

# Multidrop modem

## TD-23

- Simple low cost multidrop network solution
  - 1200 bit/s Multidrop Modem
  - RS-232 and RS-422/485 interface
  - Up to 25 km transmission
- Robust industrial solution for long service life
  - Extended temperature  $-25^{\circ}\text{C}$  to  $70^{\circ}\text{C}$
  - Extensive EMC approvals and tri-galvanic isolation
  - Low voltage and high voltage version for DC and AC powering
- Solution for legacy RTU communications
  - Output relay version available
  - RTS-CTS delay function 23 ms to 60 ms
  - V.23 1200 bit/s FSK modem
- Easy to configure and use
  - No Software setup – DIP switch only
  - Transmission power selectable 3 dBm to  $-12$  dBm
  - Receiver sensitivity  $-23$  dBm to  $-45$  dBm



**EN 61000-6-1**  
Residential Immunity

**EN 61000-6-2**  
Industrial Immunity

**EN 61000-6-3**  
Residential Emission

**EN 61000-6-4**  
Industrial Emission

The TD-23 is a simple industrial modem designed to allow cost effective and easy multidrop access (max 16 drops) to legacy serial industrial equipment. Any asynchronous word format can be used from either RS-232 or RS-485 protocols. Designed with industrial locations in mind the modem can operate in extremes of temperature and electromagnetic field. The complete galvanic separation of all interfaces ensures earth loops and transients do not interfere with communication. There is both a low voltage and high voltage power version available.

The modem is specifically designed for legacy V.23 systems at 300 to 1200 bit/s and can be used either for multidrop applications or as a driver for a "push to talk" VHF radio system (relay version). The unit's transmitter can be controlled by hardware handshaking, but can also use the auto turning time functionality built in.

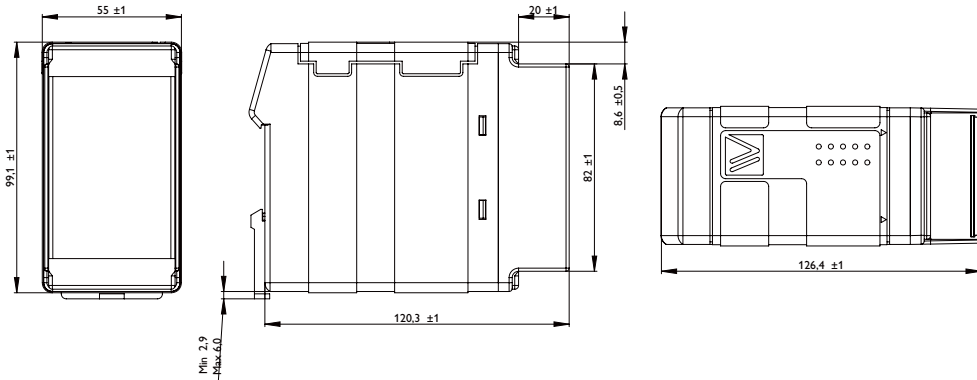
All options are configurable by DIP switch meaning that no laptop is needed for configuration. Communication can be tuned for optimum performance by increase or reducing both receiver sensitivity and transmit power. A DCD and RXD filter also helps to improve performance with some older protocols.

### Ordering Information

Art.no	Description
3600-2001	TD-23 LV, $-40$ to $+70^{\circ}\text{C}$ , 10–60 VDC, 10–30 VAC
3600-2051	TD-23 LV with relay, V.23, DIN model, $-40$ to $+70^{\circ}\text{C}$ , 10–60 VDC, 10–30 VAC with relay
3600-2101	TD-23 HV, V.23, DIN model, $-40$ to $+60^{\circ}\text{C}$ , 48–300 VDC, 85.5–264 VAC

# Specifications TD-23

## Dimensional drawing



Dimension W x H x D 55 x 100 x 132 mm (2.16 x 3.93 x 5.19 in)

Weight 0.25 kg

Degree of protection IP20

### Power

Operating voltage	LV: 10 to 60 VDC 10 to 30 VAC HV: 48 to 300 VDC, 85.5 to 264 VAC	
Rated current	<b>LV:</b> 125 mA @ 12 VDC 50 mA @ 24 VDC 28 mA @ 48 VDC 125 mA @ 12 VAC 50 mA @ 24 VAC 25 mA @ 32 VAC	<b>HV:</b> 10 mA @ 110 VDC 7 mA @ 250 VDC 20 mA @ 95 VAC 15 mA @ 240 VAC

### Interfaces

RS-422/485	1 x 300 bit/s to 1200 bit/s
RS-232	1 x 300 bit/s to 1200 bit/s
Relay (optional)	1 x Detachable screw terminal
Leased Line	1 x 300 bit/s to 1200 bit/s

### Temperature

Operating	-25 to +70°C (-13 to +158°F)
Storage & Transport	-30 to +70°C (-22 to +158°F)

### Agency approvals and standards compliance

EMC	EN 61000-6-1, Immunity residential environments
	EN 61000-6-2, Immunity industrial environments
	EN 61000-6-3, Emission residential environments
	EN 61000-6-4, Emission for industrial environments
	IEC 62236-4, Railway signalling and telecommunications apparatus
Safety	EN 60950-1, IT equipment