



# LCA-D GENERAL PURPOSE WEIGHING INDICATOR

## FEATURES

- Fast and high accurate measurement
- Industrial IP 66 protection class housing
- International OIML R76 and CE approvals
- Gain adjustment according to sensor output
- All parameters can be accessed from remote point
- Easily adjustable parameter & calibration via keys
- Digital Filter
- Digital Linearization
- Digital Temperature Compensation
- Analog and Digital Output
- Parallel connection to communication bus

## OPTIONS

- 4-20 mA analog output
- RS 232 output
- 2 Relay output
- 1/1.000.000 display resolution
- Declination measuring module
- DLMS\_VP PC program
- DLMS\_NW PC program

LCA (Loadcell Amplifier) is a smart signal converter that is designed for harsh industrial environments. LCA's most distinctive feature is its ability to expose all of its parameters using the MODBUS protocol.

LCA has two types as LCA-D (instrument with a display) and LCA-X (without a display). LCA-D model devices have display for showing the value of measurement and keypad for operator usage.

LCA-X model does not have a display nor a keypad. All measuring process can be viewed and used from a remote point. The components are formed with Surface Mount Design technology (SMD). LCA indicators are designed for fast, accurate and high sensitive weight, force and pressure measurements. With 24 bits A/D converter, LCA devices can achieve 1/100.000 display resolution (optional 1/1.000.000 resolution).

In non-linear systems, LCA devices can perform digital linearization in 5 areas with 6 points and also can perform temperature correction. Housing of LCA devices is strong enough to work within dusty, humid and corrosive environments.

LCA devices meet legal metrology requirements, though industrial purposed. Suitable for International OIML R 76 recommendations and European Council 90/384/EEC directives and possesses type approvals.

By means of MODBUS communication protocol, control and parameter setup can be performed from a remote point. So each LCA device, which is connected on the same communication line, can be controlled or monitored from a single control point such as PC or PLC.

There exist two Windows based PC softwares for LCA indicators. Dlms\_VP (Digital Loadcell Measurement System Virtual Panel), communicates with one LCA device and can setup all user changeable parameters. The other PC software is Dlms\_NW (Digital Loadcell Measurement System NetWork), communicates with more than one device and can setup all user changeable parameters on each device. This PC software shares own data with other computers on the Network. Consequently, each device on the system, even connected on a different computer, can be displayed on every computer.

## SPECIFICATIONS

<b>Accuracy :</b>	Class 0.01 %	<b>A/D Converter:</b>	24 bits
<b>Input sensitivity:</b>	0.5 $\mu$ V/digit	<b>Linearization Points:</b>	6
<b>Excitation Voltage:</b>	10 V DC	<b>Temperature Range:</b>	-20/+70 °C
<b>Minimum Load:</b>	Resistor 43 (8 Loadcells)	<b>Operating Voltage:</b>	12-24 V DC
<b>Measuring Range:</b>	1-160 mV/V	<b>Degree of Protection:</b>	IP 66
<b>Digital Filters:</b>	0.1-10 Hz	<b>Communication:</b>	Interface RS 485