

KAMAMI

KAmoLM75A



Rev. 20200923075640

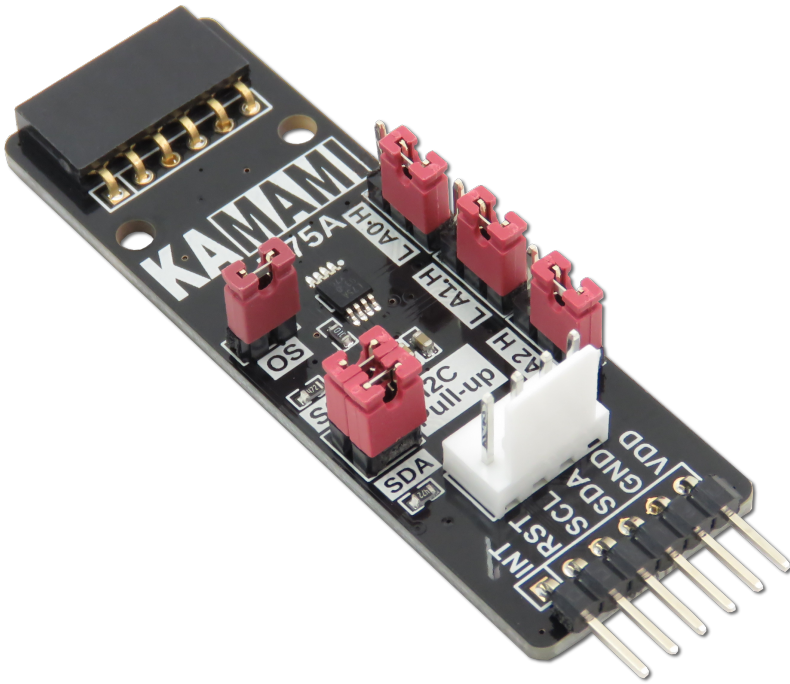
Źródło: <https://wiki.kamamilabs.com/index.php/KAmoLM75A>

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Description

[KModLM75A](#) is a module with NXP LM75A temperature sensor. The board is equipped with a Pmod I2C standard connector and a KAMAMI connector, allowing easy attachment of the module to development kits. Due to its small dimensions, the product can be used in many development projects, while the Pmod through connector allows the boards to be connected in series.



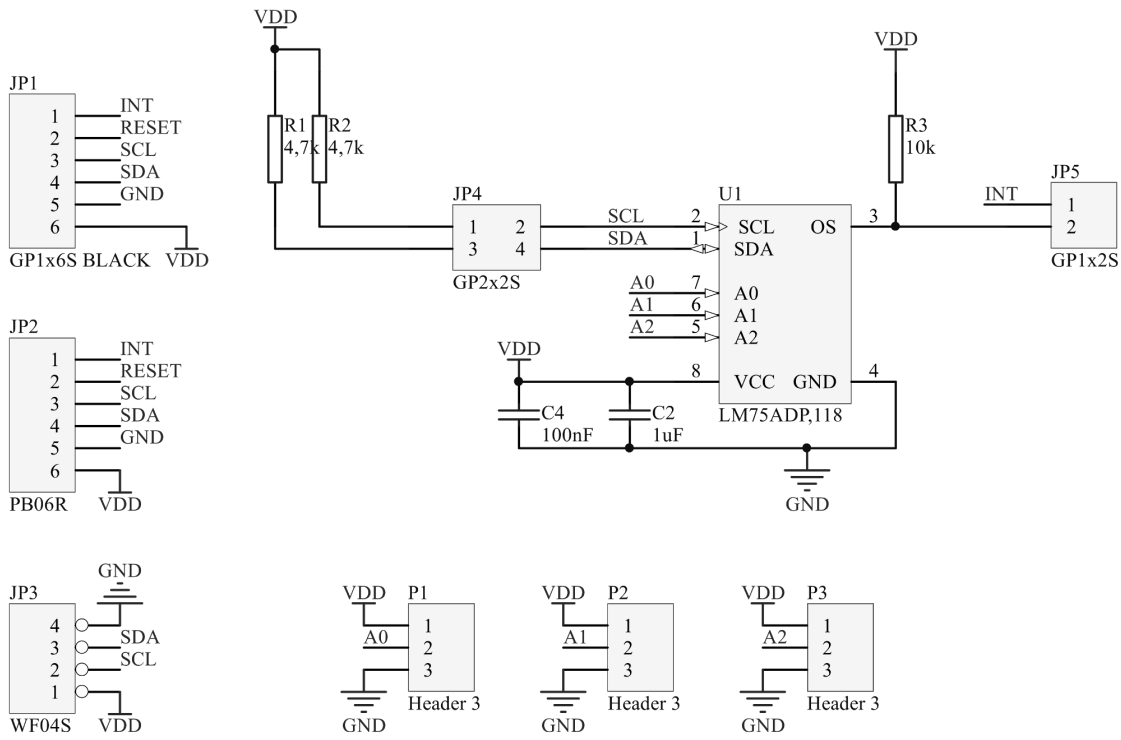
Basic features

- LM75A chip from NXP
 - I2C bus interface with up to 8 devices on the same bus (address configuration via jumpers)
 - Temperature measurement in the range from -55 °C to +125 °C
 - 11-bit ADC with a resolution of 0.125 °C
 - Temperature measurement accuracy:
 - ± 2 °C from -25 °C to +100 °C
 - ± 3 °C from -55 °C to +125 °C
 - Programmable temperature thresholds and hysteresis setpoints
 - 3.5 μ A power supply in off mode to save power
 - Independent work as a thermostat when switching on
 - Protection against electrostatic discharge
- Through connector compatible with the Pmod standard, allows for serial connection of Pmod I2C modules
- Connector compatible with the KAMAMI standard
- Embedded jumpers enabling pull-up on I2C bus lines
- Supply range from 2.8 V to 5.5 V
- Mounting holes with a diameter of 2.5 mm
- Dimensions: 61.2 mm x 20.3 mm x 10 mm

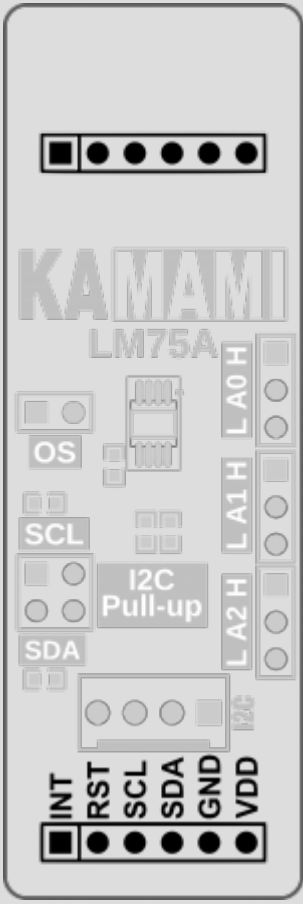
Standard equipment

Code	Description
KAmoLM75A	• Assembled and launched module

Schematic

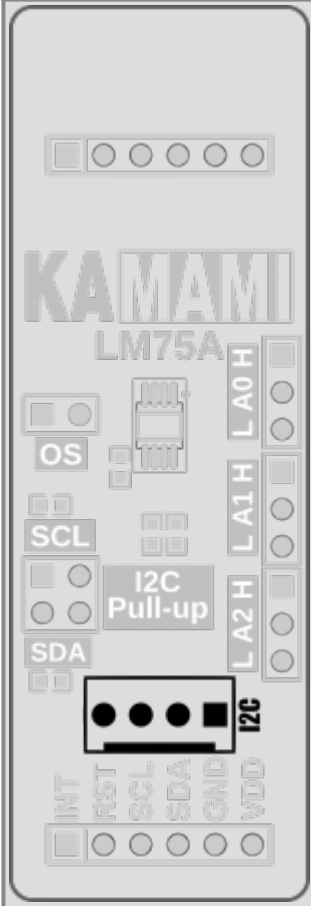


Output description - Pmod standard connector



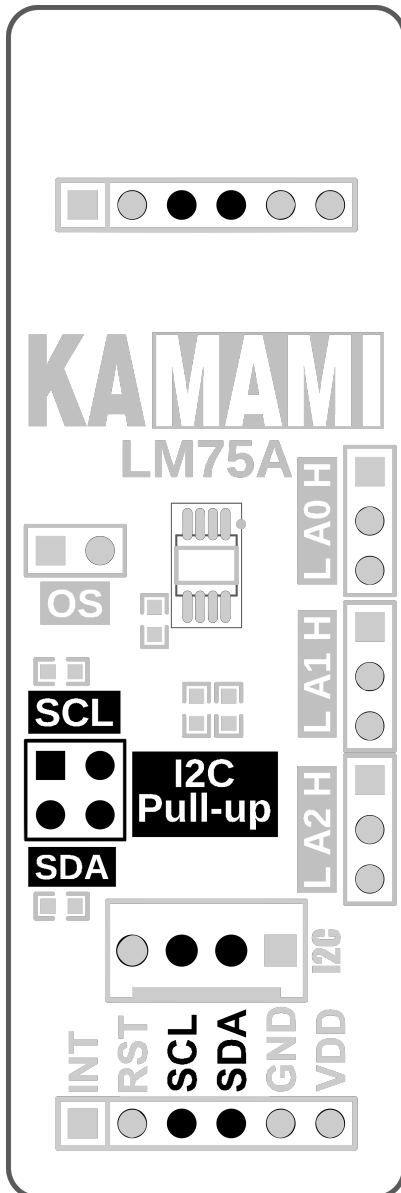
JP1 (male connector)	JP2 (female connector)	Function
VDD	VDD	Power supply of module (max. 5.5 V)
GND	GND	
SDA	SDA	Data line of I2C bus
SCL	SCL	Clock line of I2C bus
RST	RST	-
INT	INT	OS interrupt

Output description - KAMAMI standard connector

	Pin number	Function
	1 (VDD_5V)	Power supply of module (max. 5,5 V)
	2 (SCL)	Clock line of I2C bus
	3 (SDA)	Data line of I2C bus
	4 (GND)	Ground

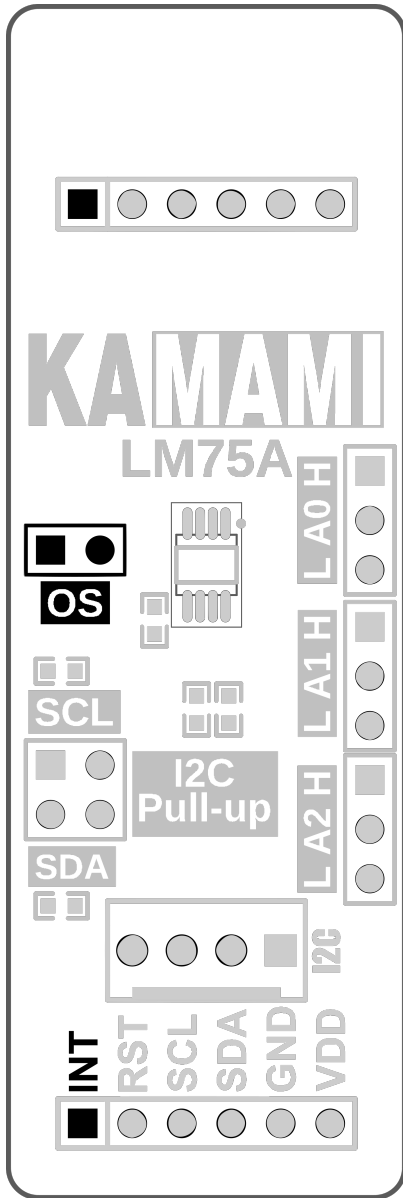
I2C bus lines

The KAmoLM75A module is equipped with jumpers enabling the connection of pull-up resistors to the VCC power pole to the I2C bus line. The jumpers give the possibility of independent enabled of the pull-up for the SDA and SCL lines.



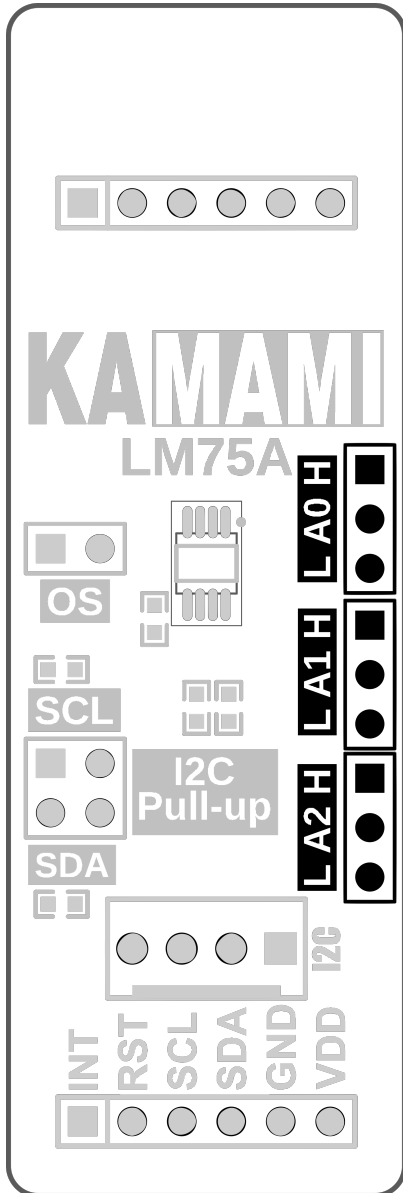
OS interrupt line

The KAmoLM75A module is equipped with a jumper to connect the OS interrupt output line (Overtemperature Shutdown) to the connector compatible with the Pmod standard. Thanks to the ability to disconnect the KAmoLM75A interrupt line from the Pmod connectors, the user does not have to worry about the consequences of any conflicts arising from connecting modules compatible with Pmod with different logic states. The OS output is for thermal interruption. After switching on the device, the output is only activated first if the temperature exceeds the limit temperature. The state remains active until it is reset by reading the register.

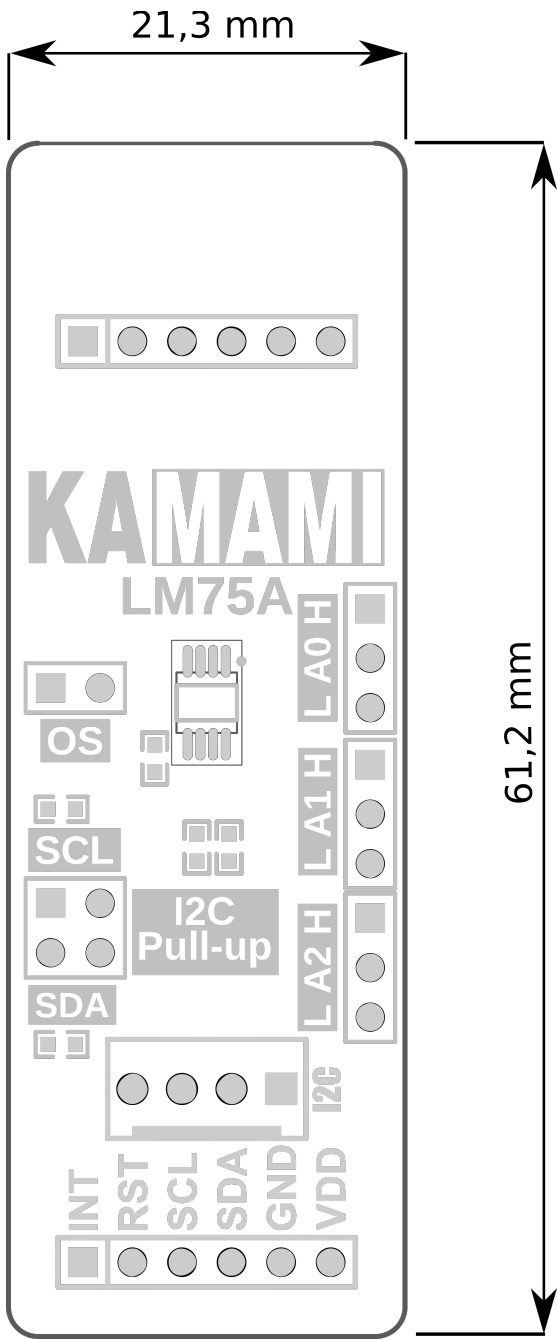


Configuration of the I2C bus address

The KAmoLM75A module has the option of configuring the I2C bus address in the range from 0x48 to 0x4F. Configuration of the address is done by means of three jumpers located on the module board.



Dimensions



External links

- [LM75A datasheet](#)



Zastrzegamy prawo do wprowadzania zmian bez uprzedzenia.

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