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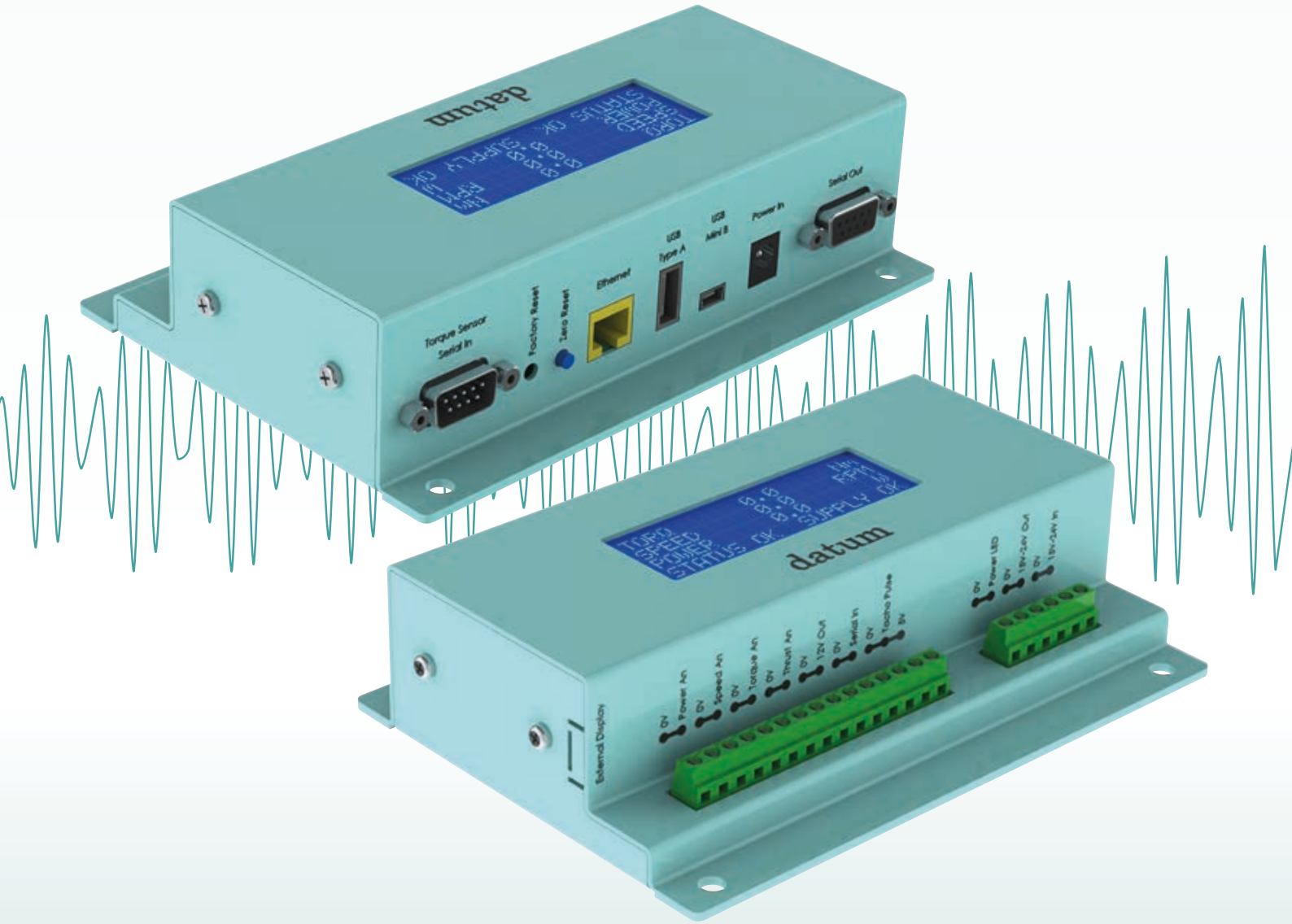
UNIVERSAL TRANSDUCER INTERFACE PRODUCT OVERVIEW



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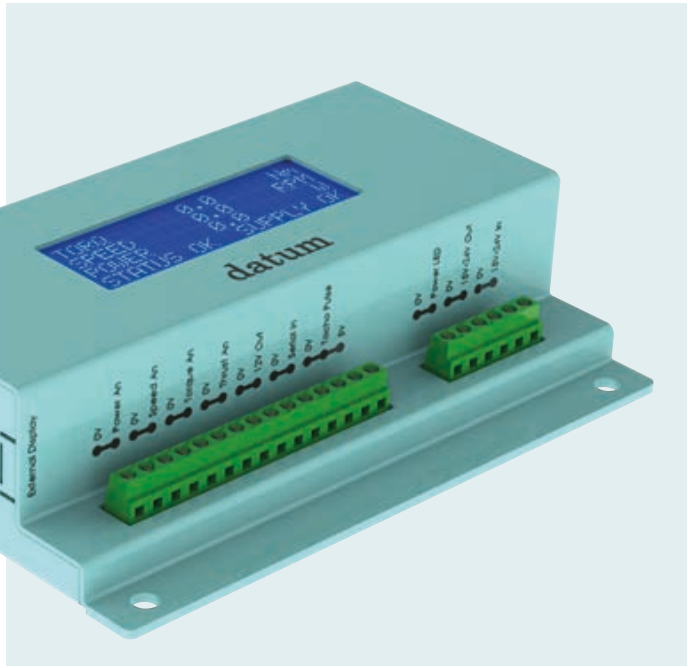
THE DATUM UNIVERSAL TRANSDUCER INTERFACE

The Datum Universal Transducer Interface has been designed to accept signal from all of the Datum Electronics range of Rotary and Static Torque Sensors.

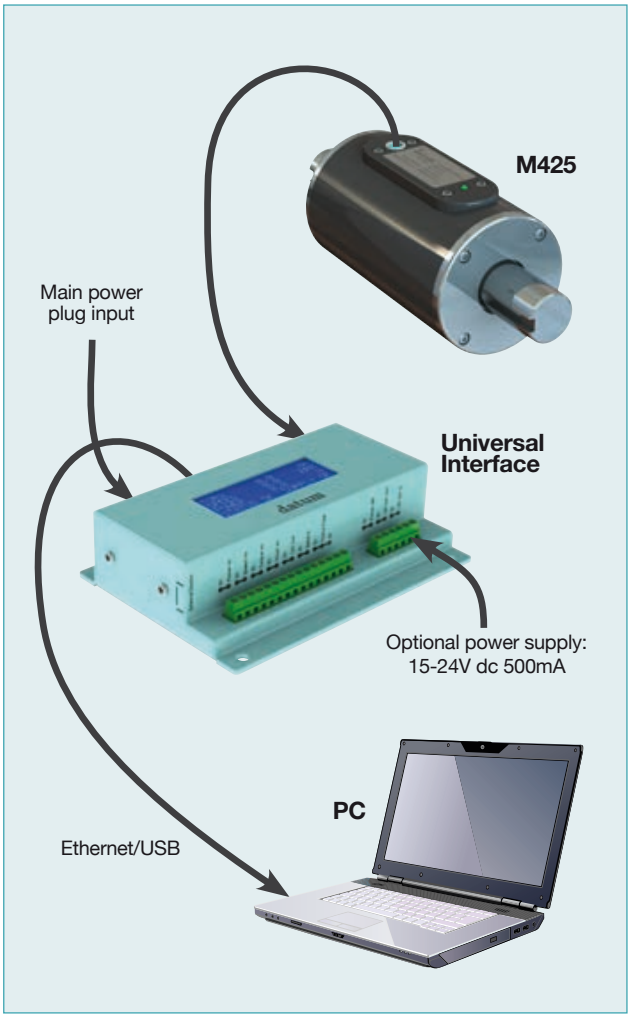
The sensor ranges suported include:

- M425 Rotary Torque Transducers
- RS/FF425 Rotary Torque Transducers
- SPS Marine and Heavy Industrial Torsionmeter Systems
- NTM Naval Marine Torsionmeter Systems
- RS/FF410 Static Torque Transducers

The interface will accept the serial data from any of the above and most of the earlier Datum products. It will provide a display of the data and a wide range of analogue and serial data outputs.



TYPICAL CONFIGURATION



OUTPUTS PROVIDED

Output power - for the M425, RS/FF425, RS/FF410 and the SPS Marine System

Ethernet - data output and main configuration interface

Mini USB Type B - data output and configuration interface

USB Type A - logging to memory stick

RS485/RS232 Serial - data output

4 channels of analogue - user configurable to 4-20mA 4-12mA, +/-5Vdc, +/-10Vdc, 0-5Vdc and 0-10Vdc

The data used for these outputs can be user selected from the Torque, RPM and Power data plus an additional strain input (often used for shaft bending or thrust).

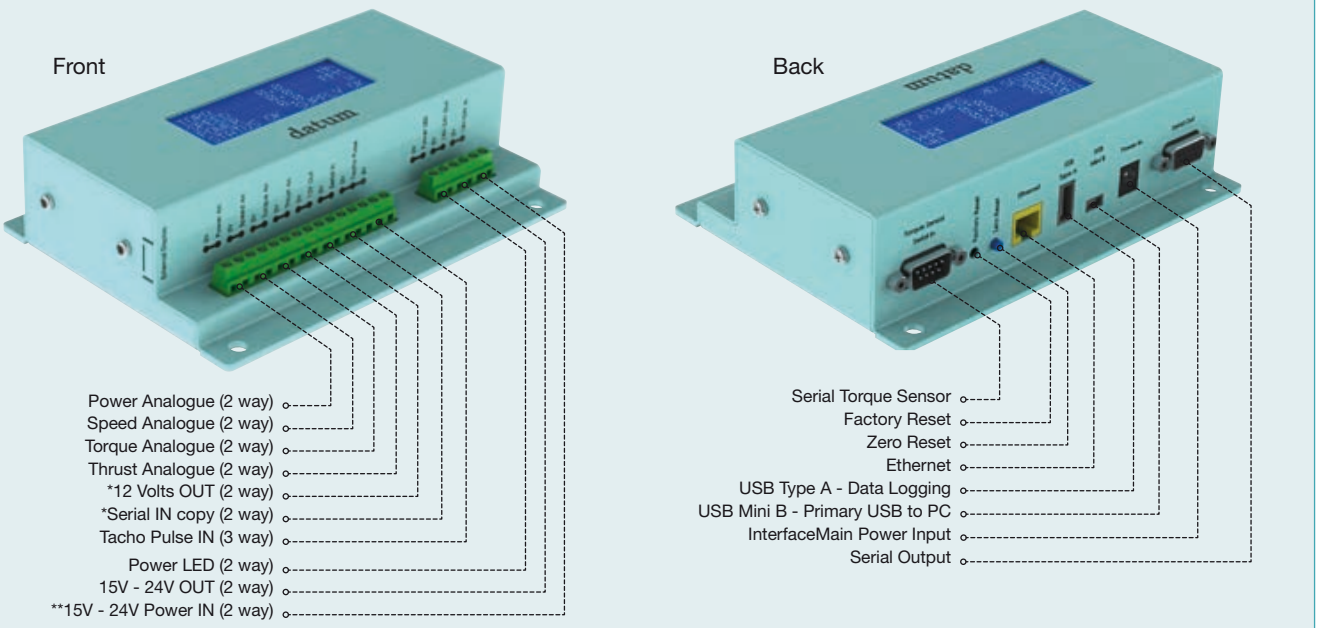
Additional Input

The Datum Universal Transducer Interface will also accept an input from an external shaft speed tacho.

Power Supply 15-24Vdc.

Document: 1013 Issue: 2 Date: 8/4/2014

UNIVERSAL INTERFACE CONNECTIONS GUIDE



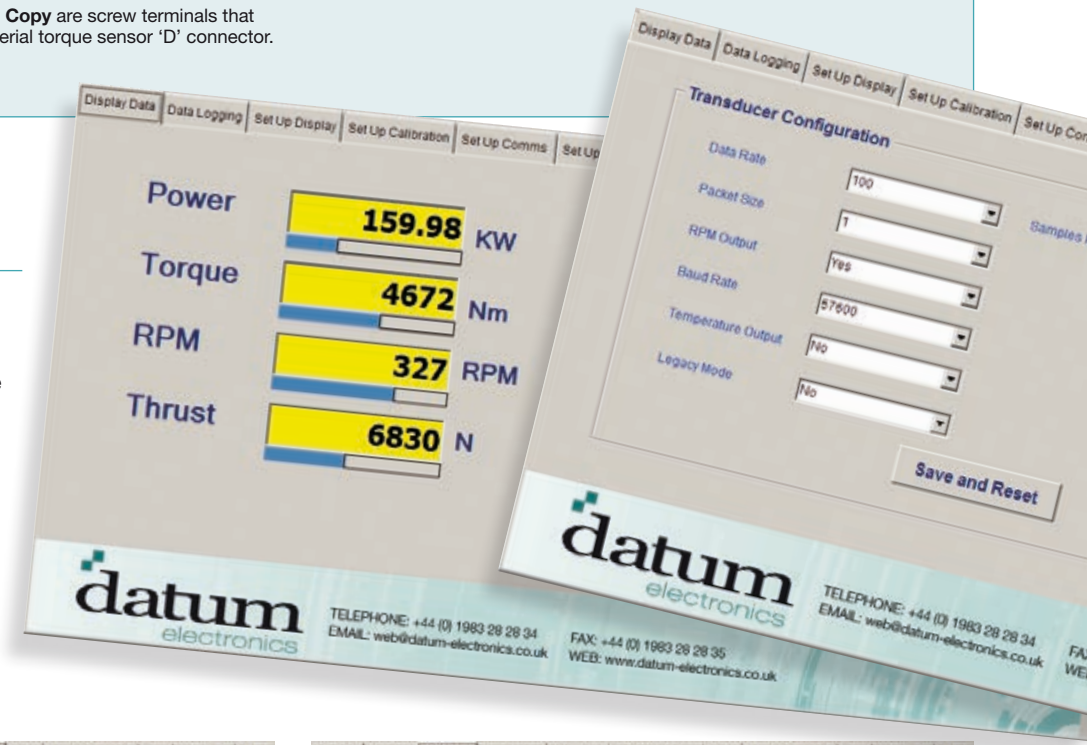
*The **12V Output** and the **Serial IN Copy** are screw terminals that duplicate the connections for the serial torque sensor 'D' connector.

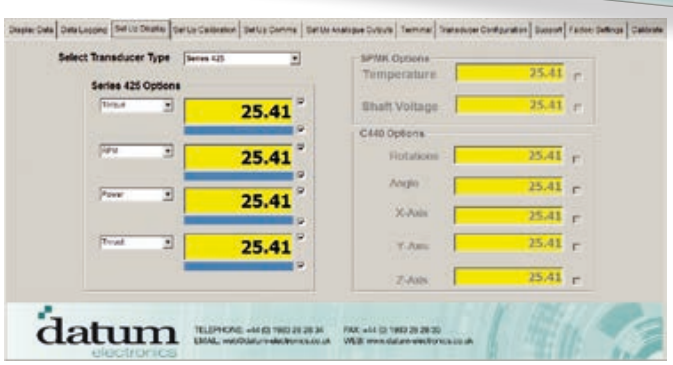
**Alternative power input terminal.

GRAPHIC USER INTERFACE

Datum data logging software

The Datum data logging and configuration software provides a wide range of control functions of the M425 including set-up and configuration options plus data logging.





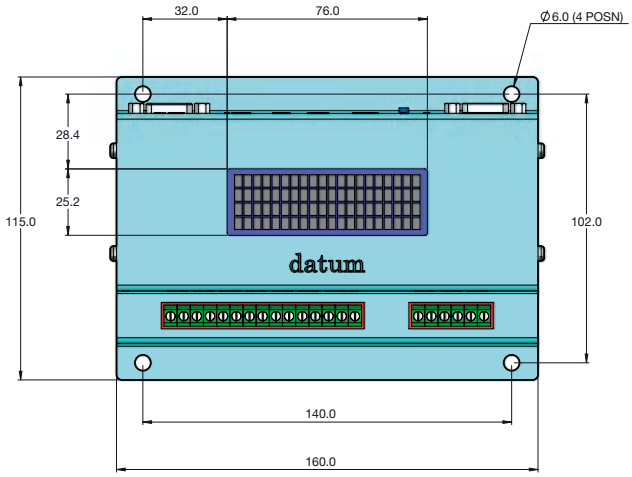
SPECIFICATIONS

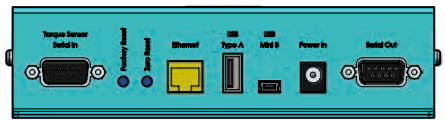
SIGNAL INTERFACE OUTPUTS	
Digital:	
RS485	Serial data
RS232	Serial data
Ethernet	Data and configuration
MODBUS UDP	Serial data
USB Type Mini B	Serial data
USB Type A	Data logging

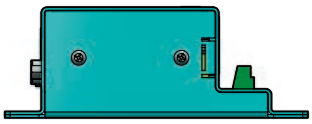
Analogues:	
All four of the M425 Transducer's analogue output channels can be configured for any of the following settings by the user: 4-20mA configured 4-20mA (4-12-20mA): +/-10Vdc, +/-5Vdc, 0-10Vdc or 0-5Vdc	
A typical configuration arrangement would be as follows:	
Channel 1 - Torque	from 0-500Nm as 4-20mA
Channel 2 - Speed RPM	from 0-100-rpm as 0-5Vdc
Channel 3 - Power	from 0-5000W as 4-20mA
Channel 4 - Spare	

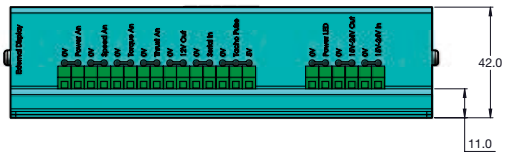
Display:			
Torque	Speed RPM	Power	Status

ENVIRONMENT	
Normal Specification Range	10 to 60°C
Operating Range	-10 to +70°C
Storage Range	-35 to +75°C
Environmental Protection	IP54 (see RS425 for IP67/68)
Electromagnetic Compatibility	EN61326-1:2006 (IEC61000-4), IEC60945)









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