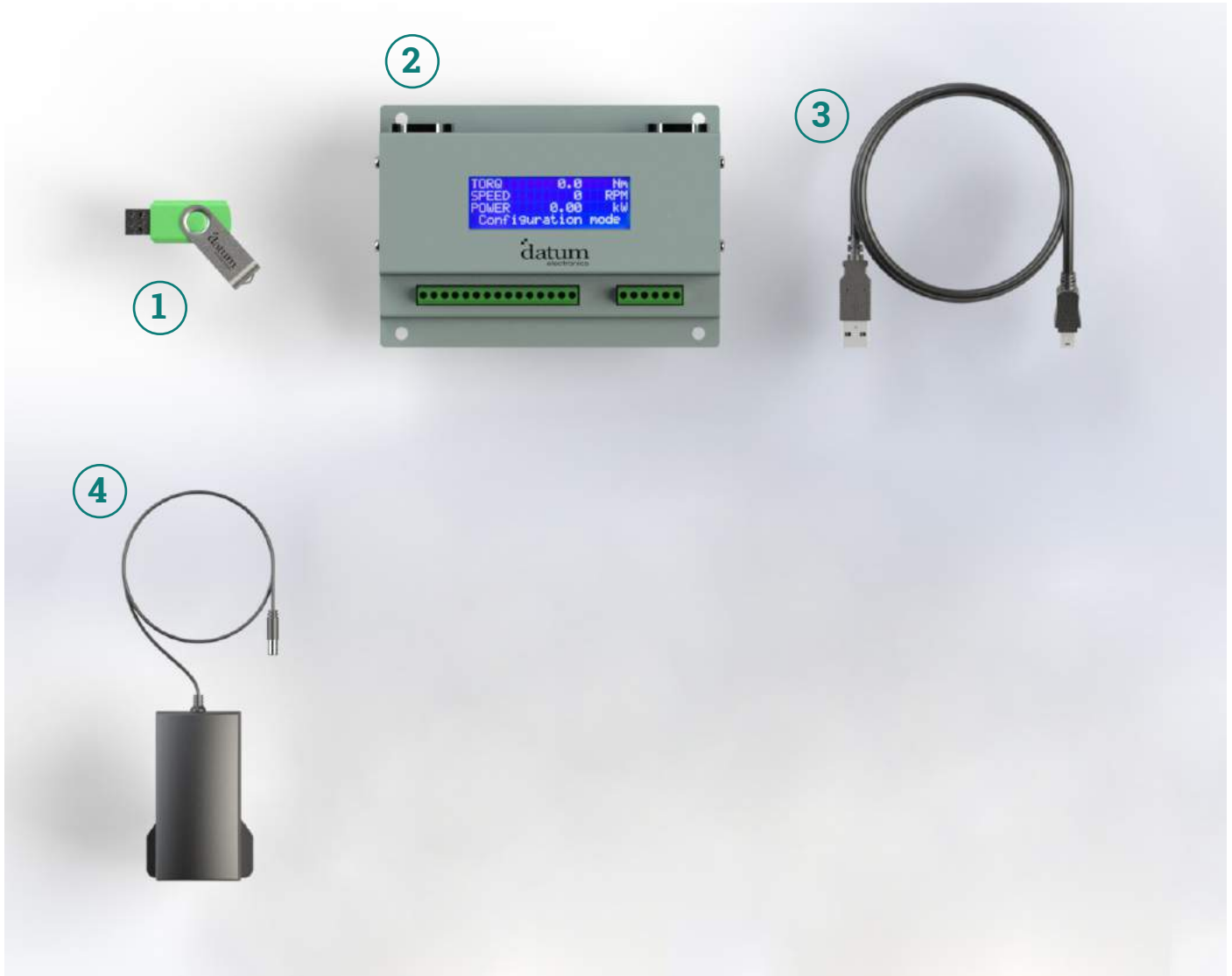




## Items Supplied

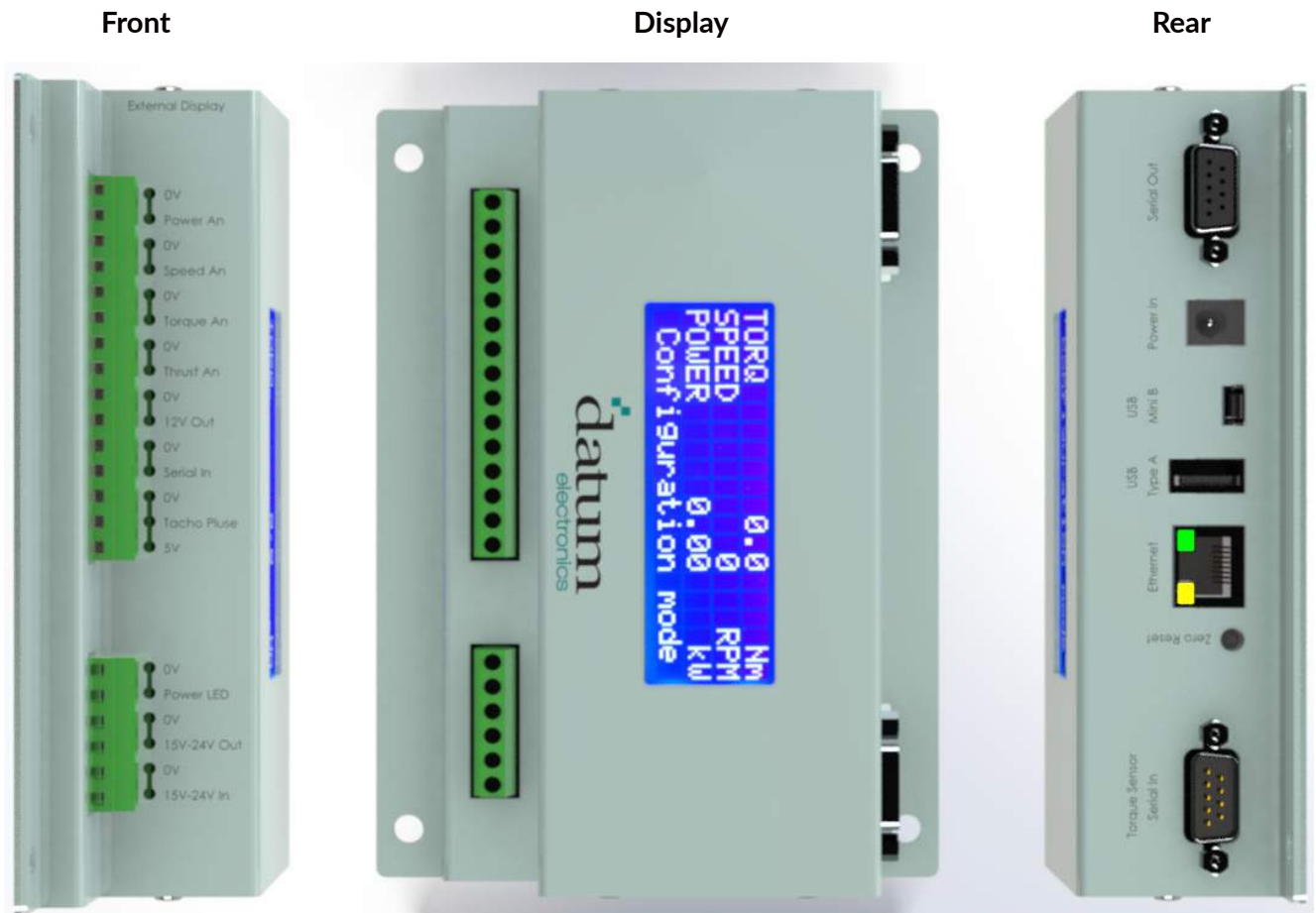


- 1 USB Memory Stick with Software and User Guides
- 2 Datum Universal Interface (DUI)
- 3 USB A to USB Mini B Lead
- 4 DUI Power Supply

- + Certificates of Calibration
- + Optional Extra
- + Rechargeable Battery

# Familiarisation with Equipment

The Datum Universal Interface has a large variety of user configurable options. For a full description of all the user configurable options, how to configure the DUI, and logging functions please see the DUIcfg software user guide.



## Front Terminal Blocks

- The Analogue outputs (Power An, Speed An, Torque An, Thrust An) - user configurable with the DUIcfg software. The 0v is common to all outputs.
- 12V Out - copy of the 12V supplied to the torque transducer via the Torque Sensor Serial In
- Serial In - copy of the Torque Sensor Serial In located on the rear of the DUI
- Tacho Pulse - input allows connection to a tacho independent of the transducer, use of this input requires configuration by Datum Electronics

- Power LED – a voltage output for use as an external power status indicator.
- 15-24V Out - the input voltage used as an output. It can be used to power an ECR display and is not intended for high current applications.
- 15-24V In - an alternative power input usually used with the optional rechargeable battery. It is not recommended to have both this input and the Power In on the rear connected simultaneously.

## Display

During boot-up up the DUI will briefly show the three screens below.

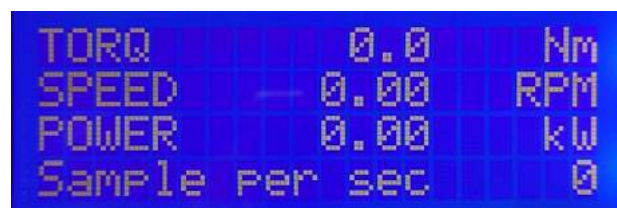
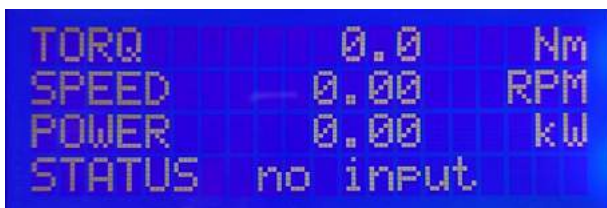


The second screen shows the firmware version (v2.4.0 in the example shown), Serial input setting (shown set to connect to a 425 series transducer) and, Serial output setting.

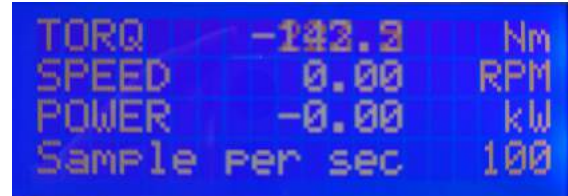
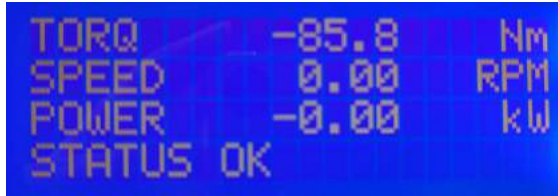
The third screen shows the ethernet settings.

After boot-up the DUI will display Torque, Speed in RPM and, Power on the first three lines. The fourth line shows the transducer connection status. The number of decimal places displayed (for torque, speed and, power) and, units displayed (for torque and power) are user configurable.

With no connection to a transducer the display will alternate between STATUS no input and Sample per sec 0, as below:



When correctly connected to a transducer the display will alternate between STATUS OK and Sample per sec 100 (for a 425 series transducer), as below:



If the display is showing no input with a transducer connected please refer to transducer user guide FAQ.

## Rear

- Torque Sensor Serial In – a 9 pin male D connector to connect to the Datum Electronics Torque transducer.
- Zero Reset – when first connected all transducers have a small offset with 0 torque applied. Hold this button in for 3 seconds, observing the countdown on the display, to remove the offset.
- Ethernet socket – user configurable output for remote PC logging.
- USB Type A socket – User configurable logging to a USB memory stick.
- USB Mini B socket -connects to the DULcfg software for PC logging and user configuration of other outputs.
- Power In – power socket for used with the power supply provided only. It is not recommended to have both this input and the 15 – 24V In on the front connected simultaneously.
- Serial Out – user configurable 9 pin female serial output. This output can be configured to RS232, RS485 or, for firmware version 2.5.1 and above, MODBUS.

## Typical Set Up

In the typical set-up shown below the DUI is connected to the PC for logging the results or configuring the DUI.



# Certificate of Calibration

1. Customer and Job details
2. Details of DUI calibrated, including firmware version and serial number
3. Equipment used to calibrate the DUI
4. Details of the transducer the DUI has been configured to work with
5. Analogue output settings
6. Calibration settings this describes the relationship between the strain gauge output and the torque, this should match the calibration certificate of the transducer in section 4
7. Operative and date of calibration.

# Certificate of Calibration



## CERTIFICATE OF CALIBRATION

<b>1</b>	Name:	COMPANY NAME										
	Purchase Order No:	12345										
	Date Order Received:	11/06/2017										
	Our Job No:	P10951										
<b>2</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Part Number(s)</th> <th style="width: 40%;">Description</th> <th style="width: 15%;">Quantity</th> <th style="width: 20%;">Serial No.</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">400155 V2.5.0</td> <td>Datum Universal Interface (DUI)</td> <td style="text-align: center;">1 Off</td> <td style="text-align: center;">123456</td> </tr> </tbody> </table>				Part Number(s)	Description	Quantity	Serial No.	400155 V2.5.0	Datum Universal Interface (DUI)	1 Off	123456
Part Number(s)	Description	Quantity	Serial No.									
400155 V2.5.0	Datum Universal Interface (DUI)	1 Off	123456									
<b>3</b>	<b>Test equipment used:</b> Agilent U1241B Digital Multi-meter Serial No. MY53380019 Cert No. 1507666 Datum Input Simulator Software V0.2											
<b>4</b>	<b>The Datum Universal Interface has been pre-configured for use with an M425 S2b 0-500 Nm Torque Transducer Serial No. 178901. The unit has been configured as follows:</b>											
<b>5</b>	<b>Analogue Outputs</b> Torque (Nm) = +/- 10V for 0-500 Nm Speed (rpm) = 0-10V for 0-8000 RPM Power (W) = +/- 10V for 0-418.88 kW											
<b>6</b>	<b>Calibration Settings</b> 2000Nm (CW) = 1.7865 mV/V											
<p>I certify that all parts detailed herein conform, in all respects, to Datum Electronics Limited Inspection, Manufacturing &amp; Test Instructions &amp; Procedures.            Datum Electronics is an ISO9001:2015 Accredited Company</p>												
<b>7</b>	<b>Signed:</b> ..... (TECname)		<b>Position:</b> Technician									
	<b>For and on behalf of Datum Electronics Limited</b>		<b>Date:</b> 05/10/2018									

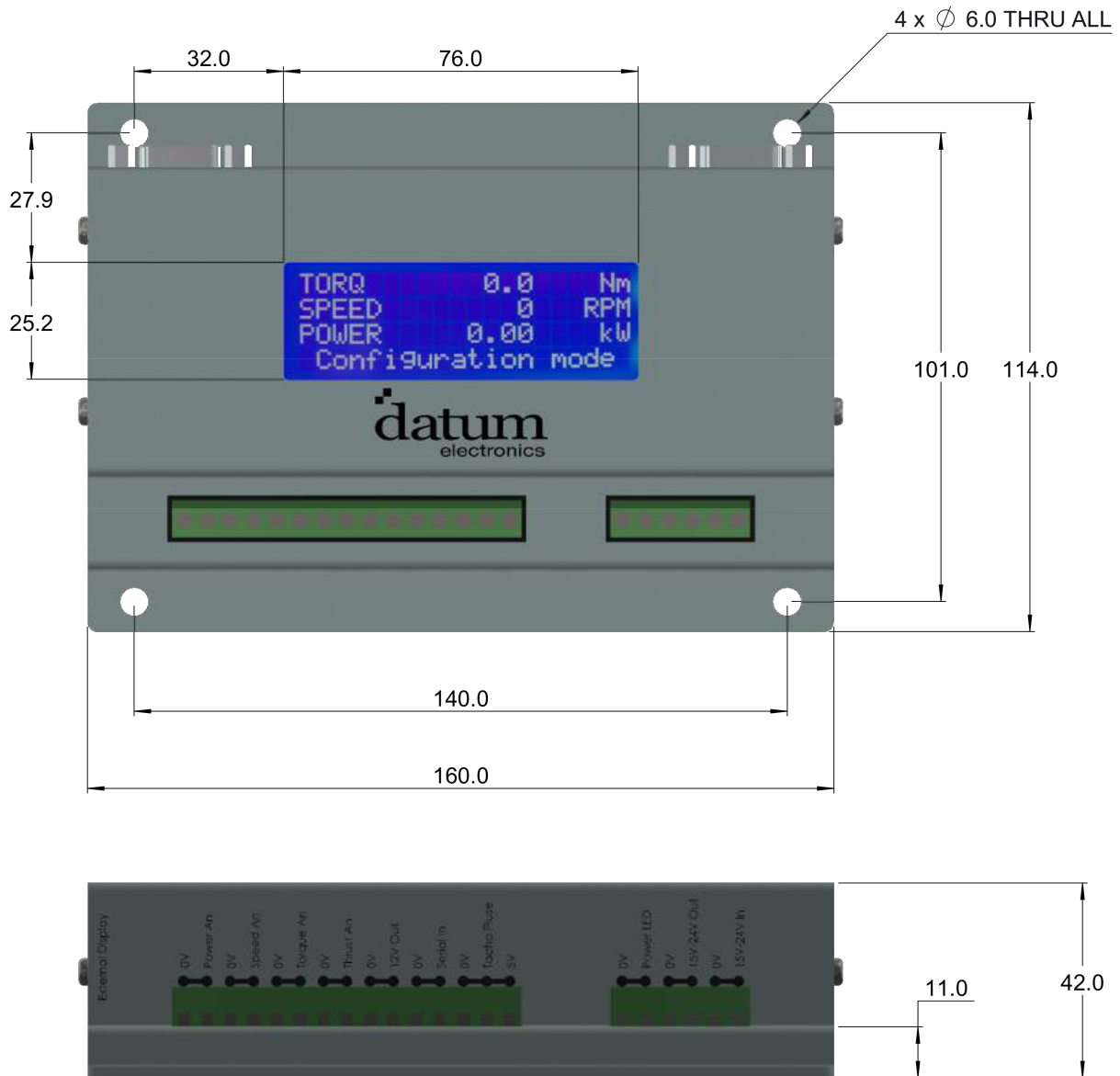
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# Mounting Overview

The DUI can be mounted using the four 6mm holes. Please see below for dimensions.



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Issue: 1

Date: 22/10/2018



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