Technical Specifications

General

Manufacturer	Varec, Inc. Atlanta, USA
Designation	8130 RTU
Function	Tank gauge interface for data acquisition and host gateway for tank farm applications

System Design

Motherboard	16-bit processor with intelligent expansion modules
Expansion modules	Maximum 4 (depending on type)
Module types	Intelligent field device communication Analog I/O Digital I/O Serial RS-233C or RS-485
Visual indication	8 LEDs on main board indicate power and status

Software Functionality

Tank gauge scanning	Data acquisition of measured values from connected tank gauges and digital and analog I/O
Analog scaling	Scales analog inputs into process units
Flow measurement & totalization	Integration of dynamic flow measurement
Digital alarm I/O	Handling of digital and analog alarm setpoints
Pump & valve control	Remote control of pumps and valves via direct digital I/O or PLC communication
Service & diagnostics	Gauge configuration Gauge diagnostics Read direct data from gauge Upload/download configuration Save/load configuration files

Operating Conditions

Operating temperature	-40...+158 °F (-40...+70 °C)
Humidity	5 to 95% (non-condensing)
Storage temperature	-40...+212 °F (-40...+100 °C)

Host Communication Interfaces

Host comm. ports	3
Comm. type	Com #0 : RS-232C Com #1,#2 : configurable for RS-232C or RS-485
Baudrate	1200...19200 baud
Modem support	RTS/CTS
Protocol	MODBUS™ RTU protocol
Mode	RTU mode, master and slave
Media access	Master/Slave

MODBUS™ Functionality

MODBUS™ commands support	1, 2, 3, 4, 5, 6, 15, 16
MODBUS™ mapping	Configurable

Power Supply

Supply voltage	110...120 V AC or 200 - 240 V AC @ 50/60 Hz or 18-36 V DC
Power consumption	50 VA max @ 110/220 V AC (500 mA) 20 VA max @ 24 V DC
Surge protection	ANSI/IEEE standards Gas Discharge Tubes (GDTs) and clamping diodes on all field inputs, power supply inputs and RS 485 input channels

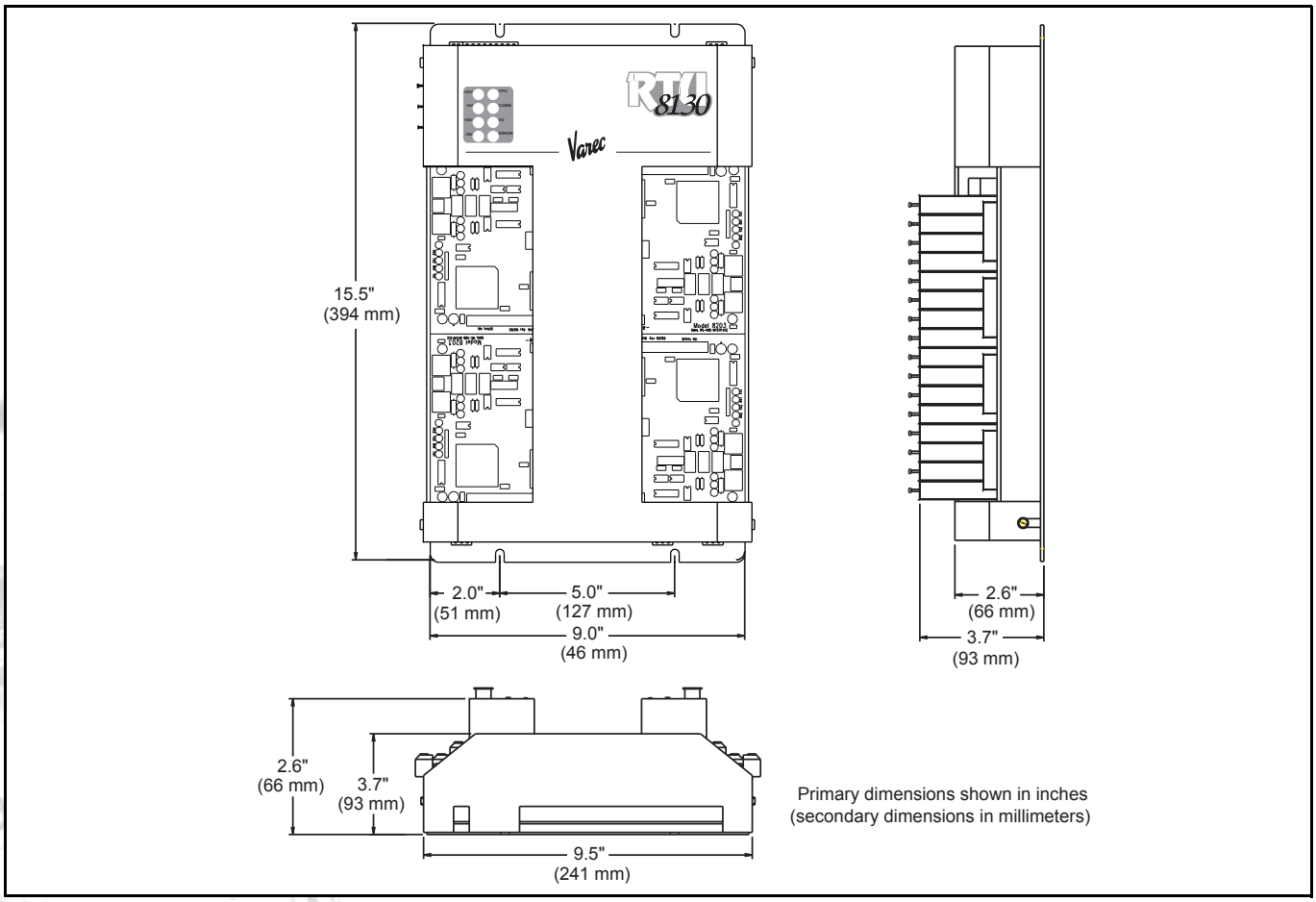
Mechanical Construction

Enclosure type	NEMA 1 (IP10)
Dimensions (HxDxW)	16" x 9.5" x 2.5" (406 x 241x 64 mm)
Material	Powder coated steel
Mounting	Wall
Terminals	Plug-in type with screw connections

Certifications and Approval

CE
FM - Class I, Division 2, Groups A, B, C & D T3C (with optional NEMA 4 enclosure required) CSA - Class I, Division 2, Groups A, B, C & D (with optional NEMA 4 enclosure required)

Product Dimensions



Options

Order code	Description
280061489	Front Panel Display
450061357	DC Output Module 3...60 V DC Normally Open
450061358	AC Input Module 0...140V AC 8mA
450061368	AC Output Module 24...140V AC Normally Open
450061369	DC Input Module 3...32 V DC 18mA
450061387	AC Input Module 90...140 V AC
450061388	AC Output Module 12...140 V AC Normally Open
450061389	DC Input Module 10...32 V DC
450061390	DC Output Module 5...60 V DC Normally Open
450061621	AC Input Module 240 V AC
450061582	AC Output Module 240 V AC Normally Open
450061491	Analog Input Module 4...20mA (use with 8204 only)
450061574	OPTO 22 #G4ODC5R5 Normally Closed
450061623	High Speed Pulse Input Module 1...5V DC

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Order Codes

10	**Power Supply**								
	0	110...120 V AC 50/60 Hz							
	1	220...240 V AC 50/60 Hz							
	2	18...36 V DC							
20		**Host Emulation**							
		0	Additional options not used						
		2	TSU Emulation - for connection to Varec TankView systems						
		3	CIU Emulation - emulates Enraf model 858 CIU interface						
30			**Special Field Communications**						
			0	Additional options not used					
			4	Varec Matrix Communication - interfaces to Varec Matrix devices (1600/1700) require 8210, 8201 & 8204 Interface Modules					
			5	MODBUS Master Communication*					
			6	CIU communication - interfaces to existing Enraf 858 CIU devices*					
			7	Veeder Root (TLS 350) Communication*					
			8	Hectronic OptiLevel Communication*					
60					**Calculations**				
					0	Additional options not used			
					7	Hybrid tank calculations			
					8	Hydrostatic tank calculations			
70						**Strapping Tables**			
						0	Additional options not used		
						9	Embedded tank strapping tables		
80							**Approvals**		
							0	For use in non-hazardous areas	
							1	FM - Class I, Division 2, Groups A, B, C & D T3C (with optional NEMA 4 enclosure required)	
							2	CSA - Class I, Division 2, Groups A, B, C & D (with optional NEMA 4 enclosure required)	
N8130-									Complete product designation

Note! * using RTU motherboard communications ports

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Authorised Representative

If no offical representative is listed here, please visit www.varec.com to find your local representative.

Document Code
TEC009GVEN2612