

# Load Pin

#### **FEATURES**

- Load ranges: 25–60 kN
- Rugged design with zinc-plated, hardened alloy steel construction
- Ratio metric voltage output converter embedded

#### APPLICATIONS

- Agriculture equipment
- Force measurement devices
- Off-road vehicles

#### DESCRIPTION

The Model 5113 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.

This compact, rugged 38 mm load pin is available in three capacities up to 60 kN and with a safe overload capability of up to 250 kN delivers excellent long term stability and reliable operation, even under severe load



conditions. These features make the Model 5113 to perform repeatable measurements in any given control or safety system.

The Model 5113 load pin is an ideal partner 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. This load pin may be used in lieu of hydraulic pressure or draft pin sensors.



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### Load Pin

SPECIFICATIONS						
PARAMETER	VALUE			UNIT		
Rated load	±25	±40	±60	kN		
Safe overload	±250		kN			
Excitation for built-in amplifying circuit	8.0 (recommended)		VDC			
Allowed supply voltage	6 ÷ 12		VDC			
Maximum current, all conditions	50		mA			
Output at zero load (20°C)	4.000 ±0.090			VDC		
Output at rated tensile load (20°C)	6.000 ±0.18			VDC		
Output at rated compressive load (20°C)	2.000 ±0.18			VDC		
Linearity, max. deviation	50			±mV		
Hysteresis, max. deviation	50			±mV		
Operating temperature range	-30 to +70			°C		
Output at zero load	4.000 ±0.1			VDC		
Output at rated tensile load	6.000 ±0.26			VDC		
Output at rated compressive load	2.000 ±0.19			VDC		
EMC, effect at 20°C (per EEG-011)	50			±mV		
Environmental protection	IP66			—		
Vibration protection, 0 to 2000 Hz	5		g			
Endurance test at ±30,000 lb.	1,000,000		Cycles			
Storage temperature range	-40 to +85			°C		
Cable length	1.42 ±0.02			m		
Construction	Hardened alloy steel, zinc plated –					

All specifications are subject to change without notice.

#### WIRING SCHEMATIC DIAGRAM



Connector Pin Assignment					
Pin	Color	Function			
А	Black	- Excitation			
В	White	+ Signal			
С	Red	+ Excitation			



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