

## Weighing System Surge Protector

### FEATURES

- Protects measuring equipment and load cells from damage caused by lightning, heavy electrical load switching, etc.
- Suitable for AC or DC excitation voltages
- No influence on system accuracy;  
**EC certified to EN45.501, "8.1"**
- Automatic reset function
- Housed in a fully sealed waterproof enclosure
- Can be used in EEx(i) systems without further certification



### APPLICATIONS

- Weighbridges

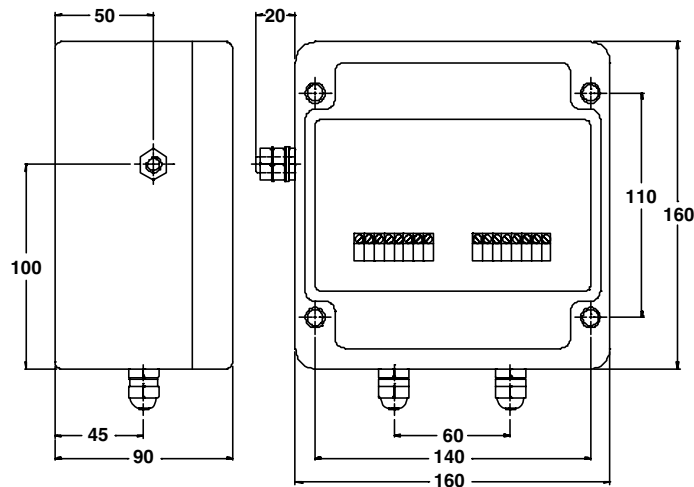
### DESCRIPTION

The LC30 Surge Protection Device protects weighing systems and load cell installations from possible malfunction and damage caused by severe over-voltages or high impulse currents on signal cabling.

Potentially destructive surges can be generated from a variety of sources, including lightning, power cable faults and heavy electrical load switching.

The advanced triple stage protection concept used in the LC30 removes the need for additional earthing systems, therefore simplifying installation and reducing cost.

### OUTLINE DIMENSIONS in millimeters



Mounting; internal 7mm diameter, through-holes.

Weighing System Surge Protector

SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Nominal excitation voltage	10–15	VAC/VDC
Maximum excitation voltage <sup>1</sup>	22	VAC
Maximum excitation voltage <sup>1</sup>	32	VDC
Series resistance	≤1	Ω
Minimum impedance <sup>2</sup>	55	Ω
Minimum signal level <sup>2</sup>	1	μV/d
Leakage current at 32 VDC	≤10	μA
Peak impulse current (8/20 μs)	10	kA
Let-through voltage (after 6 kV/3 kA IEC801.5 comb. wave test)	80	V
Compensated temperature range	-10 to +40	°C
Operating temperature range	-20 to +60	°C
Storage temperature range	-30 to +70	°C
Humidity	5–95 (Non-condensing)	%RH
Sealing (to IEC 529 / DIN 40.050)	IP65	
Connections	Input/Output/Sense + Earth	
Max. terminal conductor size	1.5	mm <sup>2</sup>
Main earth connection	M8 external stud	
Weight	1.5	kg

<sup>(1)</sup> Symmetrical to ground

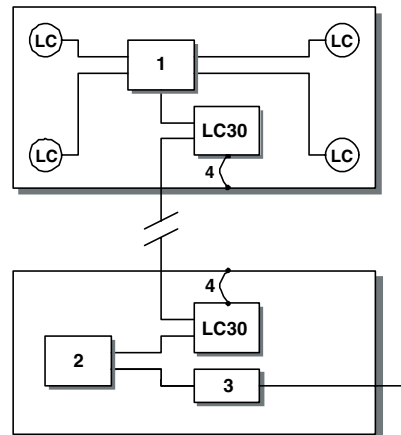
<sup>(2)</sup> For approved systems only

All specifications subject to change without notice.

The LC30 protects the system at the point of installation only. A system should have at least one LC30 installed at the load cell network and a secondary LC30 in the weighing control room.

Additional protection should also be provided for the main power supply and any other system interconnected with the weighing package, e.g., remote computer links, data-communications via telephone lines, etc.

Typical weighbridge system connections:



- 1: Junction box
- 2: Measuring device or indicator
- 3: Additional power supply protection
- 4: Local structural bond



## 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](http://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.