DAM-3502(T) User's Manual



DAM-3502(T) Module

Single-phase Intelligent Alternating Current Module

- X Voltage Range: 400V (can be customized)
- * Current Range: 5A (can be customized)
- % Precision: ±0.2%
- ※ Output Parameters: voltage, current, active power, reactive power, apparent power, power factor, total power degree, humidity (only T module supports), temperature (only T module supports)
- ※ Built-in Watchdog
- * External Current Transformer
- X On-board temperature and humidity sensor (only T module supports)
- * Power Consumption: 0.22W@24V_{DC}
- [™] Power Supply: unregulated 10~30V_{DC}

Baud Rate Configuration Code Table

| Code | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|------|------|------|------|------|-------|-------|-------|--------|
| Rate | 1200 | 2400 | 4800 | 9600 | 19200 | 38400 | 57600 | 115200 |

Terminal Definition

| No. | Name | Description |
|--------|----------|--|
| 1 | Ua | Phase measurement voltage input |
| 3 | UGND | Measurement voltage input ground, isolation with power ground. |
| 6 | INIT* | Reset pin, connect with(B)GND, then power on |
| 7 | (Y)DATA+ | RS-485 (positive) |
| 8 | (G)DATA- | RS-485 (negative) |
| 9 | (R)+Vs | DC power input , $+10 \sim +30$ VDC |
| 10 | (B)GND | DC power ground |
| | Ia ← | Tested lines positive through the current transformer |
| others | NC | Reservation |

DAM-3502(T)

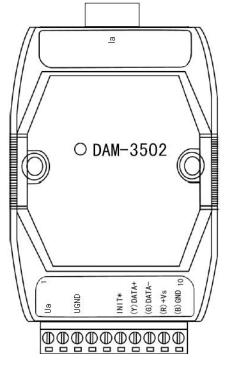


Fig. 1 DAM-3502(T) Drawing

Wiring & Installation

Power supply requirements: unregulated +10 $V_{DC} \sim$ +30 V_{DC} . "+Vs" is a positive, and "GND" is ground. "DATA +" and "DATA-" connect with "DATA +" and "DATA-"(or "A" and "B") of RS-232/RS-485 transformation module, then connect the transformation module with computer, do not hot plug carefully. The power indicator flashes after wiring is correct, then you can communication with the host computer.

According to the label directs color to wiring:

| +Vs (R) | Red | DATA+ | (\mathbf{Y}) | Yellow |
|---------|-------|-------|----------------|--------|
| GND (B) | Black | DATA- | (G) | Green |

Application Wiring

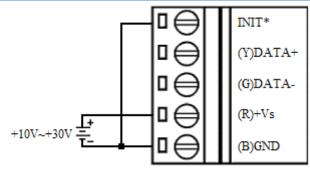
Reset Connection:

Shorted the INIT * and GND shorted, add $+10 \sim +30$ VDC between +Vs and GND, power on, the module indicator quickly flashes three times, power off until the indicator stops flashing, disconnect the INIT * and GND, then reset the module has been completed.

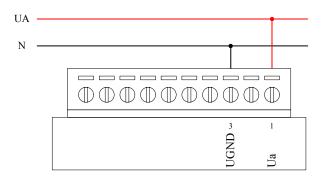
After reset successfully, the module restore the factory default values:

Module Address: 1

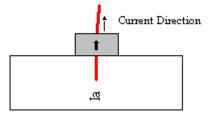
Baud Rate: 9600



Voltage signal connection method



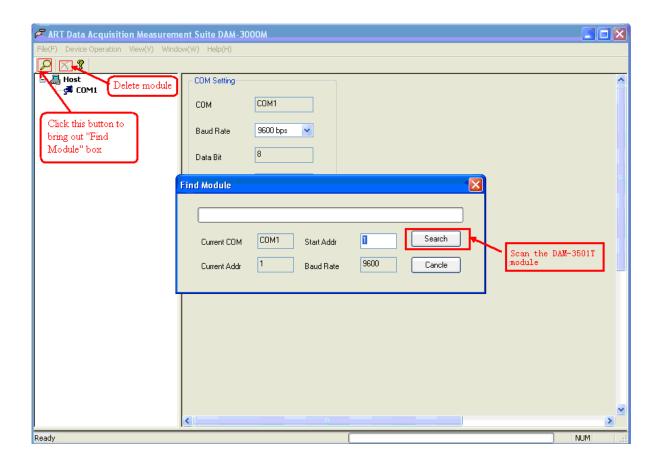
Current signal connection method



Operation Interface

Open the DAM-3000 Software, clicking the "COM1" in the system tree of left dialog block

| 🚰 ART Data Acquisition Measurem | | 3000M | |
|--|--------------|---|-----|
| File(F) Device Operation View(V) Windo | w(W) Help(H) | | |
| | | | |
| Host | COM Setting | | ^ |
| | сом | COM1 | |
| | Baud Rate | 9600 bps 🔽 | |
| | Data Bit | 8 | |
| | Stop Bit | | |
| | Overtime | 100 mS User can set"Baud Rate" and "Overtime" | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | ~ |
| Ready | < | | NUM |
| Roddy | | | |



| 🕫 ART Data Acquisition Measureme | nt Suite DAM-3000M | X |
|--|---|-------|
| File(E) Device Operation View(⊻) Windo | v(<u>W</u>) Help(<u>H</u>) | |
| K K | COM Setting COM COM1 Baud Rate 9600 bps | ^ |
| Find the DAM-3502T+ Find Modu | | 100 |
| | COM COM1 Start Addr 1 Stop | |
| | < | × |
| Ready | |) NUM |

Clicking the "Addr: 001 (DAM-3502T+)" in the system tree of left dialog block to go to DAM-3502T configuration page. In this page, user can configure the module.

| 🖉 ART Data Acquisition Measureme | ent Suite DAM-3000M | | | | |
|--|--|-----|--|--|--|
| File(E) Device Operation View(V) Window(W) Help(H) | | | | | |
| | | | | | |
| Host Host COM1 COM2 COM2 COM3 COM4 COM5 | DAM-3502T (Electricity Module) Range setting Voltage 400 V Current Name Energy 9. 1710000 Image Set range Energy 9. 1710000 Image Image Set range Current Value 1. 171000 Image Image Set range Current Value 1. 171000 Image Image Set range Current Value 2. 17100 Image Image Set range Current Value 3. 1710 Image Image Set range Voltage Current Start Start Reactive Active Stop Stop Apparent Power Stop Stop Apparent Humidity Interval 500 mS Energy Clear energy value 500 mS | | | | |
| | | > | | | |
| Time Module type | Module a Operation information | | | | |
| | | | | | |
| | | | | | |
| < | | > | | | |
| Ready | NL NL | M . | | | |

Ddblclicking the "Addr: 001 (DAM-3502T+)" in the system tree of left dialog block to get "Module Information" box, in this box, we can set "Module Addr" and "Baud Rate".

