



OMX PROFIBUS

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

- Galvanic separation: 2,5 kVAC
- Power supply 10...30 V AC/DC; 80...250 V AC/DC

OMX PROFIBUS
PROFIBUS DP/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

INTERFACE PROFIBUS

PB	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 from OM
	Modes	- reading values + setting limits - value display FLOAT (Real)/LONG - text display - sending OM ASCII instructions
	Number particip.	< 32
	Transfer state	< 126 using a repeater
		4x signal LED

INTERFACE RS 485

RS	Input	RS 485
	Protocol	OM ASCII - modified company protocol for connecting OM instruments
	Format	8 bit + no parity + 1 stop bit
	Rate	600...115 200 Baud
	Number OM instr.	< 32
	Commun. rate	0,1...17 s + communication time accord. to rate (def. 0,6 s)

CONNECTION

Cable	Type	shielded twisted double-line
	Resist.	characteristic resistance 135...165 Ω
	Capacity	< 30 pF/m
	Section	> 0,32 mm ²
	Length	1200 m at baud rate 9,6 / 19,2 / 93,75 kBit/s 1000 m at baud rate 187,5 kBit/s 400 m at baud rate 500 kBit/s 200 m at baud rate 1500 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_{STP}< 40 A/1 ms, isolated
80...250 V AC/DC, ±10 %, PF≥0,4, I_{STP}< 40 A/1 ms, isolated
Consumption: < 1,5 W/1,5 VA

MECHANIC PROPERTIES

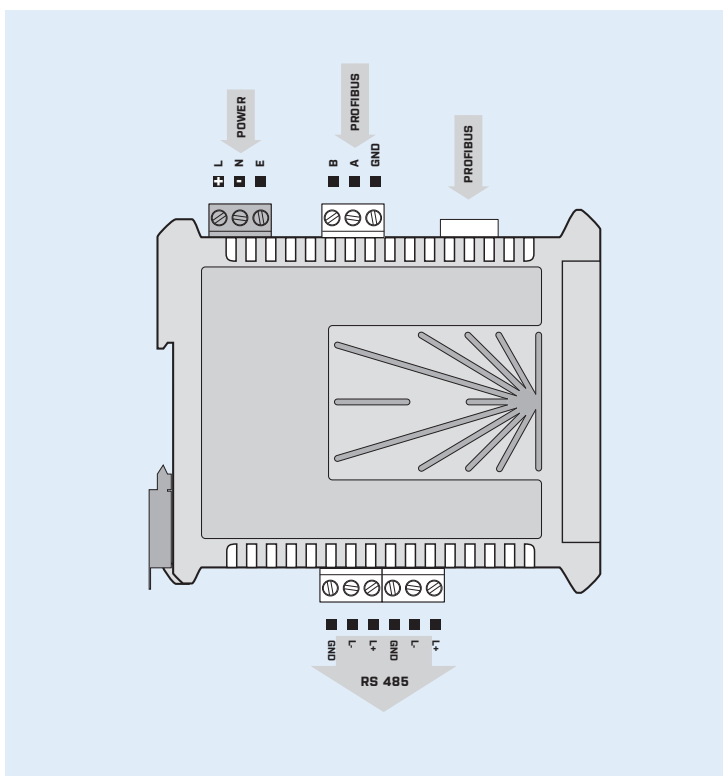
Material: PA 66, incombustible UL 94 V-1, blue
Dimensions: 22 x 98 x 113 (w x h x d)
Installation: on DIN rail, width 35 mm

OPERATING CONDITIONS

Connection: connector terminal blocks, section < 2,5 mm²,
9-pin SUB-D (Canon)
shielded twisted double-line with charact. resistance 135...165 Ω
Stabilization period: within 5 minutes after switch on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Protection: IP20
El. safety: EN 61010-1, A2
Dielectric strength: 4 kVAC per 1 min test between supply and input
Insulation resistance: for pollution degree II, measuring cat. III
power supply > 600 V (PI), 300 V (DI)
input, output, PN > 500 V (PI), 150 V (DI)
EMC: EN 61326-1

PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

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

Basic configuration of the instrument is indicated in bold.