H09R00 AC Solid-state Relay

Technical Specifications

• Five array ports and six power ports (+3.3V and GND).
• Access to 5xUART, 2xI2C, SWD, BOOT0, RESET.
• Panasonic AQH3213ARGB solid-state relay (SSR):
  ➢ 600 V AC peak OFF-state voltage.
  ➢ 1.2 A ON-state RMS current.
  ➢ 100 μsec maximum turn-on time.
  ➢ Zero-crossing detection.
• Yellow indication LED for SSR state.
• SSR load connector: TE Connectivity/AMP 2-position 5.08mm shrouded header.
• STM32F091CBU6 MCU.
• 8MHz external oscillator.

Available colors: 🟢

Commands use with any serial terminal software

command parameter1 parameter2 ...

on timeout
Turn SSR on with a timeout (ms). Use portMAX_DELAY = 0xFFFFFFF for indefinite timeout.

off
Turn SSR off.

toggle
Toggle SSR.

ledmode mode
SSR indicator LED mode (ON, OFF).

pwm dutycycle
Control SSR with a 24 KHz PWM signal with % dutycycle (0–100).

Examples

ledmode on
on 60000

Messages for inter-array communication

code, parameter1 [value], parameter2 [value],

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<td>CODE_H09R0_PWM, dutycycle</td>
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Examples

// Timeout 10 seconds
messageParams[0] = (uint8_t)(10000>>24);
messageParams[1] = (uint8_t)(10000>>16);
messageParams[2] = (uint8_t)(10000>>8);
messageParams[3] = (uint8_t)(10000);
SendMessageToModule(BOS_BROADCAST, CODE_H09R0_ON, 4);

APIs getting your hands dirty!

output API_function(inputs)

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<td>H09R0_Status SSR_PWM()</td>
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<tr>
<td>SSR_PWM(50);</td>
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<td>SSR_off(); SSR_on(10000);</td>
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