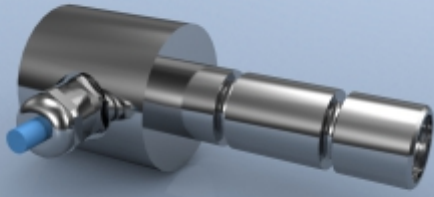


TYPE: ALP



ALP ATEX Stainless Steel Load Measuring Pin

Description

LCM Systems range of ATEX/IECEx load pins have been designed for general use and meet the requirements specified for operation in Zone 1 and 2 hazardous areas, which allows them to be used in environments that could contain gas and/or flammable dust. We can also supply internal or external amplifiers to provide a system for potentially explosive atmospheres according to the ATEX95 norm.

They are a simple and versatile type of load cell that are used in a large variety of applications such as cranes, winches, hoists, load shackles and bearing blocks. They are easily installed into machines by replacing any existing load bearing pin to provide accurate, real time monitoring of forces and weight.

Machined from high tensile stainless steel and normally supplied complete with an anti-rotation plate, our load measuring pins are built to exacting standards and proof loaded to 150% of normal rated load. Our standard ATEX load pin range covers ratings between 2.5 and 1500 tonnes, however, special sizes and capacities are available on request. Please complete our load pin questionnaire to provide us with the details we need to quote.

The ALP series can be supplied on its own or combined with our extensive range of instrumentation to provide a complete load monitoring system.

Specification

Rated load (tonne)	2.5, 3.5, 6.5, 15, 25, 50, 100, 250, 500, 750, 1000, 1500
Proof load	150% of rated load
Ultimate breaking load	>300% of rated load
Output	1.5mV/V at rated load (nominal)
Non-linearity	<±1% of rated load (typically)
Non-repeatability	<±0.1% of rated load
Excitation voltage	10vdc recommended, 15vdc maximum
Bridge resistance	350Ω
Insulation resistance	>500MΩ @ 500vdc
Operating temperature range	-20 to +55°C
Compensated temperature range	-10 to +50°C
Zero temperature coefficient	<±0.01% of rated load/°C
Span temperature coefficient	<±0.01% of rated load/°C
Environmental protection level	IP67
Connection type	10 metre 4-core screened PUR cable with heavy duty reinforced braid
Wiring connections	+ve supply - Red -ve supply - Blue +ve signal - Green -ve signal - Yellow
Certification	II 2 G EX d IIC T6 Gb IP6X T _{amb} -20°C to +55°C II 2 D Ex tb IIIC T85°C Db IP6X T _{amb} -20°C to +55°C
Certificate numbers	IECEx TRC 14.0011x, TRAC I4ATEX0023x

Available Options

- Integral signal conditioning
- Displays and specially packaged electronics available on request
- Special electrical connectors
- Anti-rotation plate
- External termination box (see AEN data sheet)



Features

- Ranges: 2.5 to 1500 tonne
- Stainless steel construction
- Environmentally sealed to IP67 (IP68 available on request)
- Anti-rotation plate supplied if required
- Can be supplied with integral connector
- Versions available with integral conditioning providing 0-10v, 0-5v, 4-20mA, RS485 outputs
- Design support software available

Typical Applications

- Crane overload protection
- Winch force monitoring
- Cable and wire dynamometers
- Hoist overload protection
- Mooring load tension measurement

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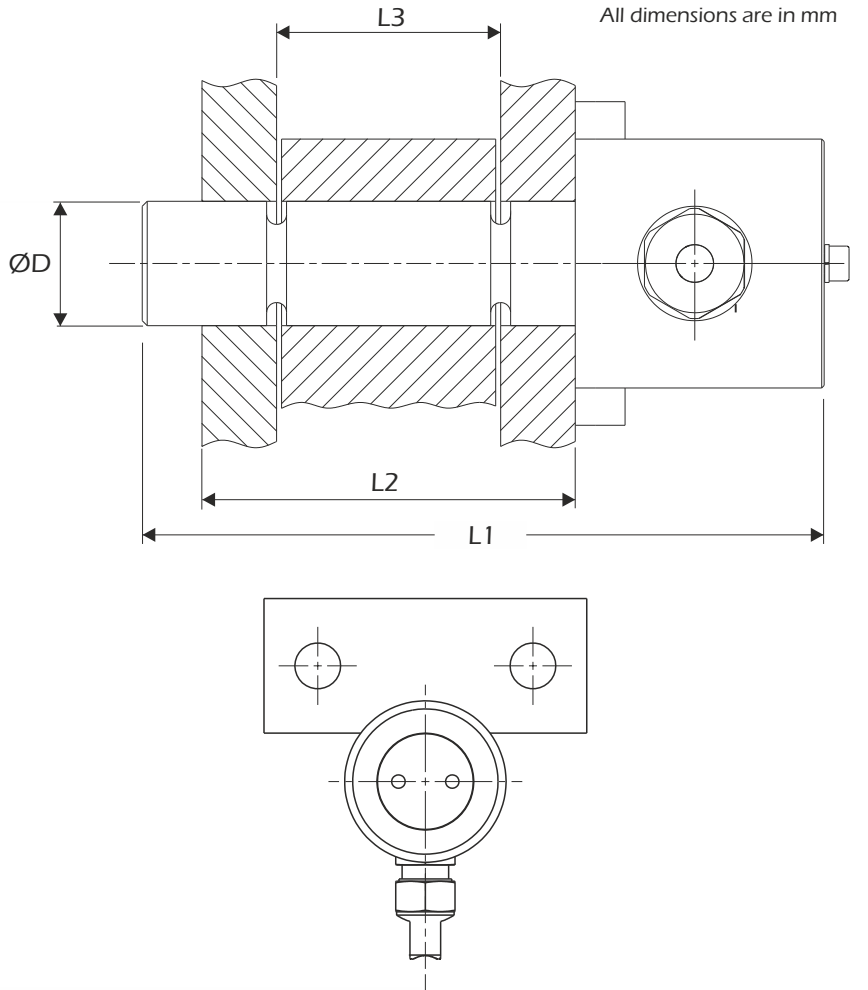
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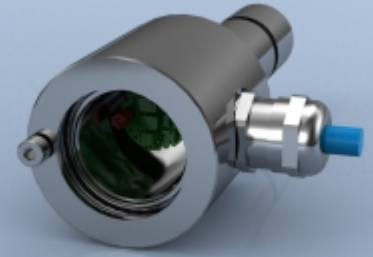
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ALP ATEX Stainless Steel Load Measuring Pin

Dimensions



Rating (tonne)	Part No.	ØD	L1	L2	L3	Weight (kg)	Resolution
2.5	ALP-25-70	25	134	70	45	1.2	0.01
3.5	ALP-30-75	30	139	75	50	1.4	0.02
6.5	ALP-40-95	40	159	95	63	2	0.02
15	ALP-50-114	50	184	114	75	3.1	0.05
25	ALP-63-152	63	229	152	89	5.6	0.1
50	ALP-75-175	75	259	178	102	8.6	0.2
100	ALP-88-190	88	264	190	110	11.8	0.5
200	ALP-125-220(200)	125	334	220	130	29.8	1
250	ALP-125-220	125	334	220	130	29.8	1
500	ALP-170-370	170	474	370	225	79.2	2
750	ALP-200-500	200	624	500	295	146	2
1000	ALP-250-612	250	712	612	360	275	5
1500	ALP-275-731	275	866	731	430	389	5



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

Issue No. 1

Issue date: 28/03/2014

APPROVED

(unapproved if printed)