



DELTA IV

REMOTE TELEMETRY UNIT



- Ideal for **SCADA & remote Telemetry** systems
 - Microprocessor based with **Plug & Play** interconnection
 - Integral Modem and Radio Communications capabilities
 - Control & Monitor local and remote equipment
 - Standalone Data logging & retrieval

ROMTECK **DELTA IV Remote Terminal Units** are designed with the onboard intelligence and standard features to allow the various plant & equipment monitoring, control and communication facilities required in many SCADA and Telemetry applications. They consist of a range of products that can be optioned to suit the requirements and cost considerations of the particular application.

The main DELTA IV processor unit, the uP332 is microprocessor based and utilises state of the art technology in it's design to provide a powerful, yet flexible and compact, module able to cater for most requirements. This module also contains the onboard communication interfaces and is connected to the appropriate communication media such as radio or PSTN.

To cater for the control and monitoring requirements as well as cost implications of smaller applications the **DELTA IV** Processor module is optioned with a variety of input and output connections as well as providing connection to the additional external input and output modules. All inputs and outputs are provided with LED indication of it's state.

Communication is a key component of any SCADA or telemetry system and the DELTA IV enables most forms of communication to be catered for through on board, industry standard, interfaces. This minimizes the design effort

required for integration with the chosen communication network. A variety of communication protocols are available including, **MODBUS, DH+, DNP3 and IEC870-5.**

The **DELTA IV** in many applications may not need to communicate it's information out in real time in which case it can operate as a data logger and store the information for later transfer.

Typical applications where the DELTA IV products excel are Water Treatment plants, Borefield control & monitoring, Pumping Stations, Electricity Distribution Networks, Stacker/Reclaimers.

The **DELTA IV** enclosure is designed for the harsh environment encountered in industrial and mining applications. In the standard form it is manufactured in a 35mm symmetric DIN rail mounting enclosure. For additional protection, or when integrated as a turnkey system, a variety of stainless steel, fibreglass or similar enclosures



are available. Cable and antenna entries are through cable glands to provide secure clamping as well as preventing dirt and moisture ingress. For specific applications custom enclosure, material and mounting arrangements can be provided. Wiring connectors are plug and socket to allow removal of the unit without the need to remove cables.

Built-in diagnostics and on-board front panel status indicators allow both factory and service testing of the DELTA IV with a minimum of specialised field equipment.

QUALITY

The DELTA IV is designed and manufactured in Australia to meet Romteck's stringent ISO 9001—2000 quality requirements.



TYPICAL ENCLOSURE & MOUNTING DETAIL FOR DELTA IV RADIO TELEMTRY UNIT

SPECIFICATIONS

DELTA IV μ P332

MICROPROCESSOR Motorola 68332, Programmable from 2 - 16Mhz

MEMORY (Typical only and dependant on Model)

PROGRAM MEMORY 128Kbytes EPROM std. or 128Kbytes or 256Kbytes FLASH (Optional)
RAM 128Kbytes std. or up to 512Kbytes (Optional), Battery backed. 10 year Lithium.

INPUTS/OUTPUTS

Digital Inputs: 8 x Opto isolated. 5 - 30V
Digital Inputs/Outputs: 8, Selected in groups of 2 at manufacture.
Inputs: Opto Isolated 5 - 30V
Outputs: Open Drain 60VDC- 500mA max.
Analogue Inputs: 6 x 12 bit resolution. Selected at manufacture as 0 - 5V, 0 - 10V, 0 - 20mA or 4 - 20mA
Analogue Outputs: 2 x 12 bit resolution, non-isolated 0 - 5V

COMMUNICATION INTERFACES

Type 2 x RS232 Async/Sync
Connector: DB9 male
Electrical: RS232 12V
Signal Lines: RXD, TXD, DTR, DCD, DSR, RTS, CTS

Type 1 x RS485
Connector: Phoenix Mini Combicom removable Plug & Header

Type 1 x Modem (Selectable for PSTN, Leased Line or Radio)
Connector: RJ11 for Phone. IDC10 for Radio
Modulation
 V23 FSK 1200/75 baud
 V22DPSK 1200/600 baud
 V22bis QAM 2400/600 baud
 V29 fax QAM 9600/2400 baud (HDX)

Type 1 x I²C expansion port for external i/o modules
Connector Phoenix Mini Combicom removable Plug & Header

ENVIRONMENTAL

Temperature Range

Operating: -10°C to +60°C
Storage: -35°C to +85°C

PHYSICAL

Dimensions: 118H x 135D x 45W mm
Mounting: 35mm Symmetrical DIN rail

POWER SUPPLY

Supply: V_{min} 10VDC V_{max} 38VDC

As Romteck pursues a policy of continued development and improvement, specifications are subject to change without notice.

For further product information on systems described within this brochure or any other ROMTECK products please contact the nearest ROMTECK office shown below.

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