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Manufacturer	Inepro Metering BV Pondweg 7 2153 PK Nieuw Vennepe The Netherlands
Measuring instrument	A static <b>Active Electrical Energy Meter</b> Type : DZT6252 or KDK3-80AM-41 Reference voltage : 3x230/400 V Reference current : 5 A Destined for the measurement of : electrical energy, in a - three-phase four-wire network Accuracy class : A or B Environment classes : M1 / E2 Temperature range : -25 °C / +55 °C  Further properties are described in the annexes: - Description T10748 revision 1; - Documentation folder T10748-2.
Valid until	21 December 2025
Remark	This revision replaces the earlier version, including its documentation folder.

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## 1 General information about the instrument

All properties of the static active electrical energy meter, whether mentioned or not, shall not be in conflict with the legislation.

### 1.1 Essential parts

Description	Document	Remarks
measuring sensor	10748/0-02	
printed circuit board - assembly - parts list	10748/0-07 and 10748/0-08 10748/0-09	All parts of the printed circuit boards are essential, except the components which are related to parts as described in paragraph 1.4 or 1.6.

### 1.2 Essential characteristics

- 1.2.1 See EC type-examination Certificate T10748 revision 1 and the characteristics mentioned below.
- 1.2.2 Approved meter types : DZT6252 and KDK3-80AM-41
- 1.2.3 Frequency : 50 Hz
- 1.2.4 Meter constant : 1000 imp./kWh
- 1.2.5 Number of registers : 1
- 1.2.6 Export energy : the meter measures import energy only.
- 1.2.7 Phase sequence : the meter is not sensitive to the direction of the applied phase sequence.
- Export energy : the meter is not capable of measuring energy in 2 directions.
- 1.2.8 Software specification (refer to WELMEC guide 7.2):
- Software type P;
  - Risk Class C;
  - Extensions L, D, S and T are not applicable.

Software version	Identification number (checksum)	Remarks
V1.2	0x0014e69b	

The checksum is displayed in the display sequence.

## 1.3 Essential shapes

1.3.1 The nameplate is bearing at least, good legible, the information as mentioned in the regulations on energy meters. An example of the markings is shown in document no. 10748/0-01.

1.3.2 Sealing: see chapter 2.

1.3.3 The registration observation is executed by means of a LED.

## 1.4 Conditional parts

### 1.4.1 Terminal block

The connections for the current cables on the terminal block have a diameter of at least 7 mm. The cables are connected with the terminal block via 2 screw. See document no. 10748/0-04.

### 1.4.2 Housing

The meter has got a dustproof housing, which has sufficient tensile strength. The cover is made of synthetic material. An example of the housing is presented in document no. 10748/0-03.

### 1.4.3 Terminal cover

The terminal cover is made of synthetic material. The meter can be equipped with a long and short terminal cover as presented in document no. 10748/1-01.

### 1.4.4 Register

The quantity of measured energy is presented by means of a display with at least 6 elements. The way of presentation is described in document no. 10748/0-06. For test purposes an indication with a least significant element of at least 0,01 kWh is presented on the display.



# Description

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## 1.5 Conditional characteristics

- 1.5.1 Maximum current:  
smaller than or equal to 80 A, and at least 5 times higher than the reference current.
- 1.5.2 Minimum current: 0,25 A

## 1.6 Non-essential parts

- 1.6.1 Pulse output
- 1.6.2 Battery (optional) for read out of display in case of power outage.

## 2 Seals

One screw attaching the front cover to the back cover is sealed.  
An example of the sealing is presented in document no. 10748/0-05.

## 3 Conditions for conformity assessment according to module D or F

The influence factors for temperature, frequency and voltage, which are necessary to perform the conformity assessment according to module D or F, are presented in Annex 1, belonging to this EC type-examination certificate.  
Based on the WELMEC Guide 11.1, section 2.5.6, the sum of the square values is presented.

## Influence factors for temperature, frequency and voltage

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

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

with:

- $\delta e(T, I, \cos \varphi)$  = the additional percentage error due to the variation of the temperature at a certain load;
- $\delta e(U, I, \cos \varphi)$  = the additional percentage error due to the variation of the voltage at the same load;
- $\delta e(f, I, \cos \varphi)$  = the additional percentage error due to the variation of the frequency at the same load.

Current	Power factor	-25°C [%]	-10°C [%]	+5°C [%]	+23°C [%]	+40°C [%]	+55°C [%]
I <sub>min</sub>	1	0,65	0,60	0,25	0,16	0,31	0,36
I <sub>tr</sub>	1	0,59	0,46	0,42	0,42	0,48	0,60
	0,5 ind.	0,43	0,37	0,29	0,06	0,15	0,31
	0,8 cap.	0,60	0,45	0,30	0,27	0,40	0,52
I <sub>tr</sub> phase R	1	1,02	0,89	0,56	0,20	0,32	0,60
	0,5 ind.	1,12	0,68	0,42	0,21	0,41	0,67
I <sub>tr</sub> phase S	1	0,62	0,47	0,35	0,16	0,14	0,21
	0,5 ind.	0,37	0,35	0,24	0,12	0,13	0,17
I <sub>tr</sub> phase T	1	0,80	0,66	0,41	0,29	0,25	0,42
	0,5 ind.	0,33	0,33	0,23	0,22	0,22	0,46
10 I <sub>tr</sub>	1	0,68	0,54	0,42	0,39	0,50	0,68
	0,5 ind.	0,48	0,41	0,38	0,45	0,60	0,77
	0,8 cap.	1,27	1,17	1,00	0,67	0,60	0,56
10 I <sub>tr</sub> phase R	1	1,01	0,77	0,51	0,17	0,34	0,64
	0,5 ind.	1,01	0,59	0,42	0,21	0,41	0,67
10 I <sub>tr</sub> phase S	1	0,49	0,40	0,31	0,12	0,13	0,25
	0,5 ind.	0,25	0,32	0,36	0,23	0,18	0,28
10 I <sub>tr</sub> phase T	1	0,82	0,67	0,46	0,20	0,24	0,42
	0,5 ind.	0,52	0,22	0,12	0,28	0,24	0,45
I <sub>max</sub>	1	0,67	0,53	0,44	0,49	0,61	0,83
	0,5 ind.	0,45	0,34	0,26	0,34	0,47	0,65
	0,8 cap.	0,68	0,47	0,37	0,39	0,48	0,69
I <sub>max</sub> phase R	1	1,04	0,76	0,48	0,16	0,33	0,64
	0,5 ind.	0,77	0,52	0,27	0,24	0,42	0,69
I <sub>max</sub> phase S	1	0,44	0,32	0,18	0,11	0,20	0,38
	0,5 ind.	0,28	0,19	0,15	0,12	0,20	0,32
I <sub>max</sub> phase T	1	0,68	0,49	0,30	0,15	0,29	0,55
	0,5 ind.	0,42	0,31	0,19	0,19	0,36	0,58