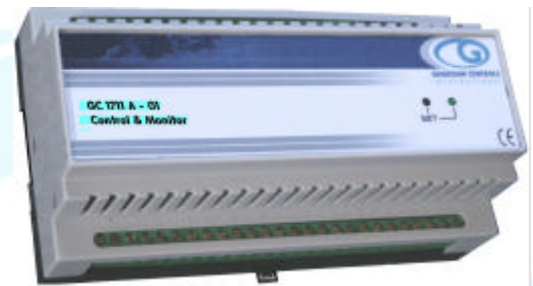


# GC 1711 TM

## Temperature Monitor

- EITHER 16 2-wire Temperature inputs (2K2 thermistor or PT1000)
- OR 8 3-wire Temperature inputs (PT100 or PT1000)
- 1 current input from XXX:5 A CT
- 1 fault contact input
- 1 fault relay (n/o) rated 230Vac 3 A
- 2 communication links (2-wire RS485 Modbus RTU)
- 'SET' lamp and button for Modbus Address
- DIN rail mounting
- 2-part screw clamp terminals
- 24Vdc/ac operation
- Optional local LCD setup and alarm display
- Optional TCP/IP communications

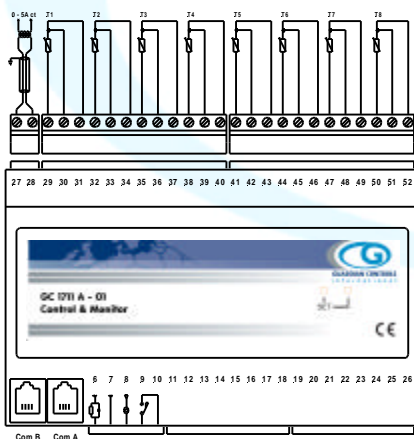


GC1711 TM

Provides temperature alarm monitoring for either sixteen 2-wire or eight 3-wire temperature probe inputs. Additional inputs are available for measurement of one current and a fault contact. The fault relay closes whenever an abnormal condition is detected.

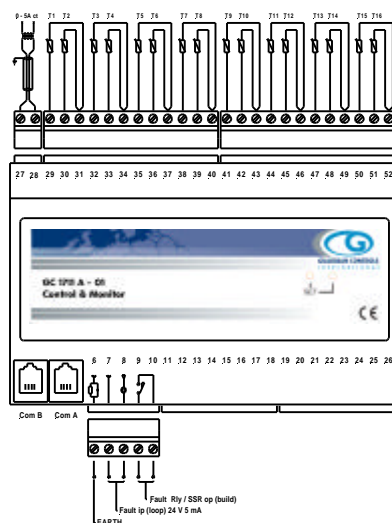
Two independent serial links communicate all values and settings using RS485 MODBUS RTU protocol. Serial link COM A may be connected to a Guardian 'Consultant' or other remote SCADA system. Serial link COM B may be connected to the optional LCD-8 local setup and alarm monitoring display panel.

An optional IP module is available to provide Modbus over TCP/IP protocol when local area network communications are required.



eight 3-wire temperatures

sixteen 2-wire temperatures



SPECIFICATION		GC1711
Power		24Vdc/ac
Operation		0 to 50 °C
Dimensions	Height	86 mm
	Length	156 mm
	Depth	59 mm
Mounting		DIN rail
Connectors	Terminals	5.08mm temperature 2-part Screw clamp
	Power and RS485	2 x 4-way sockets
Approvals		CE

## MODBUS Specification GC1711 TM

Two independant comms links "Com A" "Com B" each able to send / receive all measured values, digital states, parameters and overrides.

Each Channel provides two wire half-duplex communications using MODBUS RTU protocol, at 4800,9600,19200, 38400 baud, 8 data bits with odd, even or no parity.

### Input Registers *FUNCTION CODE 04.*

REGISTER ADDRESS	DESCRIPTION	RANGE
(Decimal)	Unit	
001	Fault Input State (high, low)	Fault Input State
002	Fault Input Alarm	1=alarm
003	Fault input Timer ( time remaining)	0- 10.0 seconds
004	Alarm relay state	1=energised

Temperature T1		
0101	Temperature T1	-150 +250C
0102	Temperature T1 Alarm state	See alarm states
0103	Temperature T1 High guard timer ( time remaining)	0 – 254 seconds
0104	Temperature T1 Low guard timer ( time remaining)	0 – 254 seconds
Temperature T2		
0201	Circuit Temperature T2	-150 +250C
0202	Temperature T2 Alarm state	See alarm states
0203	Temperature T2 High guard timer ( time remaining)	0 – 254 seconds
0204	Temperature T3 Low guard timer ( time remaining)	0 – 254 seconds
	<b>ETC.</b>	
Temperature T16		
1601	Circuit Temperature T2	-150 +250C
1602	Temperature T2 Alarm state	See alarm states
1603	Temperature T2 High guard timer ( time remaining)	0 – 254 seconds
1604	Temperature T3 Low guard timer ( time remaining)	0 – 254 seconds
Current		
1701	Current measurement Amps.	0 to 999.0
1702	Current Alarm state	See alarm states
1703	Current High guard timer ( time remaining)	0 – 254 seconds
1704	Current Low guard timer ( time remaining)	0 – 254 seconds

Format Type	Description	Value(Decimal)
Fault Input State	Never Alarm	0
	Alarm if input low	1
	Alarm If Input High	2
Alarm State	Clear	0
	Alarm High	1
	Alarm Low	2
	Probe Fault	128

## Read/Write Controller Settings

Modbus Addressed parameters are read using function code 03, Read Holding registers, and are written to by using function code 16, Pre-set Multiple registers.

READ HOLDING REGISTERS      FUNCTION CODE 03.  
PRESET MULTIPLE REGISTERS    FUNCTION CODE 16.

Modbus Addresses		System Settings		Default	Min.	Max.
	65518	Controller type	readonly			
	65534	Software version	readonly			
	65501 to 65508	Serial number				
	64998	Baud rate 2400,4800,9600,19200		19200	2400	19200
	64999	Parity none, odd, even.		none	none	even

Modbus Addresses		Unit Settings		Default	Min.	Max.
<b>P1</b>	1	Area No.		99	1	99
<b>P2</b>	2	Panel No.		99	1	99
<b>P3</b>	3	TM-16 Unit No.		8	1	8
<b>P4</b>	4	Modbus Slave Address		255	01	255
<b>P5</b>	5	Fault input in use (None, Ok Open, Ok Closed)		Ok Open	None	Closed
<b>P6</b>	6	Fault input Guardtime	Minutes	01	0	25
<b>P7</b>	7	Current transformer size	Amps	0	0	250
<b>P8</b>	8	Sensor Type 0=PT100 3-wire, 1=PT1000 3-wire, 2=PT1000 2-wire, Thermistor (2k2) 2-wire		PT100	PT100	Thermistor

Modbus addresses nn = 01-16		Settings		Default	Min.	Max.
<b>Tnn P1</b>	nn01	Temperatures T1 to T16 Temperature in Use (Yes/ No)		Yes	No	999.0
<b>Tnn P2</b>	nn02	Remote alarm inhibit (Yes/ No)		Yes	Yes	No
<b>P3</b>	nn03	Temperature Alarm State (0=None , 1= High=1, 2= Low, 3= High/Low)		High/ Low	None	High/Low
<b>P4</b>	nn 04	High temperature alarm limit	°C	50	-150	250
<b>P5</b>	nn 05	High temperature alarm guardtime	minutes	30	0	254
<b>P6</b>	nn 06	Low temperature alarm limit	°C	0	-150	250
<b>P7</b>	nn 07	Low temperature alarm guardtime	minutes	30	0	254

<b>C17 P1</b>	1701	Current in Use (Yes/ No)		No	No	Yes
<b>P2</b>	1702	Current Alarm State (0=None , 1= Hi=1, 2= Low, 3= High/Low)		None	None	High/Low
<b>P3</b>	1703	Current High Alarm Limit	Amp	-1	-1	999.0
<b>P4</b>	1704	Current High alarm guardtime	minutes	0	0	254
<b>P5</b>	1705	Current Low Alarm Limit	Amp	-1	-1	999.0
<b>P6</b>	1706	Current Low alarm guardtime	minutes	0	0	254