



# CANdaq-5

## Stand-alone Pressure Scanner Interface

- **Intelligent pressure scanner interface with engineering unit output.**
- **Compatible with all TE/PSI Pressure Scanners.**
- **Up to 0.05% FS accuracy output.**
- **Complete with IEEE 1588 PTPV2 time stamping**
- **Up to 3Khz per channel measurement frequency.**
- **Output over Ethernet (100Mbit TCP / UDP / IENA) and CAN.**
- **Rugged enclosure for on-vehicle applications.**
- **Fully configurable over Ethernet with embedded web server.**



The Candaq5 is a further development of the well established MicroDaq system. The Candaq5 is available alongside the existing MicroDaq2 and continues to provide an ultra-miniature complete pressure scanning unit that outputs engineering unit data over Ethernet and CAN.

The CANdaq5 connects to an ESP pressure scanner via a standard 15-way micro'D' SDCB cable giving more flexibility for mounting compared to the MicroDaq2 which contains the scanner.

The Candaq5 features a processor which has a hardware implementation of the IEEE 15888 PTPV2 precision time stamping protocol.

The CANdaq5 also has an embedded web server for all setup functions so the serial setup program is no longer required. This also means that there is now no external USB connector on the Candaq5.

The CANdaq5 interfaces with a TE ESP™ pressure scanner (both HD scanners and MicroScanners) and provides the user with a straight-forward digital interface. Where available, the MicroDaq takes full advantage of the DTC technology within the scanners.

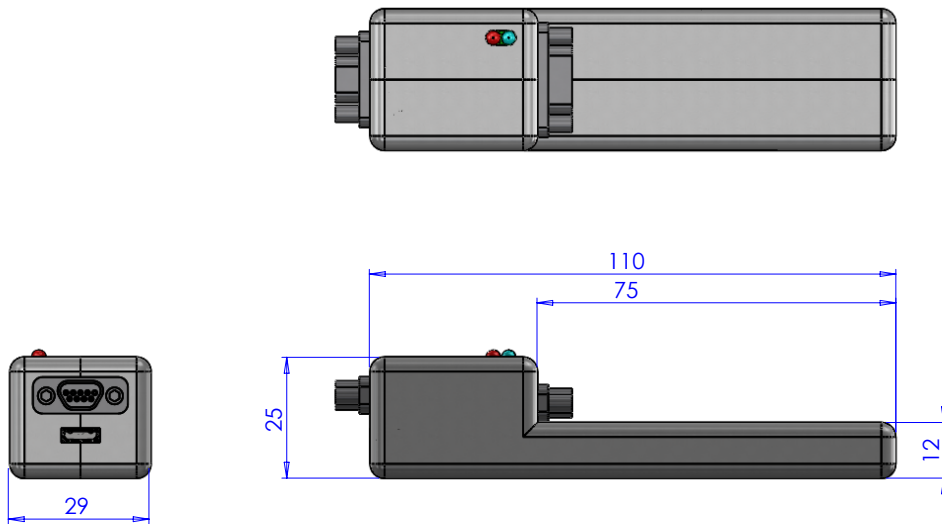
The DTC scanners contain all their coefficients in an EEPROM and the temperature of every transducer is measured to calculate the compensation. The DTC scanners also contain a 3X deranging option and shuttle valve position sense and all these functions can be accessed by the supplied software or embedded web server.

The CANdaq5 may also be used with conventional scanners and provides the user with a scanner temperature measurement so that thermal mapping of the scanner can be carried out using the supplied software.

The CANdaq5 can scan at 50kHz enabling it to produce data at more than 3KHz per channel when scanning only the first 16 channels. The maximum speed is however, dependent on the cable length (see table below).

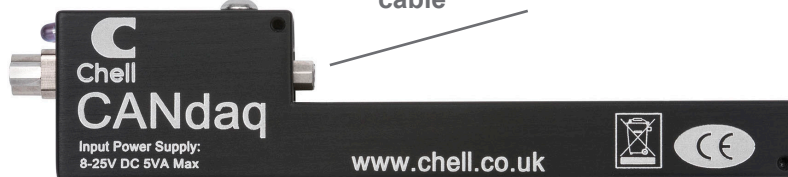
The data is available over Ethernet which is auto-negotiating 10 / 100Mbit. The Ethernet can be configured as TCP or UDP.

Candaq5 Specifications	
High speed data output.	CAN and Ethernet (TCP/IP and UDP and IENA)
System accuracy (DTC scanner range $\geq$ 5 PSI)	+/- 0.05% FS
System accuracy (DTC scanner 10" water $\leq$ range $\geq$ 5 PSI)	+/- 0.1% FS
System accuracy (DTC scanner range < 10" water)	+/- 0.15% FS
System accuracy (standard scanner range $\geq$ 5 PSI)	+/- 0.25% FS
System accuracy (standard scanner range $\leq$ 5 PSI)	+/- 0.25% FS
Dimensions (width x depth x height in mm)	110 x 29 x 25
Weight	100g
Maximum acquisition Speed (measurements / channel / second).	
Cable length <2m (50kHz multiplexing)	32 channels : 1000, 64 channels : 500
Cable length between 2m and 5m (20kHz multiplexing)	32 channels : 625, 64 channels : 312
Input supply (with 32 channel DTC scanner)	8-25 VDC at 3 VA
Input supply (with 64 channel DTC scanner)	8-25 VDC at 4 VA
Consumption at 24 VDC (with 32 channel DTC scanner)	200mA
Consumption at 24 VDC (with 64 channel DTC scanner)	350mA
System resolution	16 Bit
Operating temperature range	+5 to+90°C
Storage temperature range	-20 to+90°C
Maximum relative humidity	95% at 50°C (non-condensing)
Ethernet specification	Auto-negotiating 100Mbit TCP/IP or UDP (user configurable). Static i/p.
CAN specification	2.0 B
Mating connector	9-way micro-miniature 'D' type (suggested mate : Glenair MWDM2L-9PSL - solder cup version)
Scanner interface cable	SDCB Cable (maximum length 5m)
Time stamping	IEEE 1588 PTPv2
Time stamping resolution	1 $\mu$ S
Hardware trigger	5V TTL pulse



Power, Ethernet and trigger connections via 9-way micro'D'

Connection to scanner via 15-way micro'D'. Uses standard SDCB cable



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