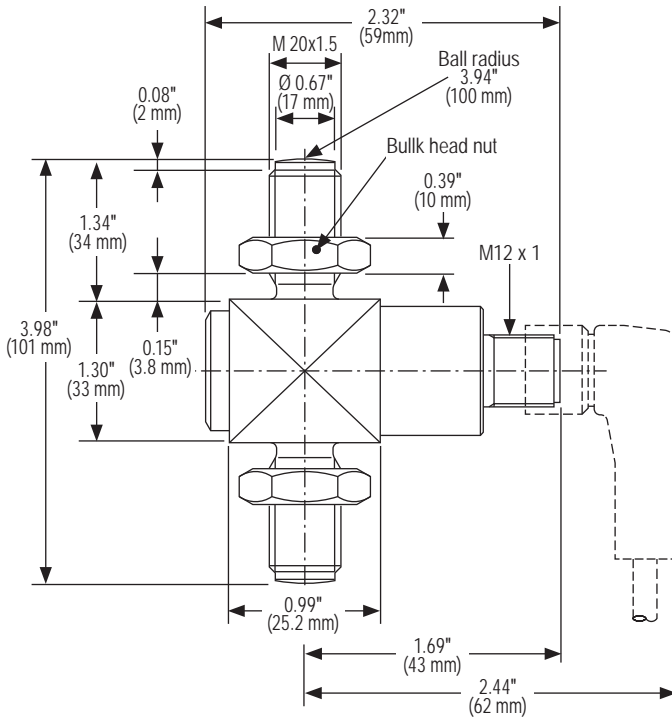
1 kN to 5 kN

10 kN

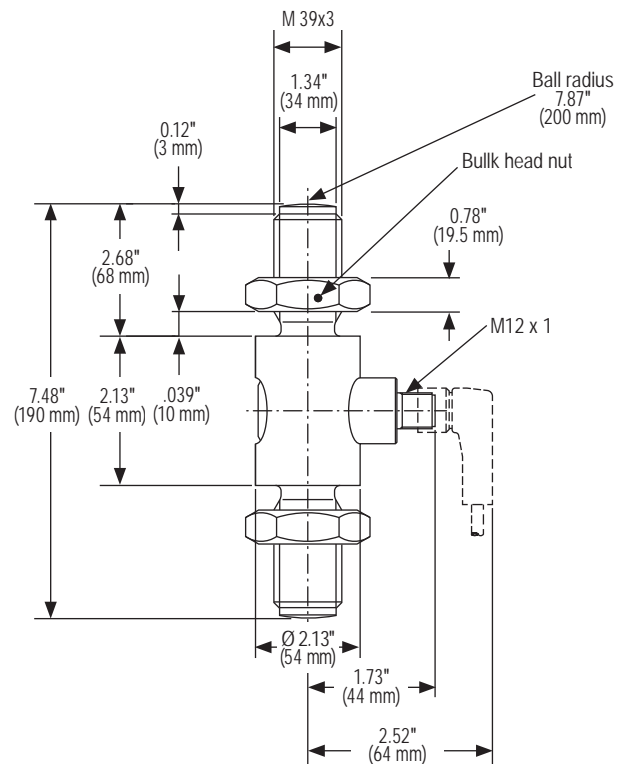
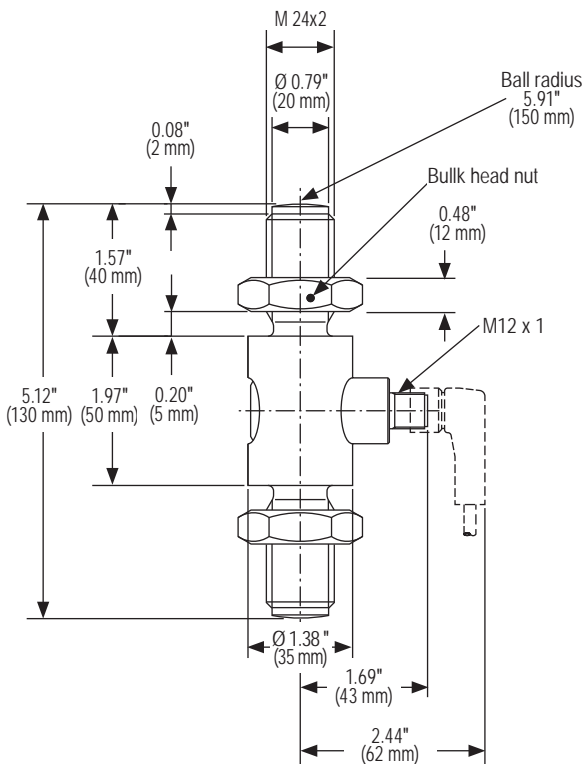


# Dimensions

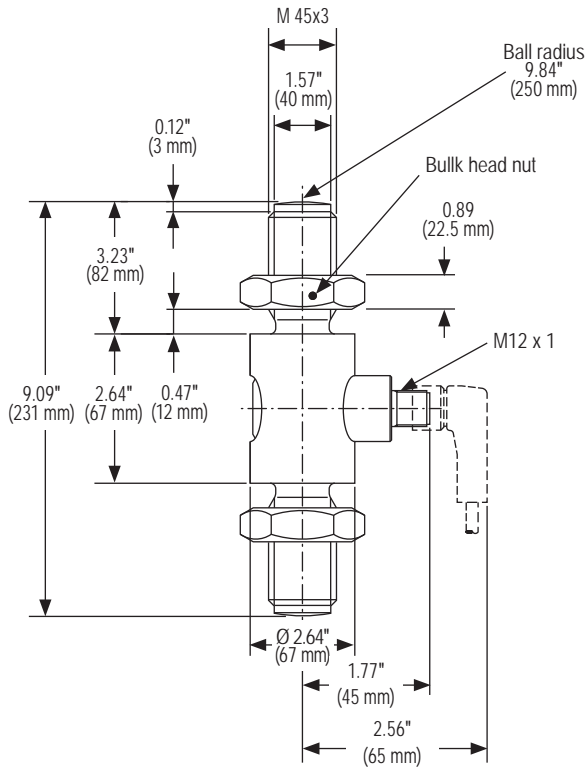
**20 kN** **30 kN**



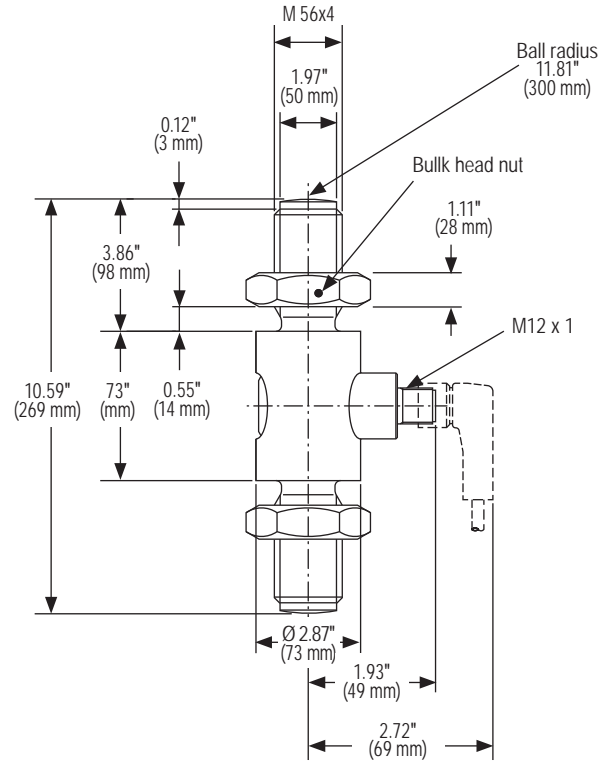
**50 kN** **100 kN**



### 200 kN



### 300 kN



### 500 kN

