



INTEGRA 1221

DIGITAL METERING SYSTEM

KEY 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

TE Connectivity's (TE) Crompton Instruments Integra 1221 is a Digital Metering System (DMS) enabling cost effective solution for the measurement and display of all electrical parameters including Total Harmonic Distortion (THD) and individual, up to the 63rd harmonic.

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 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 power factor (PF) measurement gives clear PF indication. Total power consumption is displayed on the screen at all time.

INTEGRA 1221 DMS and the 3-in-1 current transformers include RJ12 plugs and sockets for easy connectivity and installation and the solution is available with wired looms to reduce assembly time and connection errors. IN-OUT voltage connections reduce wiring and installation time.

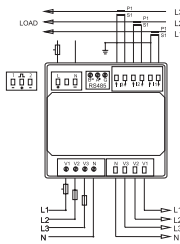
Modbus™ RTU (RS485) available on all models. Two pulsed outputs available on self powered only.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

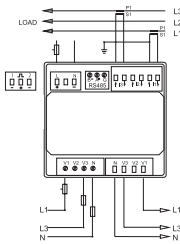
INTEGRA 1221



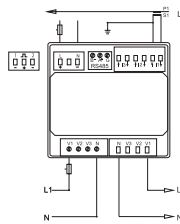
Auxiliary And Self Powered Wiring Diagrams



3-phase 4-wire

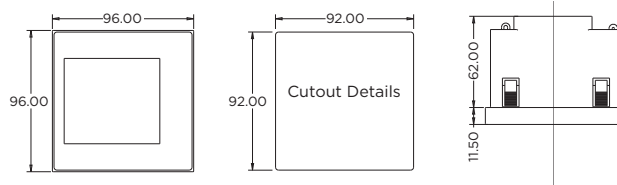


3-phase 3-wire



1-phase 2-wire

Dimensions



SPECIFICATION	
Input	
Nominal input voltage	57.7 - 276 V AC L-N (100-480 V L-L) 576 V L-L MAX
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2 VA per phase
Nominal input current	100 mA
Nom. Input current burden	< 0.1 VA
Max. continuous input overload current	120% of nominal
Max. short duration input current	20 x nominal current for 1 second
Auxiliary Powered	
Operating range	57.7-276 V L-N (100-480 L-L) AC/DC 50/60 Hz or Self powered from any phase
Supply burden	<5 VA
Accuracy	
Voltage (V)	+/- 0.5% of range maximum
Current (A)	+/- 0.5% of range maximum
Frequency (Hz)	+/- 0.2% of mid-frequency
Power factor (PF)	+/- 1% of unity (0.01)
Active power (W)	+/- 0.5% of reading
Reactive power (VAR)	+/- 0.5% of reading
Apparent power (VA)	+/- 0.5% of reading
Active energy (kWh)	+/- 0.5% of reading to IEC 62053-21
Reactive energy (kVARh)	+/- 0.5% of reading to IEC 62053-24
THD	2% to 63rd harmonic
Measured Range	
Voltage (V)	5 - 120% of nominal (Min 100 V - self powered)
Current (A)	5 - 120% of nominal
Frequency (Hz)	44 - 66 Hz
Power (W, VAR, VA)	5 - 144% of nominal (bi-directional)
Energy	8 digit, upto 9999999.9 MWh
Power factor	4 quadrant
THD	0 - 40% upto 63rd harmonic

PRODUCT CODES	
Part number	Description
INT-1221-S-010	INTEGRA 1221 multifunction panel meter LCD Display. Input 480 V L-L 2 pulsed outputs, Modbus RS485 Self powered
INT-1221-M-010	INTEGRA 1221 multifunction panel meter LCD Display Input 480 V L-L Modbus RS485 Auxiliary powered

SPECIFICATION	
Environment	
Operating temperature	-25° C to +70° C
Storage temperature	-40° C to +80° C
Relative humidity	0 to 95%, non-condensing
Shock	30 g in 3 planes
Vibration	10 Hz to 50 Hz, IEC 60068-2-6, 2 g
Surge voltage	4 kV (IEC 61000-4-5)
Impulse voltage	6 kV (IEC 60060-1)
Electromagnetic immunity	80 MHz - 2 GHz at 10 V/m IEC 61000-4-3
Electrostatic discharge	15 kV (IEC 61000-4-2)
Altitude	3000 m
Warm-up	1 minute
Outputs	
Pulsed output relay (self powered only)	Opto-coupled, potential-free SPST-NO contact
Contact rating current	50 mA at 230 V AC 27 mA at 27 V DC
Contact rating voltage	5-27 V DC
Pulse width	60 / 100 / 200 ms
Pulse rate	0.001/0.01 / 0.1/1/10/100/1000 kWh/kVARh
Pulsed output relay (non-configurable)	2400IMP/kWh
Communications	
Type	2-wire half duplex
Baud rate	2400, 4800, 9600, 19200, 38400
Address	1 to 247

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