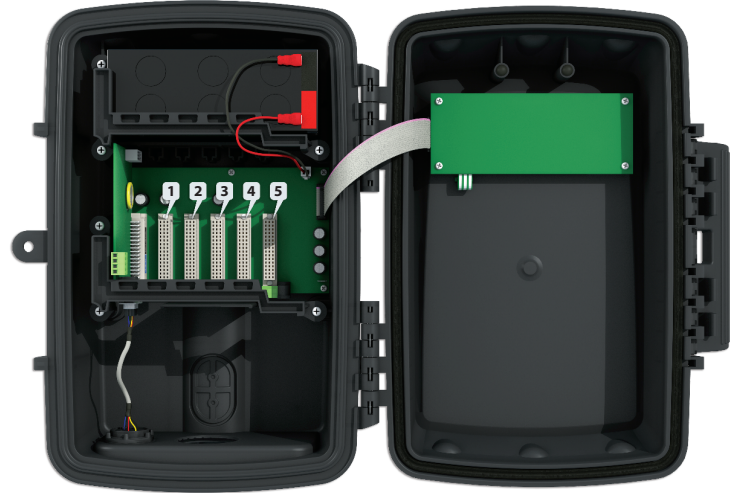


FloSeries3 cards for XCi devices

XCi - Multiple cards for multiple sensor applications. The XCi platform is expandable and future proof, only add cards as and when you need them.

The XCi (multiple card interface) developed by MACE for the FloPro, AgriFlo, HydroMace and HVFlo allows the user to connect a vast array of environmental sensors.

Users can install any combination of the MACE FloSeries3 cards shown below, in the five available card slots of an XCi device dependant on the devices feature set. Choose the right card/s for your application to tailor the device to your exact monitoring requirements.



Doppler card

The Doppler card provides the input for connecting MACE Doppler ultrasonic velocity sensors.

XCi Device Compatibility:



Compatible sensors:

- MACE Doppler ultrasonic insert velocity sensor
- MACE Doppler ultrasonic area/velocity sensor
- MACE Doppler ultrasonic velocity sensor

Specifications:

Each MACE Doppler ultrasonic velocity sensor is terminated with a connector that plugs in to the Doppler card.



I/O (input/output) card

The I/O card supports seven sensor inputs and four control outputs including 4-20mA, voltage and digital. The card also supplies 12V to power add-on sensors.

XCi Device Compatibility:

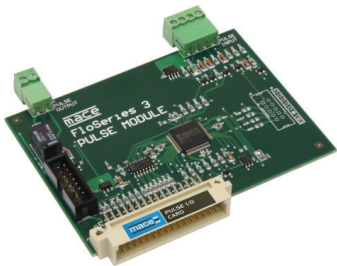


Compatible sensors:

- MACE EchoFlo ultrasonic depth sensor (eg. storage, fuel tank, channel level)
- Water quality sensors (eg. pH, DO/EC)
- Weather sensors (eg. rainfall, wind speed & direction)
- Engine management (eg. temperature, pressure, RPM)
- Water sampler

Specifications:

Analogue inputs (per card)	2 X 4-20mA inputs, 12 bit resolution, accuracy 0.5% of full scale 2 X Voltage inputs (0-2.5V or 0-30V)
Analogue outputs (per card)	2 X 4-20mA outputs, 12 bit resolution, accuracy 0.5% of full scale
Digital inputs (per card)	2 X Frequency inputs, 16 bit resolution, range 0 – 65535Hz 2 X Counter inputs, range 0 – 10Hz
Digital outputs (per card)	2 X digital/pulse outputs, open collector referenced to GND, range 0 – 10Hz
Power Outputs (per card)	12Volt switched power output for 3rd party sensor power



Pulse I/O card

The Pulse I/O card powers (+5VDC or +12VDC) a single pulsing flow sensor and provides a pulse output.

This gives an XCi device the ability to connect to flow sensors that utilize measuring technologies such as: electromagnetic; transit-time and mechanical.

XCi Device Compatibility:



Compatible sensors:

- Electromagnetic insert flow sensors
- Propeller meters
- Full bore magmeters

Specifications:

Digital input	1 x Frequency input, range 0-1000Hz, accuracy 0.5Hz
Switched sensor power	+5 VDC (50mA limit) or +12VDC (1A limit)
Digital output	1 x voltage free contact, 10Hz



SDI-12 Master card

This card provides an XCi device with the ability to control/log In-Situ and 3rd party SDI-12 compliant sensors.

XCi Device Compatibility:



Compatible sensors:

- In-Situ Aqua TROLL 600 multiparameter sonde
- In-Situ Level TROLL sensors (eg. storage, ground water level, channel level)
- Water quality sensors (eg. pH, DO/EC)
- Weather sensors (eg. rainfall, wind speed & direction)

Specifications:

Inputs: SDI-12 V1.3 compliant
Sensor Power: 12VDC supply



FloSI card

The FloSI card provides an SDI-12 or ModBus output to interface an XCi device to SCADA systems and radio networks.

XCi Device Compatibility:



Compatible interface:

- SCADA systems
- Radio networks
- 3rd party data loggers

Specifications:

Outputs: MODBUS RTU, RS232, RS485
SDI-12 V1.3 compliant
ASCII, RS232



WebComm card

The MACE 4G WebComm Card enables all XCi devices to automatically upload internally logged data to HydroVu Data Services or other FTP servers.

Powered by and housed in the XCi device, the integrated WebComm Card enables real-time data communication over GSM cellular networks.

Access data through the free WebComm Server for simple data viewing and remote configuration. Or use the HydroVu platform for advanced visualization and APIs for data export to any platform. SMS/email alert subscription service available.

XCi Device Compatibility:



Card & MDS Specifications:

Power:	12VDC supplied by XCi device
Network:	4G LTE Category M1 (LTE-M) / NB-IoT (Narrow Band) with 2G fallback
Bands:	LTE Global - B1(2100), B2(1900), B3(1800), B4(AWS1700), B5(850), B8(900), B12(700), B13(700), B18(800), B19(800), B20(800), B28(700) 2G Quadband - B2(1900), B3(1800), B5(850), B8(900)
Protocol:	Upload - HTTP and/or FTP Download - HTTP (download data directly from the MDS)
Scheduling:	User configurable to 5min, 10min, 15min, 30min, 1hr, 6hr, 12hr, 24hr, 1wk, 2wk, 4wk.
Data:	Format - Unencrypted plain text format Storage - 500Mb per site (unlimited sites, hosted on MDS) Upload - All logged channels (and their values) Retention - 12 months after initial upload to MDS

MACE Website Functionality:

Security:	Password protection
Data:	Site setup and maintenance Download (date/time selection available) in *.csv format View latest data record View site data (date/time selection available)
Site access:	Multiple - primary user can designate secondary "users" who have access to the data (secondary users MUST also have a MACE website account)
Alerts:	Email/SMS (paid subscription service)