



The DLCA NET is a new load cell amplifier with embedded dual port communications including EtherNet/IP, PROFINET, Modbus TCP and EtherCAT. Also included are Rockwell features like EDS File based AOP (add on profile), DLR (Device Level Ring) and PTP data time stamping.

The DLCA NET transmits calibrated tension values over the communications to a PLC, HMI or drive to display tension or be used in a tension control loop when not using a MAGPOWR tension control.

The DLCA NET is available in 3 mounting options as shown above and is available as a single channel version to monitor tension in a single zone with separate left and right load cell inputs or as a dual channel amplifier for 2 separate tension zones.



DLCA NET



DLCA NET-SLIM



DLCA NET-IP65

## GENERAL SPECIFICATIONS

**Product Name:**  
DLCA NET

**Supply Power:**  
24 VDC, +/- 10%, 250 mA maximum

### Load Cell Inputs:

**Single Channel Version:**  
1 or 2 load cells from a single tension zone, connected to a left and right input

### Two Channel Version:

1 or 2 load cells from two separate tension zones connected to a channel 1 and 2 input

### Load Cell Excitation:

5 or 7.5 VDC, 200 mADC maximum

### Load Cell Sensitivity:

1.5 mV/V to 100 mV/V, 500 mV max.

**Tension Sampling Rate:**  
2 milliseconds (500 Hz)

**Tension A to D Resolution:**  
24 bit (14 bit average)

**Adjustable Filtering:**  
0.1 to 100 Hz; or can be turned off for raw data output of 500 Hz

**Ethernet:**  
2 ports (10/100 Mbps)

### Communication Protocols:

EtherNet/IP, PROFINET, Modbus TCP and an embedded web server page or EtherCAT

### Alarms:

Two programmable alarms

### Ready to Run Alarm:

Indicates no errors, ready to operate

### Temperature Range:

**Operating:**  
0 to 60 degrees C  
(32 to 140 degrees F)

### Storage:

-20 to 80 degrees C  
(-4 to 176 degrees F)

### Gain:

32:1

**Tare Adjustment:**  
90% of load cell rating

### Software Tools:

PC software for tension data recording and configuration backup

### Certifications

CE (EN61326-1)  
TUV Mark (UL61010-1)  
CAN/CSA-C22.2# 61010-1  
CB to IEC 61010-1  
RoHS

## KEY FEATURES

- Available in DLCA NET, DLCA NET-Slim and DLCA NET-IP65 models
- Single and dual channel versions
- Left and right load cell inputs allow tension monitoring on each side of the web (single channel version)
- Two programmable alarms
- Dual Ethernet ports
- Accessible from any PLC that communicates over EtherNet/IP, PROFINET, Modbus TCP and an embedded web server page or EtherCAT
- Rockwell AOP (add on profile)
- DLR (Device Level Ring)
- PTPv2 and PTPv1 time stamping

### DLCA NET

- Relay output that signals "ready to run"
- Six-segment display
- Analog outputs for left, right and total tensions

### DLCA NET-SLIM and DLCA NET-IP65

- All tensions, ready to run signal and alarm outputs over communications



DLCA NET

Model	Part Number	Description
DLCA NET1	29DLCANET1	single channel with all communications (except EtherCAT)
DLCA NET2	29DLCANET2	two channels with all communications (except EtherCAT)
DLCA NET1 ECAT	29DLCANET1ECAT	single channel with EtherCAT only
DLCA NET2 ECAT	29DLCANET2ECAT	two channels with EtherCAT only

## ADDITIONAL SPECIFICATIONS

**Product Name:**  
DLCA NET

**Display:**  
6 Digit LED

## Enclosure IP20

**Mounting:**  
DIN 35 Rail

**Digital Input (re-zero):**  
24 VDC maximum  
5 VDC or 24 VDC select

## Outputs:

## Analog Outputs:

0 to 10 VDC, 2 kohm minimum load  
4 to 20 mA DC, 450 ohm maximum load

## Reference Meter Output

0 to 1 mADC, 1 kohm maximum load  
or 0 to 10 VDC open circuit

## Alarm Output:

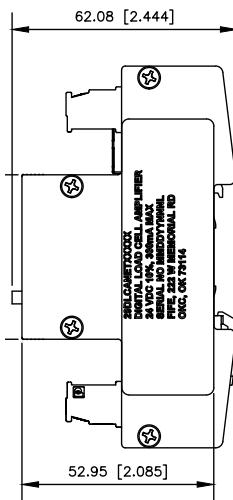
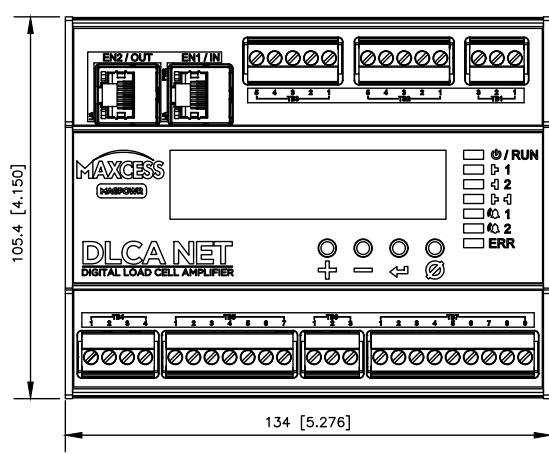
30 VDC maximum, 0.4 ADC maximum

## Notes:

LED's on unit for power/ready to run, left tension display, right tension display, total tension display, alarm 1, alarm 2 and error

Setup and calibration by display and four push buttons on unit, web server page and computer or connected interface device over communications

## DIMENSIONS



**Dimensions shown in mm (inches)**



MODEL	PART NUMBER	DESCRIPTION
DLCA NET-SLIM1	29DLCANETSIM1	single channel with all communications (except EtherCAT)
DLCA NET-SLIM2	29DLCANETSIM2	two channels with all communications (except EtherCAT)
DLCA NET-SLIM1 ECAT	29DLCANETSIM1ECAT	single channel with EtherCAT only
DLCA NET-SLIM2 ECAT	29DLCANETSIM2ECAT	two channels with EtherCAT only

## DLCA NET-SLIM

## ADDITIONAL SPECIFICATIONS

**Product Name:**  
DLCA NET-SLIM

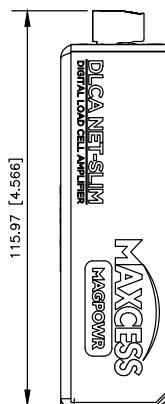
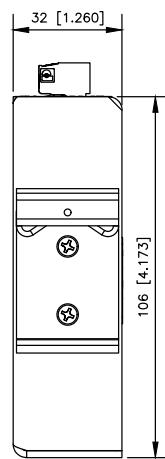
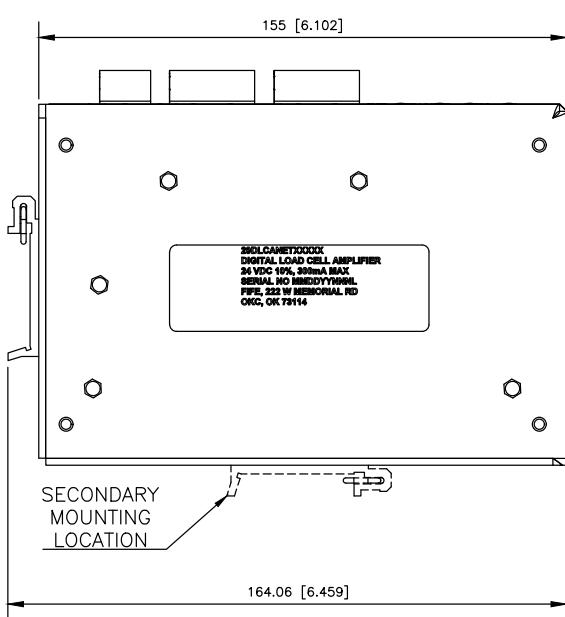
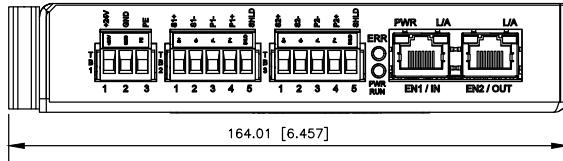
**Enclosure**  
IP20

**Mounting:**  
DIN 35 Rail

**Outputs:**  
All outputs and alarms are over communications except for power/ ready to run and error indicators

**Notes:**  
Setup and calibration by web server page and computer or connected interface device over communications

## DIMENSIONS



Dimensions shown in mm (inches)



DLCA NET-IP65

MODEL	PART NUMBER	DESCRIPTION
DLCA NET-IP651	29DLCANETIP651	single channel with all communications (except EtherCAT)
DLCA NET-IP652	29DLCANETIP6522	two channels with all communications (except EtherCAT)
DLCA NET-IP651 ECAT	29DLCANETIP651ECAT	single channel with EtherCAT only
DLCA NET-IP652 ECAT	29DLCANETIP652ECAT	two channels with EtherCAT only
IP65 Power Cable	29IP65PWRCBLXXM	Power cable for all DLCA NET-IP65 versions. XX= length in meters
Load Cell Cable	29IP65LCCBLXXM	Load Cell cable for all DLCA NET-IP65 versions. XX= length in meters

## ADDITIONAL SPECIFICATIONS

**Product Name:**  
DLCA NET-IP65

**Enclosure**  
IP65

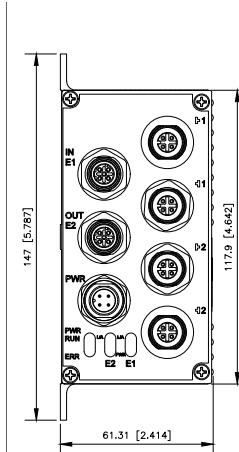
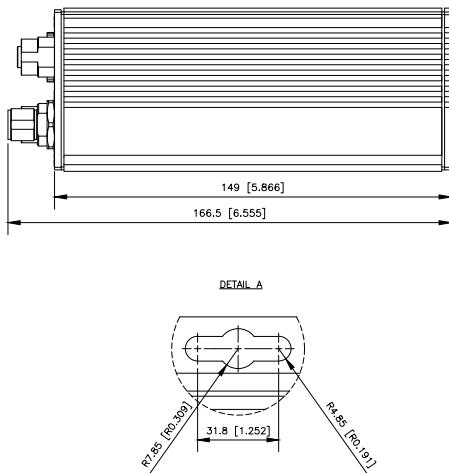
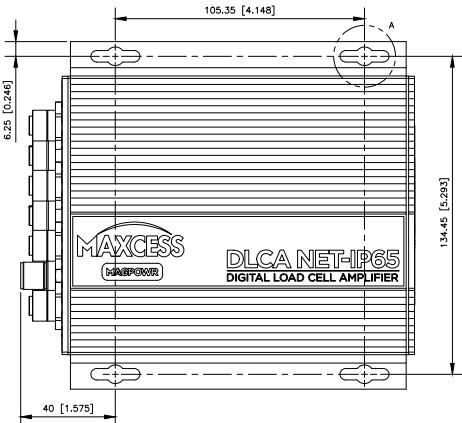
**Mounting:**  
Wall Mount Slots

**Outputs:**  
All outputs and alarms are over communications except for power/ ready to run and error indicators

**Notes:**  
Setup and calibration by web server page and computer or connected interface device over communications

Power and load cell connections through IP65 cables (part numbers above)

## DIMENSIONS



Dimensions shown in mm (inches)

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