

INTERFACES

RS232

RS485

M-Bus

USB

Ethernet

GSM/GPRS

16 x Analog IN

8 x Discrete IN

16 Discrete OUT



FEATURES

- Independent data log with real time stamp
- Reading data from M-Bus meters (heat, water, gas, electricity) via M-Bus interface
- Supported interfaces: M-Bus, RS232, RS485, USB, GSM/GPRS, Ethernet, Analog IN, Discrete IN/OUT
- Alarm limits tracing of analog and discrete inputs, logging in event archive, warning about alarms over GPRS or UMTS/HSPA+, Ethernet and by sending SMS
- Alarms status of analog and discrete channels fixing
- Remote data sending over Ethernet or GSM/GPRS, 2G/3G using Modbus TCP/IP protocol
- Up to 16 analog inputs (voltage, current, resistance, PT100)
- Up to 8 discrete inputs (contact / impulse / alarm)
- Up to 16 discrete relay outputs

RAY-6 data logger is dedicated for measuring of analog (voltage, current, resistance) parameters, for tracking the status of discrete inputs, formation of discrete output signals, archiving and sending data to local users/server over RS232/RS485 or USB and to remote users/server over Ethernet or/and GSM/GPRS/EDGE or UMTS/HSPA+ using Modbus TCP/IP protocol.

ORDERING CODE

RAY-6.	A	B	C	D	E	F	G	H	I	J	K
0 – None 1 – RS485 2 – RS232											
0 – None 4 – M-Bus											
0 – None 1 – Ethernet											
3 – 3G modem 4 – 3G modem + GPS											
0 – None 1 – Current 0/4..20mA analog input 2 – Voltage 0 - 5V analog input 3 – Voltage 0 - 10V analog input 4 – Thermoresistor (Pt100) analog IN 5 – Thermoresistor (Pt1000) analog IN 7 – Thermoresistance (NTC) 0-30 kΩ											
										0 – None 4 – 4 discrete inputs 8 – 8 discrete inputs	
										0 – None 1 – 4 discrete relay outputs 2 – 8 discrete relay outputs 3 – 12 discrete relay outputs 4 – 16 discrete relay outputs	

Example: **RAY-6.104.1.3.4.0.0.8.0** (RS485, M-Bus, Ethernet, 3G modem, Thermoresistor (Pt100) analog IN, 8 Discrete IN)

TECHNICAL SPECIFICATIONS

Description	RAY-6 data logger
CPU	CORTEX M4
Flash	archive storage up to 8 MB, independent data storage without power about 5 years
Interfaces	
RS232 (2 ports)	distance up to 15 m, speed up to 19,2 Kbit/s
RS485 (2 ports)	distance up to 1,2 km, max 32 transivers, speed up to 19,2 Kbits/s
M-Bus (1 port)	up to 8 M-Bus devices
GSM/GPRS	4 band 850/900/1800/1900 MHz
UMTS/HSPA+	2 band, depending on market 850/1900MHz, 900/2100MHz or 800(850)/2100MHz
Ethernet	10/100 Mbps, RJ45, distance up to 100 m
USB	type B, ver. 2,0
Discrete IN	8 sink contact
Discrete OUT	16 relay (220VDC/3A; 24VAC/1A)
Analog IN	16 resistance, voltage or current, reading 10 times per second
Protocols	
Modbus RTU, Modbus TCP/IP, IP, ICMP, UDP, TCP, DHCP, PPP, ARP, SNTP, IEC60870-5-104:2000, DynDNS, FTP server, FTP client, DNS client	
General	
Power supply	9-36 VDC
Over-voltage protection	>1000V
Power consumption	<10VA
Physical characteristics	
Dimensions	277x128x50 mm
Weight	800 g
Mounting type	on DIN rail
Protection type	IP20
Climate conditions	
Operating temperature	-25 to +60°C
Storage temperature	-40 to +60°C
Humidity range	5 – 95%, non-condensing
Programing and updating	
Remote	2G/3G, Ethernet (RJ45)
Locally	USB, RS232, RS485
LED indication	
Power	
Status of discrete input, for each port	
Serial ports read/write for each port	
GSM/GPRS modem status	
Ethernet status	
Other features	
Real time clock	+
M-Bus auto setup	+
Warranty period	2 years