DeltaBlack
INDUSTRIAL IOT EDGE SOLUTION

etm connecting things

Quick Start Guide

INTRODUCTION

DeltaBlack is an easy to use Cellular 4G/3G/2G remote monitoring and logging solution for use in heavy duty industrial applications.

Common applications include:

- Pump, fan, generator and motor
- Refrigeration and freezer systems
- Metering, HVAC, indoor climate
- Fire panels and intruder alarms
- Data centre monitoring
- Tank measurements

FEATURES

- Integrated 7-channel data logger including one relay output
- DIN-rail mounted including wall mount bracket
- Integrated 2G/3G/4G world wide wireless modem
- Customized SMS alerts
- LED indication for cellular signal quality and communication status
- Pre-configured for the most common sensor types
- Easy access to logged measurements via ETM's IoT Cloud Dashboard (EWO)
- Easy integration to PLC, SCADA and telemetry systems

ACCESSORIES

Pressure Sensor

Temperature/Humidity Sensor

Power Supply

Screw mount antenna

Magnetic base antenna

USB to RJ45 Adapter

Welcome to your ETM Product

Get started: This guide helps with initial product setup. Need more? Find additional product information by simply scanning the QR code.

Support: ETM offers multiple support options to help you get the most out of your product. You can go onto www.etmiot.com or e-mail support@etmiot.com If urgent, please call us using the numbers below.

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PIN DESCRIPTION

Terminal	71614 (Digital)	71615 (Analogue)
CH1	DI, Pulse	DI, Pulse
CH2	DI, Pulse, AI 0-2.5V	AI 4-20mA
CH3	DI, Pulse, AI 0-2.5V	AI 4-20mA
CH4	DI, Pulse, AI 0-2.5V	AI 4-20mA
CH5	DI, AI 0-2.5V	DI, AI 0-2.5V
CH6	DI, AI 0-2.5V	DI, AI 0-2.5V
CH7	DI, AI 0-2.5V	AI 4-20mA
SGND	Signal Ground	
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Relay	COM (Common) NO (Normally Open) NC (Normally Closed)	
Sensor Feed	5V and 16V max 100mA	
RS232 EIA561	Communication with computer for configuration	
V+ In V- In	(6-35VDC) Power Supply	

LED INDICATOR

Signal strength LEDs

1	Flashing	RSSI < -105dBm or No SIM detected
	On	RSSI ≥ -105dBm (Poor signal)
	Off	Not registered to mobile network
2	On	RSSI ≥ -89dBm (Fair signal)
	Off	RSSI < -89dBm or not reg. to mobile network
3	On	RSSI ≥ -73dBm (Good signal)
	Off	RSSI < -73dBm or not reg. to mobile network

Status LEDs

1	Slow Flash	Searching for network connection
	2x Flash 3s Pause	Active 2G network connection
	3x Flash 3s Pause	Active 3G network connection
	4x Flash 3s Pause	Active 4G network connection
2	On	Internet provider connection
	Off	No Internet provider connection
3	On	Recieving data (2s active)
	Off	No data transmittion occurring
	Rapid Flash	Sending Data

Getting Started

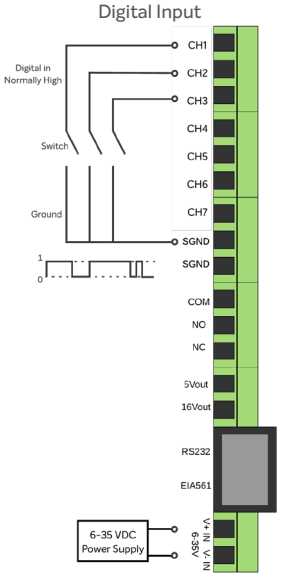
1. Connecting the hardware

CONNECTING SIM CARD

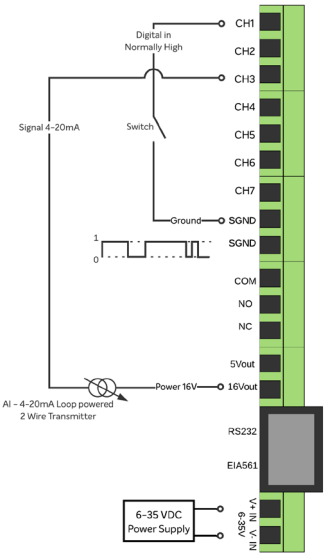
1. Connect the SIM Card
2. If you wish to configure the unit, proceed to connect a RJ45 to USB adapter to a computer.
3. To power up the unit, connect a 6-35VDC power supply through the terminal

WIRING EXAMPLES

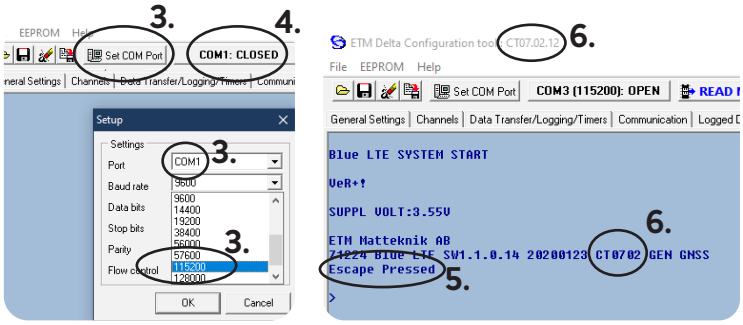
71614
Multiple I/O Controls
Digital Input



71615
Basic I/O Control and
4-20mA 2-Wire transmitter

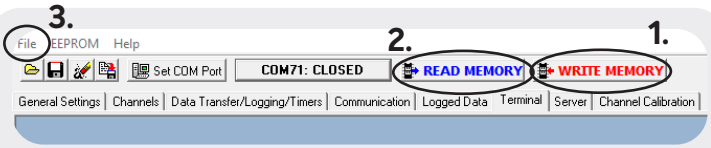


2. CONFIGURATION TOOL



1. Start the configuration tool.
2. Connect the unit to your computer.
3. Go to the terminal tab, use "Set COM Port" to choose the right COM port (most likely not COM1) and set the baud rate to 115200.
4. Open the port by pressing "COM(X): CLOSED".
5. Click anywhere in the blue window until you see a flashing square. Proceed by pressing the "reset" button on the modem, then immediately press "Esc" on your keyboard until the message "Escape Pressed" shows up.
6. Make sure the that the firmware matches the configuration tool version like the picture above (6).
7. The unit is now ready to be configured.

3. CONFIGURING THE UNIT



General settings
Used for adding phone numbers, change Unit ID, Clock sync, data formats...

Channel settings
Setting up and configuring alarms on different channels/pins.

Data Transfer/Logging Timers
For data logging/monitoring. Choosing which data the unit will gather and send.

Communication
Specify where the unit should send the data.

1. When done configuring the unit, press the red button "WRITE MEMORY" to upload the configuration to the unit.
2. To see the current configuration on the device, press "READ MEMORY" when having the unit connected to the computer to read it onto the configuration tool.
3. To save your configuration to use for future units press "File" in the top left corner, then "save" in the dropdown menu, and save it to an optional location.
4. Your unit is now ready to use.

4. EWO (ETM WEB OFFICE)

- **Log in using the provided login credentials**
- **Manage your account, units and organisation in the settings.**
- **Under settings > configuration choose which data you want to be presented**
- **Enjoy your ETM product**

To access the ETM IoT Cloud Dashboard, please visit the website or scan the QR Code.
www.etmweboffice.com/EWO/pages/login.jsp

ETM PRODUCTS

DeltaBlue
Outdoor and battery-powered remote monitoring, alarming & logging solution

DeltaBlack
Industrial cellular remote monitoring, alarming & logging solution

ETM-Purple
Intelligent cellular 2G/3G/4G with "last gasp"

ETM-770
Cellular Network Monitoring tool
Cat M1/NB-IoT
2G/3G/4G