



MADE IN UK

TE'S CROMPTON INSTRUMENTS INTEGRA 1222 DIGITAL METERING SYSTEM

FEATURES

- DIN 96 enclosure
- Backlit LCD screen
- Voltage IN-OUT connections
- CT current measurement 5A/1A
- Plug and socket connections
- Programmable VT, CT ratios
- Modbus™ RTU
- Individual harmonics to 63rd
- Non-volatile memory 1MB

APPLICATIONS

- Commercial Buildings Disclosures
- Nabers
- National Construction Code (NCC)
- Greenstar Energy Management

APPROVALS

- IEC BS EN 61010-1:2010
- BS EN 61326-1:2013
- IEC 62053-21 Class 0.5
- IEC 62053-24 Class 0.5
- UL Recognised File No. E203000



The Crompton Instruments Integra 1222 digital metering system (dms) from TE Connectivity enables cost effective solution for the measurement and display of all electrical parameters including total harmonic distortion (THD) up to the 63rd harmonic.

DISPLAY

High definition screen features programmable backlight for high contrast visibility in low light and direct sunlight applications. The light can be programmed to automatically dim after a set period of time for energy saving.

New “petal” array icons shows the percentage of full scale power of the measured system and the instantaneous PF measurement gives clear PF indication. Total power consumption is displayed on the screen at all times.

QUICK TO CONNECT PLUG AND SOCKET WIRING SOLUTION

Integra 1222 dms and the 3-in-1 current transformers feature Q2C wiring solution for simple yet fast installation utilising plug and socket connections and pre-cut wiring looms, which allow to reduce assembly time and connection errors. IN-OUT voltage connections reduce wiring and installation time.

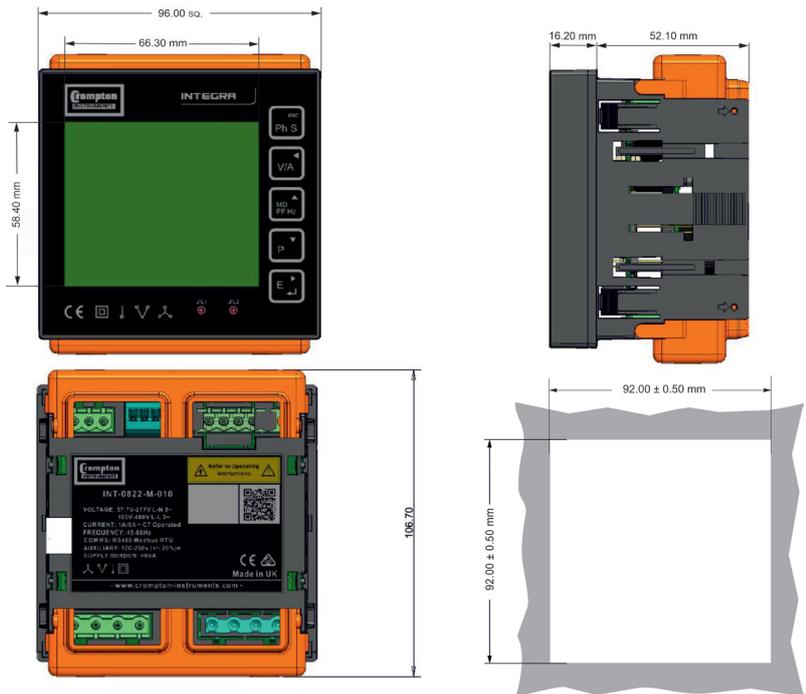
COMMUNICATION

Modbus RTU (RS485) standard on all models. Two pulsed outputs on self powered, one pulsed output on auxiliary powered. Optional modules available Ethernet (TCP), BACnet and Data Logger.

ENCLOSURE AND SYSTEM

The DIN 96 panel mounted enclosure includes integral panel mounting clips for quick and easy fitting and to suit user requirements, the range includes single-phase, three-phase three-wire and three-phase four-wire capability, all selectable at the point of installation. Optional IP64 kit available.

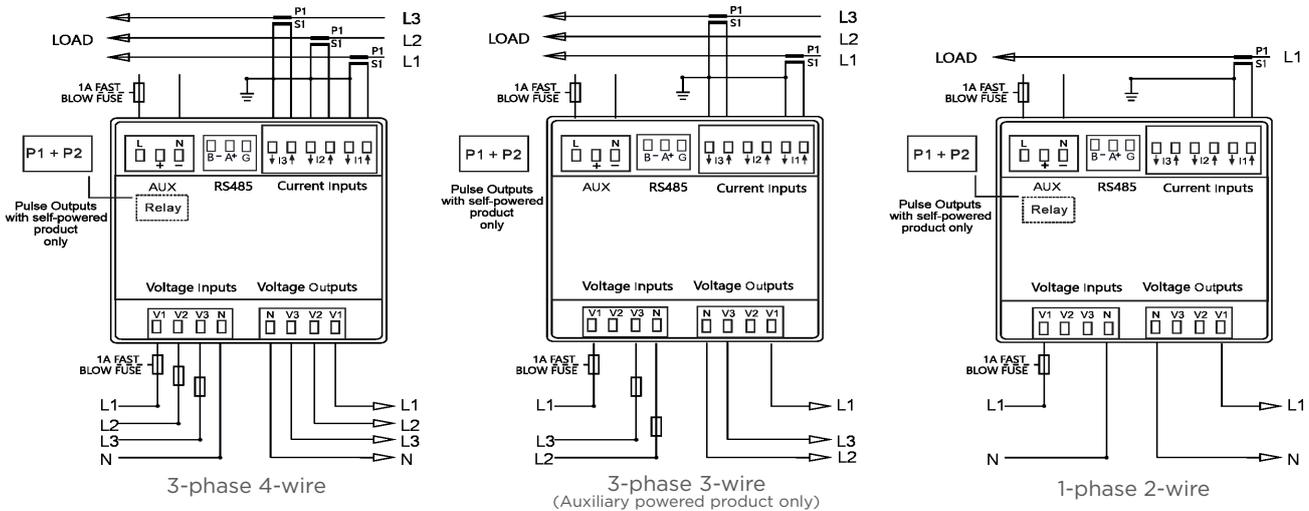
DIMENSIONS



DISPLAYED PARAMETERS

- Voltage per phase L-N, L-L
- Current per phase and Max Demand
- Power Factor - per phase and system
- Total Harmonic Distortion - Voltage and Current per phase
- Neutral current
- Frequency system
- Phase Sequence
- Active Power (P) per phase, total and Max Demand
- Reactive Power (Q) per phase, total and Max Demand
- Apparent Power (S) per phase, total and Max Demand
- Energy - Active and Reactive Importing and Total
- Energy - Active and Reactive Exporting and Total

AUXILIARY AND SELF POWERED WIRING DIAGRAMS



PRODUCT CODES	
Description	Part number
Integra 1222 multifunction panel meter - Self powered. Backlit LCD HD Display Input 100-277 V AC L-N / 173-480V AC L-L - 2 Pulsed outputs. CT input 5A or 1A selectable. Modbus RS485 output. Optional QC2 plug & socket connectivity.	INT-1222-S-010-UL
Integra 1222 multifunction panel meter - Auxiliary powered. Backlit LCD HD Display Input 57.7-277 V AC L-N / 100-480V AC L-L CT input 5A or 1A selectable. Modbus RS485 output. Auxiliary powered - 100-250V AC/DC +/- 20% Optional QC2 plug & socket connectivity.	INT-1222-M-010-UL



CROMPTON INSTRUMENTS INTEGRA 1222 DIGITAL METERING SYSTEM

SPECIFICATIONS		PARAMETERS						
Input		Button	Scr	Parameter				
Nominal input voltage	57.7 - 276 V AC L-N (100-480 V L-L) 576 V L-L MAX	ESC Ph S	1	Watts L1 Volts L1 Current L1 Active Energy L1				
Max. continuous input overload voltage	120% of nominal			2	Watts L2 Volts L2 Current L2 Active Energy L2			
Max. short duration input voltage	2 x nominal voltage for 1 second				3	Watts L3 Volts L3 Current L3 Active Energy L3		
Nominal input voltage burden	< 0.2 VA per phase					4	Watts L1 Volts L1 Current L1 Reactive Energy L1	
Nominal input current	1A AC or 5A AC						5	Watts L2 Volts L2 Current L2 Reactive Energy L2
Nom. Input current burden	< 0.1 VA							6
Max. continuous input overload current	120% of nominal		1					
Max. short duration input current (300 msec)	20 x nominal current for 1 second			2				
Auxiliary Powered					3			
Operating range	57.7-276 V L-N (100-480 L-L) AC/DC 50/60 Hz or Self powered from any phase					4		
Supply burden	<5 VA						5	
Accuracy								6
Voltage (V)	+/- 0.5% of range maximum		1					
Current (A)	+/- 0.5% of range maximum			2				
Frequency (Hz)	+/- 0.2% of mid-frequency				3			
Power factor (PF)	+/- 1% of unity (0.01)					4		
Active power (W)	+/- 0.5% of reading						1	
Reactive power (VAr)	+/- 0.5% of reading							2
Apparent power (VA)	+/- 0.5% of reading	3	Apparent Power (S) L1, L2, L3					
Active energy (kWh)	+/- 0.5% of reading to IEC 62053-21		4	System Powers P,Q,S				
Reactive energy (kVArh)	+/- 0.5% of reading to IEC 62053-24			1	Imp Active Energy Exp Active Energy			
THD	2% to 63rd harmonic				2	Imp Reactive Energy Exp Reactive Energy		
Measured Range						3	Total Active Energy Total Reactive Energy	
Voltage (V)	5 - 120% of nominal (Min 100 V - self powered)						1	
Current (A)	5 - 120% of nominal	2						
Frequency (Hz)	44 - 66 Hz		3					
Power (W, VAr, VA)	5 - 144% of nominal (bi-directional)			4				
Energy	8 digit, upto 9999999.9 MWh				1			
Power factor	4 quadrant					2		
THD	0 - 40% upto 63rd harmonic						3	
Environment		4						
Operating temperature	-25 °C to +70 °C		1					
Storage temperature	-40 °C to +80 °C			2				
Relative humidity	0 to 95%, non-condensing				3			
Shock	30 g in 3 planes					4		
Vibration	10 Hz to 50 Hz, IEC 60068-2-6, 2 g						1	
Surge voltage	4 kV (IEC 61000-4-5)	2						
Impulse voltage	6 kV (IEC 60060-1)		3					
Electromagnetic immunity	80 MHz - 2 GHz at 10 V/m IEC 61000-4-3			4				
Electrostatic discharge	15 kV (IEC 61000-4-2)				1			
Altitude	3000 m					2		
Warm-up	1 minute						3	
Outputs		4						
Pulsed output relay (self powered only)	Opto-coupled, potential-free SPST-NO contact		1					
Contact rating current	50 mA at 230 V AC 27 mA at 27 V DC			2				
Contact rating voltage	5-27 V DC				3			
Pulse width	60 / 100 / 200 ms					4		
Pulse rate	0.001/0.01/0.1/1/ 0/100/1000 kWh/kVArh						1	
Pulsed output relay (non-configurable)	2400IMP/kWh	2						
Communications	Modbus RTU (RS485)		3					
Type	2-wire half duplex			4				
Baud rate	2400, 4800, 9600, 19200, 38400				1			
Address	1 to 247					2		
Enclosure							3	
Enclosure style	DIN 96 panel mount	4						
Dimensions	96x96x62 mm		1					
Panel cut-out	92x92 mm			2				
Panel thickness	1-5 mm				3			
Protection rating	Front IP54, Rear IP30, IP64 (with additional kit)					4		
Material	UL 94-VO						1	
Weight	340 g	2						
Cable size	0.05 mm ² - 2.5 mm ² stranded wire		3					
Terminals	Voltage and Current : Shrouded screw clamp			4				
Display characters	6.2 mm				1			

INT-1222 OPTION MODULES

DATALOGGING



Part number	Description
OPT-1222-020	Datalogging option module for Integra 1222 digital multifunction meter
OPT-1222-32G	Micro [®] SD card 32GB
SPECIFICATION	
Input	
SD Type	Micro SD
SD Capacity	32 GB (max)

MODBUS TCP/IP



Part number	Description
OPT-1222-070	Modbus TCP/IP module for Integra 1222 digital multifunction meter
SPECIFICATION	
Input	
DHCP	Client (default)
Physical Connections	RJ45
Speed	10/100Mbps
Web Server	Enabled
IP Protection	IP20
Operating Temperature	-20° to +60°
Storage Temperature	-30 ° to +80°
Parameter Refresh	< 1 sec
Default Gateway	192.168.0.1
Supported Web Browsers	Chrome, Firefox

BACNET MSTP



Part number	Description
OPT-1222-090	BACnet MSTP module for Integra 1222 digital multifunction meter
SPECIFICATION	
Input	
Material	UL 94-V0
Physical Connections	3-way screw terminal
Speed	9600, 19200, 38400 baud

IP64 SEALING KIT



Part number	Description
OPT-1222-IP64	Optional Sealing gasket & push fixing clamps for IP64

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