

Energy Meters and Current Transformers Overview

- 55+ Years of successful trading
- Full after sales support
- BSI Certified ISO9001:2015
- Extensive range in stock



Energy Meters	RI-F100	RI-F200	RI-F220	RI-F500	RI-F550	RI-D140	RI-D240
	 MID ✓					 MID ✓	
Type	Three Phase Multifunction MID Certified	Single and Three Phase Multifunction	Single and Three Phase Multifunction	Multifunction Network Analyser - Single and Three Phase	Multifunction Network Analyser - Single and Three Phase	Single and Three Phase Multifunction MID Certified	Single and Three Phase Multifunction
Features	- DIN 96 panel mounted -/5A current transformer input - Three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - MID B+D Certified - High definition white backlit LCD display - Compact size - only 50mm panel depth - Simple programming and operation - Auto and manual page scrolling - Harmonics up to the 31st	- DIN 96 panel mounted -/1A or -/5A current transformer input - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - High definition white backlit LCD display - Compact size - only 50mm panel depth - Simple programming and operation - Auto and manual page scrolling - Harmonics up to the 31st	- DIN 72 panel mounted -/1A or -/5A current transformer input - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - High definition white backlit LCD display - Simple programming and operation - Auto and manual page scrolling - Harmonics up to the 31st	- DIN 96 panel mounted - Tactile buttons and mono graphical display - Real time clock - Multi-tariff measurement 2 x Digital inputs and 2 x relay outputs - Active energy EN62053-22 Class 0.2S - Event and alarm recording - Up to four additional plug-in modules - Waveform capture, waveform display, phasor diagrams etc. - IP65 front - Harmonics up to the 63rd	- DIN 96 panel mounted - Touch buttons and colour graphical display - Real time clock - Multi-tariff measurement 2 x Digital inputs and 2 x relay outputs - Active energy EN62053-22 Class 0.2S - Event and alarm recording - Up to four additional plug-in modules - Waveform capture, waveform display, phasor diagrams etc. - IP65 front - Harmonics up to the 63rd	- Four module DIN rail mounted - Energy pulse LED -/1A or -/5A CT input (MID certification only on 5A current transformers) - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - MID B+D Certified - High definition white backlit LCD display - Simple programming and operation - Auto and manual page scrolling	- Four module DIN rail mounted - Energy pulse LED -/1A or -/5A current transformer input - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - High definition white backlit LCD display - Simple programming and operation - Auto and manual page scrolling
Parameters	V (L-L, L-N) I, PF, THD, Hz, Neutral current, Hours Run, Power (Active, Reactive and Apparent, Min./Max. demand), Energy (Active, reactive and apparent), Import and export energy			V(Phase/Line/System) I(Line/System), PF(Line/System /Displacement), THD, Hz, K, Hours Run, Power (Active, Reactive, Apparent, Min./Max. demand), Unbalance, Energy (Active, reactive and apparent), Import and export energy, Waveform, Flicker and Phase Diagrams		V (L-L, L-N) I, PF, Hz, Neutral current, Power (Active, Reactive and Apparent, Min./Max. demand), Energy (Active, reactive and apparent), Import and export energy	
Mounting	Panel - DIN 96	Panel - DIN 96	Panel - DIN 72	Panel - DIN 96	Panel - DIN 96	DIN Rail (35mm)	DIN Rail (35mm)
Connection	Current Transformer	Current Transformer	Current Transformer	Current Transformer	Current Transformer	Current Transformer	Current Transformer
Communication Options	Pulse output only Modbus and Pulse output (M-Bus and Pulse soon)	Pulse output only Modbus and Pulse output (M-Bus and Pulse available)	Pulse output only Modbus and Pulse output (M-Bus and Pulse available)	Built-in Modbus & Pulse Extendable with modules	Built-in Modbus & Pulse Extendable with modules	Modbus output (M-Bus available soon)	Modbus output (M-Bus available soon)
MID Certified	✓	-	-	-	-	✓	-
Dims. (mm) H x W x D	99 x 99 x 50	99 x 99 x 50	72 x 72 x 97.5	96 x 76 x 60.5	96 x 76 x 60.5	90 x 70 x 68	90 x 70 x 68

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Energy Meters



MID ✓



MID ✓



MID ✓



MID ✓



Type

Single phase
kWh
MID Certified

Single Phase Multifunction DIN
Rail Energy Meter
and Split-core CT

Single Phase Multifunction
MID Certified

Three Phase
kWh
MID Certified

Three Phase Multifunction DIN
Rail Energy Meter
MID Certified

Three Phase Multifunction DIN
Rail Energy Meter

Features

- Single module width DIN rail mounted
- 45A direct connection
- Available with LCD or mechanical display
- Import Energy measurement
- MID B+D Certified
- LED pulse indication
- Dual Tariff

- Single module DIN rail mounted
- Energy pulse LED
- Comes with 100A/330mV Mini split-core CT with 16mmØ aperture for easy retrofitting
- Single phase network compatible
- Import & Export energy measurement
- 6 digit backlit LCD display with 1 or 2 decimal places
- True RMS measurement
- Cost effective and accurate
- Simple operation
- Non-volatile memory

- Two module width DIN rail mounted
- 100A direct connected
- High definition LCD display with white backlight
- Import and export energy measurement
- MID B+D Certified
- Dual LED pulse indication
- Simple programming and operation
- Auto or manual page scrolling

- Four module width DIN rail mounted
- 100A direct connected
- High definition LCD display
- Import active energy measurement
- MID B+D Certified
- LED pulse indication

- 100A direct connected
- High definition backlit LCD display
- Four module width DIN rail mounted
- Import and export active and reactive energy measurement - per phase and totals
- LED pulse indication
- Reversible Input direction (fed from top or bottom)
- Generator tariff mode
- Single phase and three phase network compatible

- 100A direct connected
- High definition backlit LCD display
- Four module width DIN rail mounted
- Import and export active and reactive energy measurement - per phase and totals
- LED pulse indication
- Reversible Input direction (fed from top or bottom)
- Generator tariff mode
- Single phase and three phase network compatible

Parameters

kWh
(Via Modbus - V, I, PF, Hz)

Total/Import/Export active energy (kWh) Voltage (V), Current (A) Active power (W) Frequency (Hz) Power Factor (PF)

V (L-N), I, PF, Active Power, Reactive Power, Apparent Power, Import Active Energy (kWh)

kWh

Import/Export Active Energy (kWh) per phase + total
Import/Export Reactive energy (kVArh) per phase + total
Apparent energy (kVA) per phase + total, Voltage (V), Current (A), Active power (kW) per phase + total
Reactive power (kVAr) per phase + total
Apparent power (kVA) - per phase and total
Power factor (PF), Frequency (Hz), Generator tariff (kWh)
Active/Reactive/Apparent Power Max. Demand

Mounting

DIN Rail (35mm)

DIN Rail (35mm)

DIN Rail (35mm)

DIN Rail (35mm)

DIN Rail (35mm)

DIN Rail (35mm)

Connection

Direct

Current Transformer

Direct

Direct

Direct

Direct

Communication Options

Pulse output only
Modbus and Pulse outputs
M-Bus and Pulse outputs

Modbus and
2 x Pulse outputs

Modbus and 2 x Pulse outputs
M-Bus and 2 x Pulse outputs

Pulse output

Modbus and 2 x Pulse outputs

Modbus and 2 x Pulse outputs

MID Certified

✓

–

✓

✓

✓

–

Dims. (mm) H x W x D

95 x 18 x 72

95 x 18 x 72

90 x 35 x 65

110 x 70 x 64.5

90 x 70 x 68.45

90 x 70 x 68.45

easywire® Energy Meters	RI-F300	RI-F400	RI-D340	RI-D440	RI-D360	RI-D460	RI-D380
	 MID ✓		 MID ✓		 MID ✓		 MID ✓
Type	Single and Three Phase Multifunction MID Certified	Single and Three Phase Multifunction	Three Phase Multifunction MID Certified	Three Phase Multifunction	Dual Load Three Phase Multifunction MID Certified	Dual Load Three Phase Multifunction	Quad Load, Single and Three Phase Multifunction MID Certified
Features	- DIN 96 panel mounted - Input from easywire® Current Transformers - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - MID B+D Certified - Backlit LCD display - Easy to program & operate - Harmonics up to the 31st - Voltage OUT connector for daisy chaining up to 32 meters from one supply	- DIN 96 panel mounted - Input from easywire® Current Transformers (-/1A or -/5A CTs with converter) - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - Backlit LCD display - Easy to program & operate - Harmonics up to the 31st - Voltage OUT connector for daisy chaining up to 32 meters from one supply	- Four module DIN rail mounted - Input from easywire® Current Transformers - Energy pulse LED - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - MID B+D - Backlit LCD display - Easy to program & operate - Voltage OUT connector for daisy chaining up to 32 meters from one supply	- Four module DIN rail mounted - Input from easywire® Current Transformers (-/1A or -/5A CTs with converter) - Energy pulse LED - Single phase or three phase network compatible - Programmable voltage and Current Transformer ratio - True RMS measurement - Backlit LCD display - Easy to program & operate - Voltage OUT connector for daisy chaining up to 32 meters from one supply	- Four module DIN rail mounted 2 x Inputs from easywire® CTs - Energy pulse LED - Single phase or three phase network compatible - CT ratios programmable by load (Load 1 and 2) - Programmable voltage and Current Transformer ratio - True RMS measurement - MID B+D Certified - Backlit LCD display - Easy to program & operate - Linkable meter supply - Voltage OUT connector for daisy chaining up to 32 meters from one supply	- Four module DIN rail mounted 2 x separate 3 Phase or 6 x Single Phase inputs from easywire® CTs (-/1A or -/5A CTs with converter) - Energy pulse LED - Single phase or three phase network compatible - CT ratios programmable by load (Load 1 and 2) - Programmable voltage transformer ratio - True RMS measurement - Backlit LCD display - Easy to program & operate - Linkable meter supply - Voltage OUT connector for daisy chaining up to 32 meters from one supply	- Four module DIN rail mounted 4 x separate 3 Phase or 12 x Single Phase inputs from easywire® CTs (-/1A or -/5A CTs with converter) - Energy pulse LED - Single phase or three phase network compatible - Independently programmable CT ratios (Load 1, 2, 3, 4) - Programmable voltage transformer ratio - True RMS measurement - Backlit LCD display - Easy to program & operate - Voltage OUT connector for daisy chaining up to 32 meters from one supply
Parameters	V (L-L, L-N) I, PF, THD, Hz, Neutral current, Hours Run, Power (Active, Reactive and Apparent, Min./Max. demand), Energy (Active, reactive and apparent), Import and export energy			V (L-L, L-N) I, PF, Hz, Neutral current, Power (Active, Reactive and Apparent, Min./Max. demand), Energy (Active, reactive and apparent),			V (L-L, L-N) I (Load 1/2/3/4 or 12x Single Phase) PF, Hz, Power (Active, Reactive, Apparent, Min./Max. demand), Energy (Active, reactive and apparent)
Mounting	Panel - DIN 96	Panel - DIN 96	DIN Rail (35mm)	DIN Rail (35mm)	DIN Rail (35mm)	DIN Rail (35mm)	DIN Rail (35mm)
Connection	Current Transformer	Current Transformer	Current Transformer	Current Transformer	Current Transformer	Current Transformer	Current Transformer
Communication Options	Modbus and Pulse output (M-Bus and Pulse available)	Modbus and Pulse output (M-Bus and Pulse available)	Modbus and Pulse output (M-Bus and Pulse available)	Modbus and Pulse output (M-Bus and Pulse available)	Modbus and 2 x Pulse outputs M-Bus and 2 x Pulse outputs	Modbus and 2 x Pulse outputs M-Bus and 2 x Pulse outputs	Modbus output (M-Bus available)
MID Certified	✓	-	✓	-	✓	-	✓
Dims. (mm) H x W x D	99 x 99 x 50	99 x 99 x 50	90 x 70 x 68	90 x 70 x 68	90 x 70 x 68	90 x 70 x 68	90 x 70 x 68

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RI-D480



Quad Load, Single and Three Phase Multifunction

- Four module DIN rail mounted
- 4 x separate 3 Phase or 12 x Single Phase inputs from **easywire**® CTs (-/1A or -/5A CTs with converter)
- Energy pulse LED
- Single phase or three phase network compatible
- CT ratios programmable by load (Load 1, 2, 3, 4)
- Programmable voltage transformer ratio
- True RMS measurement
- Backlit LCD display
- Easy to program & operate
- Voltage OUT connector for daisy chaining up to 32 meters from one supply

V (L-L, L-N) I (Load 1/2/3/4 or 12x Single Phase) PF, Hz, Power (Active, Reactive, Apparent, Min./Max. demand), Energy (Active, reactive and apparent)

DIN Rail (35mm)
Current Transformer

Modbus output
(M-Bus available)

90 x 70 x 68

easywire® Three Phase Current Transformers

	RI-CT230-EW	RI-CT240-EW	RI-CT242-EW	RI-CT249-EW	RI-CT248-EW	RI-CT250-EW
Primary Current	63A	60...160A	60...250A	60...160A	250...630A	630...1600A
Secondary Current	330mV	330mV	330mV	330mV	330mV	330mV
Centres	17.5mm	25mm	35mm	29mm	45mm	70mm
Cable Diameter	Ø 8mm	Ø 15mm	Ø 21mm	Ø 16mm	Ø 31mm	Ø 50mm
Aperture	Ø 8mm	15.5 x 30mm	21 x 25mm	16 x 20mm	31 x 31mm	54 x 50mm
DIN Rail Mount	Supplied	Supplied	Supplied	Supplied	Supplied	Supplied
Foot Mount	Push in	Push in	Push in	Push in	Push in	Push in
Busbar Mount	-	✓	✓	✓	✓	✓
Sealable RJ45 Connection	✓	✓	✓	✓	✓	✓
Dims. (mm) H x W x D	47 x 61 x 53	80 x 76 x 76	80 x 105 x 54	68 x 90 x 76	90 x 140 x 54	124 x 215 x 54

Three Phase Current Transformers

	RI-CT240	RI-CT242	RI-CT248	RI-CT250
Primary Current	60...200A	60...250A	250...630A	630...1600A
Secondary Current	5A	5A	5A	5A
Centres	25mm	35mm	45mm	70mm
Cable Diameter	Ø 15mm	Ø 21mm	Ø 31mm	Ø 50mm
Aperture	15.5 x 30mm	21 x 25mm	31 x 31mm	54 x 50mm
DIN Rail Mount	Supplied	Supplied	Supplied	Supplied
Foot Mount	Push in	Push in	Push in	Push in
Busbar Mount	✓	✓	✓	✓
Sealable Terminal Cover	✓	✓	✓	✓
Dims. (mm) H x W x D	80 x 76 x 76	80 x 105 x 54	90 x 140 x 54	124 x 214 x 54

Also available from
Rayleigh Instruments:

- Class X CTs
- High Accuracy CTs
- Protection Class CTs
- Ring Type CTs
- Core Balanced CTs
- Special Order CTs
- **easywire**® CTs

Single Phase Current Transformers

	RI-CT050	RI-CT060	RI-CT070	RI-CT080	RI-CT090	RI-CT100	RI-CT110	RI-CT120
								
Primary Current	40...300A	100...500A	100...800A	250...1250A	400...1600A	400...2000A	400...2000A	150...2000A
Secondary Current	5A or 1A	5A or 1A	5A or 1A	5A or 1A	5A or 1A	5A or 1A	5A or 1A	5A or 1A
Cable Diameter	Ø 21mm	Ø 24mm	Ø 28mm	Ø 40mm	Ø 45mm	–	Ø 60mm	–
Busbar Aperture	–	20 x 20mm or 30 x 10mm	40 x 10mm or 30 x 12mm	50 x 10mm or 40 x 30mm	60 x 15mm or 50 x 30mm	60 x 30mm	60 x 30mm or 80 x 10mm or 50 x 50mm	65 x 32mm
DIN Rail Mount	Supplied	Supplied	Supplied	Supplied	–	–	–	–
Foot Mount	Push in	Push in	Push in	Push in	Push in	Push in	Push in	–
Busbar Mount	–	✓	✓	✓	✓	✓	✓	✓
Sealable Terminal Cover	✓	✓	✓	✓	✓	✓	✓	✓
Dims. (mm) H x W x D	65 x 44 x 30	70 x 49 x 30	78 x 60 x 30	95 x 70 x 40	111 x 85 x 30	126 x 90 x 45	124 x 100 x 40	111 x 90 x 40

Split Core Current Transformers

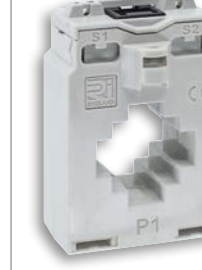
	RI-CTS010	RI-CTS016	RI-CTS024	RI-CTS036	RI-CTS58MT	RI-CTS023	RI-CTS058
							
Primary Current	5...75A	50...160A	100...300A	250...600A	Multi Ratio 200, 400, 600, 800, 1000A	100...400A	250...1000A
Secondary Current	.333mV	.333mV	5A or 1A	5A or 1A	5A or 1A	5A or 1A	5A or 1A
Cable Diameter	Ø 10mm	Ø 16mm	Ø 24mm	Ø 36mm	Ø 63mm	–	–
Busbar Aperture	–	–	–	–	–	20 x 30mm	50 x 80mm
Foot Mount	–	–	–	–	–	Push in	Push in
Busbar Mount	–	–	–	–	–	–	✓
Sealable Terminal Cover	–	–	–	–	–	✓	✓
Dims. (mm) H x W x D	40.5 x 25.5 x 26	44.5 x 32 x 31	66.5 x 50.5 x 41	84 x 57.5 x 42	123 x 133 x 37	109 x 89 x 40	145 x 115 x 51

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RI-CT120H	RI-CT130	RI-CT130H	RI-CT140	RI-CT140H	RI-CT150	RI-CT150H	RI-CT160	RI-CT160H
								
150...2000A 5A or 1A –	150...2500A 5A or 1A –	150...2500A 5A or 1A –	200...4000A 5A or 1A –	200...4000A 5A or 1A –	400...4000A 5A or 1A –	400...4000A 5A or 1A –	400...6000A 5A or 1A –	400...6000A 5A or 1A –
65 x 32mm	84 x 34mm	84 x 34mm	105 x 38mm	105 x 38mm	127 x 38mm	127 x 38mm	127 x 54mm	127 x 54mm
– – ✓ ✓	– – ✓ ✓	– – ✓ ✓	– – ✓ ✓	– – ✓ ✓	– – ✓ ✓	– – ✓ ✓	– – ✓ ✓	– – ✓ ✓
107 x 95 x 40	133 x 96 x 40	113 x 116.5 x 40	154 x 96 x 40	113 x 137.5 x 40	176 x 98 x 40	115 x 159.5 x 40	176 x 125 x 40	142 x 159 x 40
RI-CTS088	RI-CTS812	RI-CTS816	RI-CTP010	RI-CTP040	NOW AVAILABLE		RI-CT050-EW	RI-CT060-EW
					 easywire • Proven • Safe • Reliable The original and market leading plug & play metering system A growing range of Single Phase easywire™ Current Transformers is now available CALL FOR DETAILS			
250...1000A 5A or 1A –	500...1600A 5A or 1A –	2000...6000A 5A or 1A –	1...40A 5A or 1A –	30...150A 5A or 1A –			40...300A 330mV Ø 21mm – Push in (+DIN Rail mount) – ✓	100...500A 330mV Ø 24mm 20 x 20mm / 30 x 10mm Push in (+DIN Rail mount) – ✓
80 x 80mm Push in ✓ ✓	80 x 120mm Push in ✓ ✓	80 x 160mm Push in ✓ ✓	– Push in – ✓	– Push in – ✓			69.5 x 44 x 30	74 x 49 x 30
154 x 145 x 51	196 x 145 x 52	250 x 186 x 52	80 x 62 x 50	97 x 80 x 44				



Remotely monitor, collect data and control your energy usage from anywhere in the world!

- Remote monitoring and control from Cloud based Servers
- Customisable screens - 'snap where you want' widgets
- Asset management and tracking
- Automated energy billing
- Available in multiple languages

Building Management Systems

rayleighconnect™ monitors remotely your whole building(s) energy usage and holds the data in the cloud so you can access the information anytime.

Even historical data is kept so you can make comparisons of your energy consumption for gas, electricity and water over extended time periods.

Remote alerts can be set up to warn of discrepancies on the running of the building.



Contact us now to organise your free demonstration
rayleighconnect@rayleigh.com

rayleighconnect™

GSM • Ethernet • Cloud Hosting