



TELETERM M3 Series Programmable RTU's DIN Rail Mount Local Alarm Logger for Annunciators

APPLICATION NOTE

- Low Cost Alarm Logger for Alarm Annunciators
- Log Events Locally to SD Card
- Simple Transfer of Data to PC
- Modbus RS232/485 Port
- 10/100 Ethernet
- 12 Configurable Inputs/Outputs



Features

- 9 - 30V dc powered.
- Low Power Operation
- Micro SD Memory Card Slot
- Modbus RS232/485 Port
- 10/100 Ethernet Port
- Integral Real-Time Clock with Battery Backup
- Compact size
- Convenient DIN Rail mounting

Overview

The Teleterm Local Alarm Logger is available as an option on all Omniflex Alarm Annunciators and provides a convenient and low cost way of generating historical data for post critical alarm monitoring and reporting..

Local Alarm Logging

The DIN Rail Mount alarm logger connects to the alarm annunciators via Modbus RS232/485 and stores the date and time of alarm events, including the operator pushbutton controls, to a standard Micro SD card.



Historical Data for Post Critical Alarm Monitoring

Simple transfer of the data via .CSV file to an excel spreadsheet (using the supplied Omnilog template file) provides easy storage and access to the historical data.

DATE AND TIME	DESCRIPTION	STATE
24/03/2016 16:59:38	ACCEPT PB	OFF
24/03/2016 16:59:36	ACCEPT PB	ON
24/03/2016 16:58:50	DISCHARGE MAIN LEAK	ON
24/03/2016 16:58:46	ETP DRY SUMP HIGH LEVEL	ON
24/03/2016 16:58:42	TEXAS PLC ABNORMALITY	ON
24/03/2016 16:58:38	SECONDARY COOLING	ON
24/03/2016 16:58:38	FUSE FAILURE ON 24V	ON
24/03/2016 16:58:38	24V POWER PACK INST	ON
24/03/2016 16:58:38	COMMENCE POND COOLING	ON
24/03/2016 16:58:22	POND WATER TEMP LOW	ON
24/03/2016 16:58:18	POND WATER TEMP HIGH	ON
24/03/2016 16:58:15	SEA DISCHARGE VALVE	ON
24/03/2016 16:58:09	ACTIVE DRAIN SUMP HIGH	ON
24/03/2016 16:58:05	ACTIVE EFFLUENT PLANT TRIP	ON
24/03/2016 16:58:00	FLASK BAY WATER LEVEL	ON
24/03/2016 16:57:57	POND BAY 4 WATER LEVEL	ON
24/03/2016 16:57:54	POND BAY 3 WATER LEVEL	ON

Simple Low Cost Local Alarm Logging
for Omniflex Alarm Annunciators

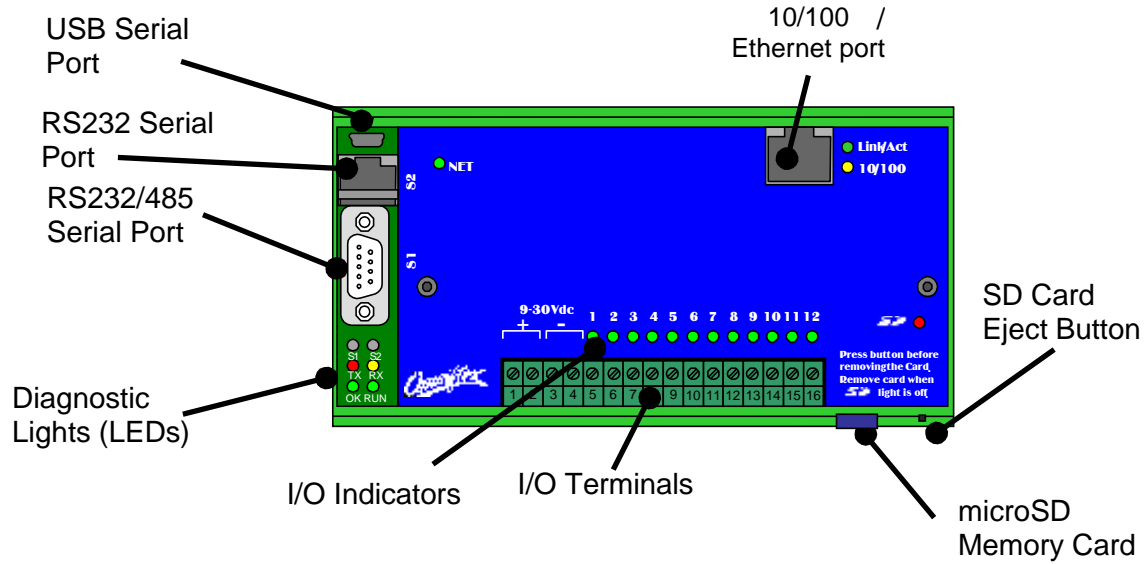




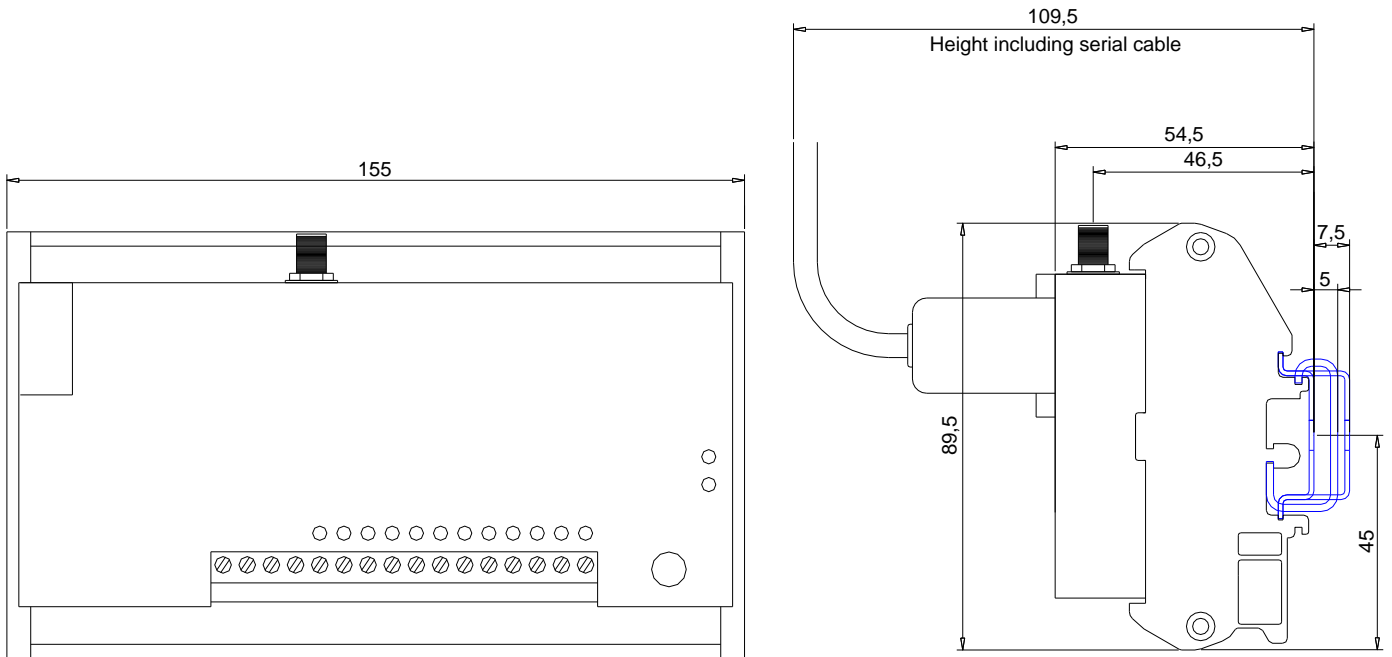
TELETERM M3 Series Programmable RTU's

DIN Rail Mount Local Alarm Logger for Annunciators

General Layout



Mechanical Dimensions





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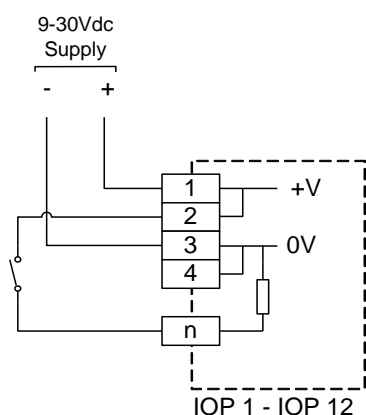
DIN Rail Mount Local Alarm Logger for Annunciators

Input/Output Configurable Options

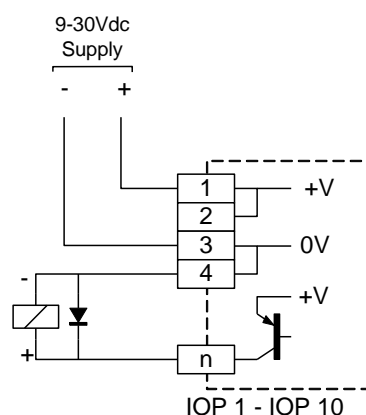
The Logger is equipped with 12 versatile input/output points (I/O points or IOP's). Each I/O point can be individually configured from the options given in the following table:

I/O Point	Terminal No.	Digital Input	Analogue Input	Digital Output	Analogue Output
1	5	Yes	0-30Vdc	Yes	-
2	6	Yes	0-30Vdc	Yes	-
3	7	Yes	0-5Vdc	Yes	-
4	8	Yes	0-5Vdc	Yes	-
5	9	Yes	0-5Vdc	Yes	-
6	10	Yes	0-5Vdc	Yes	-
7	11	Yes	0-5Vdc	Yes	-
8	12	Yes	0-5Vdc	Yes	-
9	13	Yes	0-5Vdc	Yes	-
10	14	Yes	0-5Vdc	Yes	-
11	15	Yes	0-30Vdc	-	0/4-20mA
12	16	Yes	0-30Vdc	-	0/4-20mA

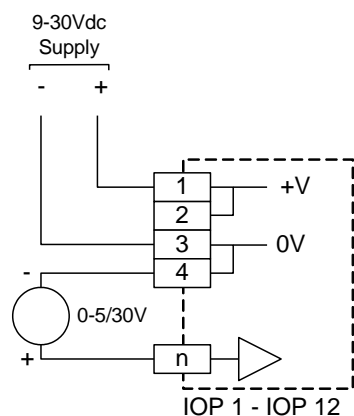
- Note 1:** See the "Specifications" section of this document for detailed specifications of each I/O point option.
- Note 2:** All 0-30V analogue inputs have increased resolution over the range 0-6V (equivalent to the 0-5V inputs).
- Note 3:** All Digital Inputs can be configured as Pulse Counters or Hours Counter.
- Note 4:** All Digital Outputs can be configured as Pulse outputs (normally ON or normally OFF).



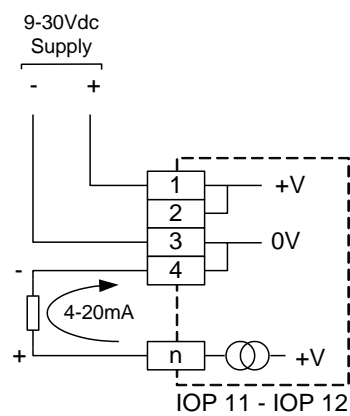
DIGITAL INPUTS



DIGITAL OUTPUTS



ANALOGUE INPUTS



ANALOGUE OUTPUTS





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Specifications

AC Input

Power Supply Voltage	9 – 30Vdc (ripple < 5%)	
Average Current	80mA at 12Vdc	40mA at 24Vdc

Environmental Conditions

Storage Temperature	-25°C – 85 °C (-13°F – 185°F)	
Operating Temperature	-10°C – 60 °C (+14°F – 140°F)	
M3G Radio compliance	-10°C – 50 °C (+14°F – 122°F)	
AC line regulation	0.5% max over 85-132 & 170-264Vac	

Weight

Packed/Unpacked	350gm/250gm approx.
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Processor

Type	Dual Core 16 Bit Processor
Clock Speed	72MHz
Memory – Flash / RAM	1MB / 512kB

Real Time Clock

Resolution	10ms
Accuracy	1 min per month
Battery Life	> 1 year with power off > 5 years with power on.
Battery Type	3V Lithium Cell type CR2032

Compliance with Standards

Safety	EN 60950
Emissions	EN 55011, Group I, Class A
Immunity – ESD	IEC 61000-4-2:2001, level 3
Immunity – RF Fields	IEC 61000-4-3:2003, level 3
Immunity – Fast Transients	IEC 61000-4-4:2004 2 kV – DC power port 1 kV – input/output lines

Front Panel Serial Port

Type	Asynchronous serial port
Protocols	Supports the following protocols as standard: <ul style="list-style-type: none"> Conet/s Modbus ASCII (Master or Slave) Modbus RTU (Master or Slave).
Baud Rate	300 – 38,400 baud.
Maximum cable length	15 meters (50ft) in RS232 mode 1200m (4000ft) in RS485 mode
Connection	9 pin sub-miniature DB9 (male).
RS232/422/485	Selected by the wiring to the DB9 connector

Pin	Communication Standard	
	RS232	RS485
1	Do not connect	Rx Data + (In)
2	Rx Data (In)	Rx Data – (In)
3	Tx Data (Out)	Do not connect
4	Do not connect	Tx Data+ (Out)
5	Ground	Ground
6	Do not connect	Vcc
7	RTS (Out)	Do not connect
8	CTS (In)	Do not connect
9	Do not connect	Tx Data – (Out)

Plug In Memory Card

Type	Standard Micro SD Memory Card (24mm x 32mm x 1.4mm)
Storage Capacity	SD Memory Card dependent: Up to 64Gb supported
Card Format	PC Compatible FAT File Format
Data Format	Data writable by program to suit application. Any text based file format may be written such as CSV File Format compatible with Microsoft Excel etc.

Ethernet Port

Network Port	
Type	10/100 UTP Ethernet
Specifications	
Network Protocol Support	UDP/IP and TCP/IP
Protocols	Modbus/TCP Class 0 Conet/e for remote programming and network routing.
IP Addressing	Fixed IP set during configuration.

Ordering Information

ORDER CODE	DESCRIPTION
C2363A-0 – x	Teleterm M3e Teleterm M3G Programmable RTU with 10/100 Ethernet Port

x = 1 for ISaGRAF IEC61131 Programming option; 0 or omit if not required.

ACCESSORIES

M1833A	MX RS232/485 Serial Patch Cable RS232/485 Female DB9 connector (M3 end) to loose ends. 2 metres.
M1838A	USB Programming Cable USB-A to USB Mini-B cable

