



EU Type Examination Certificate Number: **0120/SGS0151**

## **Zhejiang Eastron Electronic Co.,Ltd.**

No. 1369, Chengnan Road,  
Jiaxing,  
Zhejiang,  
China,  
314001.

Instrument Identification:  
**SDM630 100A Series Version 1**  
**SDM630 100A Series Version 2**

Instrument Traceable Number  
**0120/SGS0151**

Polyphase, Active Import / Export (kWh), Indoor, Electricity Meter

has been assessed and certified as meeting the requirements of

## **EU Directive 2014/32/EU**

**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 for 10 years from 6<sup>th</sup> January 2015 to 5<sup>th</sup> January 2025  
Issue 5

Certification is based on report number(s) SHES130800321501 dated 26<sup>th</sup> December 2014  
EMA198278/1 dated 26<sup>th</sup> December 2014  
EMA198278/2 dated 21<sup>st</sup> June 2016  
Authorised Signature


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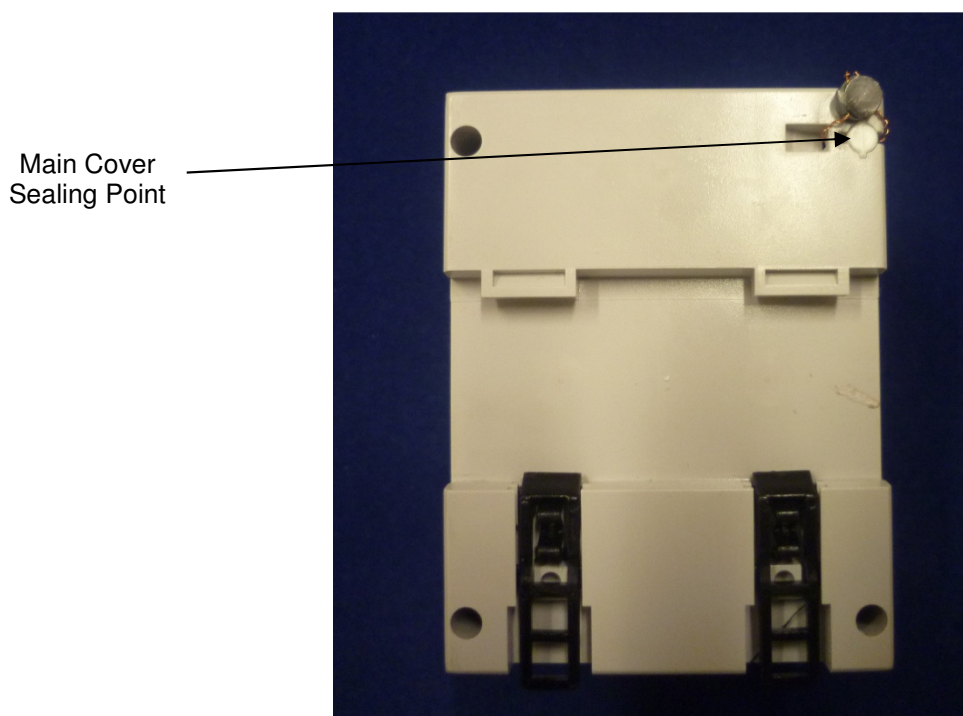
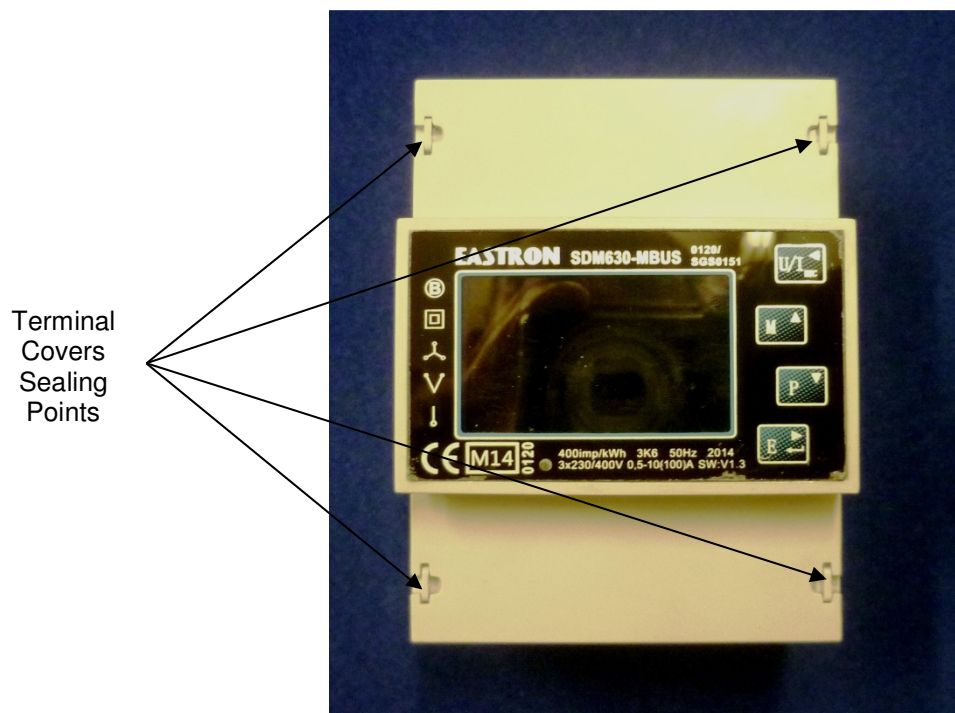
	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019

## 1. Technical Data


<b>Manufacturer</b>	Zhejiang Eastron Electronic Co., Ltd.
<b>Meter Types Version 1 and Version 2</b>	SDM630-Standard, SDM630-MT, SDM630-MODBUS SDM630-Mbus, SDM630-Pulse, SDM630-2T, SDM630-DI, SDM630Mbus-2T
<b>Voltage Rating (<math>U_n</math>)</b>	3x230/400V
<b>Current Rating (<math>I_{min}</math> – <math>I_{ref}</math> (<math>I_{max}</math>))</b>	0.5-10(100)A & 0.5-10(80)A
<b>Frequency (<math>F_n</math>)</b>	50Hz
<b>Active Accuracy Class (kWh)</b>	A or B (kWh)
<b>Type of circuit</b>	3p4w, 3p3w, 1p2w
<b>Temperature Range</b>	-25°C to +55°C
<b>Software Version No.'s.</b>	SDM630-Standard, SDM630-MT, SDM630-MODBUS SDM630-Mbus, SDM630-Pulse: V1.3 SDM630-2T: V1.4 SDM630-DI: V1.5 SDM630Mbus-2T: V1.6
<b>Checksum No.'s.</b>	SDM630MT, Modbus, Standard, Pulse V2: 0x0000AFF9 SDM630Mbus V2: 0x00003C02 SDM630-2T: 0x00009DF4 SDM630DI: 0x00000A31 SDM630Mbus-2T: 0x000075BC
<b>Identification Location</b>	Nameplate
<b>Bill Of Materials Version 1 No.'s</b>	SDM630-Standard V2.1 SDM630-MT V2.1 SDM630-MODBUS V2.1 SDM630-MBUS V2.1 SDM630-Pulse V2.1
<b>Bill Of Materials Version 2 No.'s</b>	SDM630-Standard V1.4, SDM630-MT V1.4 SDM630-MODBUS V1.4, SDM630-MBUS V1.4 SDM630-Pulse V1.4, SDM630-2T: DH-JS-180008-1.0 SDM630-DI: DH-JS-190002-1.0 SDM630Mbus-2T: DH-JS-190020-1.0
<b>IP Rating</b>	IP51
<b>Insulation Protective Class</b>	Class II
<b>LED Pulse Constant</b>	400imp/ kWh
<b>Impulse Voltage Rating</b>	6kV
<b>AC Voltage Rating</b>	4kV
<b>Main Cover Sealing Type</b>	1 x Wire & Crimp
<b>Integrity of meter</b>	Inaccessible without breaking seals
<b>Intended Location of the Meter</b>	Indoor
<b>Type of Register</b>	LCD
<b>Location of Distributors Name and Address</b>	On accompanying documentation

	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019

## 2. Photograph of Meter and Sealing Plan




**Photographs of Original Meter Casing – SDM630 V1**

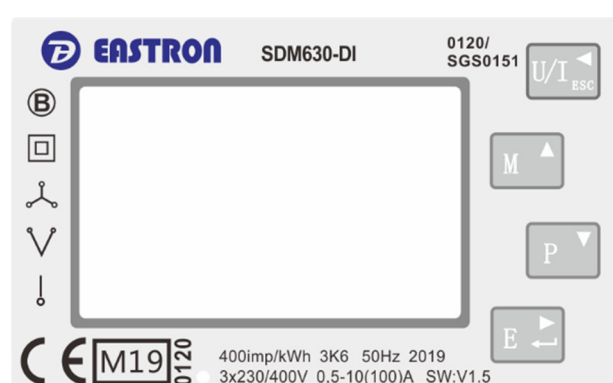
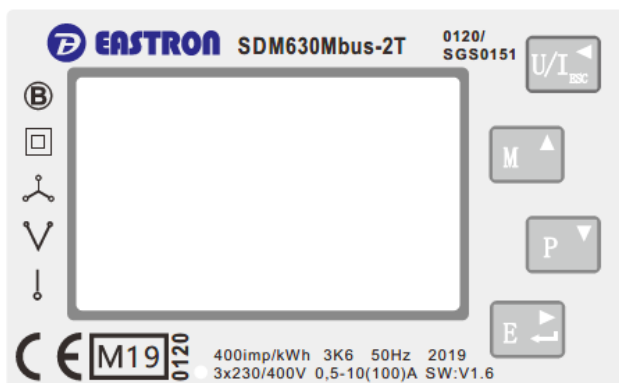
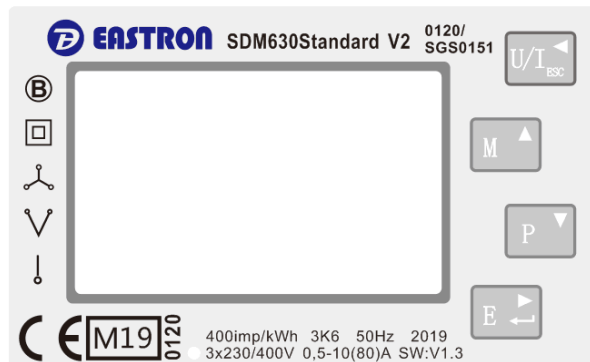
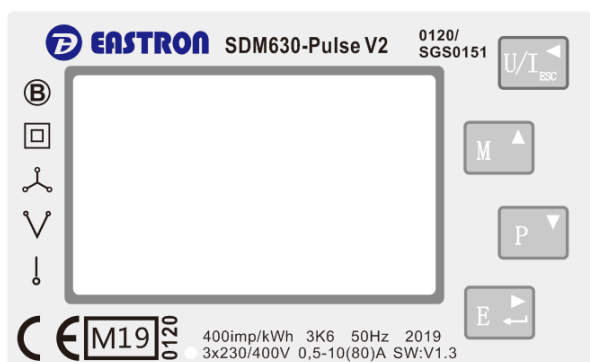
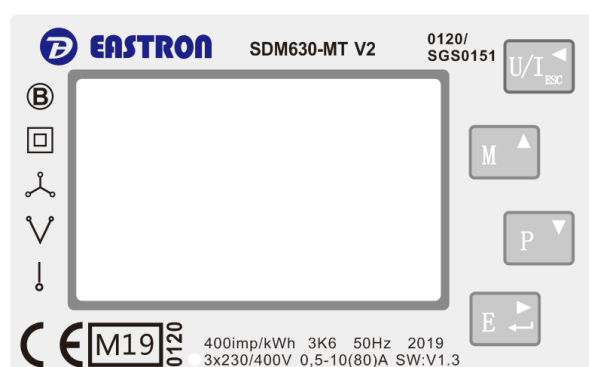
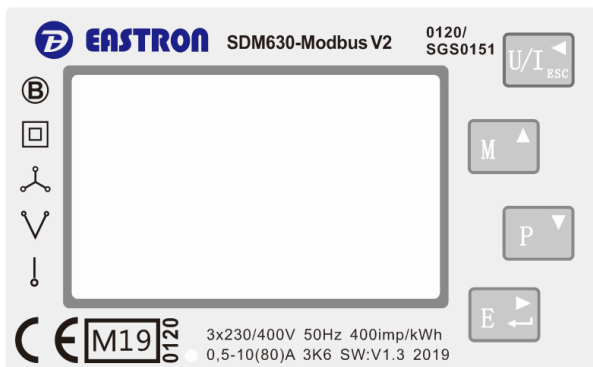
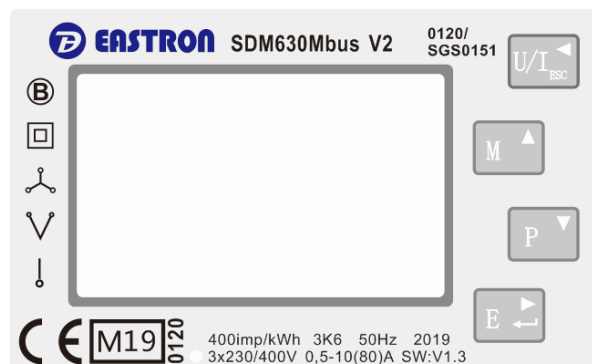
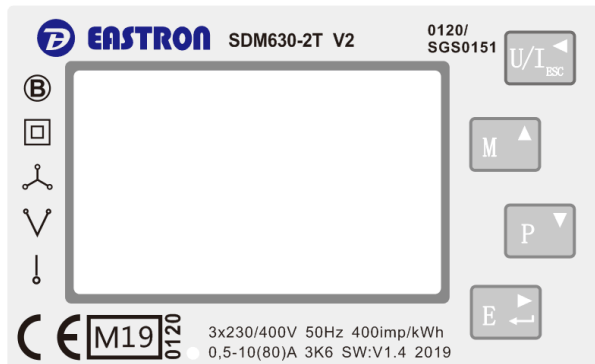
	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019




**Photograph of Redesigned Meter Case – SDM 630 V2**

	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019

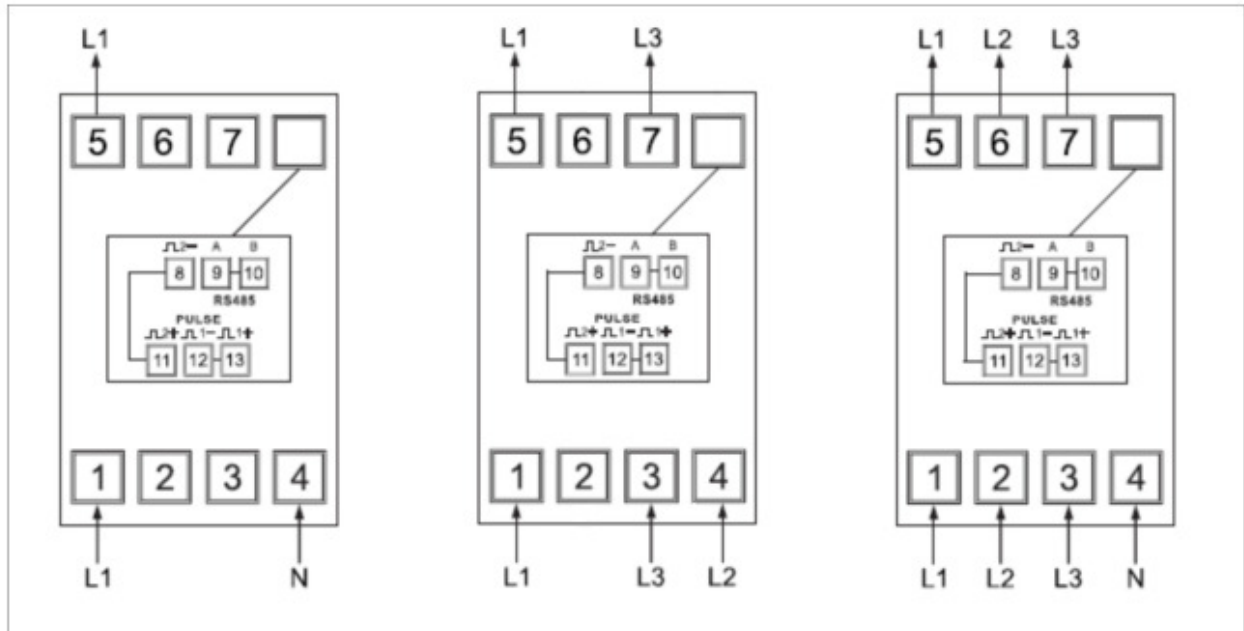
### 3. Examples of Nameplates



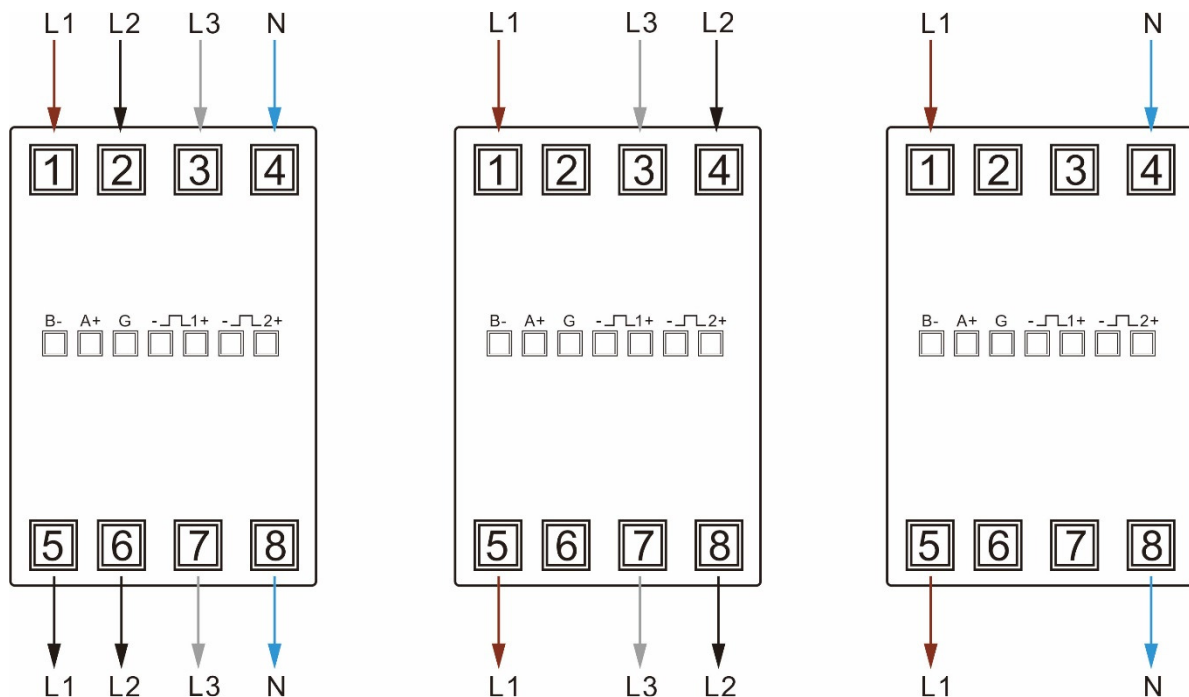
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	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019


#### 4. Wiring Diagrams

**SDM 630 V1 Wiring Diagram**




**SDM 630 V2 Wiring Diagram**



	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019

## 5. Influence factors for temperature, frequency and voltage

		Influence Factors for Temperature. Frequency & Voltage					
Current	PF Cos	-25	-10	5	30	40	55
I <sub>min</sub>	1.0	0.46	0.34	0.14	0.18	0.29	0.52
I <sub>tr</sub>	1.0	0.57	0.39	0.19	0.11	0.24	0.46
10I <sub>tr</sub>	1.0	0.64	0.45	0.25	0.06	0.20	0.42
I <sub>max</sub>	1.0	0.75	0.60	0.44	0.26	0.23	0.30
I <sub>tr</sub>	0.5ind	0.56	0.40	0.20	0.14	0.24	0.49
10I <sub>tr</sub>	0.5ind	0.60	0.43	0.23	0.11	0.23	0.45
I <sub>max</sub>	0.5ind	0.62	0.47	0.30	0.05	0.10	0.28
I <sub>tr</sub>	0.8cap	0.65	0.46	0.27	0.11	0.21	0.43
10I <sub>tr</sub>	0.8cap	0.62	0.44	0.24	0.12	0.24	0.46
I <sub>max</sub>	0.8cap	0.69	0.55	0.37	0.16	0.14	0.28
L1							
I <sub>tr</sub>	1.0	0.84	0.60	0.32	0.08	0.20	0.48
10I <sub>tr</sub>	1.0	0.97	0.71	0.46	0.10	0.13	0.36
I <sub>max</sub>	1.0	0.93	0.70	0.48	0.16	0.06	0.25
I <sub>tr</sub>	0.5ind	0.60	0.32	0.09	0.25	0.42	0.66
10I <sub>tr</sub>	0.5ind	0.79	0.56	0.29	0.12	0.27	0.53
I <sub>max</sub>	0.5ind	0.84	0.63	0.40	0.10	0.11	0.33
L2							
I <sub>tr</sub>	1.0	0.40	0.26	0.09	0.08	0.16	0.37
10I <sub>tr</sub>	1.0	0.42	0.31	0.19	0.08	0.17	0.36
I <sub>max</sub>	1.0	0.44	0.36	0.25	0.08	0.08	0.23
I <sub>tr</sub>	0.5ind	0.20	0.09	0.24	0.27	0.35	0.53
10I <sub>tr</sub>	0.5ind	0.43	0.30	0.17	0.10	0.20	0.40
I <sub>max</sub>	0.5ind	0.46	0.35	0.25	0.09	0.06	0.20
L3							
I <sub>tr</sub>	1.0	0.55	0.37	0.15	0.14	0.30	0.51
10I <sub>tr</sub>	1.0	0.51	0.33	0.11	0.20	0.33	0.56
I <sub>max</sub>	1.0	0.55	0.39	0.21	0.10	0.21	0.52
I <sub>tr</sub>	0.5ind	0.41	0.24	0.06	0.32	0.46	0.66
10I <sub>tr</sub>	0.5ind	0.41	0.22	0.04	0.31	0.46	0.67
I <sub>max</sub>	0.5ind	0.43	0.30	0.34	0.17	0.30	0.53

	EU-Type Examination Certificate Number:	
	<b>0120/ SGS0151</b>	
	Issue Number: 5	Dated: 7 <sup>th</sup> August 2019


During the type approval examination the influence factors for temperature, frequency and voltage are determined per load point. The table above 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




	EU-Type Examination Certificate Number:	
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## 6. Annex of Variants

Product Variant Identification Details of both Version 1 and Version 2:

Type Designation	Description of meter
SDM630-MT:	Three phase, multi-function, multi-tariff, 2 pulse outputs and 1 RS485 Modbus communication port
SDM630-Modbus:	Three phase, multi-function, 2 pulse outputs and 1 RS485 communication port
SDM630-Mbus:	Three phase, multi-function, 2 pulse outputs and 1 Mbus communication port
SDM630-Pulse:	Three phase, multi-function, 2 pulse outputs
SDM630-Standard:	Three phase, 2 pulse outputs and 1 RS485 communication port
SDM630-2T:	Three phase, multi-function, dual tariffs, 2 pulse outputs and 1 RS485 communication port
SDM630-DI:	Three phase, multi-function, 1 RS485 Modbus communication port, Digital inputs
SDM630Mbus-2T	Three phase, multi-function, dual tariffs, 2 pulse outputs and 1 Mbus communication port

Modifications to the meter(s) described according to approval No.**0120/ SGS0151** 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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## 7. Document Revision History

Issue	Date	Comments
1	06/01/2015	Initial Issue
2	21/06/2016	Addition of redesigned meter case with new terminal layout and wiring diagrams. Updated EC Directive to 2014/32/EU
3	24/05/2018	Meter type SDM630-2T added to approval
4	08/05/2019	Additional variants 0.5-10(80)A added to approval
5	07/08/2019	Meter types SDM630-DI and SDM630Mbus-2T added to approval

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