

Description

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Features

- 260 to 1260 hPa absolute pressure range
- Current consumption down to 3 A
- High overpressure capability: 20x full-scale
- Embedded temperature compensation
- 24-bit pressure data output
- 16-bit temperature data output
- ODR from 1 Hz to 75 Hz
- SPI and I²C interfaces
- Embedded FIFO
- Interrupt functions: Data Ready, FIFO flags, pressure thresholds
- Supply voltage: 1.7 to 3.6 V
- High shock survivability: 22,000 g
- Small and thin package
- ECOPACK lead-free compliant

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1 Specifications

1.1 Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Input voltage	V_{DD}	5	12	24	V
Average supply current	I_{DD}		50		mA
RS485 Single-Ended Output High	V_{OH}	2.2			V
RS485 Single-Ended Output Low	V_{OL}			0.8	V
RS485 Differential Output	V_{OD}	2.0			V
RS485 Receiver Differential Threshold Voltage	V_{TH}	-200	-105	-10	mV

Table 1: Electrical Specifications

1.2 Sensing Specifications

Parameter	Conditions	Value
CO ₂ measurement range	-	0 ÷ 40000 ppm
CO ₂ measurement accuracy	400 ppm – 2000 ppm	(±50 ppm + 5% of reading)
CO ₂ measurement repeatability	Typical	±10 ppm
T measurement range	-	-40 ÷ +125 °C
T measurement accuracy	Typical	±0.2 °C
T measurement repeatability	Typical	±0.2 °C
RH measurement range	-	0 ÷ 100 %RH
RH measurement accuracy	Typical	±1.8 %RH
RH measurement repeatability	-	±0.08 %RH

Table 2: Sensing Specifications

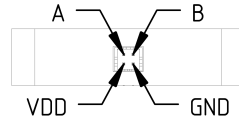
1.3 Interface Specifications

Parameter	Value
Used Protocol	MODBUS RTU
Default Baudrate	19200 Baud
Usable Baudrates	4800, 9600, 14400, 19200, 28800, 38400, 57600, 76800, 119200 Baud
Data Bytes	8
Parity	Even
Stop Bits	1

Table 3: Sensing Specifications

1.4 Connectors Pinout

1.4.1 Main Connector Pinout



Pin	Name	Description
1	VDD	Supply Voltage
2	A	RS485 A+
3	B	RS485 B-
4	GND	Ground

Figure 1: Main Connector Pinout

Table 4: Main Connector Pinout

1.4.2 Programming Connector Pinout

Pin	Name	Description
1	3V3	3.3V Sensing
2	GND	Ground
3	SWDIO	SWD Data
4	SWCLK	SWD Clock
4	NRST	MCU Reset

Table 5: Programming Connector Pinout

2 Communication Specification

2.1 Physical Layer - RS485

2.2 Link Layer - MODBUS RTU

2.2.1 Registers Description

3 Mechanical Dimesions