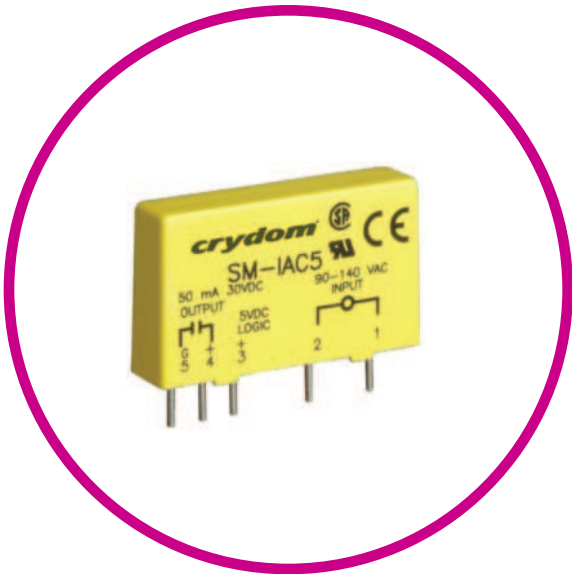


SM SERIES | INPUT MODULES

DIGITAL I/O MODULES



Features

- Plug into mounting boards for SM Series modules
- AC Inputs (yellow case) for 120V, 240V
- DC Inputs (white case) for 3.3 to 32 V
- 4kV Optical isolation
- Open-collector Output
- Industry standard packaging

SPECIFICATIONS

Input ⁽¹⁾

Part Number	SM-IAC5	SM-IAC5A	SM-IDC5	SM-IDC5F
Voltage Range	90-140 VAC/DC	180-280 VAC/DC	3.3-32 VDC/DC	4-32 VDC
Maximum Current [mA] ⁽⁴⁾	6	5	34	68
Resistance [Ohms] ^{(2) (3)}	28k	75k	500	500
Drop-out Current [mA] ⁽⁵⁾	2	1.5	1.0	1
Voltage for No Output [VAC/VDC] ⁽⁶⁾	50	50	2.0	2
Allowable Current [mA]	2.5	2	1.5	1.5

Output ⁽¹⁾

Part Number	SM-IAC5	SM-IAC5A	SM-IDC5	SM-IDC5F
Maximum Voltage [VDC] ⁽⁹⁾	30	30	30	30
Maximum Voltage Drop [VDC] ⁽¹²⁾	0.2	0.2	0.2	0.2
Nominal Logic Supply Voltage [VDC]	5.0	5.0	5.0	5.0
Logic Supply Voltage Range [VDC]	3.0-6.0	3.0-6.0	3.0-6.0	3.0-6.0
Maximum Current [mA] ⁽¹⁰⁾	50	50	50	50
Maximum Logic Supply Current [mA] ⁽⁷⁾	16.0	16.0	16.0	16.0
Maximum Logic Supply Leakage Current [μA] ⁽⁸⁾	10.0	10.0	10.0	10.0
Maximum Leakage Current [μA] ⁽¹¹⁾	10.0	10.0	10.0	10.0
Maximum Turn-On Time [msec] ⁽¹³⁾	20	20	1.0	0.05
Maximum Turn-Off Time [msec] ⁽¹³⁾	20	20	1.0	0.10

General ⁽¹⁾

Input/Output Isolation Voltage	4000 Vrms
Input/Output Capacitance	8 pF
Operating Temperature Range	-30 to 80°C
Storage Temperature Range	-30 to 80°C
Line Frequency Range	47 to 63 Hz
Weight	1.1 oz. (31.2g)

● GENERAL NOTES

⁽¹⁾ Specifications apply to an ambient temperature of -30 to 80 °C unless otherwise noted

⁽²⁾ Resistance values for IAC modules are effective impedance values at 25 °C.

⁽³⁾ Resistance values are +/-10% at 25 °C.

⁽⁴⁾ Measured at maximum specified input voltage, 25°C

⁽⁵⁾ Defined as the maximum current allowed through the module's input to guarantee that the output will switch from "on" to "off". Higher currents may result in the output remaining in the "on" state

⁽⁶⁾ Defined as the maximum current allowed through the module's input that will not switch the module's output state from "off" to "on".

⁽⁷⁾ With external LED status indicator at maximum specified logic supply voltage and 25°C. 18mA without external LED.

⁽⁸⁾ At maximum specified logic voltage and 25°C.

⁽⁹⁾ Applied across open collector output transistor

⁽¹⁰⁾ Sinking current through the open collector output transistor.

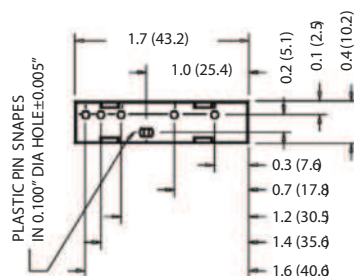
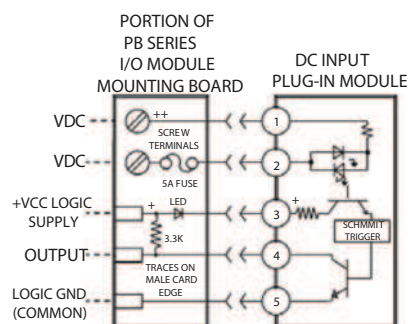
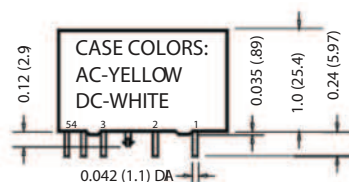
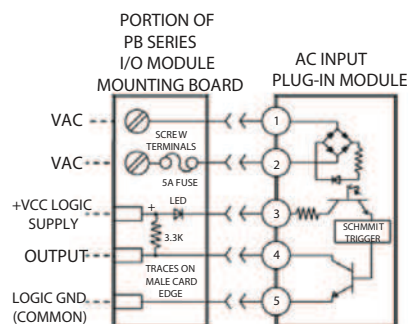
⁽¹¹⁾ At maximum output voltage and 25°C

⁽¹²⁾ At maximum output current and 25°C.

⁽¹³⁾ At nominal logic supply voltage, 25mA output sinking current, nominal input voltage and 25°C

⁽¹³⁾ At 25°C for 1 second maximum duration.

EQUIVALENT CIRCUIT DIAGRAMS / MECHANICAL SPECIFICATIONS



UNLESS OTHERWISE SPECIFIED
DIMENSIONS: INCHES (MILLIMETERS)
TOLERANCE:

AGENCY APPROVALS & CERTIFICATIONS



E46203



38595



WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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