

SERIAL COMMUNICATION - MNO

Protocol: **DNP3 LV.1;**

Transmission Rate: 2,400 to 57,600 bps;

Data Bits: **8;**

Parity: **None/Odd/Even;**

Stop bits: **1;**

ADDRESS DNP3	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITTEN READING	SCALE
1	1 – 999	-	-	High Level Alarm;	E / L	1:10
2	1 – 999	-	-	Low Level Alarm;	E / L	1:10
3	1 – 999	-	-	High Level Shutdown;	E / L	1:10
4	1 – 999	-	-	Low Level Shutdown;	E / L	1:10
5	0 – 300	-	-	Alarm Shutdown Hysteresis;	E / L	1:10
6	0 – 20	-	-	Shutdown Delay Time.	E / L	1:1
7	0 - 3	-	-	Recorder – Shutdown function time.	-	
		-	0	Disables the Shutdown function;	E / L	-
		-	1	Enables the Low Level Shutdown function;	E / L	-
		-	2	Enables the High Level Shutdown function;	E / L	-
		-	3	Enables the Low and High Level Shutdown function;	E / L	-
8	0 – 4	-	-	Registrar – Analog Output Type.	-	
		-	0	Sets Analog Output from 0 to 1 mA;	E / L	-
		-	1	Sets Analog Output from 0 to 5 mA;	E / L	-
		-	2	Sets Analog Output from 0 to 10 mA;	E / L	-
		-	3	Sets Analog Output from 0 to 20 mA;	E / L	-
		-	4	Sets Analog Output from 4 to 20 mA;	E / L	-

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9	-	-		Registrar – Commands.	-	
		0	1	Resets Maximum Level values;	And	-
		1	1	Restarts Minimum Level values;	And	-
		2	1	Reset CPU;	And	-
10	0 - 49999	-	-	Initial Resistance of the Buoy;	E / L	1:10
11	0 - 49999	-	-	Final Resistance of the Boia;	E / L	1:10
12	-	-		Register – Relay Drive Logic.	-	
		0	0	Relay Drive Logic 1 (High Level) – Normal;	E / L	-
			1	Relay Drive Logic 1 (Low Level) – Inverse;	E / L	-
		1	0	Relay Drive Logic 2 (High Level) – Normal;	E / L	-
			1	Relay Drive Logic 2 (Low Level) – Inverse;	E / L	-
		2	0	Relay Drive Logic 3 (High Level) – Normal;	E / L	-
			1	Relay Drive Logic 3 (Low Level) – Inverse;	E / L	-
		3	0	Relay Drive Logic 4 (High Level) – Normal;	E / L	-
			1	Relay Drive Logic 4 (Low Level) – Inverse;	E / L	-
15	500 – 2000	-	-	Boia level;	L	-1000:10
16	500 – 2000	-	-	Maximum Level Reached;	L	-1000:10
17	500 – 2000	-	-	Minimum Level Reached;	L	-1000:10
18	-	-		Recorder – Alarm Conditions.	-	
		0	1	Maximum Level Alarm;	L	-
		1	1	Minimum Level Alarm;	L	-

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19	-	-		Registrar – Shutdown Conditions.	-	
		0	1	Shutdown Time Count by Maximum Level;	L	-
		1	1	Shutdown Time Count by Minimum Level;	L	-
		2	1	Shutdown by Maximum Level;	L	-
		3	1	Shutdown by Minimum Level;	L	-
		4	1	Shutdown Triggered;	L	-
20	-	-		Registration – Sensor Status.	-	
		-	1	Sensor Reading Failure;	L	-
21	0 - 1	-		Registrar – Serial Communication Speed.	-	
		-	0	Disables write protection via RS485	E / L	-
		-	1	Enables write protection via RS485	E / L	-
22	-	-		Registrar – Serial Communication Speed.	-	
		-	0	Automatically Detects Communication Speed;	L	-
		-	1	Fixed speed at 2400 bps;	L	-
		-	2	Fixed speed at 4800 bps;	L	-
		-	3	Fixed speed at 9600 bps;	L	-
		-	4	Fixed speed at 19,200 bps;	L	-
		-	5	Fixed speed at 38,400 bps;	L	-
		-	6	Fixed speed at 57,600 bps;	L	-
23	0 – 2	-		Registrar – Type of Communication Parity.	-	
		-	0	No Parity;	L	-
		-	1	Parity Pair;	L	-
		-	2	Odd Parity;	L	-

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ADDRESS DNP3	READING RANGE	BITS INDEX	STATE	DESCRIPTION POINT NAME	WRITTEN READING	SCALE
24	0 - 1	-		Registrar – Type of Communication Protocol.	-	
		-	0	Protocol – DNP 3;	L	-
		-	1	Protocol – MODBUS RTU;	L	-
25	1 – 254	-		Serial Network Address;	L	-
30	1 – 31	-		Calibration Day;	L	-
31	1 – 12	-		Calibration Month;	L	-
32	2017 – 2099	-		Year of Calibration;	L	-
35	0 – 65535	-		Equipment Serious Number – LSB;	L	-
36	0 – 255	-		Equipment Serial Number – MSB;	L	-
38	0 – 9999	-		Password Reminder;	L	-
40	-	-		Firmware Version	L	-