MicroCAT Pressure Scanner

EtherCAT Miniature Smart Pressure Scanner

- *Intelligent EtherCAT pressure scanner module with engineering unit output.*

- *Compatible with all 32 and 64 channel PSI Pressure Scanners.*

- *Up to 0.05% FS accuracy output.*

- *Up to 1.5Khz per channel measurement frequency.*

- *Output over EtherCAT and CAN.*

- *Rugged enclosure for on-vehicle applications.*

- *Supplied with full software for configuration, calibration and data logging.*

- *Data output with time stamping at source for dynamic measurements*

The MicroCAT is a development of the well established MicroDaq system developed to take advantage of the considerable advantages of EtherCAT over Ethernet.

The MicroCAT is a single box solution providing an ultra-miniature complete pressure scanning unit that outputs engineering unit data over EtherCAT and CAN.

The use of EtherCAT gives the user the following advantages:

[1] Increased bandwidth. EtherCAT is many times more efficient than Ethernet making the acquisition of high speed data from multiple units much more straight forward.

[2] Non-vendor specific protocol. As the MicroCAT adheres to the EtherCAT standard, no special code needs to be written in order to interface with it.

[3] Integrated time stamping. The EtherCAT protocol includes a distributed clock that time stamps the data to within ±20μS

[4] Network topology independent. EtherCAT is insensitive to network topology and the units are designed to be daisy-chained in loop or star configuration.
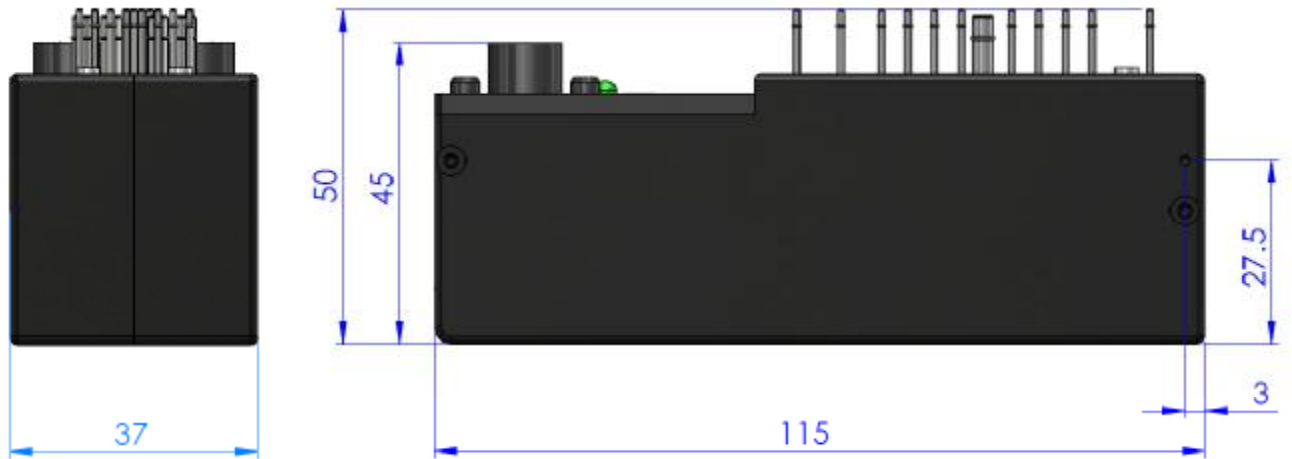
The MicroCAT contains a PSI ESP™ pressure scanner with which it interfaces, providing the user with a straight-forward digital interface. Where available, the MicroCAT takes full advantage of the DTC technology within the scanners.

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.

The MicroCAT 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.

MicroCAT Specifications		
	MicroCAT 32	MicroCAT 64
High speed data output.	EtherCAT and CAN	EtherCAT and CAN
System accuracy (DTC scanner range ≥ 5 PSI)	+/- 0.05% FS	+/- 0.05% FS
System accuracy (DTC scanner 10" water ≤ range ≥ 5 PSI)	+/- 0.1% FS	+/- 0.1% FS
System accuracy (DTC scanner range < 10" water)	+/- 0.15% FS	+/- 0.15% FS
System accuracy (standard scanner range ≥ 5 PSI)	+/- 0.25% FS	+/- 0.25% FS
System accuracy (standard scanner range ≤ 5 PSI)	+/- 0.25% FS	+/- 0.25% FS
Dimensions (width x depth x height in mm)	115 x 37 x 50	115 x 37 x 50
Weight (with DTC scanner)	224g	255g
Weight (with conventional scanner)	218g	252g
Weight (without scanner)	112g	112g
Maximum acquisition Speed (measurements / channel / second).	1500	750
Input supply	8-25 VDC at 5VA	8-25 VDC at 5VA
Consumption at 24 VDC	300mA	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)	
EtherCAT specification	EtherCAT slave compliant with EtherCAT Technology Group (ETG) standards	
CAN specification	2.0 B	
Mating connector	2 x ASDD606-09SN-HE	

Dimensions: 50, 45, 37, 27.5, 3, 115

Connectors for EtherCAT and CAN (in and out)

Pressure Scanner

MicroCAT status LEDs

Measurement ports

EtherCAT status LEDs

μCAT-64DTC-P

Input Power Supply: 8-25V DC 5VA Max

www.chell.co.uk

Ordering Codes		
Options		
	32	64
No Scanner	MicroCAT32-NS	MicroCAT64-NS
Conventional Scanner	MicroCAT32-C	MicroCAT64-C
DTC Scanner	MicroCAT32-DTC	MicroCAT64-DTC
Purge option suffix (required for 64 channel scanner only)		Add -P

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