ELECTRICAL NETWORK ANALYSERS

Single or 3 phase balanced/unbalanced networks, 3 or 4 wire - PROFIBUS DP network

PECA15 PBUS

The PECA 15 PBUS is dedicated to the measurement of AC electrical networks. It has a digital output RS485 PROFIBUS DP (SUB-D9 plug) which is a fast communication mode, allowing the instrument to receive its configuration directly from the PLC (GSD and GSF files).

- The various measures (more than 28 measurable parameters) are visualised on 3 indicators which can be programmed from the keyboard on the front face.
- Programmable input calibers :
  Current : 1A and 5A AC
  Voltage : 150V and 500V AC
- Broad supply range.

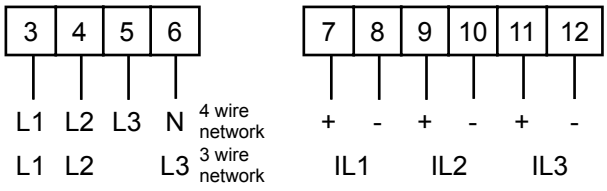
Possibility to associate as option :

- 1 to 2 relay outputs, programmable by the user (logic and pulses).
- Harmonics analysis.

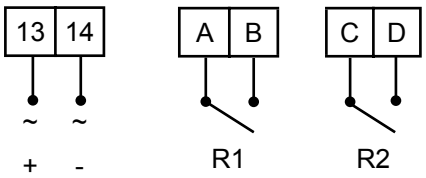
PECA

Connectings

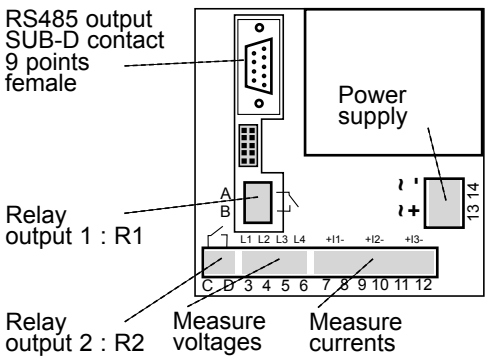
Inputs : *voltage* : *current*



Supply **Relay outputs**

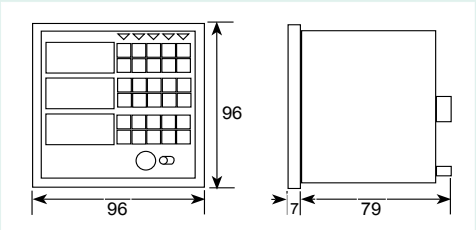


View from rear face



PECA analysers are especially designed for the measurement, the control and display of all the parameters of AC electrical networks : 3U, 3V, 3I, Cos, F, P, Q, S, Cos P/phase, Cos Q/phase, leak current, Eactive IN and OUT, Ereactive L and C, output PROFIBUS DP.

Dimensions



Environment :
Operating T° : 0°C to +55°C.
Storage T° : -25°C to +70°C.
CE marking (89/336 rev.92/31).

Housing : Self-extinguishing case of black UL 94 V1 polycarbonate. 96x96x86mm (with terminals) Stand. DIN 43700

Tighten. : By 2 screwed pads (located on choice : on the sides or above / under)
Mounting on panel ; cut out 92x92mm

Connectors : Plug-off connectors on rear face for screwed connectings (2.5mm², flexible or rigid)
Digital output : SUB-D 9 point female contact

Protection : Case/terminals:IP 20. IP 40 front face (IP 65 optional)

Display : Three 1000 point high brightness displays (14 mm high red digits).

Weight : 375 g.

ARDETEM 69510 SOUCIEU EN JARREST - France - **Tél. 04 72 31 31 30 - Fax. 04 72 31 31 31**

Technical features at 23°C

PECA 15 PBUS

Inputs

Voltage	2 programmable ranges Un=150 and 500Vac
Current	2 programmable ranges : 1A and 5A In=1.2 and 6Aac
Oversteppings	*measurable :* 1.2 In; 1.2 Un
Overloads	Permanent : 750 V, 10 A During 10 s : 1000 V, 50 A
Power draw	Voltage input : 1 MΩ resistances Current input : < 0.2 VA
Test voltage	2 kV / 50 Hz / 1 min. (inputs/outputs/supply)
Frequency	45...50...65 Hz (others : consult)
Type of network	Single or 3 phase balanced / unbalanced with or without neutral

Digital output PROFIBUS DP

Speed	9600 bauds to 12 Mbauds
Connectings	SUB-D (9 point) female contact
Configuration	The instrument (slave) takes it configuration from the PLC (master) by way of the mode PROFIBUS (GSD and GSF files).

Relay outputs (option 1R or R)

Option R **2 combinable outp.**	Either 2 logic outputs, or 2 pulse outputs Or 1 logic and 1 pulse output
Option 1R **1 output**	1 Logic output or 1 pulse output
Type of contact	On potential free contact (galvanic partition 2.5KV) output 1NO
Life-time Mechanical	> 20 000 operations
Life-time Electrical	> 100 000 operations - Lr* : 5A/250V > 300 000 operations - Lr* : 2A/250V (*Lr : Load resistance)
Rated load	5A - 250 Vac
Logic output	
Setting of the setpts.	0 to 100% of measure range by progr.
Switching hyst.	0 to 15% of the setpoint by programming
Time delay	0 to 15s by programming
Pulse outputs	
Count rate	4 / 2 / 1 pulse/sec. accord. to progr. width
Width of the pulses	100 / 200 / 400 ms by programming

28 measurable parameters

Accuracy rating	U, I : 0.2 (IEC 60688), P, Q, S : 0.5 (IEC 60688), Active energy : 1 (IEC 62053-21), Reactive energy : 2 (IEC 62053-23). Zero reset of the energy counters
Therrmic drifts	< 200 ppm
Measuring method	Simultaenous sampling of the 3 voltages and the 3 currents. Digital calculation on 32 bits. Measurement of disturbed signals, pass band at 800Hz.
Digital filtering	Programmable on several levels
Measured parameters	3U, 3V, 3I, Cos, F, P, Q, S, Cos P/phase, Cos Q/phase, leak current, Eactive IN and OUT, Ereactive L and C, Profibus DP output + Harmonics and THD*.

Harmonics analysis (option H)

Display of the harmonics and the THD* (*harmonics distortion rate) of the 3 voltages and the 3 currents from rank 2 to rank 50 (even and odd).
Retransmission in PROFIBUS of the odd harmonics and the THD* of the 3 voltages and the 3 currents from rank 3 to rank 29.

Power supply

2 Versions : High or	*low voltage (specify on order)*
High voltage (2)	*90...270 Vac or 88...350 Vdc*
Low voltage (3)	*20...40 Vac or 20...60 Vdc*
Power draw	*< 6 VA*

Coding

PECA 15 PB

Options : *1R or R / H*

1R : option output 1 relay
R : option output 2 relays
H : option harmonics analysis

Power supply : *High or low voltage (specify)*

(2) : high voltage or (3) : low voltage

Order example :

For a PECA15 PBUS with 1 relay output (logic or pulses) with 230 VAC power supply, request reference : PECA15 PB 1R 2

This instrument is dedicated to industrial applications. It has to be mounted in an electrical switchbox, or equivalent.

ARDETEM®
RCS Lyon 444-429-476 - Printed in France.
e-mail : info@ardetem.com
http : //www.ardetem.com

Route de Brindas
Parc d'activité d'Arbora N°2
69510 SOUCIEU EN JARREST
FRANCE

Tél. : 33 (0)4 72 31 31 30
Fax. : 33 (0)4 72 31 31 31

Your representative