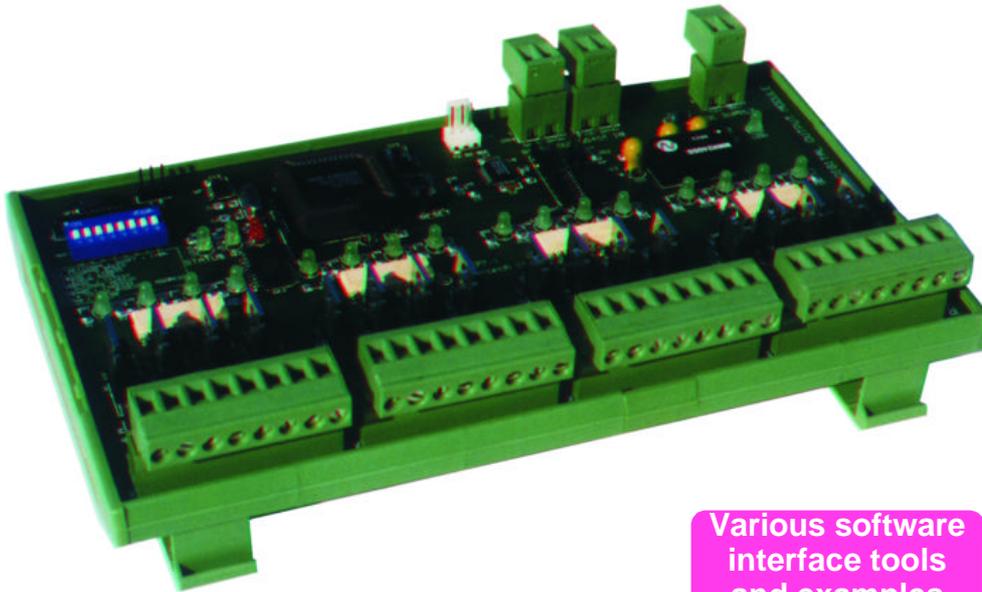


16 DIGITAL OUTPUT MODULE



Sixteen isolated digital (transistor) outputs 50 V DC at up to 1 A

ASCII or Modbus RTU communications using RS232 or RS485

Plug-in screw terminal connections

24 or 12 VDC power

Up to 32 modules can be multi-dropped using RS485 with the same wire pair up to 1000 m

Customised applications using other products

Various software interface tools and examples available.

**Active-X component
Adroit driver**

Interface Protocol and Commands

When communicating with module the following format must be observed:

@address, command, register, data, checksum

where:

@ - this character must be transmitted to signal the start of the command sequence

address - the board address as set by SW1.4 - SW1.8, (0 to 31).

command - the command (0 to 127):

- | | |
|---|-----------------------|
| 1 | ReadConfiguration |
| 2 | Read Registers |
| 3 | Write Registers |
| 4 | not used |
| 5 | Read Run Time |
| 6 | not used |
| 7 | Read Bulk Data |
| 8 | Identify All Attached |

register - the register number as applicable to the respective command.

data - the data as applicable to the respective command.

checksum - the checksum is the sum of all the values (excluding the start character) modulo 216. Note that the checksum is a 16-bit number which wraps around through zero should the sum exceed 65535 i.e. if the sum of the data from the address through to data is 65537 then the checksum should be sent as 1.

All values are 16-bit (unsigned integers - 0 to 65535) except for the address and commands which range from 0 to 255.

Upon receipt of any command between 1 and 2 (i.e. checksum matches and command is recognized) the module will reply with a copy of the original command with the command value increased by 128 (i.e. the most significant bit is set); data is the requested data.

- DIN rail mounting.
- Power requirement 24 VDC (23 V to 27 V) at 100 mA, 5 W or 12 VDC at 200 mA.
- 2 kV isolation between each output and the control circuitry.
- Watchdog used to constantly monitor the microprocessor power and activity.
- Various LEDs are used to indicate power supply status, communication status (RX and TX), microprocessor status and the state of each output.
- Both RS485 and RS232 serial communications at 9 600 bits/sec and 19 200 bits/sec.
- Operating temperature range is 0 to 70°C.
- Dimensions 110 x 260 x 30 mm (width x length x height).
- Mass approximately 200 g.

Part Numbering:

| | |
|-----------|------------------------------|
| RM-0009/A | 16 Digital Output Module 24V |
| RM-0009/B | 16 Digital Output Module 12V |

 **danntech**
PROCESS INSTRUMENTATION

Danntech cc

Reg. No. CK86/15338/23
Tel: ++ 27 (0)11 792-1239
Fax: ++ 27 (0)11 792-4687
56 Martha Road, Fontainebleau, Randburg
P O Box 1023, Fontainebleau, 2032
Republic of South Africa
www.danntech.com

