

Load Pin

FEATURES

- Capacity 45 kN
- Rugged design with zinc-plated, hardened alloy steel construction
- Ratio metric voltage output converter embedded

APPLICATIONS

- Agriculture equipment
- Force measurement devices

DESCRIPTION

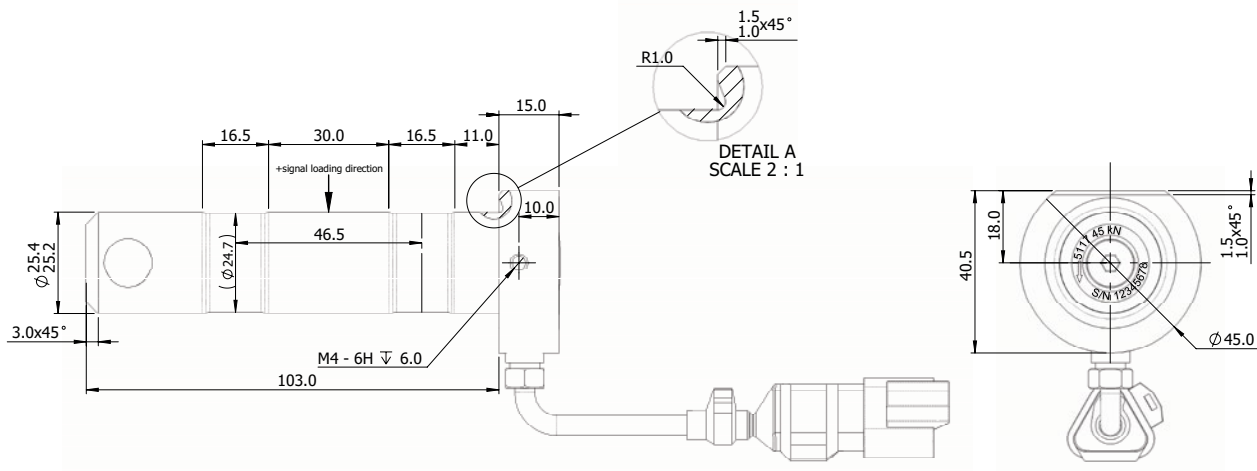
The Model 5117 load pin is designed to provide force measurement on an applied load across it. It uses VPG's own internally manufactured state-of-the-art foil-based strain gages, bonded onto a robust zinc-plated, hardened alloy steel body, making it an ideal sensor for any harsh environment application. The Model 5117 load pin is typically mounted on the top arm of a 3-position hitch. Its rugged design provides excellent long term stability and reliable operation, even under severe conditions.



This compact, 25 mm diameter load pin offers high repeatability and performance. This load pin may be used in lieu of hydraulic pressure or draft pin sensors.

The Model 5117 load pin is an ideal solution for a wide variety of applications, such as those found in tractor hitch systems, plowing vehicles, cranes or tensioning systems that employ rope, chain or brake anchors.

OUTLINE DIMENSIONS in millimeters



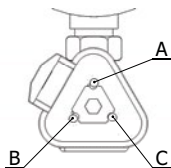
Drawing showing standard connector DT04-3P.

Load Pin

SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Rated load, positive	45	kN
Rated load, negative	45	kN
Safe overload, positive	110	kN
Safe overload, negative	110	kN
Excitation for built-in amplifying circuit, V_s	8.00 \pm 1%, (recommended)	VDC
Maximum current, all conditions	50	mA
Output at zero load (20°C)	50 (4.00 \pm 0.08)	% V_s (VDC)
Output at rated positive load (20°C)	75 (6.00 \pm 0.16)	% V_s (VDC)
Output at rated negative load (20°C)	25 (2.00 \pm 0.16)	% V_s (VDC)
Linearity, when loaded in positive direction	\pm 2 (\pm 0.16)	% V_s (VDC)
Hysteresis, when loaded in positive direction	\pm 3 (\pm 0.24)	% V_s (VDC)
Operating temperature range	-30 to +70	°C
Output at zero load, -30 to +70°C	50 (4.000 \pm 0.10)	% V_s (VDC)
Output at rated positive load, -30 to +70°C	75 (6.000 \pm 0.26)	% V_s (VDC)
Output at rated negative load, -30 to +70°C	25 (2.000 \pm 0.26)	% V_s (VDC)
EMC, effect at 20°C (per EEG-011)	0.05	\pm V
Environmental protection	IP66	—
Storage temperature range	-30 to +85	°C
Cable length	0.5	m
Cable type	4 x 24 AWG, PU jacket, PVC protective tube	—
Construction	Hardened alloy steel, zinc plated	—

All specifications are subject to change without notice.

WIRING SCHEMATIC DIAGRAM



Connector Pin Assignment		
Pin	Color	Function
A	Black	- Excitation
B	White	+ Signal
C	Red	+ Excitation

Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase.

To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at vpgsensors.com.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.