



EU Type Examination Certificate Number: **0120/SGS0228**

## **Controlin BV**

Glasblazerstraat 1  
Ridderkirk  
2984 BL  
Netherlands

Instrument Identification:  
**SKD-005-M**

Instrument Traceable Number  
**0120/SGS0228**

Polyphase, Active Import/ Export, Indoor, Multi-Function, Transformer Operated, Electricity Meter

## **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 9<sup>th</sup> March 2024  
Issue 2

Certification is based on report number(s) EMA174647/1/MID dated 30<sup>th</sup> January 2014  
EMA224035/1 issued 14<sup>th</sup> June 2016

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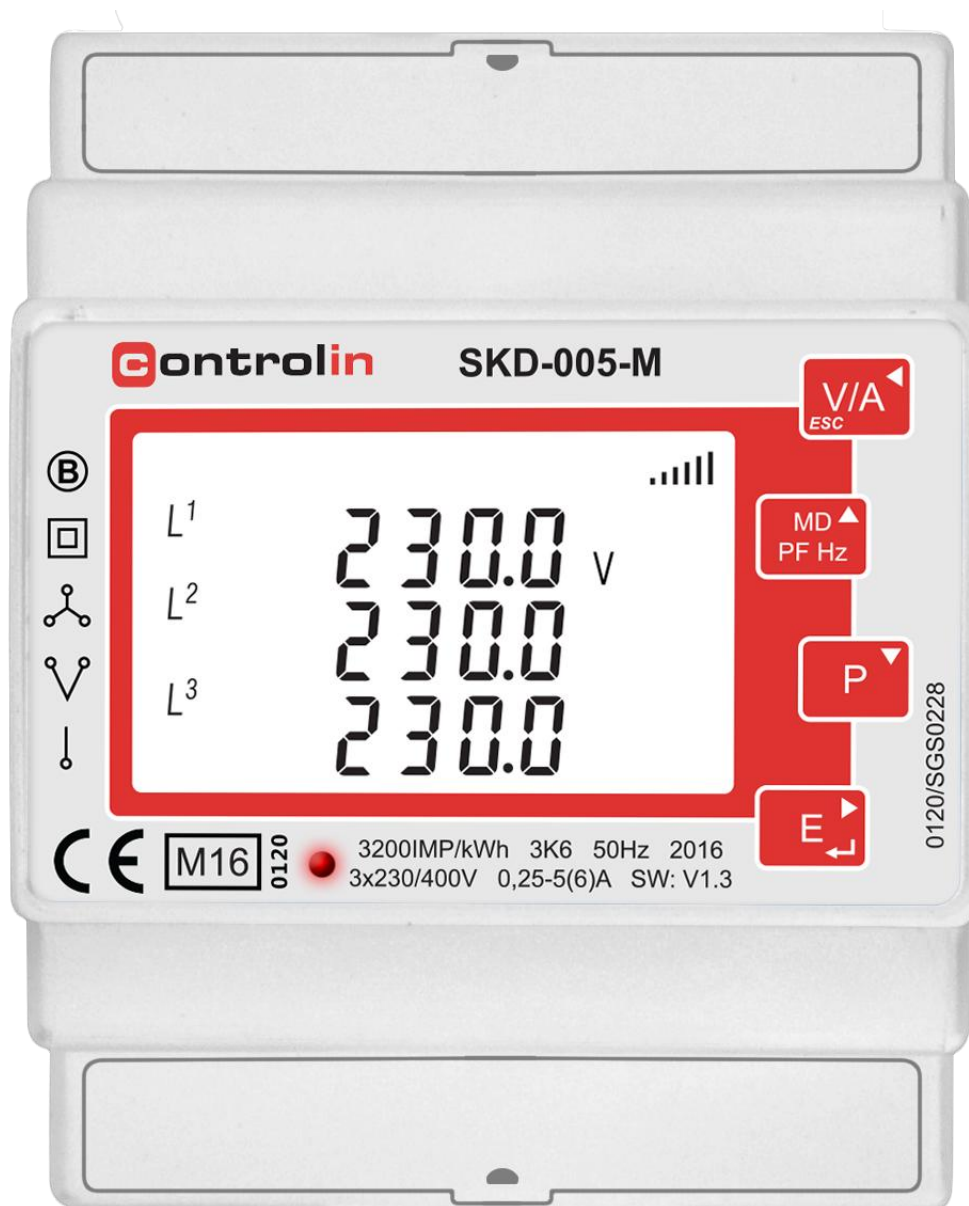
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## 1. Technical Data

Manufacturer	Controlin BV
Meter Type	SKD-005-M
Voltage Rating ( $U_n$ )	3x230/400V
Current Rating ( $I_{min} - I_{ref} (I_{max})$ )	0.25-5(6)A
Frequency ( $F_n$ )	50Hz
Active Accuracy Class ( $kWh$ )	A or B ( $kWh$ )
Type of circuit	3p4w, 3p3w, 1p2w
Temperature Range	-25°C to +55°C
Software Version No.	V1.3
Identification Location	Nameplate
Bill Of Materials No.'s	SDM630-1-L-V1.5 SDM630-1-BOT-V1.5 SDM630-1-TOP-V1.5 SDM630-1-KEY-V1.0 SDM630-1-R-V1.5
IP Rating	IP51
Insulation Protective Class	Class II
LED Pulse Constant	3200imp/ kWh
Impulse Voltage Rating	6kV
AC Voltage Rating	4kV
Main Cover Sealing Type	2 x Wire & Crimp
Integrity of meter	Inaccessible without breaking seals
Intended Location of the Meter	Indoor
Type of Register	LCD
Location of Distributors Name & Address	Accompanying documentation

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## 2. Photograph of Meter



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### 3. 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	<b>0.39</b>	<b>0.30</b>	<b>0.71</b>	<b>0.16</b>	<b>0.25</b>	<b>0.39</b>
I <sub>tr</sub>	1.0	<b>0.33</b>	<b>0.27</b>	<b>0.28</b>	<b>0.18</b>	<b>0.25</b>	<b>0.47</b>
10I <sub>tr</sub>	1.0	<b>0.35</b>	<b>0.31</b>	<b>0.24</b>	<b>0.22</b>	<b>0.29</b>	<b>0.49</b>
I <sub>max</sub>	1.0	<b>0.36</b>	<b>0.31</b>	<b>0.25</b>	<b>0.21</b>	<b>0.28</b>	<b>0.47</b>
I <sub>tr</sub>	0.5ind	<b>0.26</b>	<b>0.25</b>	<b>0.36</b>	<b>0.16</b>	<b>0.23</b>	<b>0.44</b>
10I <sub>tr</sub>	0.5ind	<b>0.38</b>	<b>0.34</b>	<b>0.29</b>	<b>0.27</b>	<b>0.34</b>	<b>0.52</b>
I <sub>max</sub>	0.5ind	<b>0.42</b>	<b>0.38</b>	<b>0.32</b>	<b>0.30</b>	<b>0.36</b>	<b>0.52</b>
I <sub>tr</sub>	0.8cap	<b>0.31</b>	<b>0.42</b>	<b>0.43</b>	<b>0.32</b>	<b>0.37</b>	<b>0.50</b>
10I <sub>tr</sub>	0.8cap	<b>0.32</b>	<b>0.27</b>	<b>0.21</b>	<b>0.17</b>	<b>0.26</b>	<b>0.45</b>
I <sub>max</sub>	0.8cap	<b>0.34</b>	<b>0.28</b>	<b>0.21</b>	<b>0.15</b>	<b>0.24</b>	<b>0.43</b>
L1							
I <sub>tr</sub>	1.0	<b>0.37</b>	<b>0.39</b>	<b>0.44</b>	<b>0.14</b>	<b>0.28</b>	<b>0.35</b>
10I <sub>tr</sub>	1.0	<b>0.34</b>	<b>0.30</b>	<b>0.24</b>	<b>0.20</b>	<b>0.27</b>	<b>0.47</b>
I <sub>max</sub>	1.0	<b>0.33</b>	<b>0.30</b>	<b>0.23</b>	<b>0.21</b>	<b>0.28</b>	<b>0.47</b>
I <sub>tr</sub>	0.5ind	<b>0.41</b>	<b>0.56</b>	<b>0.96</b>	<b>0.14</b>	<b>0.15</b>	<b>0.16</b>
10I <sub>tr</sub>	0.5ind	<b>0.49</b>	<b>0.46</b>	<b>0.42</b>	<b>0.38</b>	<b>0.43</b>	<b>0.62</b>
I <sub>max</sub>	0.5ind	<b>0.49</b>	<b>0.46</b>	<b>0.42</b>	<b>0.39</b>	<b>0.44</b>	<b>0.60</b>
L2							
I <sub>tr</sub>	1.0	<b>0.25</b>	<b>0.20</b>	<b>0.12</b>	<b>0.18</b>	<b>0.31</b>	<b>0.51</b>
10I <sub>tr</sub>	1.0	<b>0.38</b>	<b>0.32</b>	<b>0.23</b>	<b>0.19</b>	<b>0.28</b>	<b>0.45</b>
I <sub>max</sub>	1.0	<b>0.38</b>	<b>0.32</b>	<b>0.23</b>	<b>0.21</b>	<b>0.28</b>	<b>0.47</b>
I <sub>tr</sub>	0.5ind	<b>0.12</b>	<b>0.12</b>	<b>0.13</b>	<b>0.25</b>	<b>0.38</b>	<b>0.59</b>
10I <sub>tr</sub>	0.5ind	<b>0.36</b>	<b>0.33</b>	<b>0.25</b>	<b>0.25</b>	<b>0.32</b>	<b>0.49</b>
I <sub>max</sub>	0.5ind	<b>0.39</b>	<b>0.35</b>	<b>0.28</b>	<b>0.27</b>	<b>0.34</b>	<b>0.49</b>
L3							
I <sub>tr</sub>	1.0	<b>0.32</b>	<b>0.27</b>	<b>0.21</b>	<b>0.19</b>	<b>0.27</b>	<b>0.46</b>
10I <sub>tr</sub>	1.0	<b>0.32</b>	<b>0.28</b>	<b>0.22</b>	<b>0.21</b>	<b>0.30</b>	<b>0.50</b>
I <sub>max</sub>	1.0	<b>0.33</b>	<b>0.30</b>	<b>0.23</b>	<b>0.22</b>	<b>0.30</b>	<b>0.50</b>
I <sub>tr</sub>	0.5ind	<b>0.32</b>	<b>0.32</b>	<b>0.24</b>	<b>0.20</b>	<b>0.29</b>	<b>0.53</b>
10I <sub>tr</sub>	0.5ind	<b>0.34</b>	<b>0.29</b>	<b>0.23</b>	<b>0.23</b>	<b>0.33</b>	<b>0.54</b>
I <sub>max</sub>	0.5ind	<b>0.35</b>	<b>0.31</b>	<b>0.25</b>	<b>0.13</b>	<b>0.33</b>	<b>0.53</b>


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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:-

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

where

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


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#### 4. Annex of Variants

Product Variant Identification Details:

Type Designation	Description of meter
SKD-005-M	0.25-5(6)A – Poly Phase, Active Import/Export kWh, Multifunction, Transformer Operated, Electricity Meter

Modifications to the meter(s) described according to approval No.**0120/ SGS0228** 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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## 5. Document Revision History

Issue	Date	Comments
1	14/06/2016	Initial Issue
2	09/11/2016	Change of directive reference from EC 2004/22/EC to EU 2014/32/EU. Location of distributors name and address added to technical data

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