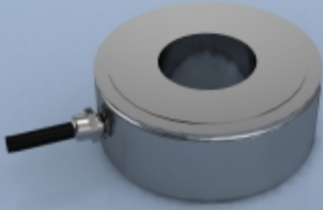


TYPE: WAS



WAS Stainless Steel Force Washer/ Through Hole Load Cell

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 and through hole load cells.

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 products for rock anchor force measurement, fork lift truck weighing and tie rod tension monitoring.

If you have a requirement for a through hole load cell that is not satisfied with the standard WAS series, then please 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.

Specification

Range (kN)	12.5, 25, 35, 50, 100, 160, 200, 250, 300, 360, 540	
Maximum overload range	150% of rated load	
Output sensitivity	1.5mV/V nominal	
Zero offset	<±5% of rated load	
Linearity	<±1.5% of rated load (between 50% and 100% of rated load)	
Repeatability	<±1% (if mounting position remains unchanged) <±10% (if mounting position is changed)	
Excitation voltage	10vdc recommended, 15vdc maximum	
Bridge resistance	700Ω	
Insulation resistance	>500MΩ @ 100vdc	
Operating temperature range	-20 to +70°C	
Compensated temperature range	-10 to +60°C	
Zero temperature coefficient	<±0.03% of rated load/°C (<±0.01% of rated load/°C optional)	
Span temperature coefficient	<±0.03% of rated load/°C (<±0.01% of rated load/°C optional)	
Environmental protection level	IP66 (IP67 optional)	
Connection type	2 metre long 4-core PVC cable, exiting via cable gland	
Wiring connections	+ve supply: Red	-ve supply: excitation: Blue
	-ve signal: Green	-ve signal: excitation: Yellow

Available Options

- Special sizes and ranges available
- Higher accuracy versions available
- Many other variants available

Features

- Ranges: 12.5 to 540kN
- Stainless steel construction (17-4PH)
- Environmentally sealed to IP66
- Special sizes and ranges

Typical Applications

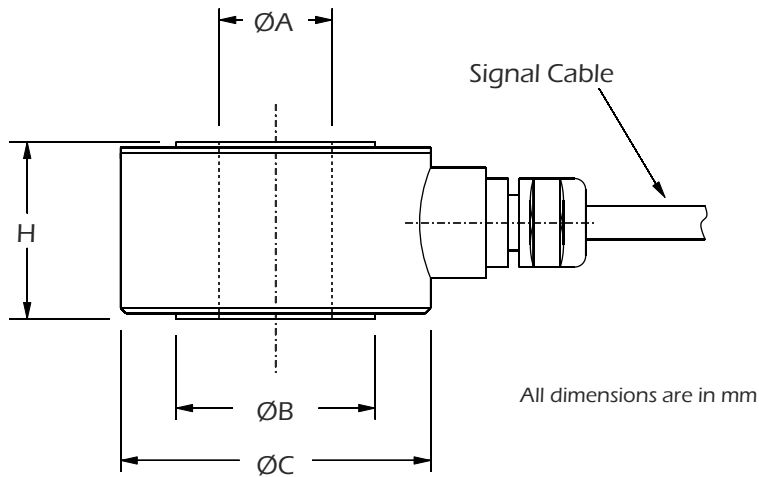
- Bolt tension monitoring
- Fork lift truck overload protection
- Failsafe cable tension monitoring
- Press tool force measurement

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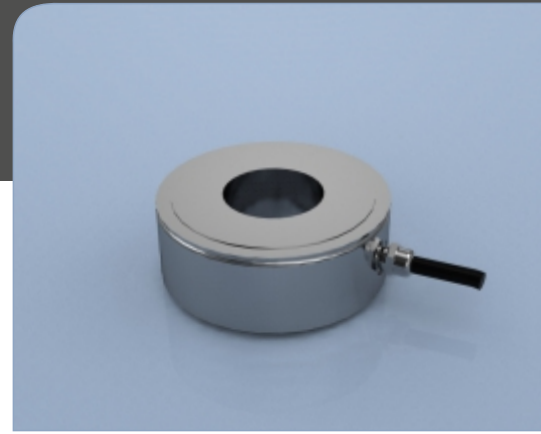
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WAS Stainless Steel Force Washer/ Through Hole Load Cell

Dimensions



Rating (kN)	ØA	ØB	ØC	H	Weight (kg)	Resolution (kN)
12.5	6.1	10.4	25	12	0.05	0.05
25	8.2	14	25	12	0.05	0.1
35	10.2	17.7	32	12	0.09	0.2
50	12.2	21.3	38	15	0.13	0.2
100	16.3	29	48	20	0.25	0.5
160	20.3	36.3	50	20	0.28	0.5
200	22.3	40.4	55	25	0.38	1
250	24.3	43.5	60	25	0.51	1
300	27.3	49.6	63	25	0.51	1
360	30.5	54.9	76	30	0.9	2
540	36.5	66.1	88	30	1.2	2



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

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APPROVED

(unapproved if printed)