ELECTRICAL NETWORK TRANSMITTERS

Single or 3 phase balanced networks

µTAC 100

Sinusoidal signals

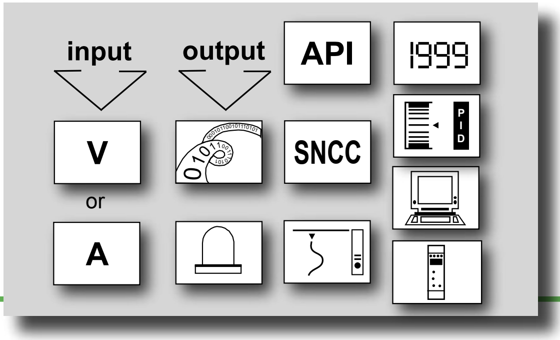
Networks at 400 Hz
(µTAC 100 400Hz)

These **insulated measure transmitters** allow converting parameters from AC electrical networks. More than **12 measurable parameters**, which can be assigned on choice by programming on the output channels.

Moreover, they can be fully configurable by the user with the optional PC software or the µconsole for plugging on the front face. It allows visualisation of the measure and modifications of the programming, as well as the teleloading of programming files for duplication to other converters.

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

Functions



- **3 combinable outputs :**

Bidirectionnal analog outputs : 0/5mA, 0/10mA, 0/20mA, 4/20mA -5/5mA, -10/10mA, -20/20mA

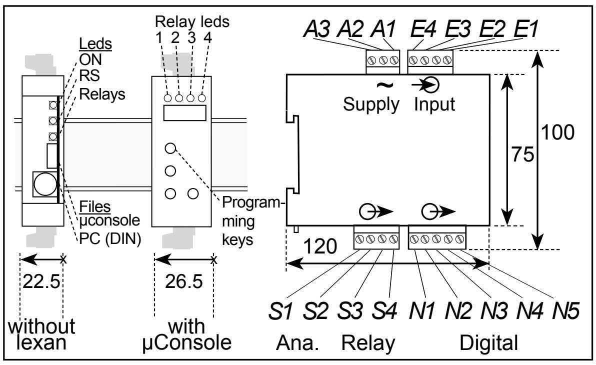
Relay output : setpoint or pulses

Digital data link Modbus/Jbus
Data link RS422/485 2 or 4 wire

- **Harmonics analysis** up to rank 50.
(µTAC 100 only)

External view

Dimensions : (H x L x D)
Housing : 75 x 22.5 x 120 mm
µConsole : 80 x 26.5 x 120 mm



Protection : Case / terminals : IP 30

Housing : Self-extinguishing case of black UL94VO ABS
Latching on symmetrical DIN rail (mount the instruments vertically, with a 5mm space between each).
Plug-off connectors for screwed connectings (2.5mm², flexible or rigid).

Weight : 230g (with packaging)

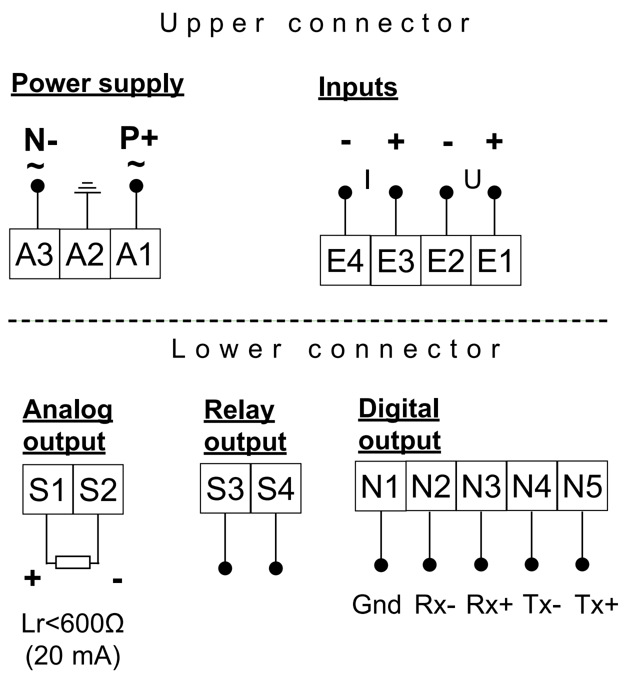
Operating T° : 0°C to +55°C.

Storage T° : -25°C to +70°C.

CE marking

sfere ®
The friendly interface

Wiring



CONVERTER

Technical features at 23°C

µTAC 100 - µTAC 100 400 Hz

Inputs

Voltage	2 Programmable calibers Un = 150 and 500 Vac	*Power draw*	Voltage input : resistance 1 MΩ Current input : < 0.2 VA
Current	2 Programmable calibers : 1 and 5 A In = 1.2 and 6 Aac	*Test voltage*	2KV/50Hz/1min.
		Frequency	µTAC 100 : 45...50...65 Hz µTAC 100 400Hz : 300...400...500 Hz
Oversteppings	measurable : 1.2 Un and 1.2 In	*Type of network*	Single or 3 phase balanced with or without neutral
Overloads	Permanent : 750 V, 10 A During 10s : 1000 V, 50 A	*Thermic drift*	< 200ppm

3 combinable outputs : analog, relays, digital

Analog output (option A) (bidirectionnal)

Galvanic partition	2 KV
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 600 Ω (20 mA)
Resolution	24000 points
Accuracy	< 0.1% of the full scale on -20 / 20 mA (in relation to the display) < 0.2 % on -5/5 mA
Residual ripple	±2.5 mV (peak to peak) on 50 Ω load
Resp. time of the output	50ms (<120ms input -> output)
Thermic drifts	<100ppm (±20mA) <200ppm (0/20mA)

Relay output (option R)
(setpoint or pulses)

Galvanic partition	2.5 KV
Type of contact	Potential free contact
Rated load	5A - 250 Vac
Pulse output	
Width of the pulses	400 ms.
Count rate	1 pulse / sec.
Setpoint output	Setting of the setpoints programmable.
Hysteresis	Programmable, 0 to 15% of the setpoint.
Time delay	Programmable, 0 to 15 sec.

More than 12 measurable parameters

Accuracy rating	Voltage, current : 0.2 (IEC60688) Power : 0.5 (IEC60688) Accuracy rating : Active energy :1 (IEC 62053-21) Saved every 5 min.
Measuring method	Fast simultaneous sampling of the voltage and the current. Digital calculation on 32 bits. Measurement of deformed signals, pass band at 800 Hz.
Digital filtering	Programmable on several levels
Cycle time	55 ms (for all network types)
Parameters	3U, 3V, 3I, P, Q, S, F, Cos, IN, cos/phase, Eactive, Ereactive...
Harmonics (µTAC 100 - Option H)	Harmonics analysis up to rank 50 on the 6 channels.

Digital output RS 422/485 (option N)

Galvanic partition	2KV/Inputs
Type	2 or 4 wire
Speeds	4800 / 9600 / 19200 bauds
Protocole	Modbus/Jbus RTU 8 bits, programmable parity. 1 or 2 stop bits.
Format of the data	Integer 16 bits.

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	*5 VA*

Coding

Types :

µTAC 100
µTAC 100 400Hz

Options : *A R N H*

A : option bidirectionnal analog output
R : option relay output : setpoint or pulses
N : option digital output RS422/485
H : harmonics analysis (µTAC 100 only)

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

(2) : high voltage : 90...270 VAC or 88...350 VDC
(3) : low voltage : 20...40 VAC or 20...60 VDC

Order example :

- For a µTAC 100 with 1 analog output, 1 relay output with high voltage power supply, request reference :
µTAC 100 AR 2

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

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