

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

## FEATURES:

- MOD BUS Slave
- MOD BUS TCP
- HTTP
- FTP
- SD/SDHC
- eCon
- 21 points charact.
- RTC
- Firmware upgrade
- Password protection

## 2 x UNIVERSAL INPUT:

- Hz
- Value setting

## OUTPUT:

- RS 485

## GALVANIC ISOLATION:

- Supply
- RS 485

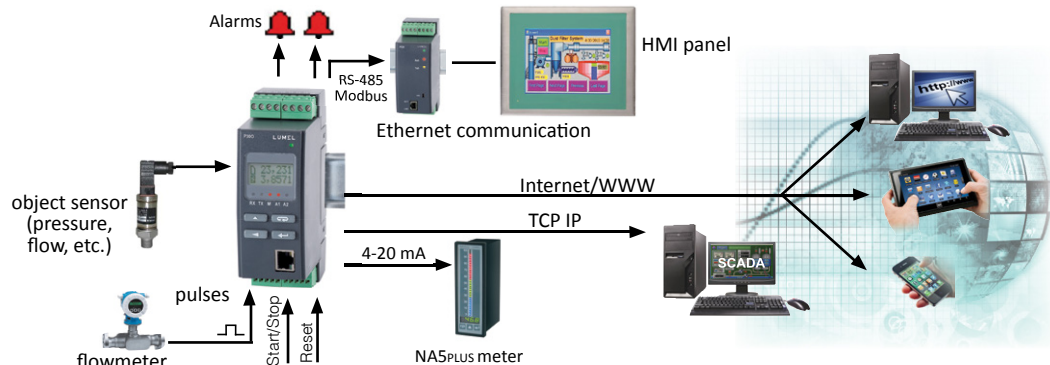
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- 2 universal pulse inputs.
- Version: standard, with SD card, with Ethernet and internal memory.
- Mathematical functions for each input.
- Individual characteristic (up to 21 points) for each input.
- 1 or 2 (option) alarm output.
- Power supply 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.

## EXAMPLE OF APPLICATION:



Measurement and signal conversion with its visualization and retransmission.

### 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)	

## 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

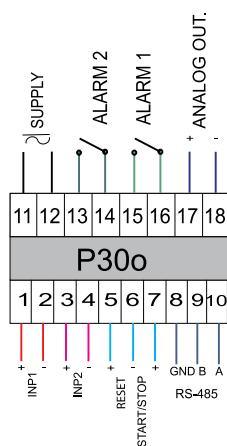
Supply voltage	<ul style="list-style-type: none"> <li>• 85...253 V d.c. / a.c. (40...400 Hz)</li> <li>• 20...40 V a.c. (40...400 Hz) or 20...60 V d.c.</li> </ul>	Power consumption < 5 VA
Temperature	ambient: -25...23...+55°C	storage: -30...+70°C
Relative humidity	25...95 %	inadmissible condensation
Working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

## SAFETY AND COMPATIBILITY REQUIREMENTS

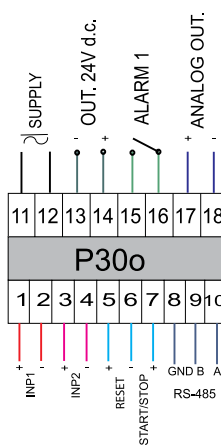
Electromagnetic compatibility	noise immunity	acc. EN 61000-6-2
	noise emissions	acc. EN 61000-6-4
Isolation between circuits	basic	acc. EN 61010-1
Pollution level	2	acc. EN 61010-1
Installation category	III	
Maximal phase-to-earth voltage	<ul style="list-style-type: none"> <li>• for supply circuits 300 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	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*					XX		
<b>Language:</b>							
Polish						P	
English						E	
other*						X	
<b>Acceptance tests:</b>							
without extra requirements						0	
with an extra quality inspection certificate						1	
acc. to customer's request*						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.

For more information about LUMEL's products please visit our website:  
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