

# SM1 MODULE OF ANALOG INPUTS

## FEATURES:

**MOD BUS** Program LPConfig



- Conversion of standard signals and temperature into RS485 / Modbus in 2 channels
- Programmable measurement characteristic
- Fixing on a TS35 rail
- Mathematical functions realized between channels and on channels.

## INPUTS:

0...20 mA

4...20 mA

0...10 V



## OUTPUTS:

**RS 485**

## GALVANIC ISOLATION:

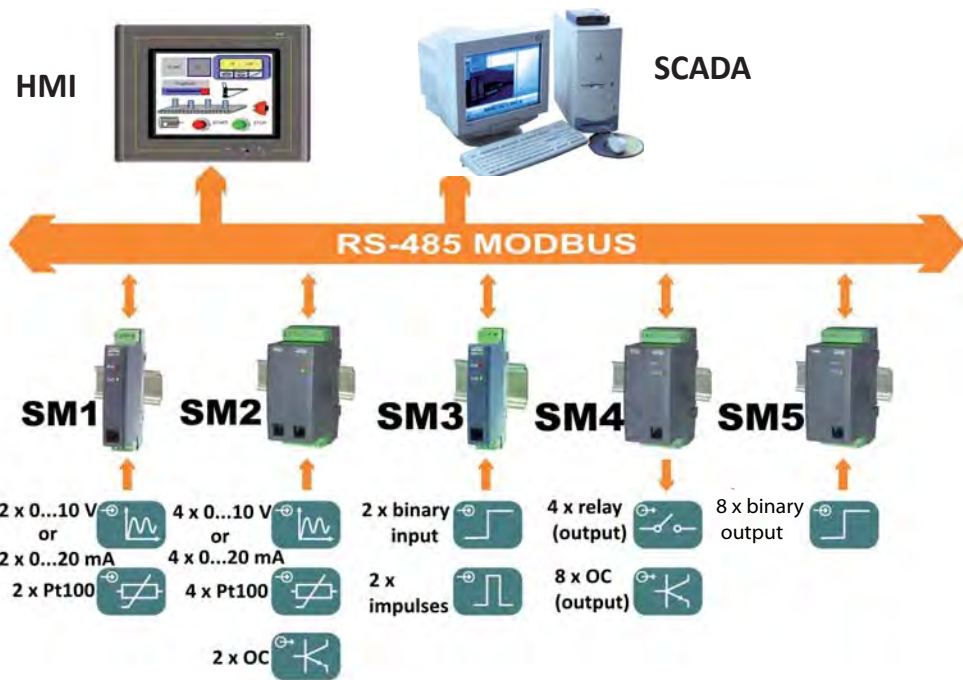


**RS 232**



**RS 485**

## EXAMPLE OF APPLICATION



## EXTERNAL FEATURES

Overall dimensions	22.5 x 120 x 100 mm	
Weight	< 0.3 kg	with packing
Protection grade	IP40	from terminal side: IP20

## DIGITAL INTERFACE

Interface type	Transmission protocol	Modes	Baud rate
RS-485	Modbus RTU	8N2,8E1,8O1,8N1	2400; 4800; 9600; 19.2 k;
	Modbus ASCII	8N1, 7E1, 7O1	38.4 k; 57.6 k; 115 k bit/s

## INPUTS

Input type	Range	Error
Temperature	-200...850 °C	0.2%
Current	0/4...20 mA	0.2%
Voltage	0...10 V	0.2%
Resistance	0...400 Ω	0.2%

## OUTPUTS

Output type	Properties	Remarks
Digital interface	RS-485	Modbus ASCII/RTU

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## RATED OPERATING CONDITIONS

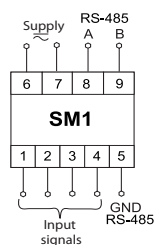
Supply voltage	85...253 V a.c./d.c. (40...400 Hz) or d.c. 20...50 V a.c./d.c. (40...400 Hz) or d.c.	Input power: ≤ 4 VA
Temperature	ambient: -10...23...55°C	
Relative humidity	< 95%	
Operating position	on a TS35 rail	
External magnetic field	< 400 A/m	

## SAFETY AND COMPABILITY REQUIREMENTS

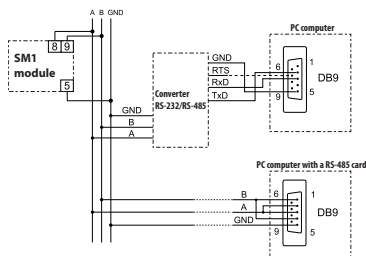
Electromagnetic compatibility	Noise immunity	acc. to EN 61000-6-2
	Noise emissions	acc. to EN 61000-6-4
Isolation between circuits		acc. to EN 61010-1
Pollution level	2	
Installation category	III	
Maximum phase-to-earth operating voltage	Supply: 300 V, input 50 V, Output: 50 V	
Altitude a.s.l.	2000 m	

## CONNECTION DIAGRAMS

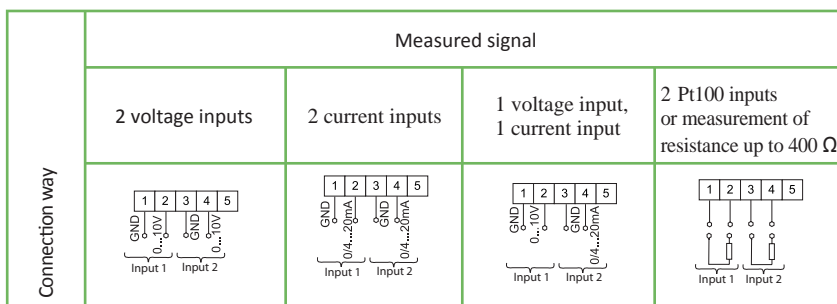
Connection way of external signals



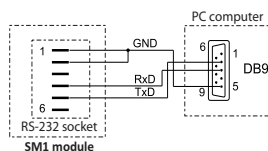
Connection way of the RS-485 interface



Connection way of input signals



Connection way of the RS-232 interface



## ORDERING

<b>Module of analog inputs - SM1</b>	<b>XX</b>	<b>X</b>	<b>X</b>
<b>Input signal :</b>			
2 voltage inputs	0...10 V	00	
2 current inputs	0/4...20 mA	01	
1 voltage input + 1 current input	0...10 V+0/4...20 mA	02	
2 resistance inputs or Pt100	Pt100 or resistance < 400 Ω	03	
<b>Supply:</b>			
85...253 V a.c./d.c.		1	
20...50 V a.c./d.c.		2	
<b>Acceptance tests:</b>			
without additional quality inspection requirements			8
with an extra quality inspection certificate			7
acc. to customer's requests *			X

\* after agreeing with the manufacturer

### Ordering example:

The code **SM1 - 01 1 8** means:  
**SM1** - module of SM1 type

**01** - 2 current inputs:  
0/4...20 mA

**1** - supply: 85...253 V a.c./d.c.

**8** - without additional quality inspection requirements

SEE ALSO:



Free LPConfig software



MT058 panel



Programmable controller SMC



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