

AMS 5812 Cross Reference

How to replace SM5852 and SM5812 with the AMS 5812 pressure sensor series

This document assists engineers and buyers in selecting the right AMS 5812 pressure sensor model to substitute / replace (obsolete) products in the SM5852 and SM5812 amplified pressure sensor series.

With its AMS 5812 sensor series Analog Microelectronics offers board mount pressure sensors which are identical to Silicon Microstructures' SM5852 / SM5812 series in terms of dimensions, pinout, pressure connection and similar in function¹ with enhanced specifications.

AMS 5812 pressure sensors are high precision, amplified pressure sensors with an analog, ratiometric 0.5 to 4.5 V output and a digital I²C output. They are fully signal conditioned, temperature compensated and come in a ceramic dual in line package (DIP) for assembly on printed circuit boards. AMS 5812 are available for all types of pressure in various pressure ranges from 0.05 psi up to 100 psi. For more information on AMS 5812 see: <https://www.analog-micro.com/en/products/pressure-sensors/board-mount-pressure-sensors/ams5812/>

Using the cross reference table below, the suitable AMS 5812 pressure sensor model can be selected as substitute / drop in replacement for a specific sensor from the SM5852 / SM5812 series.

Cross reference tables

The following tables contain the original product numbers of SM5852 and SM5812 together with the corresponding substitute product number from the AMS 5812 series.

1. Replacement of (obsolete) low pressure sensors from the SM5852 series with AMS 5812 pressure sensor models

Sensor to be replaced		Substitute product
SM5852 series product number	Description pressure type and range, pressure ports	AMS 5812 series ordering code
SM5852-015W-D-3-LR	Differential pressure, -1.5 inH ₂ O to 1.5 inH ₂ O, two long tubes	AMS 5812-015W-D-B
SM5852-001-D-3-LR	Differential pressure, -0.15 to 0.15 psi, two long tubes	AMS 5812-0001-D-B
SM5852-003-D-3-LR	Differential pressure, -0.3 to 0.3 psi, two long tubes	AMS 5812-0003-D-B
SM5852-008-D-3-LR	Differential pressure, -0.8 to 0.8 psi, two long tubes	AMS 5812-0008-D-B
SM5852-015-D-3-LR	Differential pressure, -1.5 to 1.5 psi, two long tubes	AMS 5812-0015-D-B
SM5852-030-D-3-LR	Differential pressure, -3 to 3 psi, two long tubes	AMS 5812-0030-D-B
SM5852-001-S-3-LR	Single-ended differential, 0 to 0.15 psi, two long tubes	AMS 5812-0001-D
SM5852-003-S-3-LR	Single-ended differential, 0 to 0.3 psi, two long tubes	AMS 5812-0003-D
SM5852-004-S-3-LR	Single-ended differential, 0 to 0.4 psi, two long tubes	AMS 5812-0004-D
SM5852-008-S-3-LR	Single-ended differential, 0 to 0.8 psi, two long tubes	AMS 5812-0008-D
SM5852-015-S-3-LR	Single-ended differential, 0 to 1.5 psi, two long tubes	AMS 5812-0015-D
SM5852-030-S-3-LR	Single-ended differential, 0 to 3 psi, two long tubes	AMS 5812-0030-D
SM5852-008-G-3-SR	Gage pressure, 0 to 0.8 psi, one short tube	AMS 5812-0008-D ²
SM5852-015-G-3-LR	Gage pressure, 0 to 1.5 psi, one long tube	AMS 5812-0015-D ²

¹ AMS 5812's analog 0.5 to 4.5 V output is identical to SM58xx's voltage output; software for I²C communication has to be adapted.

² Standard variant with two long tubes. Gage models of AMS 5812 with only one tube or short tubes or without tubes are available on request.

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2. Replacement of (obsolete) pressure sensors from the series SM5812 with AMS 5812 pressure sensor models

Sensor to be replaced		Substitute product
SM5812 series product number	Description <i>pressure type and range, pressure ports</i>	AMS 5812 series ordering code
SM5812-005-D-3-L	Differential pressure, - 5 to 5 psi, two long tubes	AMS 5812-0050-D-B
SM5812-015-D-3-L	Differential pressure, -15 to 15 psi, two long tubes	AMS 5812-0150-D-B
SM5812-005-S-3-L	Single-ended differential, 0 to 5 psi, two long tubes	AMS 5812-0050-D
SM5812-015-S-3-L	Single-ended differential, 0 to 15 psi, two long tubes	AMS 5812-0150-D
SM5812-030-S-3-L	Single-ended differential, 0 to 30 psi, two long tubes	AMS 5812-0300-D
SM5812-060-S-3-L	Single-ended differential, 0 to 60 psi, two long tubes	AMS 5812-0600-D
SM5812-100-S-3-L	Single-ended differential, 0 to 100 psi, two long tubes	AMS 5812-1000-D
SM5812-015-G-3-L	Gage pressure, 0 to 15 psi, one long tube	AMS 5812-0150-D ²
SM5812-030-G-3-L	Gage pressure, 0 to 30 psi, one long tube	AMS 5812-0300-D ²
SM5812-060-G-3-L	Gage pressure, 0 to 60 psi, one long tube	AMS 5812-0600-D ²
SM5812-100-G-3-L	Gage pressure, 0 to 100 psi, one long tube	AMS 5812-1000-D ²
SM5812-015-A-3-L	Absolute pressure, 0 to 15 psi, one long tube	AMS 5812-0150-A
SM5812-030-A-3-L	Absolute pressure, 0 to 30 psi, one long tube	AMS 5812-0300-A