

# P300 TRANSDUCER OF PULSES, FREQUENCY, TURNS, OPERATION TIME

NEW



- 2 universal pulse inputs.
- Version: standard, with SD card, with Ethernet and internal memory.
- Mathematical functions for each input.
- Individual characteristic (up to 21 points) for each input.
- 1 or 2 (option) alarm output.
- Power supply of object transducers 24V d.c. (option).
- RS485 interface Modbus RTU Slave, Modbus TCP Slave (option).
- Data recording in internal memory up to 4MB, in external SD/SDHC card (option) or internal file system memory (8GB) (option).
- Transducer configuration using buttons, RS485 interface and eCon software, WWW server.
- Firmware upgradeable by the user.

**FEATURES:**

MOD  
BUS  
Slave

MOD  
BUS  
TCP

HTTP

FTP

SD/  
SDHC

eCon  
Program

21 points  
charact.

RTC

Firmware  
upgrade

Password  
protection

**2 x UNIVERSAL INPUT:**

Hz

↺

⏏

⏏

Value  
setting

**OUTPUT:**

↗

↘

⊕U

RS  
485

**GALVANIC ISOLATION:**

↻

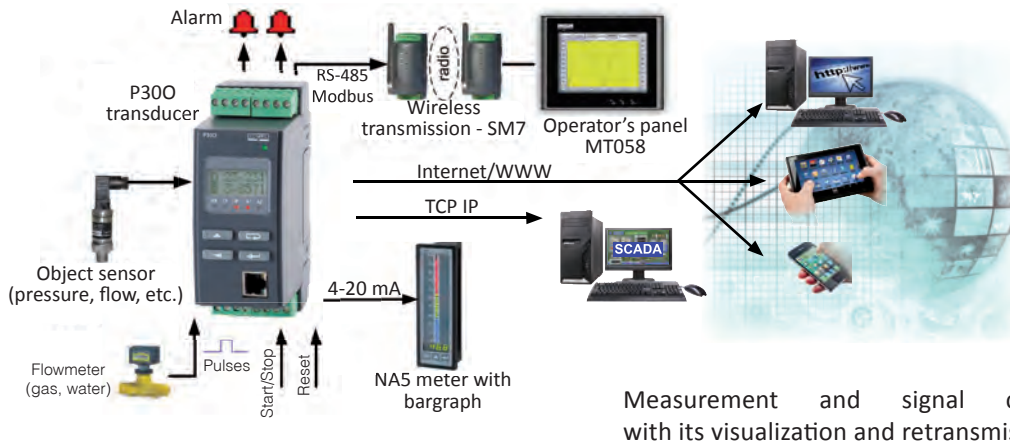
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Supply

RS  
485

**EXAMPLE OF APPLICATION:**



**MAIN INPUT**

Input type No. 1	Nominal range	Maximal range	Class
Number of pulses <sup>1</sup>	-99999...99999	-99999...99999	±1 pulse
Frequency f < 10 kHz <sup>1</sup>	0.05...10000 Hz	0.05...12000 Hz	0.01
Rational speed <sup>1</sup>	0...60000 [Rot/min]	0...72000 [Rot/min]	0.01
Period t < 20s <sup>1</sup>	0.0001...20 [s]	0.0001...21 [s]	0.01
Period t < 1.5 h	0.001...5400 [s]	0.0001...5600 [s]	0.01
Frequency f < 1 MHz	0.1...1000 kHz	0.1...3000 kHz	0.01
Operating time	0...99999 [h]	0...99999 [h]	0.5 sec/ 24h
Current time	00.00 ... 23.59	00.00 ... 23.59	0.5 sec/ 24h
Counter INPUT1 - INPUT2 <sup>1</sup>	-99999...99999	-99999...99999	±1 pulse
Encoder <sup>1</sup>	-99999...99999	-99999...99999	±1 pulse

**AUXILIARY INPUT**

Input type No. 2	Nominal range	Maximal range	Class
Number of pulses <sup>1</sup>	-99999...99999	-99999...99999	±1 pulse
Frequency f < 10 kHz <sup>1</sup>	0.05...10000 Hz	0.05...12000 Hz	0.01
Rational speed <sup>1</sup>	0...60000 [Rot/min]	0.3...72000 [Rot/min]	0.01
Period t < 20s <sup>1</sup>	0.0001...20 [s]	0.0001...21 [s]	0.05
Period t < 1.5 h	0.001...5400 [s]	0.0001...5600 [s]	0.01
Frequency f < 1 MHz	0.1...1000 kHz	0.1...3000 kHz	0.01
Operating time	0...99999 [h]	0...99999 [h]	0.5 sec/ 24h
Current time	00.00 ... 23.59	00.00 ... 23.59	0.5 sec/ 24h
Setting value	-99999...99999	-99999...99999	-

duration time of control pulse (START/STOP, RESET functions) >10 ms, input and control signals 5...24 V d.c.

<sup>1</sup> Minimal duration time of high or low level signal is 40µs - measured value can be incorrect, if for boundary frequency 10 kHz the pulse duty cycle will be < 30% or greater than 70%

**OUTPUTS**

Output type	Properties	Remarks
Analog	Current: 0/4...20 mA, load resistance ≤ 500 Ω; Voltage: 0...10 V, load resistance ≥ 500 Ω	accuracy class: 0,1
Relay	1 or 2 relays; voltageless contacts – NO – maximum load 5A 30V d.c., 250V a.c.	
Supplying output	24 V d.c. / 30 mA (option)	



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## DIGITAL INTERFACE

Interface type	Protocol	Remarks
RS-485	Modbus RTU: 8N2, 8E1, 8O1, 8N1; Address 1...247	Baud rate: 4.8, 9.6, 19.2, 38.4, 57.6, 115.2, 230.4, 256 kbit/s
Ethernet 10/100 Base-T	Modbus TCP, HTTP, FTP	WWW server, FTP server, DHCP client

## EXTERNAL FEATURES

Overall dimensions	45 x 120 x 100 mm	
Weight	< 0.25 kg	
Protection grade	for housing: IP40	for terminals: IP10
Readout field	LCD 2 x 8	

## RATED OPERATION CONDITIONS

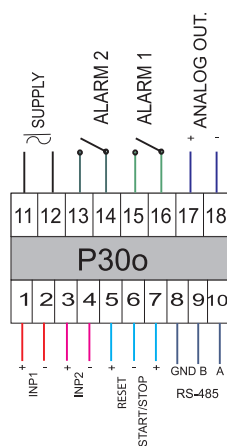
Supply voltage	<ul style="list-style-type: none"> <li>85...253 V d.c. / a.c. (40..400 Hz)</li> <li>20..40 V a.c. (40..400 Hz) or 20...60 V d.c.</li> </ul>	Power consumption < 5 VA
Temperature	ambient: -25...23...+55°C	storage: -30...+70°C
Relative humidity	25...95 %	inadmissible condensation
Working position	any	

## SAFETY AND COMPATIBILITY REQUIREMENTS

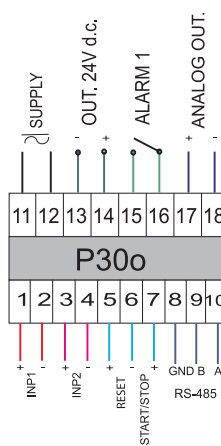
Electromagnetic compatibility	noise immunity	acc. EN 61000-6-2
	noise emissions	acc. EN 61000-6-4
Isolation between circuits	basic	acc. EN 61010-1
Pollution level	2	
Installation category	III	acc. EN 61010-1
Maximal phase-to-earth voltage	<ul style="list-style-type: none"> <li>for supply circuits 300 V</li> <li>for other circuits 50 V</li> </ul>	
Altitude above sea level	< 2000 m	

## CONNECTION DIAGRAM

### P30o-XX1XXXXX



### P30o-XX2XXXXX



## ORDERING

	P30o -	X	XX	X	X	XX	X	X
<b>Analog output:</b>								
current (range 0/4...20 mA)			1					
voltage (0...10 V)			2					
<b>Additional equipment:</b>								
without			0					
with external SD/SDHC slot			1					
with Ethernet interface and internal file system memory			2					
<b>Additional output:</b>								
relay (NO), 5 A 30 V d.c., 250 V a.c.				1				
supply 24 V d.c. / 30 mA				2				
<b>Supply:</b>								
85...253 V a.c./d.c.				1				
20...40 V a.c., 20...60 d.c.				2				
<b>Version:</b>								
standard							00	
custom-made <sup>2)</sup>							XX	
<b>Language:</b>								
Polish								P
English								E
other <sup>2)</sup>								X
<b>Acceptance tests:</b>								
without extra requirements								0
with an extra quality inspection certificate								1
acc. to customer's request <sup>2)</sup>								X

### ACCESORIES:

SD CARD	
Capacity	Ordering code
1 GB	0923-611-193
2 GB	0923-611-194

\* after agreeing with the manufacturer.

### Order example:

Code P30o-112100E1 means transducer execution with current output, SD slot for SD card, with additional output 24 V d.c./ 30 mA, power supply 85...253 V a.c./d.c., standard version, English language, without extra requirements.

## SEE ALSO:



Free eCon software for easy programming of LUMEL's products. Available on our website

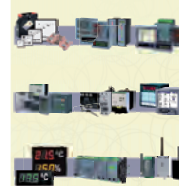


KD7 recorder with MODBUS master protocol for recording data measured by P300 transducer.



SM3 binary inputs module. For readout of binary states and pulses through RS-485 protocol.

### OUR OFFER



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