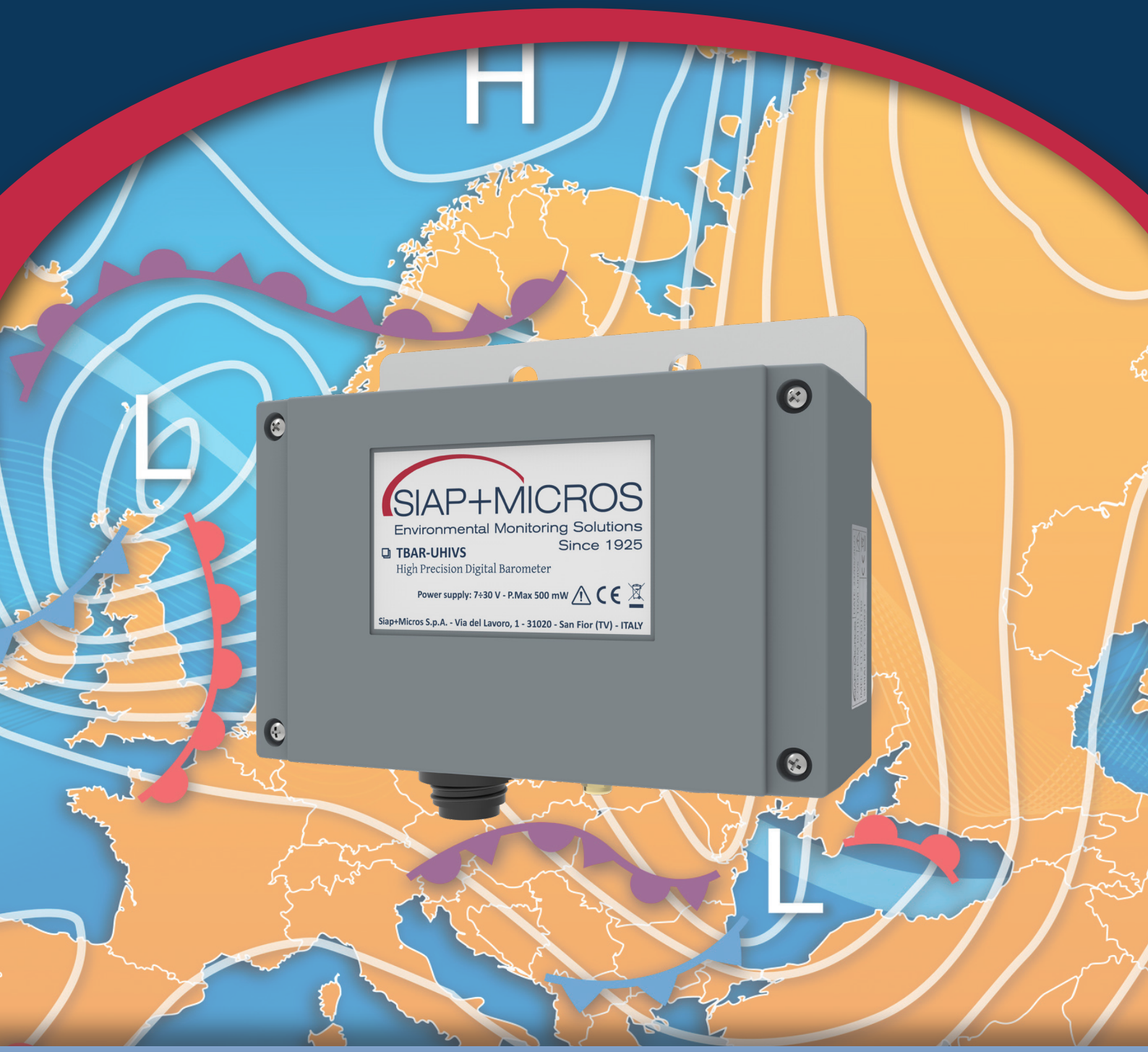
100 years
Since 1925 SIAP+MICROS Environmental Monitoring Solutions

HIGH PRECISION BAROMETRIC PRESSURE Sensor

t011h-TBAR-UHIVS
t011i-TBAR-USD12



- High Precision
- Customizable measurement range
- Accuracy and reliability of data

Description

TBAR-UHIVS / USDI12 is equipped with a transducer featuring TERPS (Trench Etched Resonant Pressure Sensor) technology, a technology in which pressure is measured by observing the frequency variation of a micro-machined resonant silicon element.
The sensor is housed in a special box that guarantees considerable resistance to dust and liquids, preserving excellent operating standards even in adverse and unfavorable climatic conditions.
The sensor is housed in a special box that guarantees considerable resistance to dust and liquids, maintaining excellent operating standards even in adverse and unfavorable climatic conditions.
A careful calibration process is carried out using a climatic chamber that allows the sensor to be calibrated and its operation adapted to specific altitudes, based on the actual environmental conditions of installation.
The entire procedure is carried out accurately in order to achieve a high level of measurement precision and repeatability with respect to the operating temperature.
The sensor is supplied with a power and signal cable (4 m).

Main features

- **High precision**
- **Suitable for professional maritime and aeronautical applications**
- **Customizable measurement range**
- **Reduced energy consumptions**

Technical Specifications

Measurement performance			
Pressure mBar			
Measurement Range *	500 ÷ 1100 mBar		
	Typical	Max	
Modbus/SDI-12			
Accuracy (-40 to 60°C)	< 0.1	0.02% FS	
Resolution	0.01		
Stability (% FS/year)	±0.005	±0.01	
0÷2V / 4÷20 mA			
Accuracy (-40 to 60°C)	0.6		
Resolution	0.1		
Stability (% FS/year)	±0.005	±0.01	
Operating conditions			
Temperature	-40°C ÷ +60°C		
Humidity	0% ÷ 100%		
Output types			
RS485-Modbus	Pressure mBar		
SDI – 12	Pressure mBar		
Tension **	0 ÷ 2 V ↔ 500 ÷ 1100 mBar		
Current **	4 ÷ 20 mA ↔ 500 ÷ 1100 mBar		
Power supply and consumption			
Power supply	7 ÷ 30 Vdc		
Power consumption (mA)	Min	Typical	Max
RS485-Modbus / SDI – 12 / 0 ÷ 2 V	-	12	-
4 ÷ 20 mA	16	-	40
Mechanical specifications			
Protective body	Die-cast aluminum and stainless steel screws		
Weight	900 g		
Dimensions	160 x 100 x 66.5 mm		
Electrical connections	IP67 / 7 pole male connector		
Ordering codes			
Current output, voltage output, RS485-Modbus serial output	PSM-T011H-TBAR-UHIVS		
SDI-12 serial output	PSM-T011I-TBAR-USDI12		

* On request is possible changes the measuring range can be requested. This operation requires customization of the calibration.

** On request is possible changes to the analog output range. This operation requires configuration customization.

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