PICA100-F

TACHOMETER / FREQUENCYMETER

DESCRIPTION

PICA100-F is a fully programmable instrument of the KOSMOS series, size 1/32 DIN with 4 digits LED red 8 mm high, designed for measuring **in r.p.m. or lineal speed and signal frequency.**

Supplies excitation for the captor, selectable via programming

Accepts the connection of most Standard sensors: Magnetic pick-up, Namur, PNP, NPN, switch, as well as the possibility of measuring frequencies from signals in the range from 10 to 600 V AC.

Its two mounted relays allow this instrument not only to measure but also to be able to control, regulate and detect alarms for the mentioned signals.

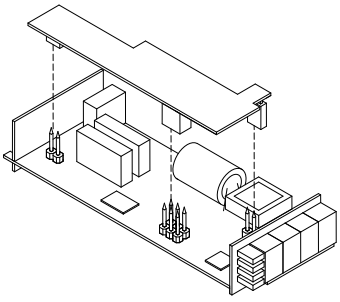
Thanks to its communication RS4P (RS485) and ANAP (analog) options, it can be integrated within a measurement system providing information via its protocols ASCII, ISO 1745, MODBUS-RTU or generating a 0/4-20mA signal respectively.

Incorporates three keys located on the bottom of the frontal display to set all configuration parameters.

4-level brightness configuration is possible to adapt it to the environment where it works. Registers the minimum and maximum process value since its commissioning or resetting.

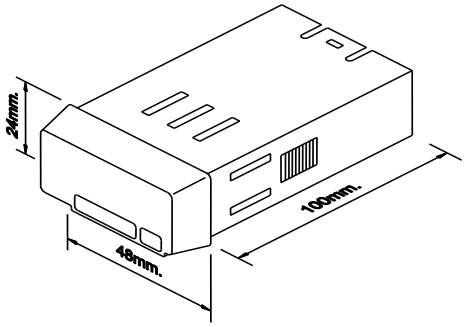
The output options are isolated from the input and the power supply.

STRUCTURE



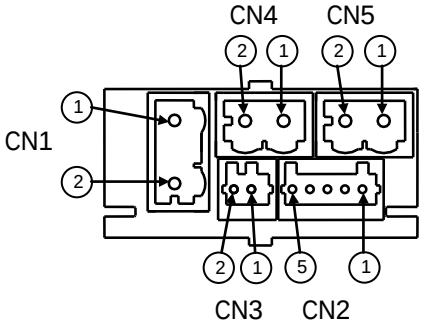
SIZE

- Dimensions 48x24x100mm
- Panel cut out..... 45x22mm



CONNECTIONS

REAR VIEW



CN1	POWER SUPPLY	
PIN	AC VERSION	DC VERSION
1	Phase	-
2	Neutral	+
CN2	**INPUT SIGNAL**	
1	10 to 600 V AC	
2	Not Connected	
3	Input Pulses	
4	(-) Common	
5	(+) Excitation (5V, 8V, 12V) @ 60mA	
CN3	**OUTPUT RS 485**	**ANALOG OUTPUT**
1	TxD+/ RxD+	-mA
2	TxD- / RxD-	+mA
CN4	**RELAY 1**	
1	SPST N.O.	
2		
CN5	**RELAY 2**	
1	SPST N.O.	
2		

PICA100-F

TECHNICAL SPECIFICATIONS

INPUT

Max. Frequency (tachmometer rpm or rate mode) 12kHz
Max. Frequency (frequency meter mode) 9999Hz
Max. Frequency (duty mode) 100Hz
Min. Frequency 0.01Hz
Excitation ..... 5V, 8V, 12V DC @60mA (config. by keyb.)

High input AC voltage ..... 10 to 600 V AC

Magnetic sensor ..... Vin > 30mVeff. (60Hz)
Vin > 300mVeff. (6kHz)

NAMUR Sensor

- Rc 1k5Ω
- I on ..... < 1mA
- I off ..... > 3mA

NPN & PNP Sensors

- Rc ..... (NPN) 3k9Ω, (PNP) 1k5Ω
- Logic levels ..... "0" < 2.4V, "1" > 2.6V DC

TTL/24 V DC (encoder)

- Logic levels ..... "0" < 2.4V, "1" > 2.6V DC

Contact switch

- Vc ..... 5V (internal)
- Rc ..... 3k9Ω (incorporated)
- Fc ..... 20Hz (automatically set when selecting contact switch input) (Ton, Toff > 25 ms)

ACCURACY @ 23°C ±5.0°C

- Max. Error ..... ±(0.01% of reading + 1 digit)
- Temperature coefficient ..... 50ppm/°C
- Warm up ..... 5 minutes

DISPLAY

- Principal ..... 9999, 4 digits 8 mm
- Decimal point ..... programmable
- LEDs ..... 4, for functions and outputs
- Display rate 4/s
- Input overrange ind. ..... "**OuE**" or "**0**" flashing
- Display overrange indication ..... "**OuE**"
- Relays, max. and min. value refresh 10/s

RELAYS

- 2 SPST Relays (included) ..... 5A @ 250V AC /30V DC

POWER SUPPLY

- PICA10X-F ..... 85-265 V AC / 100-300 V DC
- PICA10X-F6 ..... 21-53 V AC / 10.5-70 V DC
- Consumption (all models) 5W

FUSES (DIN 41661) - Not included

- PICA10X-F ..... F 0.2A / 250V
- PICA10X-F6 ..... F 1A / 250V

ENVIRONMENTAL

- Operating temperature ..... -10°C to +60°C
- Storage temperature ..... -25°C to +85°C
- Relative humidity (non-condensing) ..... <95% @ 40°C
- Maximum altitude 2000m
- Frontal protection degree IP65

DIMENSIONS

- Dimensions 48x24x100mm
- Panel cut out 45x22mm
- Weight 100g
- Case material ..... Polycarbonate s/UL 94 V-0

OPTIONS

- RS485 comunications output:
  1200 to 19200 baud and ASCII, ISO 1745 and MODBUS-RTU protocoles
  Ref. **RS4P**

- 0/4-20mA analog output:
  Resolution 5.5µA
  Accuracy ..... ±(0.3%L+40µA)
  EMI max. influence ..... ±0.25mA
  Temperature coefficient ..... 3µA/°C
  Maximum load ..... ≤500Ω
  Ref. ..... **ANAP**

PICA100-F / PICA100-F6 can be supplied with RS4P or ANAP option assembled.

ORDERING CODES

- Universal power supply **PICA100-F**
- Universal power supply+ANAP **PICA101-F**
- Universal power supply+RS4P **PICA104-F**
- Low voltage power supply **PICA100-F6**
- Low voltage power supply+ANAP **PICA101-F6**
- Low voltage power supply+RS4P **PICA104-F6**