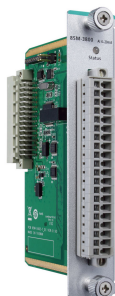


ioPAC 8500シリーズ (85M) モジュール

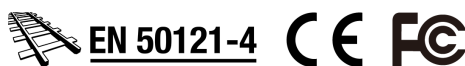
ioPAC 8500シリーズ用の堅牢なモジュール



機能とメリット

- EN 50121-3-2、EN 50121-4、一部のEN 50155仕様に準拠
- 厳しい環境向けの堅牢でコンパクトな設計
- ioPAC 8600または8500シリーズデバイスのI/Oと通信の機能を拡張
- 広い動作温度範囲：-40~75°C (-40~167°F)
- デジタル入力とアナログ入力の両方でミリ秒レベルのタイムスタンプ精度を実現
- アナログ入力用に最大40 kHzのサンプリングレートに対応
- アナログ入力のデータログ用に事前記録に対応
- 最大4つの3-in-1 RS-232/422/485シリアルポート

認証



製品紹介

MoxaのioPAC 8500シリーズ85Mモジュールは、ioPAC 8500とioPAC 8600シリーズの両方のデバイスで使用できます。モジュールには、DI/DO、AI、高速AI、シリアルインターフェースが用意されており、ユーザーは広範囲の選択肢から選択でき、ターゲットアプリケーションに最も適したI/Oの組み合わせを選択することができます。すべての85Mモジュールは、鉄道産業アプリケーション向けに設計され、EN 50121-3-2、EN 50121-4および一部のEN 50155仕様に準拠しています。さらに、これらのモジュールはすべて-40°C~75°Cの広い動作温度範囲をサポートし、過酷な環境下でも安定した動作を確保できます。

仕様

Input/Output Interface

Analog Input Channels	85M-3800-T/3801-T/3810-T/3811-T: 8
Digital Input Channels	85M-1602-T: 16
Digital Output Channels	85M-2600-T: 16
Isolation	3k VDC or 2k Vrms
RTD Channels	85M-6600-T: 6
Thermocouple Channels	85M-6810-T: 8
Serial Ports	85M-5401-T: 4

Digital Inputs

Voltage	24 VDC
Connector	Spring-type Euroblock terminal
Counter Frequency	5 kHz
Dry Contact	On: short to GND Off: open
I/O Mode	DI, event counter, or frequency

Points per COM	8 channels
Sensor Type	Dry contact Wet Contact (NPN or PNP)
Wet Contact (DI to COM)	On: 10 to 30 VDC Off: 0 to 3 VDC

Digital Outputs

Voltage	24 VDC
Connector	Spring-type Euroblock terminal
Current Rating	200 mA per channel
I/O Mode	DO or PWM
I/O Type	Sink
Over-Current Protection	0.65 A per channel @ 25°C
Over-Temperature Shutdown	175°C (typical), 150°C (min.)
Pulse Output Frequency	5 kHz
Over-Voltage Protection	85M-2600-T: 45 VDC (typical) 45 VDC (typical)

Analog Inputs

Accuracy	$\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -40 to 75°C
Built-in Resistor for Current Input	85M-3800-T/3801-T: 125 ohms
Connector	Spring-type Euroblock terminal
Historical Data Buffering	85M-3801-T/3811-T: 60 KB per channel, 6-second data buffer at 5 kHz
I/O Type	Differential
Input Impedance	85M-3800-T/3801-T: 125 ohms (min.) 85M-3810-T: 200 kilo-ohms (min.) 85M-3811-T: 20 mega-ohms (min.)
Input Range	85M-3800-T/3801-T: 4 to 20 mA (with burn-out detection) 85M-3810-T/3811-T: 0 to 10 VDC
Resolution	16 bits
Sampling Rate	85M-3800-T/3810-T: All channels: 100 samples/sec Per channel: 12.5 samples/sec 85M-3801-T/3811-T: All channels: 40k samples/sec Per channel: 5k samples/sec

RTDs

Accuracy	$\pm 0.1\%$ FSR @ 25°C $\pm 0.3\%$ FSR @ -40 to 75°C
Connector	Spring-type Euroblock terminal
Input Connection	2- or 3-wire
Input Impedance	625 kilo-ohms (min.)

Sensor Type	JPT100, JPT200, JPT500 (-200 to 640°C) JPT1000 (-200 to 350°C) NI100, NI50, NI500 (-60 to 250°C) NI1000 (-60 to 150°C) NI120 (-80 to 260°C) PT1000 (-200 to 350°C) PT50, PT100, PT200, PT500 (-200 to 850°C) Resistance of 310, 620, 1250, and 2200 ohms
Resolution	0.1°C or 0.1 ohms
Sampling Rate	All channels: 12 samples/sec Per channel: 2 samples/sec

Thermocouples

Millivolt Accuracy	±0.1% FSR @ 25°C ±0.3% FSR @ -40 to 75°C
Connector	Spring-type Euroblock terminal
Input Impedance	1 mega-ohms (min.)
Millivolt Type	±19.532 mV ±39.062 mV ±78.126 mV Fault and over-voltage protection: -35 to +35 VDC (power off); -25 to +30 VDC (power on)
Resolution	16 bits
Sampling Rate	All channels: 12 samples/sec Per channel: 1.5 samples/sec
Sensor Type	J, K, T, E, R, S, B, N

Serial Interface

Baudrate	300 bps to 921.6 kbps
Data Bits	7, 8
Flow Control	RTS/CTS XON/XOFF
Parity	Even None Odd
Serial Standards	RS-232/422/485
Stop Bits	1, 2

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

Power Parameters

Power Consumption	85M-1602-T: 50.0 mA @ 24 VDC 85M-2600-T: 35.4 mA @ 24 VDC 85M-3800-T: 43.8 mA @ 24 VDC 85M-3801-T: 43.8 mA @ 24 VDC 85M-3810-T: 43.3 mA @ 24 VDC 85M-3811-T: 521 mA @ 24 VDC 85M-5401-T: 51.7 mA @ 24 VDC 85M-6600-T: 27.7 mA @ 24 VDC 85M-6810-T: 24.1 mA @ 24 VDC
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Physical Characteristics

Dimensions	25 x 128.2 x 85.5 mm (0.98 x 5.05 x 3.37 in)
Weight	Under 80 g
Wiring	I/O cable, 14 to 28 AWG

Environmental Limits

Operating Temperature	-40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	2000 m Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

Standards and Certifications

EMC	EN 55032/24 EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 5100 MHz to 6000 MHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Railway	EN 50121-4 EN 50155 (complies with a portion of EN 50155 specifications)
Safety	UL 508
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

MTBF

Time	85M-1602-T: 1,132,561 hrs 85M-2600-T: 792,571 hrs 85M-3800-T: 1,512,906 hrs 85M-3801-T: 1,426,112 hrs 85M-3810-T: 1,530,690 hrs 85M-3811-T: 1,426,112 hrs 85M-5401-T: 596,611 hrs 85M-6600-T: 571,446 hrs 85M-6810-T: 2,324,891 hrs
Standards	Telcordia SR332

Warranty

Warranty Period	5 years
Details	See www.moxa.com/jp/warranty

Package Contents

Device	1 x ioPAC 8500 Series (85M) module
Documentation	1 x warranty card

注文情報

Model Name	Input/Output Interface	Analog Input Type	Analog Input Sampling Rate	Serial Standards
85M-1602-T	16 x DI	-	-	-
85M-2600-T	16 x DO	-	-	-
85M-3800-T	8 x AI	4-20 mA	Per channel: 12.5 samples/sec	-
85M-3801-T	8 x AI	4-20 mA	Per channel: 5k samples/sec	-
85M-3810-T	8 x AI	0-10 V	Per channel: 12.5 samples/sec	-
85M-3811-T	8 x AI	0-10 V	Per channel: 5k samples/sec	-
85M-5401-T	4 x Serial port	-	-	RS-232/422/485
85M-6600-T	6 x RTD	-	-	-
85M-6810-T	8 x TC	-	-	-

アクセサリ（別売）

Cables

CBL-M44M9x4-50	4-port DB44 male to DB9 male cable, 50 cm Applicable Models: 85M-5401-T
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