

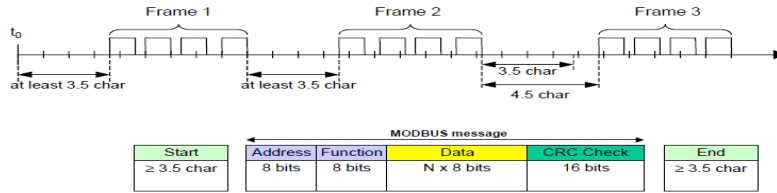
COELBO MODBUS PROTOCOL

rev

5

data

03/10/2025



speed	9600 bds
parity	even
address	1-250

ERRORS	
0x84 01	FUNCTION CODE NOT SUPPORTED
0x84 02	ILLEGAL DATA ADDRESS
0x84 03	ILLEGAL DATA VALUE

0x86 01	FUNCTION CODE NOT SUPPORTED
0x86 02	ILLEGAL DATA ADDRESS
0x86 03	ILLEGAL DATA VALUE
0x86 04	ILLEGAL DATA VALUE

FUNCTIONS SUPPORTED	
0x04	Read Input Registers
0x06	Write Single Register
0x03	Read Holding Registers
0x10	Write Multiple registers

Register nr.	Name	Description	units	Adjustment Range
1	admodbus.	Modbus address of Coelbo device	-	1-250
2	baudrate.	Modbus communication speed	100bps	12-576
3	producte.	0x0100: Speedbox, 0x0200: Speedboard, 0x0300: Speedbox duo_set, 0x0400: Speedmatic	-	read only
4	ver_soft.	Coelbo device software version		read only
5	model_hardware.	0=5A, 1=9A, 2=14A, 3=25A, 4=32A, 5=06MT, 6=10MT		read only
6	anul_a_aigua.	Disable Dry run alarm (A1). 0=no, 1= yes		read only
7	pres_disp.	Instant pressure shown on display	0,1bar/1psi	read only
8	cur_mot_disp.	Instant current (A)	0,1Ampere	read only
9	velo_motor.	Instant frequency (Hz)	0,1Hz	read only
10	volt_mot.	Voltage delivered to motor	0,4% Vin	read only
11	f_alarma.	Alarm code	-	read only
12	temperntc_c.	Internal temperature of Coelbo device (ntc)	0,1°C	read only
13	tempermod_c.	IGBT module temperature	0,1°C	read only
14	n_master.	Pump currently acting as Master in cycle	-	read only
15	voltbus_v.	DC bus voltage	Volts (DC)	read only
16	f_marxa.	Flag to enable AUTO mode, 0=OFF, 1=ON	-	0-1
17	consigna_treball.	Current working pressure	0,1bar/1psi	read only
18	consigna_1.	Main setpoint pressure	0,1bar/1psi	5-250
19	consigna_2.	Setpoint pressure 2 auxiliary (external input)	0,1bar/1psi	5-250
20	pres_fill.	Slowfill setpoint (slow filling routine after power loss)	0,1bar/1psi	0-250
21				
22	corrent_max.	Programmed amperes	0,1Ampere	0-R10
23	idioma.	Language: 1=Spanish, 2=English, 3=French, 4=Italian,....	A	0-R39
24	sentit.	Motor rotation direction	-	0-1
25	vel_max.	Maximum working frequency	0,1Hz	450-600
26	vel_min.	Minimum working frequency	0,1Hz	150-450
27	hyster.	Start hysteresis. Start differential.	0,1bar/1psi	3-15
28	func_ext_in0.	0=disabled, 1=level alarm, 2=On/off, 3=setpoint 2	-	0-3
29	func_auxin1.	0=disabled, 1=level alarm, 2=On/off, 3=setpoint 2	-	0-3
30	func_auxin2.	0=disabled, 1=level alarm, 2=On/off, 3=setpoint 2	-	0-3
31	pres_min.	Minimum pressure (enables low pressure alarm)	0,1bar/1psi	0-250
32	t_pres_min.	minimum pressure delay	seconds	2-99
33	tipo_sensor_bar.	Sensor type 10/16/25	bar	10-16-25
34	mode_can.	CAN communication enabled 0=No, 1=Yes	-	0-1
35	direc_can.	Device address for CAN-BUS communication	-	1-4
36	portadora.	Switching frequency	kHz	4-10
37	ki.	Ki gain	-	1-100
38	kp.	Kp gain	-	0-100
39	rampa_accel.	Acceleration ramp	Hz/s	2-15
40	rampa_decel.	Deceleration ramp	Hz/s	1-15
41	unitats.	0=bar, 1=PSI	bar/psi	0-1
42	offset.	Pressure sensor offset value	-	0-30000
43	f_sensor.	Pressure sensor full scale	-	0-30000
44	factor_corrent.	Calibration factor for current reading	-	?
45	hores_canvi_bomba.	Alternation time for pump rotation in multi-pump working	horas	0-99
46	duty_standby.	Duty-assistit =0 Duty stand-by = 1, for multi-pump working operation	-	0-1
47	pres_maxima.	Max pressure value to trigger max pressure alarm	0,1bar/1psi	0-250
48	t_pres_maxima.	Max pressure alarm duration	seconds	2-99
49	c_cicles.	High part of cycle counter	-	read only
50	(c_cicles)+1.	Low part of cycle counter	-	read only
51	n_hores_pwr.	Counter for number of hours device under power	-	read only
52	n_hores_on.	Counter for number of hours pump ON	-	read only
53	c_agua.	Water failure alarm counter (A1)	-	read only
54	c_lgbt.	Short-circuit alarm counter (A7)	-	read only
55	c_xarxa.	Power grid connection counter	-	read only
56	c_tensio.	High voltage alarm counter (A8)	-	read only
57	c_temp.	Temperature alarm counter (A6)	-	read only
58	c_cur.	Overcurrent alarm counter (A2)	-	read only
59	c_sonda.	Pressure transducer alarm counter (A5)	-	read only
60	c_tensio_baixa.	Low voltage alarm counter (A9)	-	read only
61	c_pres_max.	Max pressure alarm counter (A12)	-	read only
62	c_nivell.	Level alarm counter (A14)	-	read only
63	c_pres_min.	Min pressure alarm counter (A11)	-	read only
64	potencia_w.	Instantaneous power consumed	W	read only
65	energia_wh.	High part of Energy counter (accumulated consumed power)	Wh	read only
66	(energia_wh)+1.	Low part of Energy counter (accumulated consumed power)	Wh	read only
67	flag_reset_almes.	Flag to RESET whatever alarm (1= alarm active, 0= alarm reseted)	0-1	read only