

TYPE: LPC

LPC Stainless Steel Shackle/Clevis Load Measuring Pin

Description

The LCM LPC load shackle/clevis pin offers precision force measurement by replacing existing pins in shackles or clevises with a load sensing pin. They are extremely durable under even the harshest working conditions and have a long operational life.

The LPC load pin range is available in ratings from 1te to 1500te and are built to exacting standards. They are proof loaded to 150% of normal rated load and are temperature compensated. The load pins employ a full strain gauge bridge as its measurement technology.

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

We also offer a standard load pin range (see separate LMP data sheet) and a custom designed load pin range (see LPB data sheet).

Specification

| | |
|--------------------------------|--|
| Rated load (tonne) | 1 tonne to 1500 tonnes (higher available on request) |
| Proof load | 150% of rated load |
| Ultimate breaking load | >300% of rated load |
| Output | 1.5mV/V at rated load (nominal) |
| Non-linearity | <±0.2 to ±1.5% of rated load typically, depending on pin geometry |
| Non-repeatability | <±0.04% of rated load |
| Excitation voltage | 10vdc recommended, 15vdc maximum |
| Bridge resistance | 350Ω, 1000Ω or 5000Ω |
| Insulation resistance | >500MΩ @ 500vdc |
| Operating temperature range | -20 to +70°C |
| Compensated temperature range | -10 to +70°C |
| Zero temperature coefficient | <±0.01% of rated load/°C |
| Span temperature coefficient | <±0.01% of rated load/°C |
| Environmental protection level | As required (standard IP67) |
| Connection type | 5 metre 4-core screened PUR cable |
| Wiring connections | +ve supply: Red -ve supply: Blue +ve signal: Green -ve signal: Yellow |

Available Options

- Integral signal conditioning
- Special electrical connectors
- Subsea versions available
- TEDS option (when used with TR150 handheld display)
- ATEX/IECEx versions available (ATEX Certificate No. TRAC14ATEX0023X)
(IECEx Certificate No. IECEx TRC 14.0011X)

Features

- Ranges from 1te to 1500te
- Stainless steel construction
- Environmentally sealed to IP67 (IP68 available on request)
- 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

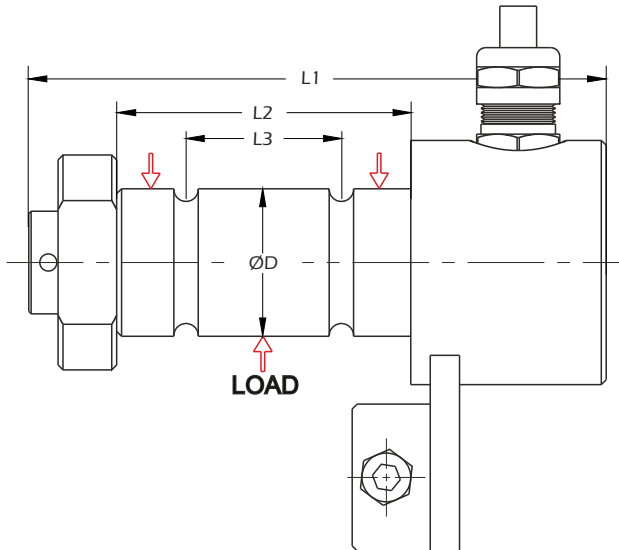
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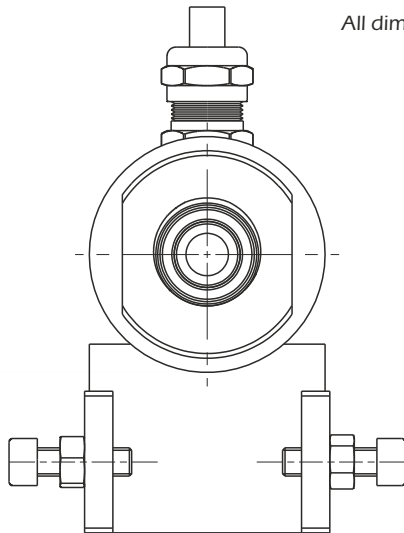


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Dimensions

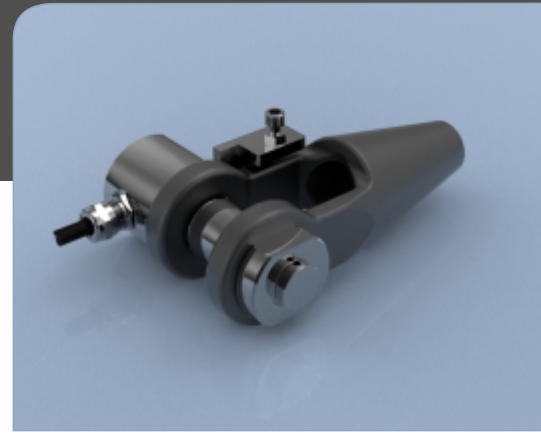


All dimensions are in mm



| Rating (tonne) | Part No. | ØD | L1 | L2 | L3 |
|----------------|----------|-------------|-------------|-------------|-------------|
| ALL | LCMXXXX | As required | As required | As required | As required |

If you would like to receive a quotation for a custom designed load pin, please visit our website at www.lcmsystems.com/lpq and fill in our Load Pin Questionnaire



www.lcmsystems.com



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)