



microDAQ-INT-4

Miniature hub and PoE power supply

- Switch and power supply for connection up to 4 microDAQ / nanoDAQ products
- 100Mbit unmanaged Ethernet switch
- Compatible with IEEE 1588 PTPv2*
- Power-over-Ethernet power supply
- Built in CAN hub
- Suitable for in-model and on-vehicle use
- RJ45 and DC jack connectors for bench top use
- Complete with buffered hardware trigger

The microDAQ-INT-4 is a 4-way power supply and hub designed for the Chell microDAQ and nanoDAQ product range.

It can be used to connect 4 scanners to a host either with Ethernet or CAN as it features both an internal Ethernet and CAN hub.

The interface and the scanners that are connected to it can be run from DC power or Power-over-Ethernet (PoE). The PoE facility means that the interface and scanners can be powered by simply connecting the microDAQ-INT-4 to a PoE enabled switch.

The small package size of the microDAQ-INT-4 makes it suitable for wind tunnel and on-vehicle use. In these applications, the Ethernet, CAN, trigger and DC power (if required) would be connected with the micro'D' type connector.

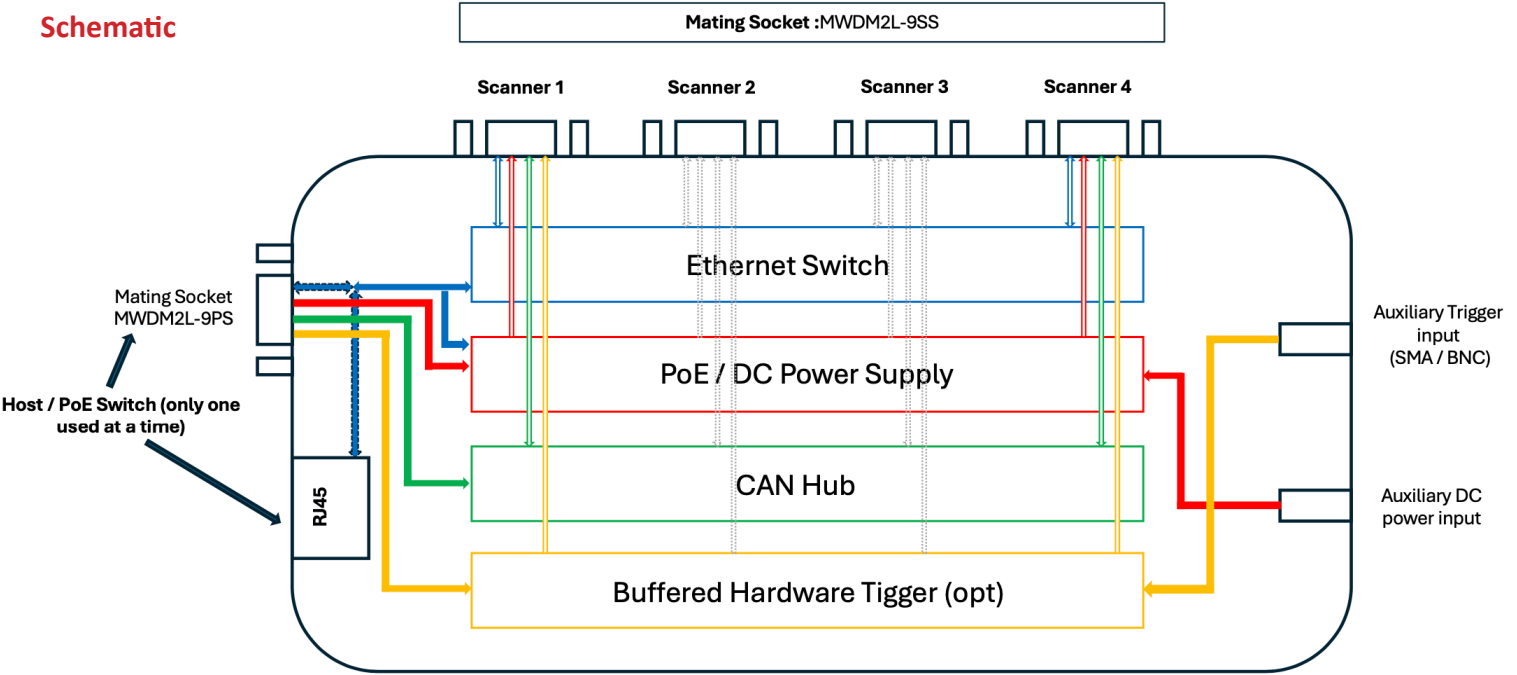
To facilitate bench top use, the Ethernet can also be connected with the RJ45 connector. Power can be derived through PoE or by using the DC jack and (optional) plug-in DC power supply.

* The microDAQ-INT-4 is compatible with IEEE PTPv2 but it does not contain a boundary clock service. The resultant jitter of the PTP service is less than $\pm 1\mu\text{S}$

| | |
|---|---|
| Ethernet | |
| Type | 5x 10/100Mbps Ports, Auto Negotiation, Auto MDI/MDIX |
| Standards | IEEE 802.3i(10BASE-T), IEEE 802.3u(100 BASE-TX), IEEE 802.3x (Flow Control) |
| IEEE PTPv2 | Compatible with timing jitter of <±1µs |
| CAN | |
| CAN specification | 2.0B |
| CAN baudrate | Up to 1Mb/s |
| Port to port propagation delay | 100ns |
| Trigger | |
| Input level | 5V TTL |
| Minimum frequency | 0.5Hz |
| Maximum frequency | 400Hz |
| Minimum pulse width | 50µs |
| Connection | Input micro ‘D’ or SMA connector (supplied with male BNC adapter) |
| Mechanical | |
| Dimensions (width x depth x height in mm) | 117 x 64 x 20mm |
| Weight | 185g |
| Enclosure Sealing | IP54 |
| Power Supply | |
| Input supply | 12-30 VDC |
| Absolute max. line voltage | 30 VDC |
| Power consumption | 25W Max |
| Power-over-Ethernet | IEEE 802.3at (input port and RJ45) |
| Total scanner load | 20W total |
| Environment | |
| Operating Temperature Range | -20 to +90°C |
| Operating Temperature Range (PoE use) | 0 to +70°C |
| Storage Temperature Range | -40 to +90°C |
| Ambient Pressure | 100 mbar abs (52,000 ft) to 2.5 bar abs |
| Ambient Pressure (PoE use) | 800 mbar abs (6,600 ft) to 2.5 bar abs |
| Vibration | Engine standard vibration test to DO160E category S, curve W with duration of 1 hr/axis. Fan blade (20 g 2 kHz) |
| Shock | Fan blade out to DO160F section 7 (40g 11 m/s) |
| Maximum relative humidity | 80% to 50°C (50% @ 40°C) non-condensing |



Schematic



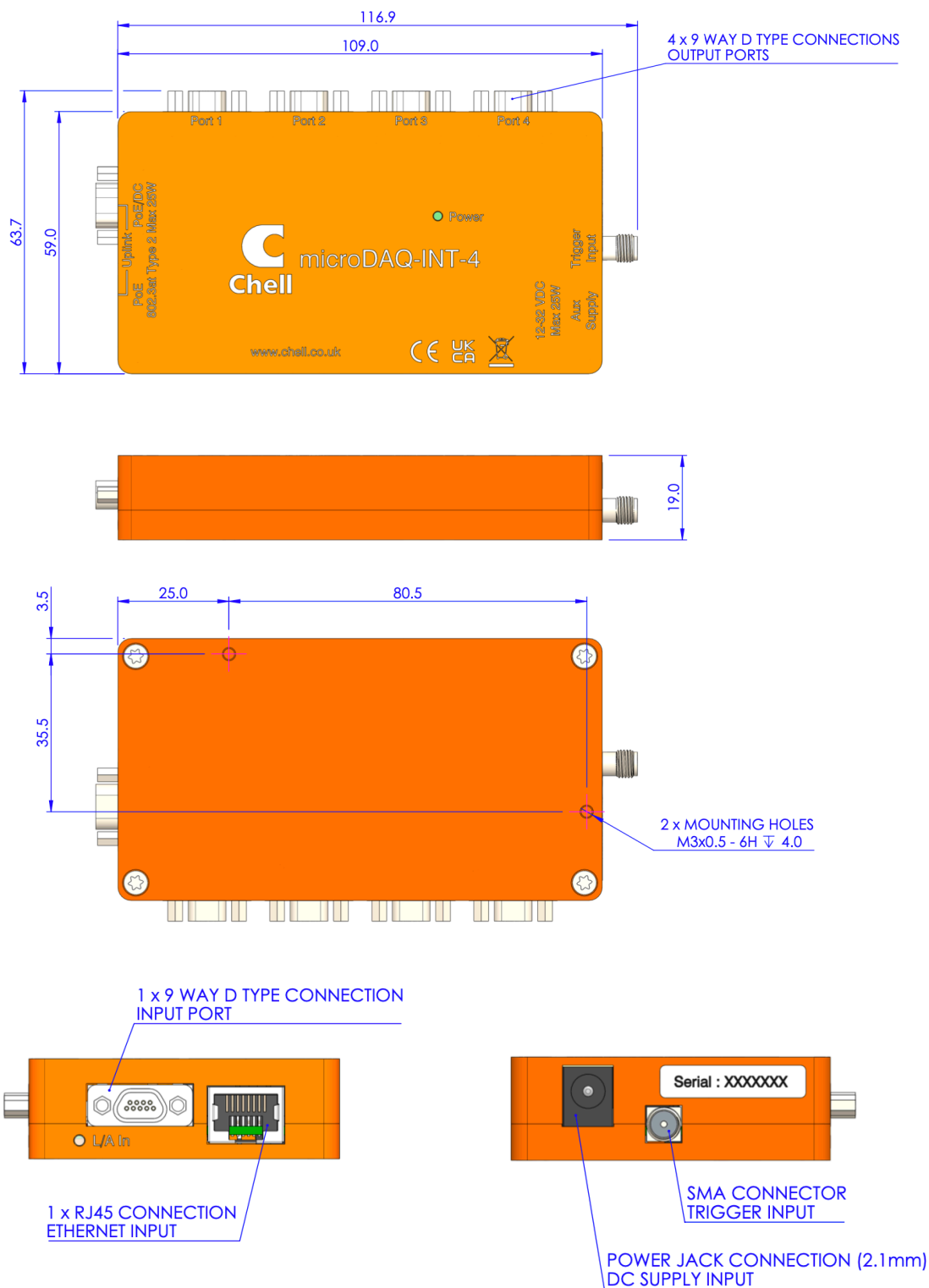
Compatible Cables / Pin-out

| Cable Name | From: | To: | Maximum Length |
|-------------------------|------------------------------|--------------------------|----------------|
| Input / host cables | | | |
| nanoDAQ-CAB-1 | microDAQ-INT-1/2/8 | microDAQ-INT-4 | 20m |
| nanoDAQ-CAB-1-RJ | RJ45 and bare ends | microDAQ-INT-4 | 20m |
| Standard uplink cable | RJ45 | RJ45 | 100m |
| Output / scanner cables | | | |
| MD3-CAB-1 | microDAQ-INT-4 scanner ports | microDAQ3 or nanoDAQ-LTS | 20m |
| LTR-CAB-1 | microDAQ-INT-4 scanner ports | nanoDAQ-LTR | 20m |
| MD3-CAB-1AS | microDAQ-INT-4 scanner ports | microQDVP or microDAQ2 | 20m |

| Connector | Host / Input Connector | Output / Scanner Connector |
|----------------|------------------------|----------------------------|
| Suggested mate | MWDM2L-9PS | MWDM2L-9SS |
| Pin 1 | COM Ov | COM Ov |
| Pin 2 | Ethernet Rx+ | Ethernet Rx+ |
| Pin 3 | CAN Low | CAN Low |
| Pin 4 | Ethernet Tx+ | Ethernet Tx+ |
| Pin 5 | + Supply (12-30 VDC) | + 24V (PoE) or DC supply |
| Pin 6 | Trigger in (5V TTL) | Trigger in (5V TTL) |
| Pin 7 | Ethernet Rx- | Ethernet Rx- |
| Pin 8 | Ethernet Tx- | Ethernet Tx- |
| Pin 9 | CAN High | CAN High |



Dimensions



Part Number:

microDAQ-INT-4-AA

AA = Range

01 = No DC power supply

02 = Supplied with plug in DC power supply and IEC power lead.