



EU Type Examination Certificate Number: **0120/SGS0471**

Rayleigh Instruments Limited

Raytel House
Cutlers Road
South Woodham Ferrers
Essex
CM3 5WA

Instrument Identification:
RI-D175-P

Single phase, Active Import, Indoor, Electricity Meter

Instrument Traceable Number
0120/SGS0471

has been assessed and certified as meeting the requirements of

EU Directive 2014/32/EU **on Measuring Instruments Annex II, Module B**

It is certified that the manufacturer's technical design and specimen for the above instrument has been examined and, based on the evidence submitted, it is considered that the instrument conforms to the requirements of Annex V of EU Directive 2014/32/EU

This certificate must be used in conjunction with a certificate covering the product verification as required in Annex II, Module D or Annex II, Module F


This certificate is valid until 19th July 2026
Issue 1

Certification is based on report number(s) NMI-15200659-01
2016F00-30-000121
2016F00-30-000126
2016F00-30-000127
2016F00-30-000128
EMA281175

Authorised Signature


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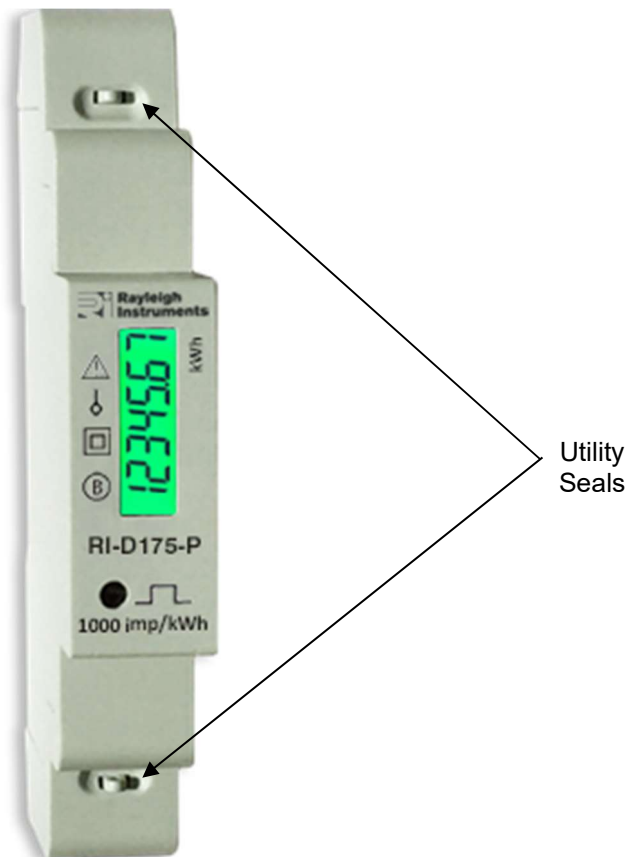
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1. Technical Data

Manufacturer	Rayleigh Instruments Ltd
Meter Type	RI-D175-P
Voltage Rating (U_n)	230V
Current Rating ($I_{min} - I_{ref} (I_{max})$)	0.25-5(45)A
Frequency (F_n)	50Hz
Active Accuracy Class (kWh)	A or B or C (kWh)
Type of circuit	1p2w
Temperature Range	-25°C to +55°C
Software/ Firmware Version No	V1
CRC Checksum	7944
Identification Location	LCD
Bill Of Materials Number	1P Main V8 – PCB20160304B 1P Power V6 – PCB20160304C 1P Pulse V1 – PCB20151202D
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	1000imp/kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Terminal Arrangement(s)	DIN
Location of Manufacturers Address	Side of Meter Case

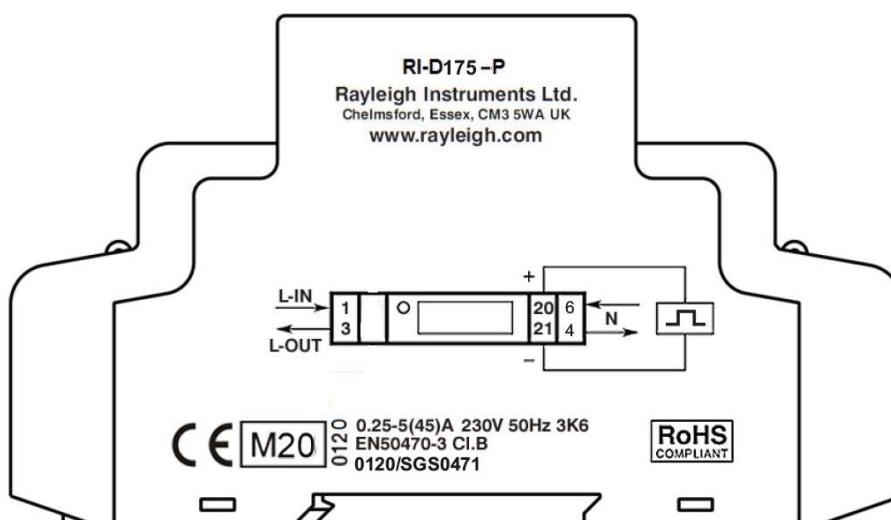
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2. Photograph of Meter and Sealing Plan



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3. Examples of Nameplates



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4. Calculation of the composite error/ MPE


During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table below represents the sum of the square values per load, determined via the following formula:-

$$\delta e(T, U, f) = \sqrt{(\delta e^2(T, I, \cos\phi) + \delta e^2(U, I, \cos\phi) + \delta e^2(f, I, \cos\phi))}$$

where

$\delta e(T, I, \cos\phi)$	=	Additional error due to variation of the temperature at the same load
$\delta e(U, I, \cos\phi)$	=	Additional error due to variation of the voltage at the same load
$\delta e(f, I, \cos\phi)$	=	Additional error due to variation of the frequency at the same load

		Influence Factors for Temperature, Voltage & Frequency					
Current	PF Cos	-25°C	-10°C	5°C	30°C	40°C	55°C
I _{min}	1.0	0.1	0.2	0.1	0.1	0.1	0.1
I _{tr}	1.0	0.2	0.2	0.2	0.1	0.1	0.2
10I _{tr}	1.0	0.2	0.2	0.2	0.2	0.2	0.2
I _{max}	1.0	0.1	0.1	0.1	0.1	0.1	0.1
I _{tr}	0.5ind	0.3	0.3	0.3	0.3	0.3	0.3
10I _{tr}	0.5ind	0.3	0.3	0.3	0.3	0.3	0.3
I _{max}	0.5ind	0.5	0.5	0.6	0.4	0.4	0.5
I _{tr}	0.8cap	0.2	0.1	0.1	0.1	0.1	0.1
10I _{tr}	0.8cap	0.2	0.1	0.1	0.1	0.1	0.1
I _{max}	0.8cap	0.1	0.1	0.2	0.1	0.1	0.1


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5. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
RI-D175-P	0.25-5(45)A, 1000imp/kWh, Single phase, Active Import, Electricity Meter

Modifications to the meter(s) described according to approval No.**0120/SGS0471** must be notified to the issuing body to confirm the meter(s) continuing compliance to the relevant pattern approval standard(s).

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6. Document Revision History

Issue	Date	Comments
1	24/07/2020	Initial Issue

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END OF CERTIFICATE