

EM26 - Evaluation Module for TGS26-series Sensors

Features:

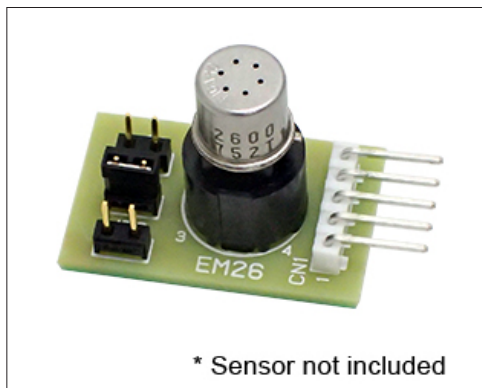
- * Measures output voltage of TGS26-series MOS gas sensors
- * Selectable from three types of load resistors (RL) according to detected gas and its concentration

Description:

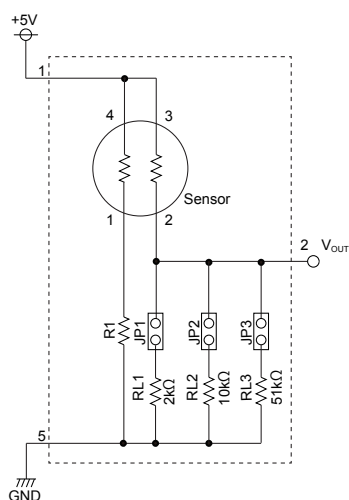
This module conveniently facilitates the evaluation of the characteristics of the MOS gas sensor TGS26-series. When evaluating sensor characteristics, it is recommended to convert the output voltage (V_{out}) of this module into the sensor resistance value (R_s) and the rate of change of the sensor resistance value.

* For the characteristics of TGS26-series sensors, please refer to the *Product Information* document for each sensor.

* This module will output the resistance value of the TGS26-series sensor as a voltage change. Temperature compensation for sensor output is not a feature provided by this module.



Circuit Diagram:



Specifications:

Pin No.	Name	Description
1	VC	Input voltage
2	VOUT	Output voltage
3	NC	No connection
4	NC	No connection
5	GND	Ground

RL Setting (Jumper Pin Connection):

Recommended Load Resistor (*1)		Jumper	Applicable Sensor Model
RL1	2kΩ	JP1	TGS2610, 2611, 2612, 2616, 2630
RL2	10kΩ	JP2	TGS2600, 2602, 2603, 2620

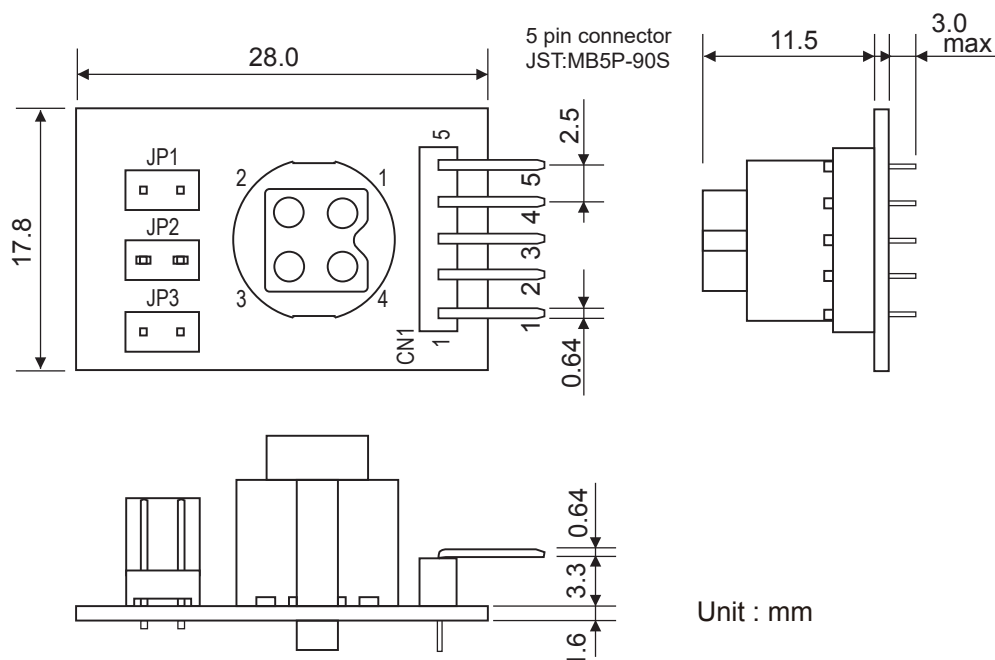
*1 Jumper pin is connected to JP2 at time of factory setting.

*2 If sensor output is too small to measure for your application, select a load resistor which is larger than originally recommended.

Sensor resistance is calculated using the following formula:

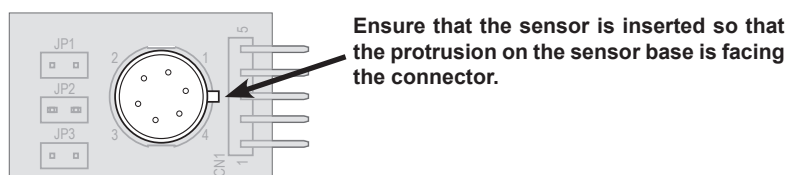
$$R_s = (V_c / V_{out} - 1) \times R_L$$

Structure and Dimensions:



- *TGS26 sensor is not included. Insert sensor in the sensor socket as shown in the above drawing.
- * When the sensor is to be inserted into the socket, please make sure that the position of the protrusion is correct. (*Please refer to the drawing below*)
- * Suggested female connectors mating to the 5 pin connector (JST MB5P-90S): JST XHP-5P or 05JQ-BT
- * Please make sure that the connectors are inserted properly as designed.

How to insert sensor into module:



Specifications:

Item	Specification
Product Name	Evaluation module for TGS26-series
Model No.	EM26
Applicable sensor	TGS26-series
Operating conditions	-10~+50°C/<95%RH (no condensation)
Output voltage (VOUT)	up to 5.00V max.
Circuit voltage	5.00 ± 0.2V DC

NOTE:

This module is designed for the evaluation of TGS26-series sensors only. If this module is to be considered for commercial product application, please contact Figaro.

FIGARO ENGINEERING INC.
 1-5-11 Senba-nishi
 Mino, Osaka 562-8505 JAPAN
 Phone: (81)-727-28-2045
 URL: www.figaro.co.jp/en/