

Description

The WAS range of load cells from LCM Systems have been specifically designed for applications where there is a requirement for the force application component to pass through the centre of the load cell. This style of product is often referred to by different names, including annular load cells, force washers, donut load cells, through hole load cells etc.

The main application for the WAS series is measuring the tension in bolts for safety monitoring and control, or general quality control. LCM Systems specialise in the design of custom load cells, so have also been heavily involved in designing similar product for rock anchor force measurement, fork lift truck weighing, and tie rod tension monitoring.

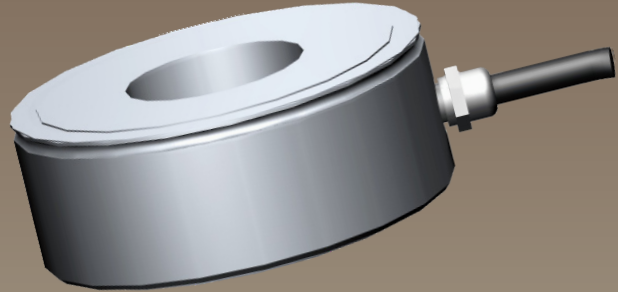
If you have a requirement for an annular or through-hole load cell that can not be satisfied with the standard WAS series, then contact our technical department with your requirement, and we will probably be able to solve your application problem for you.

The WAS series can be supplied as a stand alone product or be incorporated into an instrumentation package, to meet your specific application requirements.

Typical Applications

- Bolt tension monitoring
- Fork Lift Truck Overload Protection
- Failsafe Cable Tension monitoring
- Press Tool force measurement

WAS Force Washer/Through Hole Load Cell



Features

- Ranges 12.5kN to 540kN
- **Stainless Steel Construction**
- **Environmentally sealed to IP66**
- **Special Sizes and ranges available**
- **Higher Accuracy versions available**
- **Many other variants may be available (please contact technical support with any requirements you may have)**

TYPE: WAS

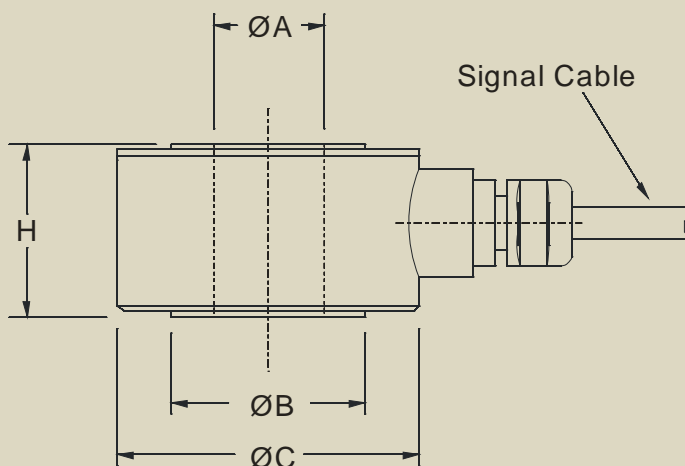
Force Washer/Through Hole Load Cell

Specification

Range (FSO)	12.5, 25, 35, 50, 100, 160, 200, 250, 300, 360, 540kN
Maximum Overload Range	150% FSO
Output Sensitivity	1.5mV/V nominal
Zero Offset	<±5% FSO
Linearity	<±1.5% FSO (between 50% and 100% FSO)
Repeatability	<±1% (if mounting position remains unchanged) <±10% (if mounting position is changed)
Excitation Voltage	10vdc recommended, 15vdc maximum
Bridge Resistance	700ohm
Insulation Resistance	>500MΩ at 100vdc
Operating Temperature Range	-20°C to +70°C
Compensated Temperature Range	+10°C to +60°C
Zero Temperature Coefficient	<±0.03% FSO/°C (<±0.01% FSO/°C optional)
Span Temperature Coefficient	<±0.03% FSO/°C (<±0.01% FSO/°C optional)
Environmental Protection Level	IP66
Connection Type	PVC 4-core cable, exiting via cable gland, 2 meters long

Mechanical Dimensions

All dimensions in millimeters



Range (kN)	ØA	ØB	ØC	H
12.5	6.1	10.4	25	12
25	8.2	14.0	25	12
35	10.2	17.7	32	12
50	12.2	21.3	38	15
100	16.3	29.0	48	20
160	20.3	36.3	50	20
200	22.3	40.4	55	25
250	24.3	43.5	60	25
300	27.3	49.6	63	25
360	30.5	54.9	76	30
540	36.5	66.1	88	30

Due to continual product development, LCM Systems Ltd. reserves the right to alter product specifications without prior notice.

Issue Date: 24/9/2008

Unit 15, Newport Business Park
Barry Way, Newport, Isle of Wight, PO30 5GY
United Kingdom
Tel: +44 (0) 1983 249264
Fax: +44 (0) 1983 249266
Email: sales@lcmsystems.com

LCM
SYSTEMS

www.lcmsystems.com

TYPE: WAS