

Outpost COBRA

Wireless Endpoint Specifications

The Outpost COBRA endpoint is a revolutionary integrated monitoring solution. Connect the COBRA to any compatible meter or sensor in mobile phone coverage and continuously monitor data with only a 5W solar panel. The meter or sensor readings are automatically transmitted to your web site or directly to your billing system.

- ✦ Environmental & Agricultural Monitoring
- ✦ Advanced Metering Infrastructure
- ✦ Smart Energy Monitoring

- Step 1** Connect to compatible meter or sensor
- Step 2** Swipe magnet to activate your Outpost
- Step 3** You're done! View data from your website



Outpost COBRA Series logger. Smart phones can be used to assist installations.



Rechargeable Batteries

Internal rechargeable batteries designed to power direct from solar



IP68 Waterproof

Completely waterproof device. Save money on extra enclosures.



Global Coverage

Install the device anywhere with GSM mobile phone coverage

COBRA	-aG	-bcccdM	-EA
Outpost Family	a = Telecommunications	b = 1 or 2 Inputs of type ccc (optional: cable length d meters)	Antenna
COBRA = revolutionary monitoring end point	a = 3 = 3G = HSPDA (Tri-band)	ccc = ENV = M12 conn with 1 x pulse & 1 x 4-20mA input, 30cm ccc = TMP = NTC thermistor temperature channel (d=1,6) ccc = SDI12 = M12 conn with SDI12 interface, 30cm	EA = external antenna (SMA)

Technical Specifications

Analog Inputs (-ENV option)

Channels	max 2 (order code)
Accuracy	0.1%
Electrical	0-20mA, single ended
Switched Power Output (SPO) Max	200mA

Pulse/Counter (-ENV option)

Channels	max 2 (order code)
Open-circuit voltage	2.8V
Close circuit voltage threshold	1.2V
Input Impedance	1MOhm
Minimum Pulse Width	20ms
Maximum Frequency	25 Hz

Datalogger

Flash Memory	300K
Channel Sampling Rate	max 1 min per channel

Power Supply

Input Voltage Range	6-30V DC
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Telecoms (-2G or -3G option)

2G / GPRS Frequencies	900/1800/850/1900Mhz
3G / HSDPA Frequencies	850/900/1900/2100 Mhz
Antenna Connector	SMA

Physical

Size	110mm x55mm x40mm
Weight	255g (9 oz)
Temperature	-5 Deg C to 60 Deg C

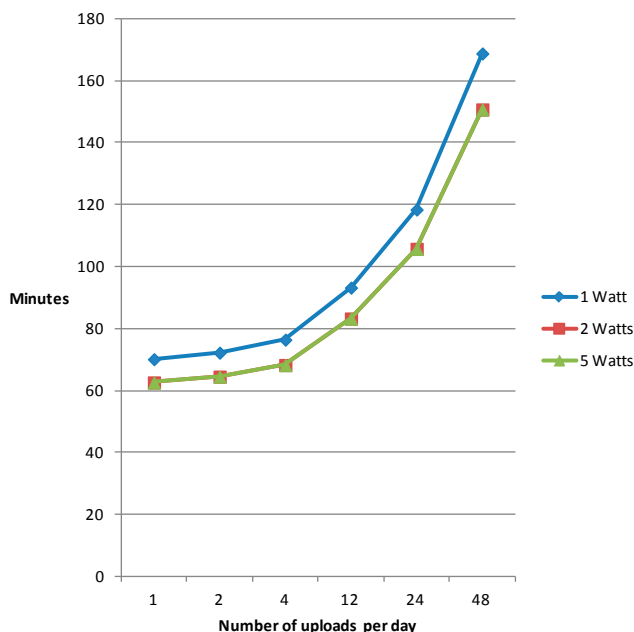
SDI-12 Connector (-SDI12 option)

Switched Power Output (SPO) Max	200mA
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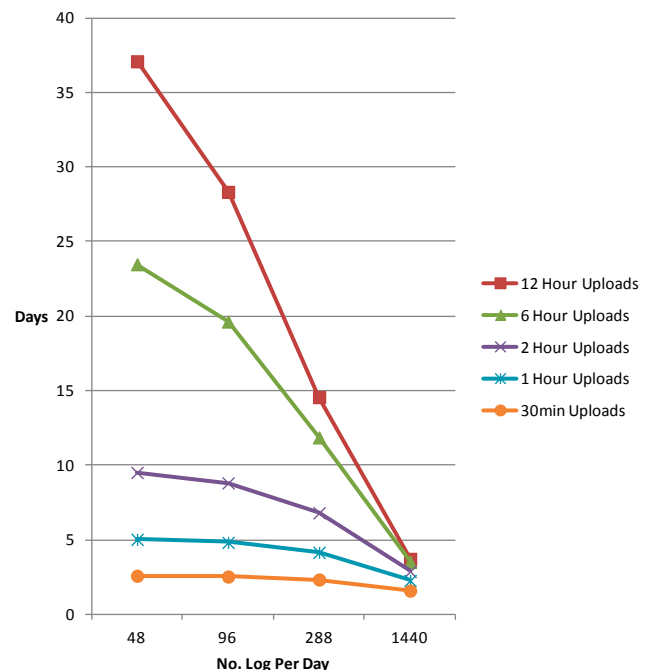
Temperature Probe (-TMP option)

Resolution	0.5 Deg C
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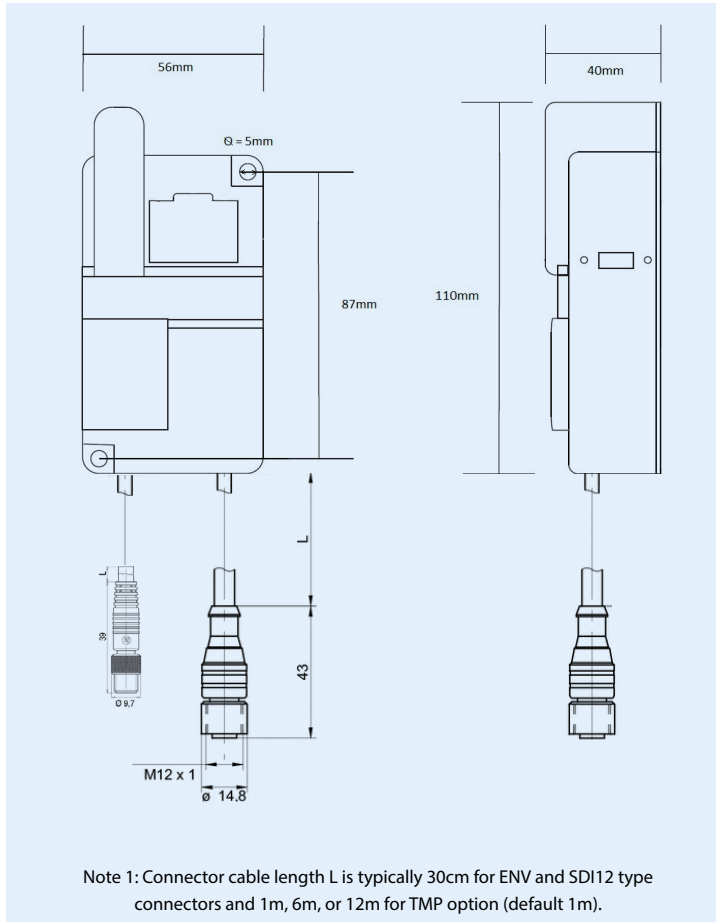
Required Full Sunlight Minutes vs Uploads/Day @ 1min logging



Max Runtime From Full Charge



Hardware Dimensions, Product Options & Connector Pin-outs



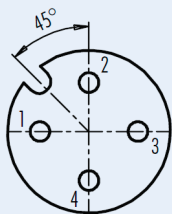
Outpost Power Connector (M8 Style) - Pinout



- 1 Power (V+)
- 3 N/C
- 4 Common (GND)

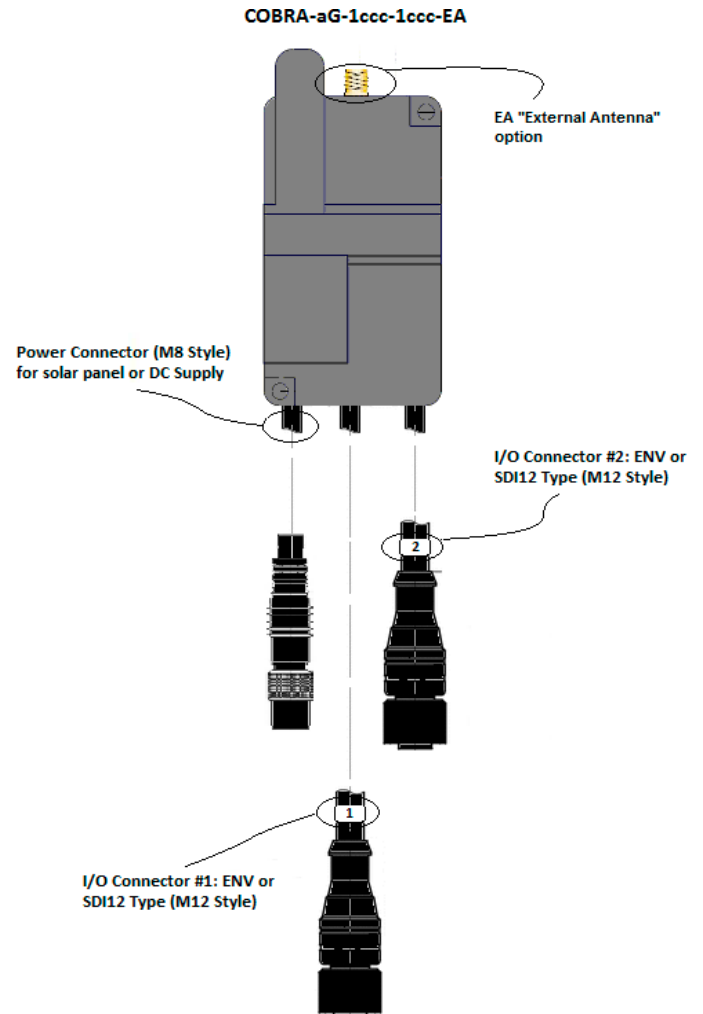
* Diagram of connector external view

Outpost "SDI12" Type Connector (M12 Style) - Pinout



- 1 15V Switched Power Output
- 2 Data
- 3 N/C
- 4 Common (GND)

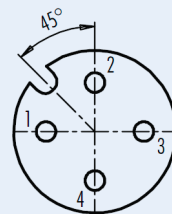
* Diagram of connector external view



Note 1: Connectors are labelled with a sensor connector position number only if the connector position is ambiguous

Note 2: Connectors size shown in this diagram are illustrative only - they are not drawn relative to the COBRA body size

Outpost "ENV" Type Connector (M12 Style) - Pinout



- 1 15V Switched Power Output
- 2 Pulse Counter Input
- 3 4-20mA Input
- 4 Common (GND)

* Diagram of connector external view

COBRA Series Product Codes

COBRA-3G-1TMP-EA	COBRA 3G (HSDPA) logger with 1 x Temperature probe, External Antenna
COBRA-3G-2TMP-EA	COBRA 3G (HSDPA) logger with 2 x Temperature probes, External Antenna
COBRA-3G-1TMP-1ENV-EA	COBRA 3G (HSDPA) logger with 1 x Temp probe & 1 x ENV Conn (1 x Counter and 1 x 4-20mA channel), External Antenna
COBRA-3G-1TMP-1SDI12-EA	COBRA 3G (HSDPA) logger with 1 x Temperature probe & 1 x SDI12 Connector, External Antenna
COBRA-3G-1SDI12-EA	COBRA 3G (HSDPA) logger with 1 x SDI12 Connector, External Antenna
COBRA-3G-2SDI12-EA	COBRA 3G (HSDPA) logger with 2 x SDI12 Connectors, External Antenna
COBRA-3G-1ENV-EA	COBRA 3G (HSDPA) logger with 1 x ENV Connector (1 x Counter and 1 x 4-20mA channel), External Antenna
COBRA-3G-2ENV-EA	COBRA 3G (HSDPA) logger with 2 x ENV Connectors (each with 1 x Counter and 1 x 4-20mA channel), External Antenna
COBRA-3G-1ENV-1SDI12-EA	COBRA 3G (HSDPA) logger with 1 x ENV Conn (1 x Counter and 1 x 4-20mA channel) & 1 x SDI12 Conn, External Antenna

Outpost Antenna Accessories

ACC-ANT-ENV-3DB-850	Accessory, Antenna for Environmental applications with 5m cable and mounting bracket, 3dB gain @ 850Mhz
ACC-ANT-ENV-3DB-900	Accessory, Antenna for Environmental applications with 5m cable and mounting bracket, 3dB gain @ 900Mhz

Outpost Connector Accessories

ACC-CONN-M12-6MM	Accessory, Connector for sensors & meters, M12 style, cable gland for max 6mm cable, internal screw assembly
ACC-CONN-M12-8MM	Accessory, Connector for sensors & meters, M12 style, cable gland for max 8mm cable, internal screw assembly
ACC-CONN-M8-6MM	Accessory, Connector for sensors & meters, M8 style, cable gland for max 6mm cable, internal screw assembly

Outpost Power Accessories

ACC-SOLARKIT-5W	Accessory, Solar panel kit with 5W Solar panel, mounting bracket and power cable with ACC-CONN-M8-6MM connector
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