



## Central Instrumentation Module (CIM)

### Programmable control and data acquisition module

Ashtead Technology's Central Instrumentation Module (CIM) is a general purpose multi-role controller for use with subsea sensors such as gyros, digital depth gauges etc and can also be configured to drive actuator devices for valves and control equipment used in a wide range of construction support and IMR operations.

The module is designed to operate from a 24V DC battery pack (dual input capability) and incorporates power management to control power to devices and also to monitor the battery consumption outputting an estimate of percent battery life remaining.

Further power management functions include overcurrent and undervolt protection and the ability to remotely command a low power standby mode, via acoustic transponder to minimise battery consumption.

Data can be retrieved from the module either via cable connection or via standard Compatt or CNode transponders, or a full acoustic modem link can be utilised to command the module to perform complex tasks.

#### Applications

Construction positioning and metrology support  
Multi-sensor data acquisition  
Life of field integrity monitoring  
Control of valves and subsea equipment  
Subsea automation systems

#### Features

Multi-role control and communications pod  
In-built power management facilities  
Multiple programmable RS232C and RS485 communication ports  
Dedicated acoustic transponder/modem channel  
Remote control of sensor power  
Programme modes for automation functions  
Stainless steel design rated for 3,000 metres water depth  
Suited for long term immersion  
Battery consumption and status monitor  
Built-in diagnostic features



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## Specifications



### Electrical

Input voltage	8 to 40V DC
Maximum no of supply Inputs	Up to 2 at 24V DC
Battery standby current	Nominal 4.7mA at 24V
Max Load (peak)	4 Amps instantaneous overcurrent protection (software configurable)
Max load (continuous)	1.5 Amps 10 second delay thermal overcurrent protection (Software configurable)
Fuse protection	1.8 amp capacity PolySwitch auto resetting fuse links on each battery
Minimum battery startup voltage	23V (software configurable)
Battery cut-out voltage	21.5V with 2 second delay (software configurable)
Battery life monitor	0 to 99% in 1% increments, joule energy balance calculation based on battery nominal capacities

### Communications

RS232C serial ports	0 to 99% in 1% increments, joule energy balance calculation based on battery nominal capacities
RS485 serial ports	Six total bi-directional semi duplex 9,600 baud 8,n,1 (software configurable ports 1200 to 115,200 baud) Five total 9,600 baud semi duplex, individually addressed, line terminated with 120 ohm resistor* Maximum cable length 1,000 metres at 9600 baud (software configurable ports 1200 to 115,200 baud) (*default configuration is disabled state to conserve energy)

### Environmental

Max working depth	3,000metres s.w.
Operating temperature	-20 to +65 deg C ambient
Storage temperature	-30 to +75 deg C ambient

### Dimensions

Diameter	130mm nominal
Length	100mm nominal (excluding connectors)
Weight in air	7kg nominal

### Materials

Housing	316L stainless steel
End cap	316L stainless steel
Mounting details	4 x M6 A4 stainless steel
Seals	2 x Nitrile rubber o-rings (70 shore hardness)

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