



LIN Interface
LIN

Pressure Transducer PTL-40 LIN Interface

- Piezoresistive MEMS-Sensing
- Modular Design, RoHS Conform
- Automotive Qualified for Engine Mounted Application

Description

The SMS-PTL-40 is a compact Pressure Transducer, designed for harsh automotive requirements. The sensor is available in different pressure ranges and can be supplied with a customer specific electrical connector and pressure port. The SMS-PTL-40 is a cost-effective product and due to its flexibility suitable for various low and high volume applications.

Applications

- *Automotive*
 - Air conditioning systems
 - Brake systems
 - Fuel pressure
 - Oil pressure
- *HVAC, climate control*
- *Hydraulic systems*
- *Pneumatic*
- *Industrial process control*

Features

- Pressure type gage or absolute
- Output: LIN interface
- Calibration and temperature compensation
- Extended temperature range
- Automotive protection
- Compact size
- Light weight

Technical Specification

Pressure		Environment	
<i>Operating Pressure</i> ¹⁾	1 - 40 bar (14.5 psia - 580 psia)	<i>Operational Temperature</i>	-40°C to +135°C
<i>Over Pressure</i>	60 bar	<i>Short Term Operating Temp.</i>	140°C (15min)
<i>Burst Pressure</i>	> 90 bar	<i>Storage Temperature</i>	-40°C to +150°C
		<i>Classification</i>	IP6K9K
Accuracy		Durability	
<i>Accuracy</i> ²⁾	± 1.0% (25°C)	<i>Pressure Cycles</i>	> 12 million @ 135°C
<i>Linearity</i>	1.0% (-40°C to +135°C)		
<i>Total Error Band</i> ²⁾	2% max @ -20°C to +100°C		
	3% max @ -40°C to +135°C		
Electrical Parameters		Mechanical Parameters	
<i>Supply</i>		<i>Housing Material</i>	Aluminum (stainless steel upon request)
Voltage (VBAT)	8 - 18 V	<i>Pressure Port</i> ³⁾	Hex 14mm, M10 x 1.25
Current	10mA max.	<i>Electrical Connector</i> ³⁾	Packard
<i>Output</i>		<i>Dimensions (L x W)</i>	48 x 23.4 mm
LIN interface	Compatible to Specification 1.2	<i>Media Compatibility</i>	R134a, PAG-oil, motor oil, diesel, polluted air
Baud rate	9,600 or 19,200 Bd/s	<i>Weight</i>	15g (Aluminum Housing)
Signals	Pressure and temperature		
<i>Protection</i>			
Overvoltage Protection	-18 V/+40 V		
Reverse Polarity Protection	GND, VBAT		
Short Circuit	Continuous		
<i>Response Time (90%)</i>	11 ms		

1) Other pressure ranges upon request

2) Includes nonlinearity, hysteresis, offset, repeatability, temperature effects

3) Other pressure ports and electrical connectors upon request