N1200 / N1200HC

Communication Protocol - V2.0x A

1. SERIAL COMMUNICATION

1.1 COMMUNICATION INTERFACE

The optional serial interface RS485 allows to address up to 247 controllers in a network communicating remotely with a host computer or master controller.

RS485 Interface

- Compatible line signals with RS485 standard
- 2 wire connection from master to up to 31 slaves indicators in a multidrop bus. It is possible address 247 nodes with multiple outputs converters.
- Maximum communication distance: 1000 meters
- The RS485 signals are:

D1 = D: Bidirectional data line. D0 = \overline{D} : Bidirectional inverted data line.

C = GND: Optional connection which left communication better.

General Characteristics

- · Optically isolated serial interface
- Programmable baud rate: 1200, 2400, 4800, 9600, 19200, 38400, 57600 or 115200 bps.
- Data Bits: 8
- · Parity: None, Even or Odd.
- Stop Bits: 1

Communication Protocol

The MOSBUS RTU slave is implemented, available in most SCADA softwares in the market.

All configurable parameters can be accessed (for reading or writing) through the. Registers Table. Broadcast commands are supported as well (address 0).

The available Modbus commands are:

- 03 Read Holding Register
- 05 Force Single Coil (Force Digital Output state)
- 06 Preset Single Register
- 16 Preset Multiple Registers (Block write to multiple holding registers)

The registers are arranged in a table in such a way that several registers can be read in the same request.

1.2 CONFIGURATION OF SERIAL COMMUNICATION PARAMETERS

Two parameters must be configured in the device for serial communication:

bRud: Baud rate. All devices with same baud rate.

Rddr: Device communication address. Each device must have an exclusive address.

Prty: Paraty.

1.3 REGISTERS TABLE

Equivalent to the registers referenced as 4XXXX.

The holding registers are basically a list of the internal indicator parameters. All registers above address 12 can be read or written. The registers up to this address in more are read only. Please verify each case. Each table parameter is a 16 bits two complement signed word.

Holding	Parameter	Register Description
Registers		
0000	Active SP	Read: Active control SP (main SP, from ramp and soak or from remote SP).
		Write: to main SP
		Range: from 5PLL to 5PHL .
0001	PV	Read: Process Variable.
		Write: Not allowed.
		Range: Minimum value is the one configured in 5PLL and the maximum value is the one configured in 5PHL . Decimal point position depends on dPPa value.
		In case of temperature reading, the value read is always multiplied by 10, independently of dPPo value.

0002	MV	Read: Output Power in automatic or manual mode.
		Write: Not allowed. See address 28.
		Range: 0 to 1000 (0.0 to 100.0%).
0003	Remote SP	Read/Write: Selected input type for remote SP.
	type	Range: 0 to 3
0004	Display	Read: Current value shown on display.
	value	Write: Current value shown on display.
		Range: -1999 to 9999. The range depends on the displayed
		parameter.
0005	Prompt index	Read: Current prompt position in the parameters flowchart.
	IIIdox	Write: not allowed. Range: 0000h to 060Ch
		Prompt number format: XXYYh, where:
		XX—menu cycle number (check item 4 - INSTALLATION/CONNECTIONS)
		YY→prompt number (index).
0006	Status Word	Read: Status bits. See table 2.
	1	Write: not allowed.
0007	Software Version	Read: The firmware version of controller. If V1.00, the read value will be 100.
	* 0101011	Write: not allowed.
8000	ID	Read: controller identification number.
		Write: not allowed.
		Values:
		48 (30h) – N1200;
		18 (12h) – N1200HC;
		Other values: special instruments.
0009	Status Word 2	Read: Status bits. See table 2.
		Write: not allowed.
0010	Status Word 3	Read: Status bits. See table 2.
		Write: not allowed.
0011	lr	Integral Rate (in repetitions/min)
		Range: 0 to 9999 (0.00 to 99.99)
0012	dŁ	Derivative Time (in seconds). Range: 0 to 3000 (0.0 to 300.0)
0013	РЬ	Proportional Band (in percentage)
		Range: 0 to 5000 (0.0 to 500.0)
0014	Pr.Łb	Read/Write: Time base for the ramp and soak programs.
		Range: 0 – 1 (seconds/minutes)
0015	cŁ	Cycle Time (PWM, in seconds)
		Range: 5 to 1000 (0.5 to 100.0)
0016	FrE9	Read/Write: Mains frequency.
		Range: 0 – 1 (60/50Hz)
0017	H32F	On/Off Control Hysteresis (in selected type engineering unit).
		Range: 0 to SPHL - SPLL
0018	FLEr	Read/Write: PV digital filter gain.
		Range: 0 – 20
0019	ouLL	Output Low Limit (minimum output power)
		Range: 0 to 1000 (0.0 to 100.0%).
0020	ouHL	Output High Limit (minimum output power)
		Range: 0 to 1000 (0.0 to 100.0%).
0021	Reserved	Internal use.
0022	Reserved	Internal use.

number H Range: 0 to 9999. Read only Serial number L Serial Number Low (Lower display). Range: 0 to 9999. Read only Control Setpoint (Prompt Setpoint). Range: minimum value depends on the input type selected in EYPE (see Table 1) to SPHL. Setpoint High limit. Range: minimum value is SPLL and maximum depends on the input type selected in the input type selected in EYPE (see Table 1). Doza Reserved Internal use. PV offset Range: from SPLL to SPHL. PV decimal point position Range: 0 to 3 □→0.000; 1→00.00; 2→000.0; 3→0000 Alarm Setpoint. Range: The minimum value is at SPLL for non-differential alarm or 5PLL - SPLH for differential alarm. The maximum value is at SPHL for non-differential alarm or 3PLH - SPLH for differential alarm. The maximum value is at SPHL for non-differential alarm or 3PLH - SPLH for differential alarm. Alarm Function. Range: 0 to 10 □→aFF; 1→ IEFF; 2→F5 □□37 FuR3 3→Lo; 4→H I □□38 FuRY S→d IF; 6→d IFL; 7→d IFH 8→HbL; 9→HbH; 10→HbLH □□39 HYR1 Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) PV input type Range: 1 to 247 □□45 BRud Communication slave address Range: 1 to 247 □□5 BRud Control Mode. Range: □→no; 1→yes. □□6 BLR I □□60 BLR I □070 BLR I □0	0023	Serial	Serial Number High (Upper display).
number L Range: 0 to 9999. Read only 0025 SV Control Setpoint (Prompt Setpoint). Range: from SPLL to SPHL. 0026 SPLL Setpoint Low limit. Range: minimum value depends on the input type selected in byPE (see Table 1) to SPHL. 0027 SPHL Setpoint High limit. Range: minimum value is SPLL and maximum depends on the input type selected in byPE (see Table 1). 0028 Reserved 1029 oFF5 PV offset Range: from SPLL to SPHL 0030 dPPo PV decimal point position Range: 0 to 3 0→0.000; 1→00.00; 2→000.0; 3→0000 Alarm Setpoint. Range: The minimum value is at SPLL for non-differential alarm or SPLL - SPLH for differential alarm. 1033 SPR3 1033 SPR3 1034 SPR4 Range: The minimum value is at SPHL for non-differential alarm or SPLL - SPLH for differential alarm. 1035 FuR1 1036 FuR2 10→oFF; 1→ IErr; 2→r5 3→Lo; 4→H 1 5→d IF; 6→d IFL; 7→d IFH 8→HbL; 9→HbH; 10→HbLH 1049 HYR1 1040 HYR2 1041 HYR3 1042 HYRR1 1044 Rddr 1044 Rddr 1045 Communication slave address Range: 1 to 247 1045 BRud 1046 Rubeo 1047 Communication Baud-Rate. Range: 0 to 7 10→1200 1→2400 2→4800 3→9600 14→19200 5→32400 6→57600 7→115200 1046 Rubeo 1047 Cun 1048 Rcb 1049 Rbun 1051 bLR2 1056 Alarm power-up inhibit. 1051 BLR2 1057 Range: 0→no; 1→yes.		number H	Range: 0 to 9999. Read only
Range: 1 to 9999. Read only	0024	Serial	Serial Number Low (Lower display).
Range: from SPLL to SPHL. Setpoint Low limit.		number L	Range: 0 to 9999. Read only
SPLL Setpoint Low limit. Range: minimum value depends on the input type selected in LYPE (see Table 1) to SPHL.	0025	SV	Control Setpoint (Prompt Setpoint).
Range: minimum value depends on the input type selected in LYPE (see Table 1) to SPHL. Setpoint High limit.			Range: from SPLL to SPHL .
LYPE (see Table 1) to SPHL. 0027 SPHL Setpoint High limit. Range: minimum value is SPLL and maximum depends on the input type selected in LYPE (see Table 1). 0028 Reserved Internal use. 0029 oFF5 PV offset Range: from SPLL to SPHL. PV decimal point position Range: 0 to 3 0→0.000; 1→00.00; 2→000.0; 3→0000 0031 SPR1 Alarm Setpoint. 0032 SPR2 Range: The minimum value is at SPLL for non-differential alarm or SPLL - SPLL for differential alarm. 0033 SPR3 Alarm Setpoint. 0034 SPR4 Alarm Setpoint. 0035 FuR1 Alarm Setpoint. 0036 FuR2 Alarm Setpoint. 0037 FuR1 Alarm Setpoint. 0038 FuR1 Alarm Setpoint. 0039 Huritary Alarm Furction. Range: 0 to 10 0036 FuR2 3→Lo; 4→H I 0037 FuR3 3→Lo; 4→H I 0039 Huritary Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) 044 Huritary	0026	5PLL	Setpoint Low limit.
Range: minimum value is SPLL and maximum depends on the input type selected in LYPE (see Table 1). 0028			
the input type selected in ŁYPE (see Table 1). 0028	0027	5PHL	Setpoint High limit.
0029 oFF5 PV offset Range: from SPLL to SPHL_ 0030 dPPo PV decimal point position Range: 0 to 3 0→0.000; 1→00.00; 2→000.0; 3→0000 0031 SPR1 0032 SPR2 Alarm Setpoint. 0033 SPR3 The minimum value is at SPLL for non-differential alarm or at SPRL - SPLL for differential alarm. 0034 SPR4 Alarm Function. Range: 0 to 10 0035 FuR1 Alarm Function. Range: 0 to 10 0036 FuR2 3→Lo; 4→H I 0037 FuR3 3→Lo; 4→H I 5→d IF; 6→d IFL; 7→d IFH 8→HbL; 9→HbH; 10→HbLH 0039 HYR1 Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) 0040 HYR2 Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) 0041 HYR3 Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) 0042 HYR4 Od4 Rddr 0043 EYPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 Ohlar to 247 <t< td=""><td></td><td></td><td></td></t<>			
Range: from SPLL to SPHL 0030	0028	Reserved	Internal use.
DOSO Decimal point position Range: 0 to 3 O→0.000; 1→00.00; 2→000.0; 3→0000	0029	oFF5	PV offset
Range: 0 to 3 0→0.000; 1→00.00; 2→000.0; 3→0000 Name			Range: from 5PLL to 5PHL
0→0.000; 1→00.00; 2→000.0; 3→0000 0031	0030	dPPo	PV decimal point position
0031 SPR 1			Range: 0 to 3
SPR2 Range: The minimum value is at SPLL for non-differential alarm or SPLL - SPLH for differential alarm or SPLL - SPLH for differential alarm or at SPHL - SPLH for differential alarm. The maximum value is at SPHL for non-differential alarm or at SPHL - SPLL for differential alarm. None			0->0.000; 1->00.00; 2->000.0; 3->0000
0033 SPR3 alarm or SPLL - SPLH for differential alarm	0031	SP.R I	Alarm Setpoint.
0033 SPR3 0034 SPRY 0035 FuR I 0036 FuR2 0037 FuR3 0038 FuR4 0039 FuR4 0040 HyR2 0040 HyR3 0041 HyR3 0042 HyR4 0043 EyPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 0045 bRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 4→19200 5→32400 6→57600 7→115200 0046 Rubo Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→mo; 1→yes. 0048 Rcb Control action. Range: 0→mo; 1→yes. 0050 bLR1 Alarm power-up inhibit. 0051 bLR2 Range: 0→no; 1→yes.	0032	5P.R2	
0034 SPRH at SPHL - SPLL for differential alarm. 0035 FuR I Alarm Function. Range: 0 to 10 0036 FuR2 0→oFF; 1→ IErr; 2→r5 0037 FuR3 3→Lo; 4→H I 0038 FuR4 5→d IF; 6→d IFL; 7→d IFH 8→HbL; 9→HbH; 10→HbLH 8→HbL; 9→HbH; 10→HbLH 0040 HYR2 Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) 0041 HYR3 PV input type 0042 HYR4 PV input type Range: 0 to 22. See operation manual. Communication slave address Range: 1 to 247 Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Ruba Control Mode. Range: 0→mo; 1→yes. 0047 run Enable control. Range: 0→mo; 1→yes. 0048 Rcb Control action. Range: 0→no; 1→yes. 0050 blR1 Alarm power-up inhibit. 0051 blR2 Alarm power-up inhibit. Range: 0→no; 1→yes.	0033	5P.R3	
0036	0034	5P,84	
0037 FuR3 3→La; 4→H 1 5→d IFL; 7→d IFH 8→HbL; 9→HbH; 10→HbLH 10→HbL	0035	FuR I	Alarm Function. Range: 0 to 10
5→d F F F F F F F F F	0036	FuR2	0→oFF; 1→ IErr; 2→r5
8→HbL; 9→HbH; 10→HbLH 0039 HYR! 0040 HYR2 0041 HYR3 0042 HYRY 0043 LYPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 0045 bRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Rule Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rel Control action. Range: 0→no; 1→yes. 0049 Rlun Auto tune enable. Range: 0→no; 1→yes. 0050 bLR! Range: 0→no; 1→yes.	0037	FuR3	3→ Lo ; 4→ H I
0039 HYR! Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%) 0040 HYR2 0041 HYRY 0042 HYRY 0043 LYPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 Range: 1 to 247 0045 DRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Rule o Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→mo; 1→yes. 0048 Rcl Control action. Range: 0→direct; 1→reverse. 0049 Rlun Auto tune enable. Range: 0→no; 1→yes. 0050 blR1 Alarm power-up inhibit. 0051 blR2 Range: 0→no; 1→yes.	0038	FuRY	5→d IF; 6→d IFL; 7→d IFH
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0041 HYRY 0042 HYRY 0043 LYPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 0045 bRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Rule o Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rcl Control action. Range: 0→direct; 1→reverse. 0049 Rlun Auto tune enable. Range: 0→no; 1→yes. 0050 blR1 Alarm power-up inhibit. 0051 blR2 Range: 0→no; 1→yes.	0039	HYR I	Alarm Hysteresis. Range: 0 to 9999 (0.00 to 99.99%)
0042 HYRY 0043 LYPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 0045 bRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Rule o Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rcle Control action. Range: 0→direct; 1→reverse. 0049 Rlun Auto tune enable. Range: 0→no; 1→yes. 0050 blR1 Alarm power-up inhibit. 0051 blR2 Range: 0→no; 1→yes.	0040	HYR2	
0043 LYPE PV input type Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 0045 bRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Rule Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→mo; 1→yes. 0048 Rcl Control action. Range: 0→direct; 1→reverse. 0049 Rlun Auto tune enable. Range: 0→no; 1→yes. 0050 bLR I Alarm power-up inhibit. 0051 bLR2 Range: 0→no; 1→yes.	0041	нчяз	
Range: 0 to 22. See operation manual. 0044 Rddr Communication slave address Range: 1 to 247 Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Rule o Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rel Control action. Range: 0→direct; 1→reverse. 0049 Reun Auto tune enable. Range: 0→no; 1→yes. 0050 blR1 Alarm power-up inhibit. 0051 blR2 Range: 0→no; 1→yes.	0042	нчяч	
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Range: 1 to 247 Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 O046 Rule			Range: 0 to 22. See operation manual.
0045 bRud Communication Baud-Rate. Range: 0 to 7 0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Ruko Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rck Control action. Range: 0→direct; 1→reverse. 0049 Rkun Auto tune enable. Range: 0→no; 1→yes. 0050 bkRI Alarm power-up inhibit. 0051 bkR2 Range: 0→no; 1→yes.	0044	Rddr	Communication slave address
0→1200 1→2400 2→4800 3→9600 4→19200 5→32400 6→57600 7→115200 0046 Ruto Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rct Control action. Range: 0→direct; 1→reverse. 0049 Rtun Auto tune enable. Range: 0→no; 1→yes. 0050 btR! Alarm power-up inhibit. 0051 btR2 Range: 0→no; 1→yes.			Range: 1 to 247
4→19200 5→32400 6→57600 7→115200 0046	0045	Puq	Communication Baud-Rate. Range: 0 to 7
0046 Ruko Control Mode. Range: 0→manual; 1→automatic. 0047 run Enable control. Range: 0→no; 1→yes. 0048 Rck Control action. Range: 0→direct; 1→reverse. 0049 Rkun Auto tune enable. Range: 0→no; 1→yes. 0050 bkr Alarm power-up inhibit. 0051 bkr Range: 0→no; 1→yes.			0->1200 1->2400 2->4800 3->9600
0047 run Enable control. Range: 0→no; 1→yes. 0048 Rct Control action. Range: 0→direct; 1→reverse. 0049 Rtun Auto tune enable. Range: 0→no; 1→yes. 0050 btrl Alarm power-up inhibit. 0051 btrl Range: 0→no; 1→yes.			4->19200 5->32400 6->57600 7->115200
0048 Rck Control action. Range: 0→direct; 1→reverse. 0049 Rkun Auto tune enable. Range: 0→no; 1→yes. 0050 bkR: Alarm power-up inhibit. 0051 bkR2 Range: 0→no; 1→yes.	0046	Ruto	Control Mode. Range: 0→manual; 1→automatic.
0049 Rtun Auto tune enable. Range: 0→no; 1→yes. 0050 blR I Alarm power-up inhibit. 0051 blR2 Range: 0→no; 1→yes.	0047	רחט	Enable control. Range: 0→no; 1→yes.
0050 bLR! Alarm power-up inhibit. 0051 bLR2 Range: 0→no; 1→yes.	0048	Act	Control action. Range: 0→direct; 1→reverse.
0051 bLR2 Range: 0→no; 1→yes.	0049	AFun	Auto tune enable. Range: 0→no; 1→yes.
	0050	bla i	Alarm power-up inhibit.
0050	0051	PL85	Range: 0→no; 1→yes.
0052 blh 3	0052	bl R3	
0053 ЬLЯЧ	0053	ЬЬЯЧ	

1: key P 2: key \(\text{(UP)} \) 4: key \(\text{(DOWN)} \) 8: key \(\text{(BACK)} \) 9: key P and \(\text{)} 0055 \(\text{CSLL} \) Remote Setpoint Low limit Range: Minimum value depends on the input type selected in \(\text{LYPE} \) 0056 \(\text{CSLL} \) Remote Setpoint High limit Range: Minimum value is in \(\text{CSLL} \), and maximum depends on the input type selected in \(\text{LYPE} \) 0057 \(\text{ lo } \) 10 \(\text{ lo } \) 0058 \(\text{ lo } \) 0059 \(\text{ lo } \) 0059 \(\text{ lo } \) 0060 \(\text{ lo } \) 0061 \(\text{ lo } \) 0062 \(\text{ R I L I} \) 0061 \(\text{ lo } \) 0063 \(\text{ R I L I} \) 0064 \(\text{ R I L I} \) 0064 \(\text{ R I L I} \) 0065 \(\text{ R A I L E} \) 0065 \(\text{ R A I L E} \) 0066 \(\text{ R A I L I} \) 0067 \(\text{ R I L I} \) 0067 \(\text{ R I L I} \) 0068 \(\text{ R I L I} \) 0069 \(\text{ R I L I} \) 0069 \(\text{ R I L I} \) 0069 \(\text{ R I L I} \) 0060 \(\text{ R I L I} \) 0061 \(\text{ R I L I} \) 0061 \(\text{ R I L I} \) 0062 \(\text{ R I L I} \) 0064 \(\text{ R I L I} \) 0065 \(\text{ R I L I} \) 0065 \(\text{ R I L I} \) 0066 \(\text{ R I L I} \) 0067 \(\text{ R I L I} \) 0067 \(\text{ R I L I} \) 0068 \(\text{ B I J L I} \) 0069 \(\text{ R I L I} \) 0069 \(\text{ R I L I I} \) 0060 \(\text{ R I L I I} \) 0060 \(\text{ R I L I I} \) 0060 \(R I L I I I I I I I I I I I I I I I I I	0054	Key	Key press remote action. Range: 0 to 9
4: key > (DOWN) 8: key < (BACK) 9: key P and < Oncoording of the provided of the composition of the composi			1: key P
8: key < (BACK) 9: key P and < Remote Setpoint Low limit Range: Minimum value depends on the input type selected in £YFE, and maximum value is in r.5kL. Remote Setpoint High limit Range: Minimum value is in r.5kL., and maximum depends on the input type selected in £YFE. 10			2: key ∧ (UP)
9: key P and < Remote Setpoint Low limit Range: Minimum value depends on the input type selected in EYPE, and maximum value is in r SHL. Remote Setpoint High limit Range: Minimum value is in r SLL, and maximum depends on the input type selected in EYPE. O057			4: key ∨ (DOWN)
Remote Setpoint Low limit Range: Minimum value depends on the input type selected in EYPE, and maximum value is in r5HL. Remote Setpoint High limit Range: Minimum value is in r5LL, and maximum depends on the input type selected in EYPE. O057			8: key < (BACK)
Range: Minimum value depends on the input type selected in EYPE, and maximum value is in r5HL. Remote Setpoint High limit Range: Minimum value is in r5LL, and maximum depends on the input type selected in EYPE. Io I OS57 Io I OS58 Io Z OS59 Io 3 OS60 Io Y OS61 Io S OS62 RIEI Alarm 1 Time 1. Range: 0 to 6500s Refer to operation manual for more details. OS63 RIEZ Alarm 1 Time 2 (in seconds) Range: same as in RIEI. OS64 RZEZ Alarm 2 Time 1 (in seconds) Range: same as in RIEI. OS65 RZEZ Alarm 2 Time 2 (in seconds) Range: same as in RIEI. OS66 SF5E Soft-Start time (in seconds) Range: 0 to 9999 OS70 Lon IE OS70 Rass Segment Range: 100 to +100%. OS71 Pr n Ramp and Soak segment being executed (read only). Range: 0 to 9 OS71 Remaining time Rass Segment Range: 0 to 20 OS72 EPr Ramp and Soak segment to be executed Range: 0 to 20 OS73 Remaining time Rass Segment Calibration PV Enter the low input value currently applied in the PV input for calibration purposes. OS76 Calibration PV Enter the low input value currently applied in the PV input for calibration purposes. Enter the low input value currently applied in the remote setpoint input for calibration purposes. Enter the low input value currently applied in the remote setpoint input for calibration purposes.			9: key P and <
LYPE, and maximum value is in r5HL. Remote Setpoint High limit Range: Minimum value is in r5HL, and maximum depends on the input type selected in LYPE. White part of the protection of the p	0055	r5LL	Remote Setpoint Low limit
Range: Minimum value is in r5LL, and maximum depends on the input type selected in £9PE. 10 1 10 2 Refer to operation manual for more details. 10 2 Refer to operation manual for more details. 10 3 RILE Alarm 1 Time 1. Range: 0 to 6500s Refer to operation manual for more details. 10 6 RILE Alarm 1 Time 2 (in seconds) Range: same as in RILE I. 10 6 RACE I Alarm 2 Time 1 (in seconds) Range: same as in RILE I. 10 6 RACE Alarm 2 Time 2 (in seconds) Range: same as in RILE I. 10 6 SFSE Soft-Start time (in seconds) Range: same as in RILE I. 10 6 SFSE Soft-Start time (in seconds) Range: operation with the seconds Range: operation with the seconds Range: operation to the second Range: operation Policy Range: op			
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10 5 0062	0059	1o 3	
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Range: same as in # It I. O064 #R≥E I Alarm 2 Time 1 (in seconds) Range: same as in # It I. O065 #R≥E2 Alarm 2 Time 2 (in seconds) Range: same as in # It I. O066 \$F\$E Soft-Start time (in seconds) Range: 0 to 9999 O067 un It Temperature unit. Range: 0 to 1 0→°C; 1→°F. O068 b I#\$ Bias. Range: -100 to +100%. O069 Reserved Internal use O070 R&S Segment Range: 0 to 9 O071 Pr n Ramp and Soak segment being executed (read only). Range: 0 to 9 O072 E Pr Ramp and Soak segment to be viewed or edited. Range: 0 to 20 O073 Remaining time R&S O074 \$9rE Square root of a linear input. Range: 0->Disable;1->Enable. O075 Calibration PV Enter the low input value currently applied in the PV input for calibration purposes. O076 Calib. remote SP Low Calib. remote SP Low Calib. remote SP High seption input for calibration purposes. Enter the low input value currently applied in the remote setpoint input for calibration purposes. Enter the low input value currently applied in the remote setpoint input for calibration purposes. Enter the low input value currently applied in the remote setpoint input for calibration purposes. Enter the high input value currently applied in the remote setpoint input for calibration purposes. Enter the high input value currently applied in the remote setpoint input for calibration purposes. Enter the high input value currently applied in the remote setpoint input for calibration purposes. Retransmission low limit			Refer to operation manual for more details.
Alarm 2 Time 1 (in seconds) Range: same as in F It I. O065 R2t2 Alarm 2 Time 2 (in seconds) Range: same as in F It I. O066 SF5t Soft-Start time (in seconds) Range: 0 to 9999 O067 un It Temperature unit. Range: 0 to 1 0→°C; 1→°F. O068 b IRS Bias. Range: -100 to +100%. O069 Reserved Internal use O070 R&S Segment Range: 0 to 9 O071 Pr n Ramp and Soak segment being executed (read only). Range: 1 to 20 O072 E Pr Ramp and Soak segment to be viewed or edited. Range: 0 to 20 O073 Remaining time R&S segment. O074 S9rt Square root of a linear input. Range: 0->Disable;1->Enable. O075 Calibration PV Low Calibration PV High Enter the low input value currently applied in the PV input for calibration purposes. O076 Calib. remote SP Low Enter the low input value currently applied in the remote setpoint input for calibration purposes. Calib. remote SP High Fttt Retransmission low limit Retransmission low limit	0063	A IFS	Alarm 1 Time 2 (in seconds)
Range: same as in F It I. O065			Range: same as in F IL I .
Alarm 2 Time 2 (in seconds) Range: same as in <i>R IL I</i> . O066 SF5L Soft-Start time (in seconds) Range: 0 to 9999 O067 un IL Temperature unit. Range: 0 to 1 0→°C; 1→°F. O068 b IR5 Bias. Range: -100 to +100%. O069 Reserved Internal use Ramp and Soak segment being executed (read only). Range: 0 to 9 O071 Pr n Ramp and Soak segment to be viewed or edited. Range: 1 to 20 O072 E Pr Ramp and Soak segment to be executed Range: 0 to 20 O073 Remaining Indicates the remaining time of the Ramp and Soak segment. O074 SqrL Square root of a linear input. Range: 0->Disable;1->Enable. O075 Calibration PV Low Enter the low input value currently applied in the PV input for calibration purposes. O076 Calib. remote Sp Low Square root of a linear input value currently applied in the PV input for calibration purposes. Calib. remote Sp Low Sp High Enter the low input value currently applied in the remote setpoint input for calibration purposes. Calib. remote Sp High Retransmission low limit	0064	R2E I	Alarm 2 Time 1 (in seconds)
Range: same as in R IŁ I . 0066 SF5Ł Soft-Start time (in seconds) Range: 0 to 9999 0067 un IŁ Temperature unit. Range: 0 to 1 0→°C; 1→°F. 0068 b IR5 Bias. Range: -100 to +100%. 0069 Reserved Internal use 0070 R&S Segment Ramp and Soak segment being executed (read only). Range: 0 to 9 0071 Pr n Ramp and Soak segment to be viewed or edited. Range: 1 to 20 0072 E Pr Ramp and Soak segment to be executed Range: 0 to 20 0073 Remaining Indicates the remaining time of the Ramp and Soak segment. 0074 S9rŁ Square root of a linear input. Range: 0 -> Disable;1-> Enable. 0075 Calibration PV Low Enter the low input value currently applied in the PV input for calibration purposes. 0076 Calib. remote SP Low Enter the low input value currently applied in the remote setpoint input for calibration purposes. 0078 Calib. remote SP High Enter the high input value currently applied in the remote setpoint input for calibration purposes. 0079 rŁŁŁ Retransmission low limit			Range: same as in FILI .
SF5E Soft-Start time (in seconds) Range: 0 to 9999 0067	0065	HSF5	Alarm 2 Time 2 (in seconds)
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Un IŁ Temperature unit. Range: 0 to 1 0→°C; 1→°F. 0068 b IR5 Bias. Range: -100 to +100%. 0070 Reserved Internal use 0071 Pr n Ramp and Soak segment being executed (read only). Range: 0 to 9 0071 Pr n Ramp and Soak segment to be viewed or edited. Range: 1 to 20 0072 E Pr Ramp and Soak segment to be executed Range: 0 to 20 0073 Remaining time R&S Indicates the remaining time of the Ramp and Soak segment. 0074 Sqrt Square root of a linear input. Range: 0->Disable;1->Enable. 0075 Calibration PV Low Enter the low input value currently applied in the PV input for calibration purposes. 0076 Calibration PV High Enter the high input value currently applied in the remote setpoint input for calibration purposes. 0078 Calib. remote SP High Enter the high input value currently applied in the remote setpoint input for calibration purposes. 0079 rtll Retransmission low limit	0066	SF5Ł	Soft-Start time (in seconds)
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SP High setpoint input for calibration purposes. O079	0077		
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0080 rthL Retransmission high limit	0079	rŁLL	Retransmission low limit
	0800	rEhL	Retransmission high limit

FL5h	Enables the top display blinking as a function of the selected alarm.
	Range: 0 to 15.
	Check instruction manual for further details.
A3F 1	Time 1 of the alarm 3 timing (in seconds)
	Range: same as in R IL I.
R3F5	Time 2 of the alarm 3 timing (in seconds)
	Range: same as in R IL2 .
RYE I	Time 1 of the alarm 4 timing (in seconds)
	Range: same as in A IL I .
A4F5	Time 2 of the alarm 4 timing (in seconds)
	Range: same as in A IL2 .
r5£r	Restores original default calibration.
	Range: 0 to 1; 0-> do not restore; 1-> restore calibration
PASS	Allows defining a new access password, always different from zero.
	Read: 0
Prot	Password protection level.
	Range: 1 to 7.
	Check instruction manual for further details.
PrŁY	Serial communication parity.
	Range: 0 to 2.
	0-> no parity; 1 - > even parity; 2 - >odd parity;
Reserved	Internal use
Er5P	Enables remote setpoint.
	Range: 0 to 1.
	0 - > Remote setpoint depends on I/O configuration
	1 - > Force remote setpoint
Reserved	Internal use
PE 1	Segment 1 Event of R&S Program 1.
	Range: 0 to 15. Check table 6 of the instruction manual.
PE2	Segment 2 Event of R&S Program 1.
-	Range: same as in PE I
PE3	Segment 3 Event of R&S Program 1.
	Range: same as in PE 1 .
PE4	Segment 4 Event of R&S Program 1.
	Range: same as in PE 1 .
PE5	Segment 5 Event of R&S Program 1.
	Range: same as in PE 1 .
PE5	Segment 6 Event of R&S Program 1.
	Range: same as in PE 1 .
PE7	Segment 7 Event of R&S Program 1.
	Raserved Reserved

0107	PEB	Segment 8 Event of R&S Program 1.
		Range: same as in PE 1 .
0108	PE9	Segment 9 Event of R&S Program 1.
		Range: same as in PE I.
0109	PE I	Segment 1 Event of R&S Program 2.
		Range: same as in PE 1 of Program 1.
0110	PE2	Segment 2 Event of R&S Program 2.
		Range: same as in PE 1 .
0111	PE3	Segment 3 Event of R&S Program 2.
		Range: same as in PE I .
0112	PE4	Segment 4 Event of R&S Program 2.
		Range: same as in PE 1 .
0113	PE5	Segment 5 Event of R&S Program 2.
		Range: same as in PE I .
0114	PE6	Segment 6 Event of R&S Program 2.
		Range: same as in PE I .
0115	PE7	Segment 7 Event of R&S Program 2.
		Range: same as in PE I .
0116	PE8	Segment 8 Event of R&S Program 2.
		Range: same as in PE 1 .
0117	PE9	Segment 9 Event of R&S Program 2.
		Range: same as in PE 1 .
0119	PE I	Segment 1 Event of R&S Program 3.
		Range: same as in PE 1 of Program 1.
0120	PE2	Segment 2 Event of R&S Program 3.
		Range: same as in PE I .
0118	PE3	Segment 3 Event of R&S Program 3.
		Range: same as in PE 1 .
0121	PE4	Segment 4 Event of R&S Program 3.
		Range: same as in PE 1 .
0122	PE5	Segment 5 Event of R&S Program 3.
0.100		Range: same as in PE 1 .
0123	PE6	Segment 6 Event of R&S Program 3.
0404	053	Range: same as in PE 1 .
0124	PE7	Segment 7 Event of R&S Program 3.
0105	pro	Range: same as in PE 1 .
0125	PEB	Segment 8 Event of R&S Program 3. Range: same as in PE 1 .
0126	PE9	Segment 9 Event of R&S Program 3.
0120	FE3	Range: same as in PE 1 .
0127	PE I	Segment 1 Event of R&S Program 4.
0121	121	Range: same as in PE 1 of Program 1.
0128	PE2	Segment 2 Event of R&S Program 4.
J. _J	,	Range: same as in PE 1 .
0129	PE3	Segment 3 Event of R&S Program 4.
-		Range: same as in PE 1 .
0130	PE4	Segment 4 Event of R&S Program 4.
		Range: same as in PE 1 .
0131	PE5	Segment 5 Event of R&S Program 4.
		Range: same as in PE 1 .
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0132	PE6	Segment 6 Event of R&S Program 4.
0102	, 20	Range: same as in PE 1 .
0133	PE7	Segment 7 Event of R&S Program 4.
0100	, , ,	Range: same as in PE 1 .
0134	PEB	Segment 8 Event of R&S Program 4.
0101	, 20	Range: same as in PE I .
0135	PE9	Segment 9 Event of R&S Program 4.
0100	, , ,	Range: same as in PE I .
0136	PE I	Segment 1 Event of R&S Program 5.
	, ,	Range: same as in PE I of Program 1.
0137	PE2	Segment 2 Event of R&S Program 5.
	, 22	Range: same as in PE I .
0138	PE3	Segment 3 Event of R&S Program 5.
		Range: same as in PE 1 .
0139	PE4	Segment 4 Event of R&S Program 5.
		Range: same as in PE 1 .
0140	PE5	Segment 5 Event of R&S Program 5.
		Range: same as in PE 1 .
0141	PE6	Segment 6 Event of R&S Program 5.
		Range: same as in PE 1 .
0142	PE7	Segment 7 Event of R&S Program 5.
		Range: same as in PE 1 .
0143	PE8	Segment 8 Event of R&S Program 5.
		Range: same as in PE 1 .
0144	PE9	Segment 9 Event of R&S Program 5.
		Range: same as in PE 1 .
0145	PE I	Segment 1 Event of R&S Program 6.
		Range: same as in PE 1 .
0146	PE2	Segment 2 Event of R&S Program 6.
		Range: same as in PE 1 .
0147	PE3	Segment 3 Event of R&S Program 6.
		Range: same as in PE I .
0148	PE4	Segment 4 Event of R&S Program 6.
		Range: same as in PE 1 .
0149	PE5	Segment 5 Event of R&S Program 6.
		Range: same as in PE 1 .
0150	PE5	Segment 6 Event of R&S Program 6.
		Range: same as in PE 1 .
0151	PE7	Segment 7 Event of R&S Program 6.
		Range: same as in PE 1 .
0152	PE8	Segment 8 Event of R&S Program 6.
		Range: same as in PE I .
0153	PE9	Segment 9 Event of R&S Program 6.
		Range: same as in PE I .
0154	PE I	Segment 1 Event of R&S Program 7.
		Range: same as in PE I for Program 1.
0155	PE2	Segment 2 Event of R&S Program 7.
		Range: same as in PE I .
0156	PE3	Segment 3 Event of R&S Program 7.
		Range: same as in PE 1 .

0.455	5511	0 445 445000 5
0157	PE4	Segment 4 Event of R&S Program 7.
0450		Range: same as in PE I .
0158	PE5	Segment 5 Event of R&S Program 7.
0.150		Range: same as in PE 1 .
0159	PE6	Segment 6 Event of R&S Program 7.
		Range: same as in PE I .
0160	PE7	Segment 7 Event of R&S Program 7.
0404		Range: same as in PE 1 .
0161	PE8	Segment 8 Event of R&S Program 7.
		Range: same as in PE 1 .
0162	PE9	Segment 9 Event of R&S Program 7.
		Range: same as in PE 1 .
0163	PE I	Segment 1 Event of R&S Program 8.
		Range: same as in PE I of Program 1.
0164	PE2	Segment 2 Event of R&S Program 8.
		Range: same as in PE I .
0165	PE3	Segment 3 Event of R&S Program 8.
		Range: same as in PE I .
0166	PE4	Segment 4 Event of R&S Program 8.
		Range: same as in PE I .
0167	PE5	Segment 5 Event of R&S Program 8.
		Range: same as in PE 1 .
0168	PE6	Segment 6 Event of R&S Program 8.
		Range: same as in PE 1 .
0169	PE7	Segment 7 Event of R&S Program 8.
		Range: same as in PE 1 .
0170	PEB	Segment 8 Event of R&S Program 8.
		Range: same as in PE I .
0171	PE9	Segment 9 Event of R&S Program 8.
		Range: same as in PE I .
0172	PE I	Segment 1 Event of R&S Program 9.
		Range: same as in PE 1 of Program 1.
0173	PE2	Segment 2 Event of R&S Program 9.
0.4= :		Range: same as in PE 1 .
0174	PE3	Segment 3 Event of R&S Program 9.
0		Range: same as in PE 1 .
0175	PE4	Segment 4 Event of R&S Program 9.
		Range: same as in PE 1 .
0176	PE5	Segment 5 Event of R&S Program 9.
0.1-		Range: same as in PE 1 .
0177	PE6	Segment 6 Event of R&S Program 9.
0.4===		Range: same as in PE 1 .
0178	PE7	Segment 7 Event of R&S Program 9.
0.1		Range: same as in PE 1 .
0179	PEB	Segment 8 Event of R&S Program 9.
0.00		Range: same as in PE 1 .
0180	PE9	Segment 9 Event of R&S Program 9.
		Range: same as in PE 1 .
0181	PE I	Segment 1 Event of R&S Program 10.
		Range: same as in PE 1 of Program 1.

0182	PE2	Segment 2 Event of R&S Program 10.
0102	, , ,	Range: same as in PE 1 .
0183	PE3	Segment 3 Event of R&S Program 10.
0100	, ,	Range: same as in PE 1 .
0184	PE4	Segment 4 Event of R&S Program 10.
0.0.	, _ ,	Range: same as in PE 1 .
0185	PE5	Segment 5 Event of R&S Program 10.
0.00	, 23	Range: same as in PE 1 .
0186	PE6	Segment 6 Event of R&S Program 10.
		Range: same as in PE 1 .
0187	PE7	Segment 7 Event of R&S Program 10.
		Range: same as in PE 1 .
0188	PE8	Segment 8 Event of R&S Program 10.
		Range: same as in PE 1 .
0189	PE9	Segment 9 Event of R&S Program 10.
		Range: same as in PE 1 .
0190	PE I	Segment 1 Event of R&S Program 11.
		Range: same as in PE 1 of Program 1.
0191	PE2	Segment 2 Event of R&S Program 11.
		Range: same as in PE 1 .
0192	PE3	Segment 3 Event of R&S Program 11.
		Range: same as in PE 1 .
0193	PE4	Segment 4 Event of R&S Program 11.
		Range: same as in PE 1 .
0194	PE5	Segment 5 Event of R&S Program 11.
		Range: same as in PE 1 .
0195	PE6	Segment 6 Event of R&S Program 11.
		Range: same as in PE 1 .
0196	PE7	Segment 7 Event of R&S Program 11.
		Range: same as in PE 1 .
0197	PE8	Segment 8 Event of R&S Program 11.
		Range: same as in PE 1 .
0198	PE9	Segment 9 Event of R&S Program 11.
	_	Range: same as in PE 1 .
0199	PE I	Segment 1 Event of R&S Program 12.
		Range: same as in PE I of Program 1.
0200	PE2	Segment 2 Event of R&S Program 12.
		Range: same as in PE 1 .
0201	PE3	Segment 3 Event of R&S Program 12.
0000	85.4	Range: same as in PE 1 .
0202	PE4	Segment 4 Event of R&S Program 12.
0000	Dee	Range: same as in PE 1 .
0203	PE5	Segment 5 Event of R&S Program 12.
0204	DEE	Range: same as in PE 1 .
UZU4	PE6	Segment 6 Event of R&S Program 12.
0205	PE7	Range: same as in PE 1 . Segment 7 Event of R&S Program 12.
0200	751	Range: same as in PE 1 .
0206	PE8	Segment 8 Event of R&S Program 12.
0200	rc0	Range: same as in PE 1 .
		range. same as in r & 1.

0207	PE9	Segment 9 Event of R&S Program 12.
		Range: same as in PE I .
0208	PE 1	Segment 1 Event of R&S Program 13.
		Range: same as in PE I of Program 1.
0209	PE2	Segment 2 Event of R&S Program 13.
		Range: same as in PE 1 .
0210	PE3	Segment 3 Event of R&S Program 13.
		Range: same as in PE 1 .
0211	PE4	Segment 4 Event of R&S Program 13.
		Range: same as in PE 1 .
0212	PE5	Segment 5 Event of R&S Program 13.
		Range: same as in PE I .
0213	PE6	Segment 6 Event of R&S Program 13.
		Range: same as in PE 1 .
0214	PE7	Segment 7 Event of R&S Program 13.
		Range: same as in PE 1 .
0215	PE8	Segment 8 Event of R&S Program 13.
		Range: same as in PE 1 .
0216	PE9	Segment 9 Event of R&S Program 13.
		Range: same as in PE 1 .
0217	PE 1	Segment 1 Event of R&S Program 14.
		Range: same as in PE 1 of Program 1.
0218	PE2	Segment 2 Event of R&S Program 14.
		Range: same as in PE 1 .
0219	PE3	Segment 3 Event of R&S Program 14.
		Range: same as in PE 1 .
0220	PE4	Segment 4 Event of R&S Program 14.
		Range: same as in PE 1 .
0221	PE5	Segment 5 Event of R&S Program 14.
		Range: same as in PE 1 .
0222	PE6	Segment 6 Event of R&S Program 14.
		Range: same as in PE 1 .
0223	PE7	Segment 7 Event of R&S Program 14.
		Range: same as in PE 1 .
0224	PE8	Segment 8 Event of R&S Program 14.
		Range: same as in PE 1 .
0225	PE9	Segment 9 Event of R&S Program 14.
		Range: same as in PE 1 .
0226	PE I	Segment 1 Event of R&S Program 15.
		Range: same as in PE 1 of Program 1.
0227	PE2	Segment 2 Event of R&S Program 15.
		Range: same as in PE 1 .
0228	PE3	Segment 3 Event of R&S Program 15.
		Range: same as in PE 1 .
0229	PE4	Segment 4 Event of R&S Program 15.
		Range: same as in PE 1 .
0230	PE5	Segment 5 Event of R&S Program 15.
		Range: same as in PE 1 .
0231	PE6	Segment 6 Event of R&S Program 15.
		Range: same as in PE 1 .

0232	PE 7	Segment 7 Event of R&S Program 15.
0202	, _ ,	Range: same as in PE 1 .
0233	PE8	Segment 8 Event of R&S Program 15.
	, 20	Range: same as in PE 1 .
0234	PE9	Segment 9 Event of R&S Program 15.
	, 23	Range: same as in PE 1 .
0235	PE I	Segment 1 Event of R&S Program 16.
		Range: same as in PE 1 of Program 1.
0236	PE2	Segment 2 Event of R&S Program 16.
		Range: same as in PE 1 .
0237	PE3	Segment 3 Event of R&S Program 16.
		Range: same as in PE 1 .
0238	PEY	Segment 4 Event of R&S Program 16.
		Range: same as in PE 1 .
0239	PE5	Segment 5 Event of R&S Program 16.
		Range: same as in PE 1 .
0240	PE6	Segment 6 Event of R&S Program 16.
		Range: same as in PE 1 .
0241	PE7	Segment 7 Event of R&S Program 16.
		Range: same as in PE 1 .
0242	PE8	Segment 8 Event of R&S Program 16.
		Range: same as in PE 1 .
0243	PE9	Segment 9 Event of R&S Program 16.
		Range: same as in PE 1 .
0244	PE I	Segment 1 Event of R&S Program 17.
		Range: same as in PE 1 of Program 1.
0245	PE2	Segment 2 Event of R&S Program 17.
		Range: same as in PE 1 .
0246	PE3	Segment 3 Event of R&S Program 17.
		Range: same as in PE 1 .
0247	PE4	Segment 4 Event of R&S Program 17.
0040		Range: same as in PE 1 .
0248	PE5	Segment 5 Event of R&S Program 17.
0040	DEE	Range: same as in PE 1 .
0249	PE6	Segment 6 Event of R&S Program 17.
0250	PE7	Range: same as in PE 1 . Segment 7 Event of R&S Program 17.
UZJU	r c i	Range: same as in PE 1 .
0251	PEB	Segment 8 Event of R&S Program 17.
0201	, 60	Range: same as in PE I .
0252	PE9	Segment 9 Event of R&S Program 17.
		Range: same as in PE I .
0253	PE I	Segment 1 Event of R&S Program 18.
		Range: same as in PE I of Program 1.
0254	PE2	Segment 2 Event of R&S Program 18.
		Range: same as in PE 1 .
0255	PE3	Segment 3 Event of R&S Program 18.
		Range: same as in PE 1 .
0256	PE4	Segment 4 Event of R&S Program 18.
		Range: same as in PE 1 .

0257 PI	E5	Segment 5 Event of R&S Program 18.
020.		Range: same as in PE 1 .
0258 PI	E 6	Segment 6 Event of R&S Program 18.
		Range: same as in PE 1 .
0259 PI	E7	Segment 7 Event of R&S Program 18.
	• '	Range: same as in PE I .
0260 PI	E8	Segment 8 Event of R&S Program 18.
		Range: same as in PE 1 .
0261 PI	E9	Segment 9 Event of R&S Program 18.
		Range: same as in PE 1 .
0262 PI	E 1	Segment 1 Event of R&S Program 19.
	• '	Range: same as in PE 1 of Program 1.
0263 PI	E2	Segment 2 Event of R&S Program 19.
		Range: same as in PE I .
0264 PI	E 3	Segment 3 Event of R&S Program 19.
		Range: same as in PE I .
0265 PI	EЧ	Segment 4 Event of R&S Program 19.
	• '	Range: same as in PE 1 .
0266 PI	E5	Segment 5 Event of R&S Program 19.
		Range: same as in PE 1 .
0267 PI	E 6	Segment 6 Event of R&S Program 19.
		Range: same as in PE 1 .
0268 P {	Ε7	Segment 7 Event of R&S Program 19.
		Range: same as in PE 1 .
0269 Pt	E8	Segment 8 Event of R&S Program 19.
		Range: same as in PE 1 .
0270 PI	E 9	Segment 9 Event of R&S Program 19.
		Range: same as in PE 1 .
0271 P {	E I	Segment 1 Event of R&S Program 20.
		Range: same as in PE 1 of Program 1.
0272 P	E2	Segment 2 Event of R&S Program 20.
		Range: same as in PE 1 .
0273 PI	E 3	Segment 3 Event of R&S Program 20.
		Range: same as in PE 1 .
0274 P {	E4	Segment 4 Event of R&S Program 20.
		Range: same as in PE I .
0275 P(E5	Segment 5 Event of R&S Program 20.
		Range: same as in PE I .
0276 PI	E6	Segment 6 Event of R&S Program 20.
		Range: same as in PE I .
0277 P(E7	Segment 7 Event of R&S Program 20.
		Range: same as in PE I .
0278 P	E8	Segment 8 Event of R&S Program 20.
		Range: same as in PE 1 .
0279 PI	E9	Segment 9 Event of R&S Program 20.
		Range: same as in PE 1 .
0280 P E	oL	R&S Program 1 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0281 PL	oL	R&S Program 2 Tolerance
		Range: From 0 to (SPYL - SPLL).

	1	
0282	PtoL	R&S Program 3 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0283	PtoL	R&S Program 4 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0284	PŁoL	R&S Program 5 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0285	PtoL	R&S Program 6 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0286	PtoL	R&S Program 7 Tolerance
		Range: From 0 to (SPYL - SPLL).
0287	PtoL	R&S Program 8 Tolerance
		Range: From 0 to (SPYL - SPLL).
0288	PtoL	R&S Program 9 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0289	PtoL	R&S Program 10 Tolerance
		Range: From 0 to (5PYL - 5PLL).
0290	PtoL	R&S Program 11 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0291	PtoL	R&S Program 12 Tolerance
		Range: From 0 to (5PPL - 5PLL).
0292	PtoL	R&S Program 13 Tolerance
	, 252	Range: From 0 to (5PPL - 5PLL).
0293	PtoL	R&S Program 14 Tolerance
0200	,	Range: From 0 to (5PPL - 5PLL).
0294	PtoL	R&S Program 15 Tolerance
0254	, , ,	Range: From 0 to (5PPL - 5PLL).
0295	PtoL	R&S Program 16 Tolerance
0230	, , ,	Range: From 0 to (5PPL - 5PLL).
0296	PtoL	R&S Program 17 Tolerance
0200	, , ,	Range: From 0 to (5PPL - 5PLL).
0297	PtoL	R&S Program 18 Tolerance
0237	, , ,	Range: From 0 to (5PPL - 5PLL).
0298	PtoL	R&S Program 19 Tolerance
3230	, 202	Range: From 0 to (5PPL - 5PLL).
0299	PtoL	R&S Program 20 Tolerance
3233	, , , ,	Range: From 0 to (5PPL - 5PLL).
0300	LP	R&S Program 1 Link
3000		Range: 0 to 20
0301	LP	R&S Program 2 Link
3001		Range: 0 to 20
0302	LP	R&S Program 3 Link
3302		Range: 0 to 20
0303	LP	R&S Program 4 Link
3000		Range: 0 to 20
0304	LP	R&S Program 5 Link
0004		Range: 0 to 20
0305	LP	R&S Program 6 Link
3303		Range: 0 to 20
0306	LP	R&S Program 7 Link
3000		Range: 0 to 20
		11dings. 0 to 20

0307	LP	R&S Program 8 Link
		Range: 0 to 20
0308	LP	R&S Program 9 Link
		Range: 0 to 20
0309	LP	R&S Program 10 Link
		Range: 0 to 20
0310	LP	R&S Program 11 Link
		Range: 0 to 20
0311	LP	R&S Program 12 Link
		Range: 0 to 20
0312	LP	R&S Program 13 Link
		Range: 0 to 20
0313	LP	R&S Program 14 Link
		Range: 0 to 20
0314	LP	R&S Program 15 Link
		Range: 0 to 20
0315	LP	R&S Program 16 Link
00.15		Range: 0 to 20
0316	LP	R&S Program 17 Link
0047		Range: 0 to 20
0317	LP	R&S Program 18 Link
0240		Range: 0 to 20
0318	LP	R&S Program 19 Link
0240		Range: 0 to 20
0319	LP	R&S Program 20 Link Range: 0 to 20
0320	PE I	Time 1 of Program 1. Range: 0 to 9999 minutes.
0321	PŁ2	Time 2 of Program 1. Range: 0 to 9999 minutes.
0322	PE3	Time 3 of Program 1. Range: 0 to 9999 minutes.
0323	PEH	Time 4 of Program 1. Range: 0 to 9999 minutes.
0324	PŁ5	Time 5 of Program 1. Range: 0 to 9999 minutes.
0325	PŁ6	Time 6 of Program 1. Range: 0 to 9999 minutes.
0325	PET	Time 7 of Program 1. Range: 0 to 9999 minutes.
0327	PEB	Time 8 of Program 1. Range: 0 to 9999 minutes.
0327	PŁ9	Time 9 of Program 1. Range: 0 to 9999 minutes.
0329	PE I	Time 1 of Program 2. Range: 0 to 9999 minutes.
0330	PE2	Time 2 of Program 2. Range: 0 to 9999 minutes.
0331	PE3	Time 3 of Program 2. Range: 0 to 9999 minutes.
0332	PE4	Time 4 of Program 2. Range: 0 to 9999 minutes.
0333	PE5	Time 5 of Program 2. Range: 0 to 9999 minutes.
0334	PE5	Time 6 of Program 2. Range: 0 to 9999 minutes.
0335	PET	Time 7 of Program 2. Range: 0 to 9999 minutes.
0336	PEB PEB	Time 8 of Program 2. Range: 0 to 9999 minutes.
1 0000		Time 9 of Program 2. Range: 0 to 9999 minutes.
0337	DLD	
0337	PE9	
0338	Pt 1	Time 1 of Program 3. Range: 0 to 9999 minutes.
0338 0339	PE I PE2	Time 1 of Program 3. Range: 0 to 9999 minutes. Time 2 of Program 3. Range: 0 to 9999 minutes.
0338 0339 0340	PE I PE2 PE3	Time 1 of Program 3. Range: 0 to 9999 minutes. Time 2 of Program 3. Range: 0 to 9999 minutes. Time 3 of Program 3. Range: 0 to 9999 minutes.
0338 0339	PE I PE2	Time 1 of Program 3. Range: 0 to 9999 minutes. Time 2 of Program 3. Range: 0 to 9999 minutes.

0343	PŁ6	Time 6 of Program 3. Range: 0 to 9999 minutes.
0344	PET	Time 7 of Program 3. Range: 0 to 9999 minutes.
0345	PEB	Time 8 of Program 3. Range: 0 to 9999 minutes.
0346	PŁ9	Time 9 of Program 3. Range: 0 to 9999 minutes.
0347	PE I	Time 1 of Program 4. Range: 0 to 9999 minutes.
0348	PE2	Time 2 of Program 4. Range: 0 to 9999 minutes.
0349	PE3	Time 3 of Program 4. Range: 0 to 9999 minutes.
0350	PEH	Time 4 of Program 4. Range: 0 to 9999 minutes.
0351	PES	Time 5 of Program 4. Range: 0 to 9999 minutes.
0352	PŁ6	Time 6 of Program 4. Range: 0 to 9999 minutes.
0353	PET	Time 7 of Program 4. Range: 0 to 9999 minutes.
0354	PEB	Time 8 of Program 4. Range: 0 to 9999 minutes.
0355	PŁ9	Time 9 of Program 4. Range: 0 to 9999 minutes.
0356	PE I	Time 1 of Program 5. Range: 0 to 9999 minutes.
0357	PE2	Time 2 of Program 5. Range: 0 to 9999 minutes.
0358	PE3	Time 3 of Program 5. Range: 0 to 9999 minutes.
0359	PEH	Time 4 of Program 5. Range: 0 to 9999 minutes.
0360	PES	Time 5 of Program 5. Range: 0 to 9999 minutes.
0361	PE6	Time 6 of Program 5. Range: 0 to 9999 minutes.
0362	PET	Time 7 of Program 5. Range: 0 to 9999 minutes.
0363	PEB	Time 8 of Program 5. Range: 0 to 9999 minutes.
0364	PŁ9	Time 9 of Program 5. Range: 0 to 9999 minutes.
0365	PE I	Time 1 of Program 6. Range: 0 to 9999 minutes.
0366	PE2	Time 2 of Program 6. Range: 0 to 9999 minutes.
0367	PE3	Time 3 of Program 6. Range: 0 to 9999 minutes.
0368	PE4	Time 4 of Program 6. Range: 0 to 9999 minutes.
0369	PŁ5	Time 5 of Program 6. Range: 0 to 9999 minutes.
0370	PŁ6	Time 6 of Program 6. Range: 0 to 9999 minutes.
0371	PE7	Time 7 of Program 6. Range: 0 to 9999 minutes.
0372	PLB	Time 8 of Program 6. Range: 0 to 9999 minutes.
0373	PŁ9	Time 9 of Program 6. Range: 0 to 9999 minutes.
0374	PE I	Time 1 of Program 7. Range: 0 to 9999 minutes.
0375	PE2	Time 2 of Program 7. Range: 0 to 9999 minutes.
0376	PŁ3	Time 3 of Program 7. Range: 0 to 9999 minutes.
0377	PE4	Time 4 of Program 7. Range: 0 to 9999 minutes.
0378	PŁ5	Time 5 of Program 7. Range: 0 to 9999 minutes.
0379	PŁ6	Time 6 of Program 7. Range: 0 to 9999 minutes.
0380	PE7	Time 7 of Program 7. Range: 0 to 9999 minutes.
0381	PE8	Time 8 of Program 7. Range: 0 to 9999 minutes.
0382	PŁ9	Time 9 of Program 7. Range: 0 to 9999 minutes.
0383	PE I	Time 1 of Program 8. Range: 0 to 9999 minutes.
0384	PE2	Time 2 of Program 8. Range: 0 to 9999 minutes.
0385	PŁ3	Time 3 of Program 8. Range: 0 to 9999 minutes.
0386	PŁ4	Time 4 of Program 8. Range: 0 to 9999 minutes.
0387	PŁ5	Time 5 of Program 8. Range: 0 to 9999 minutes.
0388	PŁ6	Time 6 of Program 8. Range: 0 to 9999 minutes.
0389	PŁ7	Time 7 of Program 8. Range: 0 to 9999 minutes.
0390	PE8	Time 8 of Program 8. Range: 0 to 9999 minutes.

0391	PL9	Time 9 of Program 8. Range: 0 to 9999 minutes.
0392	PE I	Time 1 of Program 9. Range: 0 to 9999 minutes.
0393	PŁ2	Time 2 of Program 9. Range: 0 to 9999 minutes.
0394	PŁ3	Time 3 of Program 9. Range: 0 to 9999 minutes.
0395	PE4	Time 4 of Program 9. Range: 0 to 9999 minutes.
0396	PŁ5	Time 5 of Program 9. Range: 0 to 9999 minutes.
0397	PŁ6	Time 6 of Program 9. Range: 0 to 9999 minutes.
0398	PE7	Time 7 of Program 9. Range: 0 to 9999 minutes.
0399	PLB	Time 8 of Program 9. Range: 0 to 9999 minutes.
0400	PŁ9	Time 9 of Program 9. Range: 0 to 9999 minutes.
0401	PL 1	Time 1 of Program 10. Range: 0 to 9999 minutes.
0402	PE2	Time 2 of Program 10. Range: 0 to 9999 minutes.
0403	PŁ3	Time 3 of Program 10. Range: 0 to 9999 minutes.
0404	PŁ4	Time 4 of Program 10. Range: 0 to 9999 minutes.
0405	PE5	Time 5 of Program 10. Range: 0 to 9999 minutes.
0406	PŁ6	Time 6 of Program 10. Range: 0 to 9999 minutes.
0407	PE7	Time 7 of Program 10. Range: 0 to 9999 minutes.
0408	PEB	Time 8 of Program 10. Range: 0 to 9999 minutes.
0409	PŁ9	Time 9 of Program 10. Range: 0 to 9999 minutes.
410	PE I	Time 1 of Program 11. Range: 0 to 9999 minutes.
411	PF5	Time 2 of Program 11. Range: 0 to 9999 minutes.
412	PŁ3	Time 3 of Program 11. Range: 0 to 9999 minutes.
413	PE4	Time 4 of Program 11. Range: 0 to 9999 minutes.
414	PŁ5	Time 5 of Program 11. Range: 0 to 9999 minutes.
415	PL6	Time 6 of Program 11. Range: 0 to 9999 minutes.
416	PE7	Time 7 of Program 11. Range: 0 to 9999 minutes.
417	PEB	Time 8 of Program 11. Range: 0 to 9999 minutes.
418	PŁ9	Time 9 of Program 11. Range: 0 to 9999 minutes.
419	PE 1	Time 1 of Program 12. Range: 0 to 9999 minutes.
420	PE2	Time 2 of Program 12. Range: 0 to 9999 minutes.
421	PŁ3	Time 3 of Program 12. Range: 0 to 9999 minutes.
422	PE4	Time 4 of Program 12. Range: 0 to 9999 minutes.
423	PŁ5	Time 5 of Program 12. Range: 0 to 9999 minutes.
424	PŁ6	Time 6 of Program 12. Range: 0 to 9999 minutes.
425	PET	Time 7 of Program 12. Range: 0 to 9999 minutes.
426	PEB	Time 8 of Program 12. Range: 0 to 9999 minutes.
427	PL9	Time 9 of Program 12. Range: 0 to 9999 minutes.
428	PE I	Time 1 of Program 13. Range: 0 to 9999 minutes.
429	PE2	Time 2 of Program 13. Range: 0 to 9999 minutes.
430	PE3	Time 3 of Program 13. Range: 0 to 9999 minutes.
431	PEH	Time 4 of Program 13. Range: 0 to 9999 minutes.
432	PE5	Time 5 of Program 13. Range: 0 to 9999 minutes.
433	PL6	Time 6 of Program 13. Range: 0 to 9999 minutes.
434	PET	Time 7 of Program 13. Range: 0 to 9999 minutes.
435	PEB	Time 8 of Program 13. Range: 0 to 9999 minutes.
436	PES .	Time 9 of Program 13. Range: 0 to 9999 minutes.
437	PE 1	Time 1 of Program 14. Range: 0 to 9999 minutes.
438	PES	Time 2 of Program 14. Range: 0 to 9999 minutes.

439	PŁ3	Time 3 of Program 14. Range: 0 to 9999 minutes.
439		Time 4 of Program 14. Range: 0 to 9999 minutes.
	PE4	
441	PES	Time 5 of Program 14. Range: 0 to 9999 minutes.
442	PL6	Time 6 of Program 14. Range: 0 to 9999 minutes.
443	PET	Time 7 of Program 14. Range: 0 to 9999 minutes.
444	PEB	Time 8 of Program 14. Range: 0 to 9999 minutes.
445	PE9	Time 9 of Program 14. Range: 0 to 9999 minutes.
446	PL I	Time 1 of Program 15. Range: 0 to 9999 minutes.
447	PF5	Time 2 of Program 15. Range: 0 to 9999 minutes.
448	PE3	Time 3 of Program 15. Range: 0 to 9999 minutes.
449	PE4	Time 4 of Program 15. Range: 0 to 9999 minutes.
450	PŁ5	Time 5 of Program 15. Range: 0 to 9999 minutes.
451	PŁ6	Time 6 of Program 15. Range: 0 to 9999 minutes.
452	PE7	Time 7 of Program 15. Range: 0 to 9999 minutes.
453	PEB	Time 8 of Program 15. Range: 0 to 9999 minutes.
454	PŁ9	Time 9 of Program 15. Range: 0 to 9999 minutes.
455	PE I	Time 1 of Program 16. Range: 0 to 9999 minutes.
456	PE2	Time 2 of Program 16. Range: 0 to 9999 minutes.
457	PL3	Time 3 of Program 16. Range: 0 to 9999 minutes.
458	PE4	Time 4 of Program 16. Range: 0 to 9999 minutes.
459	PŁ5	Time 5 of Program 16. Range: 0 to 9999 minutes.
460	PŁ5	Time 6 of Program 16. Range: 0 to 9999 minutes.
461	PE7	Time 7 of Program 16. Range: 0 to 9999 minutes.
462	PE8	Time 8 of Program 16. Range: 0 to 9999 minutes.
463	PL9	Time 9 of Program 16. Range: 0 to 9999 minutes.
464	PE I	Time 1 of Program 17. Range: 0 to 9999 minutes.
465	PE2	Time 2 of Program 17. Range: 0 to 9999 minutes.
466	PŁ3	Time 3 of Program 17. Range: 0 to 9999 minutes.
467	PE4	Time 4 of Program 17. Range: 0 to 9999 minutes.
468	PŁ5	Time 5 of Program 17. Range: 0 to 9999 minutes.
469	PŁ6	Time 6 of Program 17. Range: 0 to 9999 minutes.
470	PET	Time 7 of Program 17. Range: 0 to 9999 minutes.
471	PEB	Time 8 of Program 17. Range: 0 to 9999 minutes.
472	PE9	Time 9 of Program 17. Range: 0 to 9999 minutes.
473	PE I	Time 1 of Program 18. Range: 0 to 9999 minutes.
474	PE 1	Time 2 of Program 18. Range: 0 to 9999 minutes.
475	PE3	Time 3 of Program 18. Range: 0 to 9999 minutes.
476	PEY	Time 4 of Program 18. Range: 0 to 9999 minutes.
477		Time 5 of Program 18. Range: 0 to 9999 minutes.
	PŁ5	
478	PE6	Time 6 of Program 18. Range: 0 to 9999 minutes.
479	PET	Time 7 of Program 18. Range: 0 to 9999 minutes.
480	PEB	Time 8 of Program 18. Range: 0 to 9999 minutes.
481	PE9	Time 9 of Program 18. Range: 0 to 9999 minutes.
482	PE I	Time 1 of Program 19. Range: 0 to 9999 minutes.
483	PE2	Time 2 of Program 19. Range: 0 to 9999 minutes.
484	PŁ3	Time 3 of Program 19. Range: 0 to 9999 minutes.
485	PE4	Time 4 of Program 19. Range: 0 to 9999 minutes.
486	PŁ5	Time 5 of Program 19. Range: 0 to 9999 minutes.

487	PŁ6	Time 6 of Program 19. Range: 0 to 9999 minutes.
488	PE7	Time 7 of Program 19. Range: 0 to 9999 minutes.
489	PŁ8	Time 8 of Program 19. Range: 0 to 9999 minutes.
490	PŁ9	Time 9 of Program 19. Range: 0 to 9999 minutes.
491	PE I	Time 1 of Program 20. Range: 0 to 9999 minutes.
492	PFS	Time 2 of Program 20. Range: 0 to 9999 minutes.
493	PŁ3	Time 3 of Program 20. Range: 0 to 9999 minutes.
494	PŁY	Time 4 of Program 20. Range: 0 to 9999 minutes.
495	PŁ5	Time 5 of Program 20. Range: 0 to 9999 minutes.
496	PŁ6	Time 6 of Program 20. Range: 0 to 9999 minutes.
497	PE7	Time 7 of Program 20. Range: 0 to 9999 minutes.
498	PEB	Time 8 of Program 20. Range: 0 to 9999 minutes.
499	PŁ9	Time 9 of Program 20. Range: 0 to 9999 minutes.
500	PSP0	Setpoint 0 of Program 1.
		Range: From 5PLL to 5PHL .
501	PSP 1	Setpoint 1 of Program 1 (R&S)
	_	Range: same as in P5P0 .
502	PSP2	Setpoint 2 of Program 1 (R&S)
		Range: same as in P5P0 .
503	PSP3	Setpoint 3 of Program 1 (R&S)
		Range: same as in P5P0 .
504	P5P4	Setpoint 4 of Program 1 (R&S)
		Range: same as in P5P0 .
505	PSP5	Setpoint 5 of Program 1 (R&S)
		Range: same as in P5P0 .
506	PSP6	Setpoint 6 of Program 1 (R&S)
		Range: same as in P5P0 .
507	PSP7	Setpoint 7 of Program 1 (R&S)
		Range: same as in P5P0 .
508	PSPB	Setpoint 8 of Program 1 (R&S)
		Range: same as in P5P0 .
509	PSP9	Setpoint 9 of Program 1 (R&S)
		Range: same as in PSP0 .
510	PSP0	Setpoint 0 of Program 2.
		Range: From 5PLL to 5PHL .
511	PSP I	Setpoint 1 of Program 2 (R&S)
		Range: same as in P5P0 .
512	PSP2	Setpoint 2 of Program (R&S)
		Range: same as in PSP0 .
513	PSP3	Setpoint 3 of Program 2 (R&S)
E.,	050	Range: same as in P5PD .
514	P5P4	Setpoint 4 of Program 2 (R&S)
F4F	0505	Range: same as in P5P0 .
515	PSP5	Setpoint 5 of Program 2 (R&S)
E46	0505	Range: same as in PSPD . Satisfied & of Drogram 2 (DSS)
516	PSP6	Setpoint 6 of Program 2 (R&S)
F47	0507	Range: same as in PSPD . Satisfied 7 of Program 2 (DSS)
517	PSP7	Setpoint 7 of Program 2 (R&S)
		Range: same as in P5P0 .

540	0500	0.1.110.10
518	PSP8	Setpoint 8 of Program 2 (R&S)
-10		Range: same as in PSPD .
519	PSP9	Setpoint 9 of Program 2 (R&S)
=00		Range: same as in PSPD .
520	PSP0	Setpoint 0 of Program 3.
		Range: From SPLL to SPHL .
521	PSP I	Setpoint 1 of Program 3 (R&S)
		Range: same as in PSPD .
522	PSP2	Setpoint 2 of Program 3 (R&S)
		Range: same as in P5P0 .
523	PSP3	Setpoint 3 of Program 3 (R&S)
		Range: same as in P5P0 .
524	PSP4	Setpoint 4 of Program 3 (R&S)
		Range: same as in P5P0 .
525	PSPS	Setpoint 5 of Program 3 (R&S)
		Range: same as in P5P0 .
526	PSP6	Setpoint 6 of Program 3 (R&S)
_		Range: same as in P5P0 .
527	PSP7	Setpoint 7 of Program 3 (R&S)
		Range: same as in P5P0 .
528	PSP8	Setpoint 8 of Program 3 (R&S)
		Range: same as in P5P0 .
529	PSP9	Setpoint 9 of Program 3 (R&S)
		Range: same as in P5P0 .
530	PSP0	Setpoint 0 of Program 4.
		Range: From SPLL to SPHL .
531	PSP I	Setpoint 1 of Program 4 (R&S)
		Range: same as in P5P0 .
532	PSP2	Setpoint 2 of Program 4 (R&S)
		Range: same as in PSPD .
533	PSP3	Setpoint 3 of Program 4 (R&S)
		Range: same as in P5P0 .
534	P5P4	Setpoint 4 of Program 4 (R&S)
-0-		Range: same as in P5P0 .
535	PSP5	Setpoint 5 of Program 4 (R&S)
-00		Range: same as in P5P0 .
536	PSP6	Setpoint 6 of Program 4 (R&S)
F07	0507	Range: same as in P5P0 .
537	PSP7	Setpoint 7 of Program 4 (R&S)
500	0500	Range: same as in P5P0 .
538	PSP8	Setpoint 8 of Program 4 (R&S)
500	0500	Range: same as in P5P0 .
539	PSP9	Setpoint 9 of Program 4 (R&S)
F40	0500	Range: same as in P5P0 .
540	PSP0	Setpoint 0 of Program 5.
,	955	Range: From SPLL to SPHL .
541	P5P 1	Setpoint 1 of Program 5 (R&S)
F 10	6555	Range: same as in P5P0 .
542	PSP2	Setpoint 2 of Program 5 (R&S)
		Range: same as in P5P0 .

543	P5P3	Setpoint 3 of Program 5 (R&S)
040	ב וב י	Range: same as in P5PD .
544	P5P4	Setpoint 4 of Program 5 (R&S)
011	, ,, ,	Range: same as in P5P0 .
545	PSP5	Setpoint 5 of Program 5 (R&S)
010	ב וב י	Range: same as in P5P0 .
546	P5P6	Setpoint 6 of Program 5 (R&S)
0.0	, ,,,	Range: same as in P5P0 .
547	PSP7	Setpoint 7 of Program 5 (R&S)
		Range: same as in P5PD .
548	PSPB	Setpoint 8 of Program 5 (R&S)
		Range: same as in P5P0 .
549	P5P9	Setpoint 9 of Program 5 (R&S)
		Range: same as in P5P0 .
550	PSP0	Setpoint 0 of Program 6.
		Range: From 5PLL to 5PHL .
551	PSP I	Setpoint 1 of Program 6 (R&S)
		Range: same as in P5P0 .
552	PSP2	Setpoint 2 of Program 6 (R&S)
		Range: same as in P5P0 .
553	PSP3	Setpoint 3 of Program 6 (R&S)
		Range: same as in P5P0 .
554	PSP4	Setpoint 4 of Program 6 (R&S)
		Range: same as in P5P0 .
555	PSP5	Setpoint 5 of Program 6 (R&S)
		Range: same as in P5P0 .
556	PSP6	Setpoint 6 of Program 6 (R&S)
		Range: same as in P5P0 .
557	PSP7	Setpoint 7 of Program 6 (R&S)
		Range: same as in P5P0 .
558	PSPB	Setpoint 8 of Program 6 (R&S)
		Range: same as in P5P0 .
559	PSP9	Setpoint 9 of Program 6 (R&S)
		Range: same as in P5P0 .
560	PSP0	Setpoint 0 of Program 7.
		Range: From SPLL to SPHL .
561	PSP I	Setpoint 1 of Program 7 (R&S)
		Range: same as in P5P0 .
562	PSP2	Setpoint 2 of Program 7 (R&S)
-00	8555	Range: same as in P5P0 .
563	PSP3	Setpoint 3 of Program 7 (R&S)
EGA	0500	Range: same as in PSPO .
564	P5P4	Setpoint 4 of Program 7 (R&S)
565	pcoc	Range: same as in PSPD . Setpoint 5 of Program 7 (R&S)
505	PSP5	Setpoint 5 of Program 7 (R&S)
566	pcoc	Range: same as in P5P0 . Setpoint 6 of Program 7 (R&S)
J00	PSP6	Range: same as in P5PD .
567	PSP7	Setpoint 7 of Program 7 (R&S)
507	rofi	, , ,
		Range: same as in P5P0 .

Setpoint 8 of Program 7 (R&S) Range: same as in PSPD. Setpoint 9 of Program 7 (R&S) Range: same as in PSPD. Setpoint 0 of Program 8. Range: From SPLL to SPHL. PSP 1 Setpoint 1 of Program 8 (R&S) Range: same as in PSPD. PSP2 Setpoint 2 of Program 8 (R&S) Range: same as in PSPD. PSP3 Setpoint 3 of Program 8 (R&S) Range: same as in PSPD. PSP4 Setpoint 4 of Program 8 (R&S) Range: same as in PSPD. S74 PSP4 Setpoint 4 of Program 8 (R&S) Range: same as in PSPD. S75 PSP5 Setpoint 5 of Program 8 (R&S)	
Setpoint 9 of Program 7 (R&S) Range: same as in PSPD. 570 PSPD Setpoint 0 of Program 8. Range: From SPLL to SPHL. 571 PSP I Setpoint 1 of Program 8 (R&S) Range: same as in PSPD. 572 PSP2 Setpoint 2 of Program 8 (R&S) Range: same as in PSPD. 574 PSP4 Setpoint 3 of Program 8 (R&S) Range: same as in PSPD. 574 PSP4 Setpoint 4 of Program 8 (R&S) Range: same as in PSPD.	
Range: same as in PSPD. 570 PSPD Setpoint 0 of Program 8. Range: From SPLL to SPHL. 571 PSP 1 Setpoint 1 of Program 8 (R&S) Range: same as in PSPD. 572 PSP2 Setpoint 2 of Program 8 (R&S) Range: same as in PSPD. 574 PSP4 Setpoint 3 of Program 8 (R&S) Range: same as in PSPD. 574 PSP4 Setpoint 4 of Program 8 (R&S) Range: same as in PSPD.	
570 P5P0 Setpoint 0 of Program 8. Range: From 5PLL to 5PHL. 571 P5P I Setpoint 1 of Program 8 (R&S) Range: same as in P5P0. 572 P5P2 Setpoint 2 of Program 8 (R&S) Range: same as in P5P0. 574 P5P4 Setpoint 3 of Program 8 (R&S) Range: same as in P5P0. 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5P0.	
Range: From SPLL to SPHL . 571	
571 P5P I Setpoint 1 of Program 8 (R&S) Range: same as in P5PD. 572 P5P2 Setpoint 2 of Program 8 (R&S) Range: same as in P5PD. 574 P5P4 Setpoint 3 of Program 8 (R&S) Range: same as in P5PD. 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5PD.	
Range: same as in P5PD. 572 P5P2 Setpoint 2 of Program 8 (R&S) Range: same as in P5PD. 572 P5P3 Setpoint 3 of Program 8 (R&S) Range: same as in P5PD. 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5PD.	
572 P5P2 Setpoint 2 of Program 8 (R&S) Range: same as in P5PD. 572 P5P3 Setpoint 3 of Program 8 (R&S) Range: same as in P5PD. 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5PD.	
Range: same as in P5PD . 572 P5P3 Setpoint 3 of Program 8 (R&S) Range: same as in P5PD . 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5PD .	
572 P5P3 Setpoint 3 of Program 8 (R&S) Range: same as in P5P0 . 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5P0 .	
Range: same as in P5PD . 574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5PD .	
574 P5P4 Setpoint 4 of Program 8 (R&S) Range: same as in P5P0 .	
Range: same as in P5P0 .	
Setpoint 5 of Program 8 (R&S)	
D	
Range: same as in P5PD .	
576 P5P6 Setpoint 6 of Program 8 (R&S)	
Range: same as in P5P0 . 577 P5P1 Setpoint 7 of Program 8 (R&S)	
Range: same as in P5P0 . 578 P5P8 Setpoint 8 of Program 8 (R&S)	
Range: same as in P5P0 . 579 P5P9 Setpoint 9 of Program 8 (R&S)	
Range: same as in P5P0 . 580 P5P0 Setpoint 0 of Program 9.	
580 P5P0 Setpoint 0 of Program 9. Range: From 5PLL to 5PHL .	
581 P5P ! Setpoint 1 of Program 9 (R&S)	
Range: same as in P5PD .	
582 P5P2 Setpoint 2 of Program 9 (R&S)	
Range: same as in P5PD .	
583 P5P3 Setpoint 3 of Program 9 (R&S)	
Range: same as in P5P0 .	
584 P5P4 Setpoint 4 of Program 9 (R&S)	
Range: same as in P5PD .	
585 P5P5 Setpoint 5 of Program 9 (R&S)	
Range: same as in P5PD .	
586 P5P5 Setpoint 6 of Program 9 (R&S)	
Range: same as in P5P0 .	
587 P5P7 Setpoint 7 of Program 9 (R&S)	
Range: same as in P5P0 .	
588 P5PB Setpoint 8 of Program 9 (R&S)	
Range: same as in P5P0 .	
589 P5P9 Setpoint 9 of Program 9 (R&S)	
Range: same as in P5PD .	
590 P5P0 Setpoint 0 of Program 10.	
Range: From SPLL to SPHL .	
591 P5P I Setpoint 1 of Program 10 (R&S)	
Range: same as in P5P0 .	
592 P5P2 Setpoint 2 of Program 10 (R&S)	
Range: same as in P5P0 .	

593	PSP3	Setpoint 3 of Program 10 (R&S)
555	ב וב ו	Range: same as in P5PD .
594	РБРЧ	Setpoint 4 of Program 10 (R&S)
001	, ,, ,	Range: same as in P5PD .
595	PSP5	Setpoint 5 of Program 10 (R&S)
000		Range: same as in P5PD .
596	PSP6	Setpoint 6 of Program 10 (R&S)
		Range: same as in P5P0 .
597	PSP7	Setpoint 7 of Program 10 (R&S)
		Range: same as in P5PD .
598	PSPB	Setpoint 8 of Program 10 (R&S)
		Range: same as in P5P0 .
599	PSP9	Setpoint 9 of Program 10 (R&S)
	, _	Range: same as in P5P0 .
600	PSP0	Setpoint 0 of Program 11.
		Range: From 5PLL to 5PHL .
601	PSP 1	Setpoint 1 of Program 11 (R&S)
		Range: same as in P5P0 .
602	PSP2	Setpoint 2 of Program 11 (R&S)
		Range: same as in P5P0 .
603	PSP3	Setpoint 3 of Program 11 (R&S)
		Range: same as in P5P0 .
604	PSP4	Setpoint 4 of Program 11 (R&S)
		Range: same as in P5P0 .
605	PSP5	Setpoint 5 of Program 11 (R&S)
		Range: same as in P5P0 .
606	PSP6	Setpoint 6 of Program 11 (R&S)
		Range: same as in P5P0 .
607	PSP7	Setpoint 7 of Program 11 (R&S)
		Range: same as in PSPO .
608	PSPB	Setpoint 8 of Program 11 (R&S)
		Range: same as in PSP0 .
609	PSP9	Setpoint 9 of Program 11 (R&S)
		Range: same as in P5P0 .
610	PSP0	Setpoint 0 of Program 12.
		Range: From 5PLL to 5PHL .
611	P5P 1	Setpoint 1 of Program 12 (R&S)
0.10	0500	Range: same as in P5P0 .
612	PSP2	Setpoint 2 of Program 12 (R&S)
040	5553	Range: same as in P5P0 .
613	PSP3	Setpoint 3 of Program 12 (R&S)
614	פרחיי	Range: same as in P5P0 . Satisfied 4 of Program 12 (P&S)
614	P5P4	Setpoint 4 of Program 12 (R&S)
615	DEDE	Range: same as in PSPD . Setpoint 5 of Program 12 (R&S)
UIU	PSP5	Range: same as in P5PD .
616	P5P6	Setpoint 6 of Program 12 (R&S)
310	raro	Range: same as in P5P0 .
617	PSP7	Setpoint 7 of Program 12 (R&S)
311	1 35 1	Range: same as in P5P0 .
		rango. same as in r ar u.

		Taa.
618	PSP8	Setpoint 8 of Program 12 (R&S)
		Range: same as in P5P0 .
619	PSP9	Setpoint 9 of Program 12 (R&S)
		Range: same as in PSPD .
620	PSP0	Setpoint 0 of Program 13.
		Range: From 5PLL to 5PHL .
621	PSP I	Setpoint 1 of Program 13 (R&S)
		Range: same as in P5PD .
622	PSP2	Setpoint 2 of Program 13 (R&S)
		Range: same as in P5PD .
623	PSP3	Setpoint 3 of Program 13 (R&S)
004	0504	Range: same as in P5PD .
624	P5P4	Setpoint 4 of Program 13 (R&S)
		Range: same as in P5P0 .
625	PSPS	Setpoint 5 of Program 13 (R&S)
000	0505	Range: same as in P5P0 .
626	PSP6	Setpoint 6 of Program 13 (R&S)
C07	0503	Range: same as in P5P0 .
627	PSP7	Setpoint 7 of Program 13 (R&S)
000	0500	Range: same as in P5P0 .
628	PSP8	Setpoint 8 of Program 13 (R&S)
C00	0500	Range: same as in P5P0 .
629	PSP9	Setpoint 9 of Program 13 (R&S)
C20	0500	Range: same as in P5P0 .
630	PSP0	Setpoint 0 of Program 14.
631	0504	Range: From SPLL to SPHL . Setpoint 1 of Program 14 (R&S)
031	PSP I	Range: same as in P5PD .
632	PSP2	Setpoint 2 of Program 14 (R&S)
002	7376	Range: same as in P5P0 .
633	PSP3	Setpoint 3 of Program 14 (R&S)
000	ב וב ו	Range: same as in P5P0 .
634	PSP4	Setpoint 4 of Program 14 (R&S)
001	, ,, ,	Range: same as in P5P0 .
635	PSP5	Setpoint 5 of Program 14 (R&S)
		Range: same as in P5P0 .
636	PSP6	Setpoint 6 of Program 14 (R&S)
	, _	Range: same as in P5P0 .
637	PSP7	Setpoint 7 of Program 14 (R&S)
		Range: same as in P5P0 .
638	PSP8	Setpoint 8 of Program 14 (R&S)
		Range: same as in P5P0 .
639	PSP9	Setpoint 9 of Program 14 (R&S)
		Range: same as in P5P0 .
640	PSP0	Setpoint 0 of Program 15.
		Range: From SPLL to SPHL .
641	PSP 1	Setpoint 1 of Program 15 (R&S)
		Range: same as in P5P0 .
642	PSP2	Setpoint 2 of Program 15 (R&S)
		Range: same as in P5P0 .
	İ	

643	PSP3	Setpoint 3 of Program 15 (R&S)
		Range: same as in P5P0 .
644	P5P4	Setpoint 4 of Program 15 (R&S)
		Range: same as in P5PD .
645	PSP5	Setpoint 5 of Program 15 (R&S)
		Range: same as in P5PD .
646	PSP6	Setpoint 6 of Program 15 (R&S)
		Range: same as in P5PD .
647	P5P7	Setpoint 7 of Program 15 (R&S)
		Range: same as in P5P0 .
648	PSP8	Setpoint 8 of Program 15 (R&S)
		Range: same as in P5P0 .
649	PSP9	Setpoint 9 of Program 15 (R&S)
		Range: same as in P5P0 .
650	PSP0	Setpoint 0 of Program 16.
		Range: From 5PLL to 5PHL .
651	PSP 1	Setpoint 1 of Program 16 (R&S)
		Range: same as in P5P0 .
652	PSP2	Setpoint 2 of Program 16 (R&S)
		Range: same as in P5P0 .
653	PSP3	Setpoint 3 of Program 16 (R&S)
		Range: same as in P5P0 .
654	P5P4	Setpoint 4 of Program 16 (R&S)
		Range: same as in P5P0 .
655	PSPS	Setpoint 5 of Program 16 (R&S)
		Range: same as in P5P0 .
656	PSP6	Setpoint 6 of Program 16 (R&S)
		Range: same as in P5P0 .
657	PSP7	Setpoint 7 of Program 16 (R&S)
		Range: same as in P5P0 .
658	PSP8	Setpoint 8 of Program 16 (R&S)
		Range: same as in PSPD .
659	PSP9	Setpoint 9 of Program 16 (R&S)
000	0555	Range: same as in PSPO .
660	PSP0	Setpoint 0 of Program 17.
664	050 1	Range: From 5PLL to 5PHL .
661	P5P 1	Setpoint 1 of Program 17 (R&S)
662	PSP2	Range: same as in PSP0 . Setpoint 2 of Program 17 (R&S)
UUZ	rare	Range: same as in P5P0 .
663	PSP3	Setpoint 3 of Program 17 (R&S)
000	ביני	Range: same as in P5P0 .
664	P5P4	Setpoint 4 of Program 17 (R&S)
	· • ·	Range: same as in P5PD .
665	PSP5	Setpoint 5 of Program 17 (R&S)
		Range: same as in P5P0 .
666	P5P6	Setpoint 6 of Program 17 (R&S)
		Range: same as in P5P0 .
667	PSP7	Setpoint 7 of Program 17 (R&S)
		Range: same as in P5P0 .
	l	

660	0500	Cotraciat 9 of Decrease 47 (D9.C)
668	PSP8	Setpoint 8 of Program 17 (R&S) Range: same as in P5PD .
669	PSP9	Setpoint 9 of Program 17 (R&S)
003	rara	Range: same as in P5PD .
670	PSP0	Setpoint 0 of Program 18.
070	raru	,
C74	0504	Range: From SPLL to SPHL .
671	PSP I	Setpoint 1 of Program 18 (R&S)
C70	0503	Range: same as in P5P0 .
672	PSP2	Setpoint 2 of Program 18 (R&S)
C72	0503	Range: same as in P5P0 .
673	PSP3	Setpoint 3 of Program 18 (R&S)
0=4		Range: same as in PSPD .
674	P5P4	Setpoint 4 of Program 18 (R&S)
		Range: same as in PSPO .
675	PSP5	Setpoint 5 of Program 18 (R&S)
		Range: same as in P5P0 .
676	PSP6	Setpoint 6 of Program 18 (R&S)
		Range: same as in P5P0 .
677	PSP7	Setpoint 7 of Program 18 (R&S)
		Range: same as in P5P0 .
678	PSP8	Setpoint 8 of Program 18 (R&S)
		Range: same as in P5P0 .
679	PSP9	Setpoint 9 of Program 18 (R&S)
		Range: same as in P5P0 .
680	PSP0	Setpoint 0 of Program 19.
		Range: From SPLL to SPHL .
681	PSP I	Setpoint 1 of Program 19 (R&S)
		Range: same as in P5P0 .
682	PSP2	Setpoint 2 of Program 19 (R&S)
		Range: same as in P5P0 .
683	PSP3	Setpoint 3 of Program 19 (R&S)
		Range: same as in P5P0 .
684	P5P4	Setpoint 4 of Program 19 (R&S)
		Range: same as in P5P0 .
685	PSP5	Setpoint 5 of Program 19 (R&S)
		Range: same as in P5P0 .
686	PSP6	Setpoint 6 of Program 19 (R&S)
		Range: same as in P5P0 .
687	PSP7	Setpoint 7 of Program 19 (R&S)
		Range: same as in P5P0 .
688	PSP8	Setpoint 8 of Program 19 (R&S)
		Range: same as in P5P0 .
689	PSP9	Setpoint 9 of Program 19 (R&S)
		Range: same as in P5P0 .
690	PSP0	Setpoint 0 of Program 1.
		Range: From SPLL to SPHL .
691	PSP I	Setpoint 1 of Program 1 (R&S)
		Range: same as in P5PD .
692	PSP2	Setpoint 2 of Program 1 (R&S)
		Range: same as in P5P0 .
	1	L

693	PSP3	Setpoint 3 of Program 1 (R&S)
		Range: same as in P5P0 .
694	P5P4	Setpoint 4 of Program 1 (R&S)
		Range: same as in P5P0 .
695	PSP5	Setpoint 5 of Program 1 (R&S)
		Range: same as in P5P0 .
696	P5P6 Setpoint 6 of Program 1 (R&S)	
		Range: same as in P5P0 .
697	PSP7	Setpoint 7 of Program 1 (R&S)
		Range: same as in P5P0 .
698	PSP8	Setpoint 8 of Program 1 (R&S)
		Range: same as in P5P0 .
699	PSP9	Setpoint 9 of Program 1 (R&S)
		Range: same as in P5P0 .
700	Reserved	Internal use

Desistes	Value farment
Register	Value format
Status Word 1	bit 0 – Alarm 1 (0-inactive; 1-active)
	bit 1 – Alarm 2 (0-inactive; 1-active)
	bit 2 – Alarm 3 (0-inactive; 1-active)
	bit 3 – Alarm 4 (0-inactive; 1-active)
	bit 4 – Input 0 – I/O 5 (0- inactive; 1- active)
	bit 5 – Input 1 – I/O 3 (0- inactive; 1- active)
	bit 6 – Input 2 – I/O 4 (0- inactive; 1- active) bit 7 – Reserved
	bit 8 – Hardware detection value
	bit 9 – Hardware detection value
	bit 10 – Hardware detection value
	bit 11 – Hardware detection value
	bit 12 – Reserved
	bit 13 – Reserved
	bit 14 – Reserved
	bit 15 – Reserved
01-1 - 14-1-10	
Status Word 2	bit 0 – Automatic (0- manual; 1- automatic)
	bit 1 – Run (0-stop; 1-run) bit 2 – Control Action (0-direct; 1-reverse)
	bit 3 – Reserved
	bit 4 – Auto-tune (0-no; 1-yes)
	bit 5 – Alarm 1 power-up inhibit (0-no; 1-yes)
	bit 6 – Alarm 2 power-up inhibit (0-no; 1-yes)
	bit 7 – Alarm 3 power-up inhibit (0-no; 1-yes)
	bit 8 – Alarm 4 power-up inhibit (0-no; 1-yes)
	bit 9 – Unit (0-°C; 1-°F)
	bit 10 – Reserved
	bit 11 – Output 1 status
	bit 12 – Output 1 status
	bit 13 – Output 3 status
	bit 14 – Output 4 status
	bit 15 – Output 5 status
Status Word 3	bit 0 – Very low PV conversion (0-no; 1-yes)
Status Word 3	bit 1 – Negative conversion after calibration (0-no; 1-yes)
	bit 2 – Very high PV conversion (0-no; 1-yes)
	bit 3 – Exceeded linearization limit (0-no; 1-yes)
	bit 4 – Very high Pt100 cable resistance (0-no; 1-yes)
	bit 5 – Self zero conversion out of range (0-no; 1-yes)
	bit 6 – Cold Junction out of range (0-no; 1-yes)
	bit 7 – Reserved
	bit 8 – Reserved
	bit 9 – Reserved
	bit 10 – Reserved
	bit 11 – Reserved
	bit 12 – Reserved
	bit 13 – Reserved
	bit 14 – Reserved
	bit 15 – Reserved
1	Table 2: Values of Status Words

Table 2: Values of Status Words

Writing to an output bit is only possible if the output has no function assigned to it (the output is configured to **OFF** in Alarm Cycle).

Coil Status	Output description		
1	Output 1 Status (I/O1)		
2	Output 2 Status (I/O2)		
3	Output 3 Status (I/O3)		
4	Output 4 Status (I/O4)		
5	Output 5 Status (I/O5)		

Exception Responses - Error Conditions

The MODBUS RTU protocol checks the CRC in the data blocks received.

Reception errors are detected by the CRC, causing the controller to discard the packet, not sending any reply to the master.

After receiving an error-free packet, the controller processes the packet and verifies whether the request is valid or not, sending back an exception error code in case of an invalid request. Response frames containing error codes have the most significant bit of the Modbus command set.

If a WRITE command sends an out-of-range value to a parameter, the controller will clamp the value to the parameter range limits, replying with a value that reflects these limits (maximum or minimum value allowed for the parameter).

The controller ignores broadcast READ commands; the controller processes only broadcast WRITE commands.

Description

01	Invalid Command
02	Invalid Register Number or out of range
03	Invalid Register Quantity or out of range

Table 4 – Exception response error codes

1.4 CONFIGURAÇÃO DOS PARÂMETROS DE I/O

Controlador N1200

Função de I/O	Código		Tipo de I/O
Sem Função	0	oFF	Saída
Saída de Alarme 1	1	A I	Saída
Saída de Alarme 2	2	R2	Saída
Saída de Alarme 3	3	R3	Saída
Saída de Alarme 4	4	ЯЧ	Saída
Saída da função LBD - Loop break detection	5	Lbd	Saída
Saída de Controle (Relé ou Pulso Digital)	6	ctrL	Saída
Alterna modo Automático/Man	7	ПЯл	Entrada Digital
Alterna modo Run/Stop	8	רחט	Entrada Digital
Seleciona SP Remoto	9	r5P	Entrada Digital
Congela programa	10	HP-G	Entrada Digital
Seleciona programa 1	11	Pr 1	Entrada Digital
Saída de Controle Analógica 0 a 20mA	12	C.O.20	Saída Analógica
Saída de Controle Analógica 4 a 20mA	13	C.4.20	Saída Analógica
Retransmissão de PV 0 a 20mA	14	P.D.20	Saída Analógica
Retransmissão de PV 4 a 20mA	15	P.4.20	Saída Analógica
Retransmissão de SP 0 a 20mA	16	5.0.20	Saída Analógica
Retransmissão de SP 4 a 20mA	17	5420	Saída Analógica

Tabela 5 - Códigos para os parâmetros de I/O (N1200)

Controlador N1200HC

Função de I/O	Co	ódigo	Tipo de I/O
Sem Função	0	oFF	Saída
Saída de Alarme 1	1	R I	Saída
Saída de Alarme 2	2	R2	Saída
Saída de Alarme 3	3	A3	Saída
Saída de Alarme 4	4	RY	Saída

Saída da função LBD - Loop break detection	5	Lbd	Saída
Saída de Controle 1 (Relé ou Pulso Digital)	6	Etr 1	Saída
Saída de Controle 2 (Relé ou Pulso Digital)	7	[tr2	Saída
Alterna modo Automático/Man	8	ΠAn	Entrada Digital
Alterna modo Run/Stop	9	LUN	Entrada Digital
Seleciona SP Remoto	10	r5P	Entrada Digital
Congela programa	11	HP-G	Entrada Digital
Seleciona programa 1	12	Pr 1	Entrada Digital
Saída de Controle 1 Analógica 0 a 20mA	13	05.0.2	Saída Analógica
Saída de Controle 1 Analógica 4 a 20mA	14	C.4.20	Saída Analógica
Saída de Controle 2 Analógica 0 a 20mA	15	05.0.2	Saída Analógica
Saída de Controle 2 Analógica 4 a 20mA	16	C.4.20	Saída Analógica
Retransmissão de PV 0 a 20mA	17	P.O.20	Saída Analógica
Retransmissão de PV 4 a 20mA	18	P.4.20	Saída Analógica
Retransmissão de SP 0 a 20mA	19	5.0.20	Saída Analógica
Retransmissão de SP 4 a 20mA	20	5.4.20	Saída Analógica

Tabela 6 - Códigos para os parâmetros de I/O (N1200HC)