

# SM7 RADIO TRANSMISSION MODULE

## FEATURES:

Radio connection

Max. power of transmitter 10 dBm

## INPUTS:

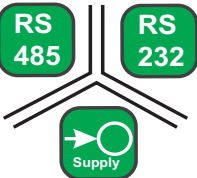
RS 232

RS 485

## OUTPUTS:

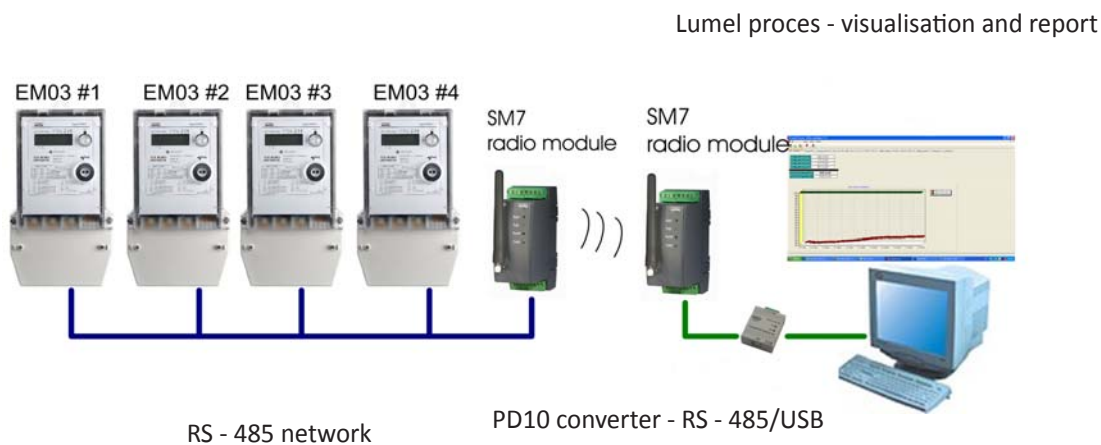
RF 433 / 868 MHz

## GALVANIC ISOLATION:



- Destined for data transmission by radio way in the non-licensed 433 MHz or 868 MHz band
- Controlled output power from -20 to 10 dBm
- 10 channels
- The data baud rate in the radio channel is changed in the range 4800...76800 bit/s, and 4800...115200 bit/s in the serial port
- Two ports are installed: RS-485 and RS-232
- Two coding types are implemented: Manchester and NRZ
- Possibility to group modules operating in the same radio channel (i.e. addressed radio link).

## EXAMPLE OF APPLICATION



## DIGITAL INTERFACES

Port	Properties	
Interface RS-232 Interface RS-485	Data format:	8N1, 8N2, 8E1, 8O1, 7E1, 7O1
	Baud rate:	4800...115200 bit/s
Radio link	Carrier frequency:	433, 868 MHz
	Power:	-20, -15, -10, -5, 0, 5 dBm (additionally 10 dBm only for 433 MHz)
	Receiver sensitivity:	-110 dBm
	Baud rate:	4800, 9600, 19200, 38400, 76800 bit/s
	Coding type:	NRZ, Manchester
	Transmission range in the direct line (building site):	ca. 300 m (for 433 MHz version)
	Number of channels:	10
	Antenna output:	50 Ω SMA

## EXTERNAL FEATURES

Overall dimensions	45 x 120 x 100 mm	
Weight	< 0.5 kg	with packing
Protection grade	housing: IP20	from terminal side: IP20
Fixing	on a rail (acc.to EN-60715)	

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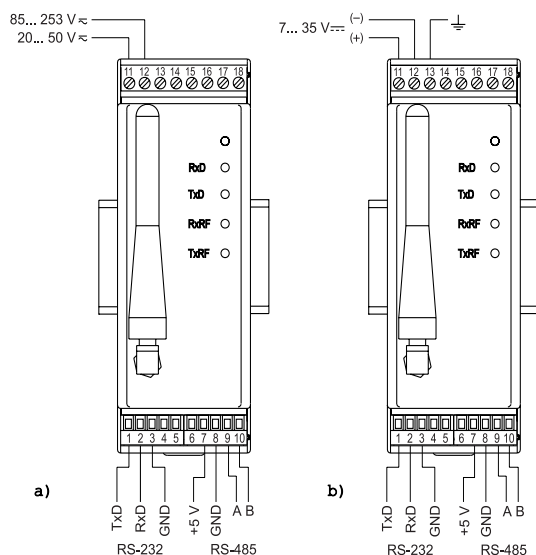
## RATED OPERATING CONDITIONS

Supply voltage	85...230...253 V a.c./d.c. or 20...24...50 V a.c./d.c. or 7...35 V d.c.	Input power: ≤ 2.5 VA Supply frequency : 40...50...440 Hz
Temperature	ambient: 0...23...45°C	Storage: -20...70 °C
Relative humidity	< 95%	Inadmissible condensation
Operating position	any	
Time of readiness obtainment since the device connection:	2 sec	

## SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	noise immunity	acc.to EN 61000-6-2
	noise emissions	acc.to EN 61000-6-2
	fastness against supply decays	acc.to EN 61000-6-4
Pollution level	2	acc.to EN 61010-6-1
Instalation category	III	
Max.phase-to-earth operating voltage	for supply circuit: 50 V for other circuits: 50 V	

## CONNECTION DIAGRAMS



a) for supply : 85...253 V a.c./d.c. and 20...50 V a.c./d.c.  
b) for supply: 7...35 V d.c.

## ORDERING

<b>Radio transmission module - SM7</b>	X	X	X
<b>Supply voltage:</b>			
85...230...253 V a.c./d.c.	1		
20...24...50 V a.c./d.c.	2		
7...35 V d.c.	3		
<b>Radio transmission frequency:</b>			
433 MHz		1	
868 MHz		2	
<b>Acceptance tests:</b>			
without additional quality inspection requirements			8
with an extra quality inspection certificate			7
acc.to customers request *			X

\* after agreeing with the manufacturer

### Ordering example:

The code **SM7 - 1 2 7** means:

- SM7** - module of SM7 type
- 1 - supply voltage: 85...230...253 V a.c./d.c.
- 2 - frequency 868 MHz
- 7 - with an extra quality inspection certificate

SEE ALSO:



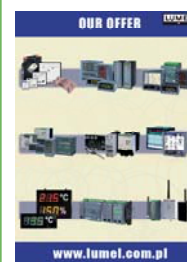
MR03 - radio transmission module



SM8 - GSM/ GPRS transmission module



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