



LOGICO2 0496 Sniffer Modbus User Manual

[Home](#) » [logico2](#) » LOGICO2 0496 Sniffer Modbus User Manual 

Contents

- [1 LOGICO2 0496 Sniffer Modbus](#)
- [2 Technical specifications](#)
- [3 Function](#)
- [4 Installation](#)
- [5 PCB Layout](#)
- [6 Led Indication](#)
- [7 DIP-Switch settings](#)
- [8 Modbus register](#)
- [9 Maintenance](#)
- [10 Documents / Resources](#)
 - [10.1 References](#)
- [11 Related Posts](#)



LOGICO2 0496 Sniffer Modbus



WARNING!

Please read these instructions carefully prior to start-up and use. These instructions should be saved for future reference and passed on to any subsequent owner. Failure to follow any of these instructions could result in bodily harm or death, and could void product warranties. LogiCO2 International AB, its affiliates and third party providers assume no responsibility for claims arising from improper or careless use or handling of its products. Retain this instruction.

Technical specifications

- **Power supply:** 24V DC, from the alarm system
- **LED Indications:** See table on page 5
- **Ambient temperature:** 0 to +40°C (+32°F to +102°F)
- **Cable lenght:** 2 x 5 m
- **Dimensions (LxWxD):** 90 x 161 x 38 mm / 3.5" x 6.3" x 1.5"

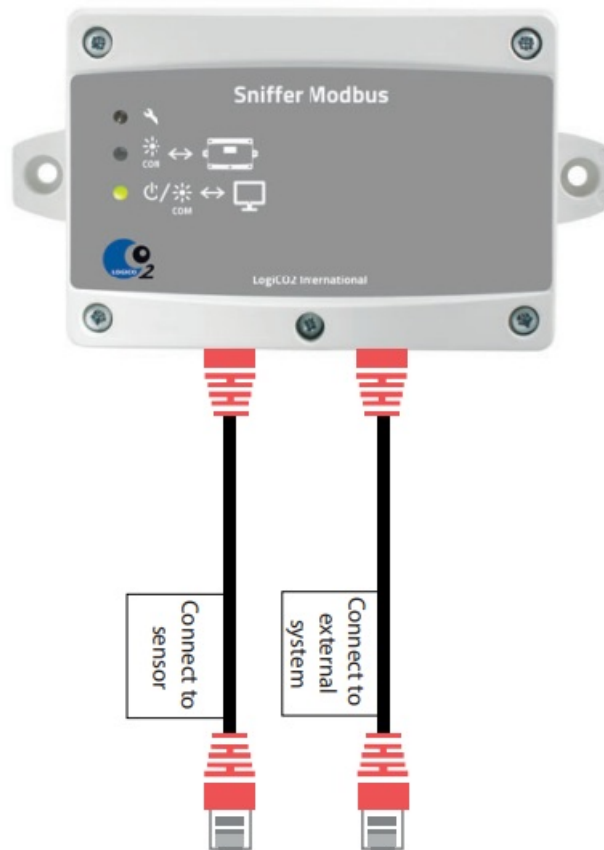
Function

The LogiCO2 Sniffer Modbus is a gateway for reading out measuring values and status (e.g. Alarms) from LogiCO2's Safety Systems. It is only possible to read-out information from the Sniffer (read only). The Sniffer Modbus is connected to maximum eight sensors with or without a central unit. The Sniffer is monitoring the communication between the sensor/s and the central unit. If no central unit is installed in the Safety System, the Sniffer Modbus can communicate directly with the Sensor/s. The Sniffer Modbus is intended as a gateway from the LogiCO2 Safety System. The Sniffer Modbus communicates as a slave via Modbus RTU (RS485) to external systems. The Sniffer Modbus is power supplied from the LogiCO2 Safety System. Default setting is to read-out one Sensor (ID number 1) that is connected to a central unit.

Installation

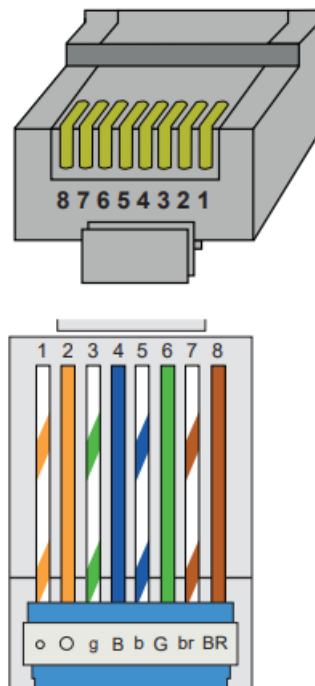
Connect the cable marked "Connect to sensor" to one of the LogiCO2 Safety System's red cables. Use the cable marked "Connect to external system" to connect the gateway RS485 to the external system.

Pinout red cable:



RJ-45 Plug for RS485 Communication

- Pin 4 RS485 – (B)
- Pin 5 RS485 + (A)
- Pin 8 GND



Setup – with or without Central Unit

The default setting of the Sniffer is to communicate with a Safety System together with a Central Unit. To change setting, remove the cover to access the two DIP-switches.

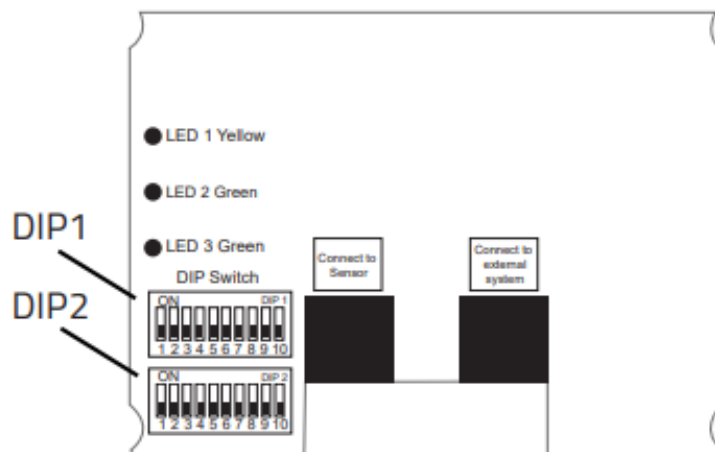
Example (DIP-switch 2):

- To read-out sensors with ID-number 1 and 2, set the DIP-switch number 1 and 2 to ON. All other DIP-switches

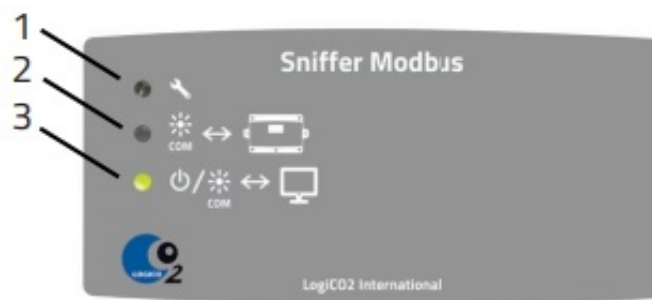
in OFF-position.

- To read-out sensors with ID-number 2 and 4, set the DIP-switch number 2 and 4 to ON . All other DIP-switches in OFF-position.
- To read-out eight sensors, set the DIP-switch number 1-8 to ON . All other DIP-switches in OFF-position.

PCB Layout



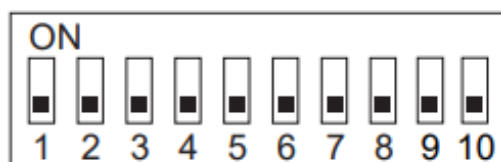
Led Indication



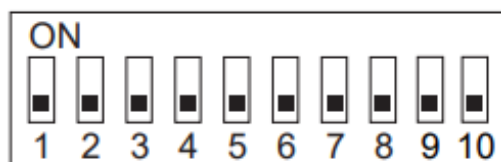
LED	C	olour	Information
1	Y	ellow	Lost communication with sensors
2	G	reen	Flashing when communicating with sensors
3	G	reen	Power, flashing when communicating with external system

DIP-Switch settings

DIP-switch 1: For communication with external system.



DIP-switch 2: For communication with LogiCO2 Sensors.



DIP-switch settings, ID-address 1-8

Observe! DIP-switch 1, Dip 1-5

ID-address	Dip1:1	Dip1:2	Dip1:3	Dip1:4	Dip1:5	DIP-switch 1
ID1	OFF	OFF	OFF	OFF	OFF	
ID2	ON	OFF	OFF	OFF	OFF	
ID3	OFF	ON	OFF	OFF	OFF	
ID4	ON	ON	OFF	OFF	OFF	
ID5	OFF	OFF	ON	OFF	OFF	
ID6	ON	OFF	ON	OFF	OFF	
ID7	OFF	ON	ON	OFF	OFF	
ID8	ON	ON	ON	OFF	OFF	

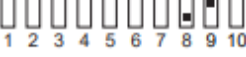
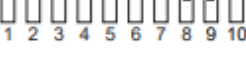
DIP-switch settings, Parity

Observe! DIP-switch 1, Dip 6-7

Parity	Dip1:6	Dip1:7	DIP-switch 1
NONE - 2 stopbit	OFF	OFF	
EVEN - 1 stopbit	ON	OFF	
ODD - 1 stopbit	OFF	ON	
NONE - 1 stopbit	ON	ON	

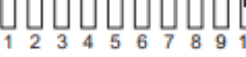
DIP-switch settings, Baud rate

Observe! DIP-switch 1, Dip 8-9

Baud rate	Dip1:8	Dip1:9	DIP-switch 1
9600	OFF	OFF	
19200	ON	OFF	
38400	OFF	ON	
57600	ON	ON	

DIP-switch settings, Termination resistor 120 Ω Sensor

Observe! DIP-switch 1, Dip 10

Termination resistor 120 Ω (Sensor communication line)	Dip1:10	DIP-switch 1
Not connected	OFF	
Connected	ON	

DIP-switch settings, Selection of Sensor ID to monitor

Observe! DIP-switch 2, Dip 1-8

Sensor-ID to be monitored	Not monitored sensor-ID	Monitored sensor-ID
Dip 2:1 = ID1	OFF	ON
Dip 2:2 = ID2	OFF	ON
Dip 2:3 = ID3	OFF	ON
Dip 2:4 = ID4	OFF	ON
Dip 2:5 = ID5	OFF	ON
Dip 2:6 = ID6	OFF	ON
Dip 2:7 = ID7	OFF	ON
Dip 2:8 = ID8	OFF	ON

DIP-switch settings, Selection of Modbus Master/Slave

Observe! DIP-switch 2, Dip 9

Modbus Master/Slave	Dip2:9	DIP-switch 2
Slave	OFF	 1 2 3 4 5 6 7 8 9 10
Master	ON	 1 2 3 4 5 6 7 8 9 10

DIP-switch settings, Termination resistor 120 Ω External

Observe! DIP-switch 2, Dip 10

Termination resistor 120 Ω (External communication line)	Dip2:10	DIP-switch 2
Not connected	OFF	 1 2 3 4 5 6 7 8 9 10
Connected	ON	 1 2 3 4 5 6 7 8 9 10

Modbus register

ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7	ID 8	Register content
1×0001	1×0025	1×0049	1×0073	1×0097	1×0121	1×0145	1×0169	CO2 Alarm B
1×0002	1×0026	1×0050	1×0074	1×0098	1×0122	1×0146	1×0170	CO2 Alarm A
1×0003	1×0027	1×0051	1×0075	1×0099	1×0123	1×0147	1×0171	TWA Alarm
1×0004	1×0028	1×0052	1×0076	1×0100	1×0124	1×0148	1×0172	Temp alarm high
1×0005	1×0029	1×0053	1×0077	1×0101	1×0125	1×0149	1×0173	Temp alarm low
1×0006	1×0030	1×0054	1×0078	1×0102	1×0126	1×0150	1×0174	Res
1×0007	1×0031	1×0055	1×0079	1×0103	1×0127	1×0151	1×0175	Res
1×0008	1×0032	1×0056	1×0080	1×0104	1×0128	1×0152	1×0176	Res
1×0009	1×0033	1×0057	1×0081	1×0105	1×0129	1×0153	1×0177	Fatal error
1×0010	1×0034	1×0058	1×0082	1×0106	1×0130	1×0154	1×0178	Offset error
1×0011	1×0035	1×0059	1×0083	1×0107	1×0131	1×0155	1×0179	Algorithm error
1×0012	1×0036	1×0060	1×0084	1×0108	1×0132	1×0156	1×0180	Output error
1×0013	1×0037	1×0061	1×0085	1×0109	1×0133	1×0157	1×0181	SD error
1×0014	1×0038	1×0062	1×0086	1×0110	1×0134	1×0158	1×0182	Out of range
1×0015	1×0039	1×0063	1×0087	1×0111	1×0135	1×0159	1×0183	Mem error
1×0016	1×0040	1×0064	1×0088	1×0112	1×0136	1×0160	1×0184	Heating
1×0017	1×0041	1×0065	1×0089	1×0113	1×0137	1×0161	1×0185	Sensor type
1×0018	1×0042	1×0066	1×0090	1×0114	1×0138	1×0162	1×0186	Sensor error
1×0019	1×0043	1×0067	1×0091	1×0115	1×0139	1×0163	1×0187	Communication error
1×0020	1×0044	1×0068	1×0092	1×0116	1×0140	1×0164	1×0188	Online
1×0021	1×0045	1×0069	1×0093	1×0117	1×0141	1×0165	1×0189	Res
1×0022	1×0046	1×0070	1×0094	1×0118	1×0142	1×0166	1×0190	Res
1×0023	1×0047	1×0071	1×0095	1×0119	1×0143	1×0167	1×0191	Res
1×0024	1×0048	1×0072	1×0096	1×0120	1×0144	1×0168	1×0192	Res

Value range – 0 or 1

Read/Write – R

IR address	Register content	Read/Write
3×0001	Sensor #1 CO2 value	R
3×0002	Sensor #1 TWA value	R
3×0003	Sensor #1 Temp value (°C)	R
3×0004	Sensor #1 Temp value (°F)	R

3×0005	Sensor #2 CO2 value	R
3×0006	Sensor #2 TWA value	R
3×0007	Sensor #2 Temp value (°C)	R
3×0008	Sensor #2 Temp value (°F)	R
3×0009	Sensor #3 CO2 value	R
3×0010	Sensor #3 TWA value	R
3×0011	Sensor #3 Temp value (°C)	R
3×0012	Sensor #3 Temp value (°F)	R
3×0013	Sensor #4 CO2 value	R
3×0014	Sensor #4 TWA value	R
3×0015	Sensor #4 Temp value (°C)	R
3×0016	Sensor #4 Temp value (°F)	R
3×0017	Sensor #5 CO2 value	R
3×0018	Sensor #5 TWA value	R
3×0019	Sensor #5 Temp value (°C)	R
3×0020	Sensor #5 Temp value (°F)	R
3×0021	Sensor #6 CO2 value	R
3×0022	Sensor #6 TWA value	R
3×0023	Sensor #6 Temp value (°C)	R
3×0024	Sensor #6 Temp value (°F)	R
3×0025	Sensor #7 CO2 value	R
3×0026	Sensor #7 TWA value	R
3×0027	Sensor #7 Temp value (°C)	R
3×0028	Sensor #7 Temp value (°F)	R
3×0029	Sensor #8 CO2 value	R
3×0030	Sensor #8 TWA value	R
3×0031	Sensor #8 Temp value (°C)	R
3×0032	Sensor #8 Temp value (°F)	R

Maintenance

The LogiCO2-Sniffer requires no maintenance.

Important

All persons responsible for the use and maintenance of this equipment must read and understand the safety and

operating information contained in this guide. Installation and service of this equipment should be performed only by professionals. The function of the equipment will be impaired if it is not properly installed.

Important information regarding third party products

The functionality of LogiCO2's products are only warranted if connected to LogiCO2's systems and products. LogiCO2 is not liable for the functionality of any systems if LogiCO2 components or parts are connected to third party products. LogiCO2 permits its products to be connected to external relays controlling ventilation and valves as well as fire alarm panels and building management systems. Subject to typographical errors and change without prior notice.

Manufactured by:

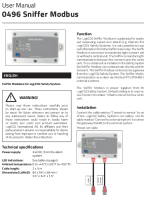
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Documents / Resources

	LOGICO2 0496 Sniffer Modbus [pdf] User Manual 0496 Sniffer Modbus, 0496, 0496 Modbus, Sniffer Modbus, Modbus
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References

-  [Welcome to LogiCO2 - Logico2](#)