



OMX PROFIBUS

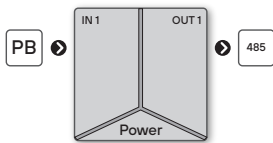


- Galvanic separation 2.5 kVAC
- Power supply 10...30 V AC/DC; 80...250 V AC/DC

The transmitter is designed for easy and cost-effective connection of ORBIT MERRET™ instruments to PROFIBUS line with installation on DIN rail. One transmitter may control up to 31 instruments via the RS 485 line with communication protocol OM ASCII.

From the OM xxx instruments individual values may be downloaded from as many as 9 channels (for one instrument), as well as limit statuses may be set. Another option is projecting values and texts on displays of individual instruments.

TRANSMITTER PROFIBUS > RS 485



OPERATION

The instrument is designed for transfer of communication among the OM xxx instruments to PROFIBUS bus without further control.

On the front panel of the transmitter there are 4 LED diodes for signalization of the operational status and communication in progress.

TECHNICAL DATA

FUNCTION

Input - PROFIBUS	
Input	EIA RS-485
Protocol	PROFIBUS DP
Rate	9.6 kbaud...12 Mbaud
Address	0...125, adjustable in OM instruments with address „00“
Data transfer	54B to OM, 44B fromz OM
Modes	- reading values + setting limits - value display FLOAT (Real)/LONG - text display - sending OM ASCII instructions
Number particip.	< 32 < 126 using a repeater
Transfer state	4x signal LED
Output - RS 485	
Input	RS 485
Protocol	OM ASCII - modified company protocol for connecting OM instruments
Format	8 bit ₀ + no parity + 1 stop bit
Rate	600...115 200 Baud
Number OM instr.	< 32
Communicat. rate	0.1...17 s + communication time according to rate (def. 0.6 s)
Connection	
Type	shielded twisted double-line
Resistance	characteristic resistance 135...165 Ω
Capacity	< 30 pF/m
Section	> 0.32 mm ²
Length	1 200 m at baud rate 9.6 / 19.2 / 93.75 kbit/s 1 000 m at baud rate 187.5 kbit/s 400 m at baud rate 500 kbit/s 200 m at baud rate 1 500 kbit/s 100 m at baud rate 3 000/6 000/12 000 kbit/s Moving line is allowed up to transmission rate of max. 1 500 kbit/s, for increased security a transmission rate greater than 500 kbit/s should not be used.

POWER SUPPLY

Range	10...30 V AC/DC, ±10 %, PF ≥ 0.4, I _{typ} < 40 A / 1 ms, isolated 80...250 V AC/DC, ±10 %, PF ≥ 0.4, I _{typ} < 40 A / 1 ms, isolated <i>Protection by fuse inside the device</i>
Consumption	< 1.5 W / 1.5 VA

MECHANIC PROPERTIES

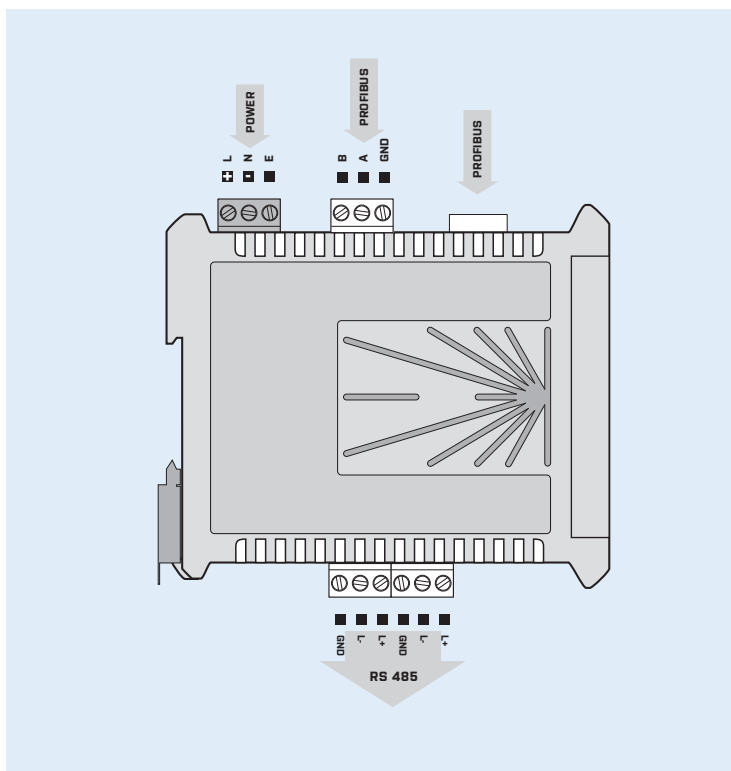
Material	PA 66, incombustible UL 94 V-1, blue
Dimensions	22 x 98 x 113 mm (w x h x d)
Installation	on DIN rail, width 35 mm

OPERATING CONDITIONS

Connection	connector terminal blocks, section < 2.5 mm ² 9-pin SUB-D (Canon) shielded twisted double-line with charact. resistance 135...165 Ω
Stabilization period	within 5 minutes after switch-on
Working temperat.	-20°...60°C
Storage temperat.	-20°...85°C
Working humidity	< 95 % r.v., non condensing
Protection	IP20
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	4 kVAC per 1 min test between supply and output
Insulation resist.*	for pollution degree II, measuring cat. II power supply > 600 V (PI), 300 V (DI) input, output > 500 V (PI), 250 V (DI)
EMC	EN 61326-1, Industrial area

* PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

OMX Profibus	-	<input type="checkbox"/>
Power supply	10...30 V AC/DC	0
	80...250 V AC/DC	1

Basic configuration of the instrument is indicated in bold.