

# S4AO- MODULE OF 4 ANALOG OUTPUTS

## FEATURES:

**MOD BUS**

eCon Program



## INPUTS:

2x **RS 485**

## OUTPUTS:

4x

## GALVANIC ISOLATION:



**RS 485**



**RS 485**

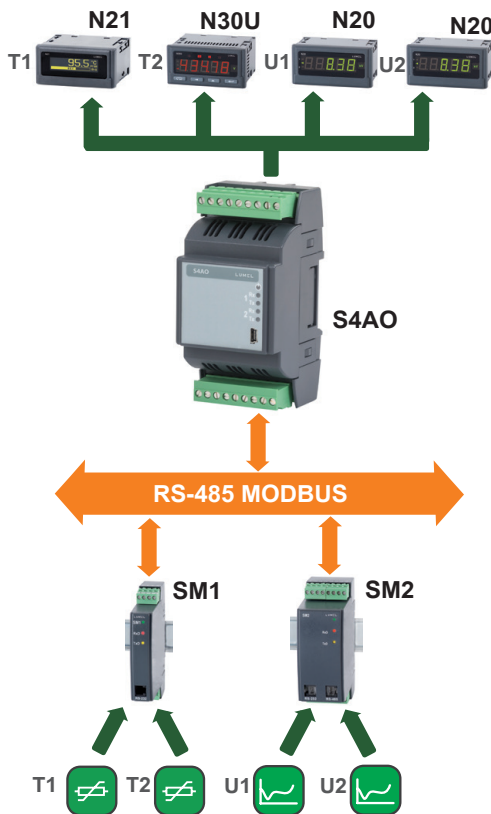
**Export department:**  
Tel: +48 68 45 75 139/233/  
321/386  
Fax: +48 68 32 54 091

LUMEL S.A.  
ul. Słubicka 1  
65-127 Zielona Góra  
[WWW.LUMEL.COM.PL](http://WWW.LUMEL.COM.PL)

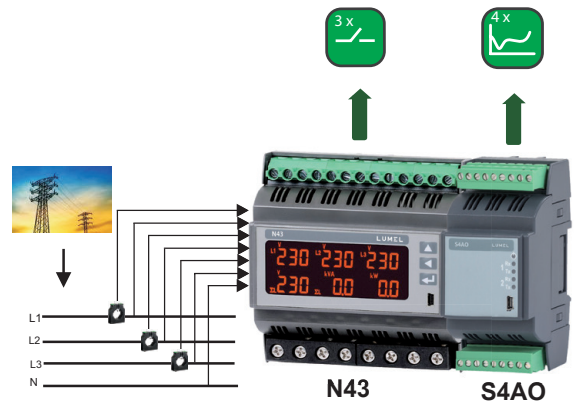


- Conversion of RS-485 MODBUS data into standard signals in 4 channels (current 0/4...20 mA or voltage 0...10 V).
- Possibility of connection via internal RS-485 port in order to increase no of analog outputs in other devices.
- Two independent communication ports (possibility to work as Master/Slave).
- Master Modbus function dedicated to read out data from other RS-485 devices and to scale analog value.
- Slave Modbus function to set the signal on analog outputs.
- Outputs working time counter.
- Mounting on a TS35 rail.
- Galvanic separation between 2 groups of outputs.
- Possibility of configuration through USB without power supply.

## EXAMPLE OF APPLICATION



Retransmission of analog signals through S4AO.



Increasing number of analog outputs in power network meters by adding S4AO module.

## DIGITAL INTERFACE

Interface type	Transmission protocol	Modes	Baud rate
RS-485	Modbus RTU	8N2,8E1,8O1,8N1	1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbit/s

## OUTPUTS

Output type	Range	Remarks
Current	0...20...24 mA or 3.75...4...20...24 mA, load resistance 0...500 Ω, disposable voltage: 15 V	basic error: 0.2 % of range resolution: 0.05 % of range Additional errors in % of the basic error from ambient temperature changes: < 0.1 %/ 10 °C
Voltage	0...10...12 V load resistance > 500 Ω, disposable voltage: 15 V	basic error: 0.2 % of range resolution: 0.1 % of range Additional errors in % of the basic error from ambient temperature changes: < 0.1 %/ 10 °C

## EXTERNAL FEATURES

Overall dimensions	53 x 110 x 60.5 mm	
Weight	< 0.2 kg	
Protection grade	IP50	from terminal side: IP00

# S4AO- MODULE OF 4 ANALOG OUTPUTS

## RATED OPERATING CONDITIONS

Supply voltage	85...253 V a.c. 40...400 Hz; 90...300 V d.c. or 20...40 V a.c. 40...400 Hz; 20...60 Vd.c.	
Temperature	ambient: -10...23...+55°C	storage: -25...+70°C
Relative humidity	< 95% (inadmissible condensation)	
Operating position	on a TS35 rail	
External magnetic field	0...40...400 A/m	

## SAFETY AND COMPABILITY REQUIREMENTS

Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Isolation between circuits	basic	acc. to EN 61010-1
Pollution grade	2	
Installation category	III	
Maximal phase-to-earth operating voltage	supply circuit: 300V, other circuits 50V,	
Altitude above sea level	< 2000 m	

## CONNECTION DIAGRAMS

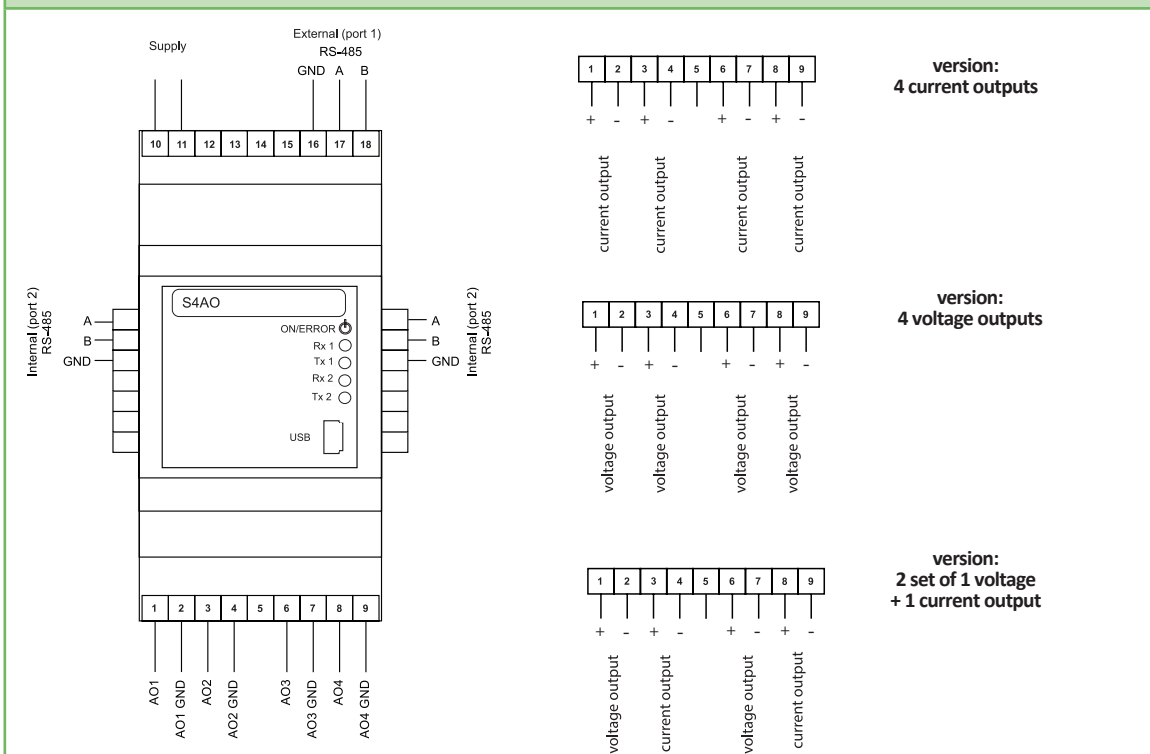


Fig. 1 Electrical connections of the S4AO module.

Fig. 2 Analog outputs versions.

## ORDERING

### ORDERING CODE:

ORDERING CODE:	S4AO -	X	X	XX	X	X
<b>Outputs:</b>						
4 current outputs, 0/4...20 mA		1				
4 voltage outputs, 0...10 V		2				
2 sets of 1 voltage + 1 current output: 0...10 V and 0/4...20 mA		3				
acc.to customer's requirements*			X			
<b>Supply voltage:</b>						
85...253 V a.c., 90...300 V d.c.		1				
20...40 V a.c., 20...60 V 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 quality requirements					0	
with an extra quality inspection certificate					1	
acc.to customer's requirements*					X	

\* - After agreeing with the manufacturer

### ORDER EXAMPLE:

Code **S4AO - 1100E0** means:  
**S4AO** - S4AO module  
**1** - 4 current outputs 0/4...20 mA  
**1** - supply 85...253 V a.c./d.c.  
**00** - standard version  
**E** - English version  
**0** - without extra quality requirements

### ACCESSORIES:

- USB CABLE A/miniUSB-B - 1m BLACK,  
**order code:** 20-069-00-00150
- lateral bus inter-module connector;  
**order code:** 24-171-01-00016,
- lateral bus to cable connector;  
**order code:** 24-171-01-00017.

## SEE ALSO:



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



**N30U**  
Programmable digital meter of temp., resistance and standard signals



**N25**  
configurable digital indicator



**N21**  
temperature and d.c. standard signals universal digital meter with OLED



**N43**  
rail mounted 3-phase power network meter

For more information about LUMEL products please visit our website:  
[www.lumel.com.pl](http://www.lumel.com.pl)

**Export department:**  
 Tel: +48 68 45 75 139/233/  
 321/386  
 Fax: +48 68 32 54 091

LUMEL S.A.  
 ul. Słubicka 1  
 65-127 Zielona Góra  
[WWW.LUMEL.COM.PL](http://WWW.LUMEL.COM.PL)