ELECTRICAL NETWORK ANALYSERS

Single or 3 phase balanced/unbalanced networks, 3 or 4 wire

Output RS485/422 **Networks at 400Hz**

PECA 15/16

2 Outputs RS485/422

PECA 17

PECA

The PECAs are insulated **measure analysers** which allow converting parameters from AC electrical networks.
Universal : they can measure up to **32 parameters**, which can be assigned on choice by programming on the output channels.
Moreover, they can be fully configurable by the user with optional PC software.

Peca 15 / Peca 16 (400Hz) :
Output RS422/485

Available options :
- **(A)** Insulated analog output 0/5mA, 0/10mA, 0/20mA, 4/20mA -5/5mA, -10/10mA, -20/20mA
- **(R)** 2 Relay outputs, combinable by programming as setpoint or pulse output, or to be specified on order if you want 1 relay output and 1 logic input.
- **(H)** Harmonics analysis (Peca 15).

Peca 17 : 2 outputs RS422/485 independent and insulated

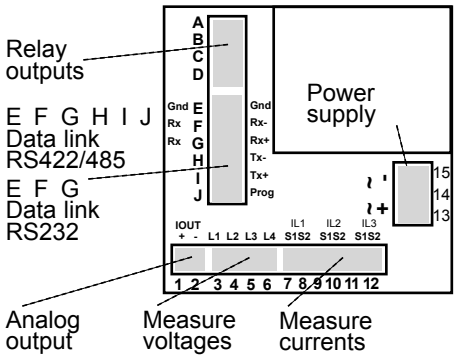
Available options :
- **(R)** 1 Relay output, programmable as alarm or pulse output.
- **(H)** Harmonics analysis.

Functions

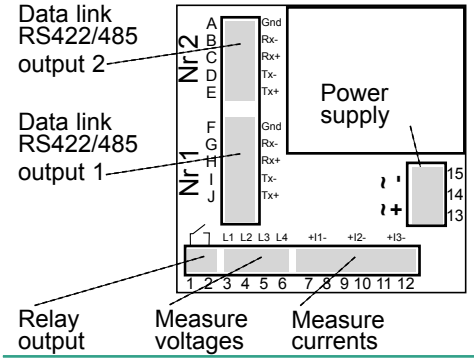
- **Programmable input calibers** : Current 1A and 5AAC, (safened by a screwed connector) Voltage 150V and 500VAC.
- Fast cycle time : 55ms
- Broad supply range.
- **Galvanic partition :** Inputs/supply/outputs : 2 kV. Between outputs : 1 kV

Eternal view

PECA 15
PECA 16

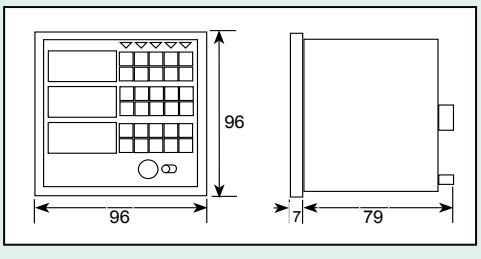


PECA 17



PECA analysers are especially designed for the measurement, the control and display of all the parameters of AC electrical networks : Single and mesh voltages, line currents, active, reactive and apparent powers, frequency, cosine per phase and total, leak current, active energies IN, OUT and reactive ...
The PECAs are easy to programme, either directly from the front face, or by PC with the software SuperVision.

Dimensions



Environment :
Operating T° : 0°C to +55°C.
Storage T° : -25°C to +70°C.
CE marking (89/336 rev.92/31).
Weight : 510 g (with packaging)

Housing : Case of self-extinguishing black UL 94 V1 polycarbonate. 96x96x86mm (with terminals) Standardized DIN 43700

Tighten. : By 2 straps (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)

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

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

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Technical features at 23°C

PECA 15 / 16 / 17

Inputs

Voltage	2 Programmable ranges Un=150 and 500VAC
Current	2 programmable ranges : 1 and 5A In = 1.2 and 6 Aac
Oversteppings	*measurable :* 1.2 Un; 1.2 In
Overloads	Permanent : 750 V, 10 A During 10 s : 1000 V, 50 A
Power draw	Voltage input : 1 MΩ resistors Current input : < 0.2 VA
Test voltage	2 kV / 50 Hz / 1 min.
Frequency	**Peca 15/17** : 45 ...50...65 Hz **Peca 16** : 300...400...500 Hz (Other frequencies : consult)
Type of network	Single or 3 phase balanced / unbalanced with or without neutral
Thermic drifts	< 200ppm

Digital outputs 422/485

PECA 15/16	**RS422/485 output**
PECA 17	**2 Independent RS422/485 outputs**
Type	2 or 4 wire. Speed:4800/9600/19200 bauds
Galvanic partition	2KV
Protocole	Modbus/Jbus RTU 8 bits with or without parity. 1 or 2 stop bits.
Format of the data	Programmable, 16 bit integer.
Length of the data (Peca 17)	Output 1 : 200 bytes Output 2 : 50 bytes

Analog output (option A) PECA 15/16

Galvanic partition	2KV
Output signal	Programmable (in mA) : -20/20 -10/10 -5/5 0/5 0/10 0/20 4/20 mA
Scale setting	0 to 100% of the measure range by progr.
Admissible load	Up to 600Ω (20mA)
Board resolution	24000 points
Board accuracy	< 0.1% of the full scale on -20/+20mA (in relation to the display) < 0.2% on -5/5mA
Residual ripple	±2.5mV (peak to peak) on 50Ω load
Output response time	50ms (<120ms input -> output)
Thermic drifts	<100ppm (±20mA) <200ppm (0/20mA)

Relay outputs (option R)

PECA 15/16	**2 combinable relay outputs** Either 2 setpoint outputs, or 2 pulse outputs, or 1 setpoint output and 1 pulse output
PECA 17	**Relay output** : 1 setpoint output, or 1 pulse output.
Type of contact	Potential free contact
Galvanic partition	2KV
Rated load	5A - 250 VAC
Pulse output	
Count rate	1 to 4 pulses per second.
Width of the pulses	100 to 400ms by programming
Weight of the pulses	programmable
Setpoint output	
Setting of the setpoints	0 to 100% of the measure range by progr.
Switching hysteresis	0 to 15% of the setpoint by programming
Time delay	0 to 15s by programming

Harmonics analysis (option H) PECA 15/17

Display of the voltage and current harmonics of the 3 phases up to rank 50. Re-transmission possible in Modbus.

32 measurable parameters

Accuracy rating	Voltages, currents : 0.2 (IEC60688) Power : 0.5 (IEC60688)
Energies	Accuracy rating : Active energy:1 (IEC 62053-21) - Saved every 5 min. Reading on 6 digits
Cycle time	55ms (for all network types)
Measuring method	Fast simultaneous sampling of the 3 voltages and the 3 currents. Digital calculation on 32 bits. Measurement of disturbed signals, pass band at 800Hz.
Display update	*twice per second*
Digital filtering	Programmable on several levels
Measured parameters	Single and mesh voltages, line curents, active, reactive and apparent powers, frequency, cosine per phases and total cosine, leak current, active energies IN, OUT and reactive ...

Coding

Types : *PECA 15 / PECA 16 / PECA 17*

Options : *R A H*

R : option relay outputs
A : option analog output
H : option harmonics analysis

Power supply : *High or low voltage (specify)*
(2) High voltage : 90...270 VAC or 88...350 VDC
(3) Low voltage : 20...53 VAC or 20...75 VDC
Power draw : 6 VA max. in AC

Order example :
For a PECA15 showing RMS values and powers, with 1 analog output and 2 alarm setpoints, supplied in 230 VAC, request reference :
PECA15 A R 2

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

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