UIROBOT®

上海优爱宝智能机器人科技股份有限公司

SHANGHAI UNITED INTELLIGENCE ROBOTICS INC.

WWW.UIROBOT.COM

UIROBOT®

UIROBOT (SHANGHAI UNITED INTELLIGENCE ROBOTICS INC.) is a high-tech enterprise with researchers from US top ranked universities. Registered in the Shanghai Zhangjiang Hi-Tech Park, UI Robot is committed to the development of the robotics industry. We own full intellectual properties of all our robotic products in terms of domestic and foreign patents. Our R&D staffs are from the United States who have years of research and development experience in robotics.

We advocate the philosophy of modular design. The idea is to build robots with easily replaceable modules that use standardized communication and mechanical interfaces. With the simple and user friendly interface, to build a robot will be as easy as plugging PCI cards onto the mother board to build a personalized computer. Neither advanced knowledge on electronics nor understanding of backend working of those modules are needed.

UI Robot has developed a variety of robot modules, such as wheeled / tracked mobile platforms, miniature PTZ cameras, portable control stations, miniature integrated stepper motor controllers, UI-CAN (a CAN2.0B based communication protocol), etc. As a representative modular product, the miniature integrated stepper motor controllers are characterized with miniature size, excellent motor driving performances, and comprehensive motion control capability.

UI Robot will keep developing new concepts and products in robotics and related industries. We pledge to push the robotics industry into an new era.

UI Robot believes in "The Customer is King", and will continue providing customers with high quality products and services.

UIM24002 / UIM24004 / UIM24008

Parallel Signal Control

Miniature Integrated Stepper Motor Driver

Features

- Miniature size 42.3mm x 42.3mm x 16.5mm
- Integral design to fit motors, work standalone as well
- Wide range input voltage 10 - 40VDC
- 0 - 2A / 1.5 - 4A / 3 - 8A adjustable phase current
- 1 to 16th micro stepping
- Automatic Current Reduction
- Dual full H-bridge with PWM constant current control
- Enable/shutdown input for power saving
- Optical-isolated inputs
- Die-cast aluminum enclosure

Description

UIM240XX Miniature Stepper Motor Drivers are miniature, high performance stepper motor drivers. They can be mounted onto NEMA 17 / 23 / 34 / 42 series stepper motor seamlessly through corresponding flanges. The thickness of these driver is less than 17 mm. The UIM24002 supplies 0 - 2A adjustable phase current, the UIM 24004 supplies 1.5 - 4A adjustable phase current and the UIM24008 supplies 3 - 8A adjustable current. Their mixed-decay current control reduces the back-EMF effect under high motor speed and improves the performance. Except that UIM24002 takes 10-35VDC input, UIM240XX series drivers work on 12 - 40VDC input. The enclosure is made of die-cast aluminum which provides a rugged, durable protection and improves the heat dissipation.

Characteristics

Electrical Characteristics（Ambient Temperature 25℃）

Supply Power Voltage	12V - 40VDC (UIM24002 is 10V - 35VDC)
Motor Output Current	Adjustable 2A/4A/8A
Driving Mode	PWM constant current
Stepping Resolution	1, 1/2, 1/4, 1/8, 1/16 micro-stepping
Insulation Resistance	>100MΩ
Dielectric Strength	0.5KV in one minute

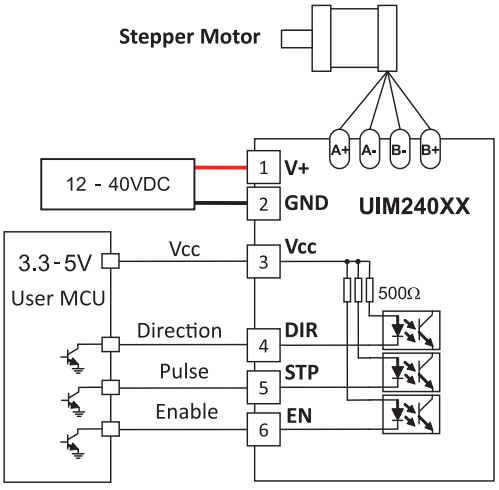
Communication (Ambient Temperature 25℃)

Parallel Signals	3-wire interface

Environment Requirements

Cooling	Free Air
Environment	Avoid dust, oil mist and corrosive gases
Temperature	-40 ℃ - +85 ℃
Humidity	<80%RH，no condensation, no frosting
Vibration	3G Max

Typical Application



UIM24102 / UIM24104 / UIM24108

RS232 Control Interface

Miniature Integrated Stepper Motor Motion Controller

Features

Miniature Integral Desingnt

- 42.3mm x 42.3mm x 16.5mm
- Fit onto motors seamlessly
- Die-cast aluminum enclosure

Motor Drive Characteristics

- Wide supply voltage 12 - 40VDC (48VDC Optional)
- Max output current 2A/4A/8A, instruction adjustable
- Full step to 16th micro-stepping resolution
- Dual full H-bridge with PWM constant current control
- Accurate micro-stepping and current control

RS232 Interface

- RS232 three-wire serial communication
- Max baud rate 57600 bps

Embedded DSP Microprocessor

- Hardware DSP, 64bit calculation precision
- Linear/non-linear acceleration/deceleration
- S-curve, PT / PVT displacement control
- Support quadrature encoder, closed loop control
- 2 sensor input ports
- 8 programmable real-time event-based change notifications
- 6 programmable actions triggered by 13 sensor events

Description

UIM241XX controllers are miniature stepper motor controllers with RS232 control interface. The user device controls the UIM241XX through RS232 using ASCII coded instructions. UIM241XX controllers support open-loop and quadrature encoder (QE) closed-loop control. The UIM241XX architecture comprises communication, basic motion control, absolute position counter, QE interface and real-time event change notification modules. Embedded 64-bit calculation precision DSP controller guarantees the real-time control process. Furthermore, there are 3 optional advanced modules: Advanced Motion Control Module, QE Based Closed-Loop Control Module and Sensor Control Module. With UIM241 Advanced Motion Control, selected NEMA 17/23 motors can ramp up to 4000 RPM in 0.25 seconds. UIM241controllers can be mounted onto NEMA17/23/34/42 series stepper motor through adapting flanges. Enclosure is made of die-cast aluminum to provide a rugged durable protection and improves the heat dissipation.

Characteristics

Electrical Characteristics（Ambient Temperature 25℃）

Supply Power Voltage	12V - 40VDC (48VDC Optional)
Motor Output Current	Adjustable 2A/4A/8A
Driving Mode	PWM constant current
Stepping Resolution	1, 1/2, 1/4, 1/8, 1/16 micro-stepping
Insulation Resistance	>100MΩ
Dielectric Strength	0.5KV in one minute

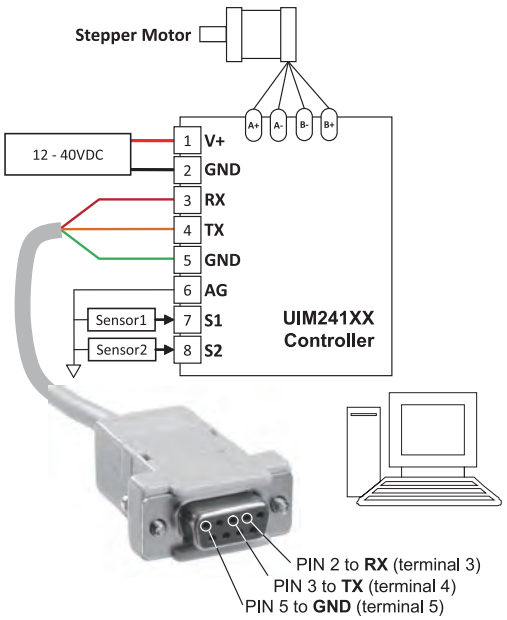
Communication (Ambient Temperature 25℃)

Communication protocol	RS232
Wiring Method	3-wire:TX, RX, GND
Baud Rate	MAX 57600 bps, Instruction adjustable

Environment Requirements

Cooling	Free Air
Environment	Avoid dust, oil mist and corrosive gases
Temperature	-40 ℃ - +85 ℃
Humidity	<80%RH，no condensation, no frosting
Vibration	3G Max

Typical Application



UIM24202 / UIM24204 / UIM24208

CAN2.0B / CAN2.0A

Integrated Miniature Stepper Motor Motion Controller

Description

UIM242XX are miniature stepper motor controllers with CAN2.0B networking capability. Through the CAN-RS232 converter (UIM2501), user device can command multiple UIM242 controllers through RS232 using ASCII coded instructions.

UIM242XX controllers support open-loop and quadrature encoder (QE) closed-loop control. The UIM242XX architecture comprises communication, basic motion control, absolute position counter, QE interface and real-time event change notification modules. Embedded 64-bit calculation precision DSP controller guarantees the real-time control process. Furthermore, there are 3 optional advanced modules: Advanced Motion Control Module, QE Based Closed-Loop Control Module and Sensor Control Module. With UIM242XX Advanced Motion Control, selected NEMA 17/23 motors can ramp up to 4000 RPM in 0.25 seconds.UIM242XXcontrollers can be mounted onto NEMA17/23/34/42 series stepper motor through adapting flanges. Enclosure is made of die-cast aluminum to provide a rugged durable protection and improves the heat dissipation.

Characteristics

Electrical Characteristics（Ambient Temperature 25℃）

Supply Power Voltage	12V - 40VDC (48VDC Optional)
Motor Phase Current	Max 2A/4A/8A, instruction adjustable
Driving Mode	PWM constant current
Stepping Resolution	Full-step, 1/2, 1/4, 1/8, 1/16 step
Insulation Resistance	>100MΩ
Dielectric Strength	0.5KV in one minute

Communication（Ambient Temperature 25℃）

Protocol	Active CAN 2.0B
Wiring method	2-wire，CANH、CANL
CAN bus driver	• Supports 1 Mb/s operation • ISO-11898 standard physical layer requirements • Suitable for 12V and 24V systems • Up to 100 nodes can be connected

Environment Requirements

Cooling	Free Air
Environment	Avoid dust, oil mist and corrosive gases
Temperature	-40 ℃ - +85 ℃
Humidity	<80%RH，no condensation, no frosting
Vibration	3G Max

Features

Miniature Integral Design

- Size 42.3mm x 42.3mm x 16.5mm
- Fit onto motors seamlessly
- Die-cast aluminum enclosure

Motor Driver Characteristics

- Wide supply voltage 12 - 40VDC (48VDC Optional)
- Max phase current 2A/4A/8A, instruction adjustable
- Full step to 16th micro-stepping resolution
- Dual full H-bridge with PWM constant current control

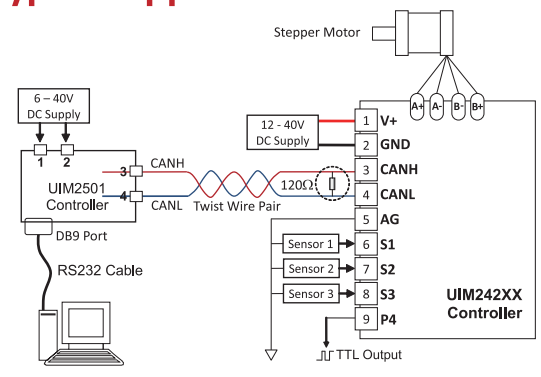
CAN2.0B Active Communication

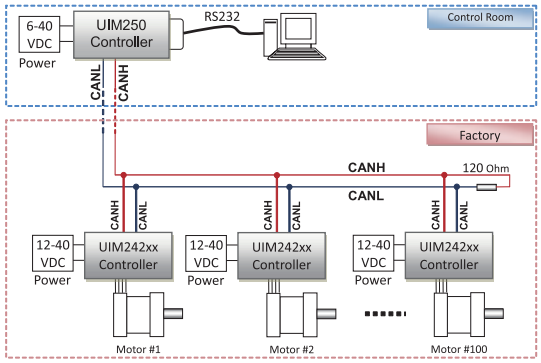
- 2-wire interface
- Max 1M bps operation, long distance
- Differential bus, high noise immunity
- Max 100 nodes

Embedded DSP Microprocessor

- Hardware DSP, 64-bit calculation precision
- Linear/non-linear acceleration/deceleration
- S-curve, PT, PVT displacement control
- Support quadrature encoder, closed loop control
- 3 sensor inputs, 1 TTL output
- 12 programmable real-time event-based change notifications
- 8 programmable actions triggered by 13 sensor events

Typical Application





UIM24301 / UIM24302
Voltage Control
Miniature Integrated Stepper Motor Controller

UIM24302

Description

UIM243XX stepper motor controllers are series of microprocessor embedded, voltage control, miniature stepper motor controller. UIM24301 is a sub-miniature controller, whose land pattern is standard DIP18 (0.6" width) and can be mounted onto user PCB directly. With the UIM243XX controller, motor speed can be adjusted through an analog voltage. There are 3 ways to generate the said analog voltage: 1) use the on-board trimmer, 2) use user potentiometer or 3) direct input a voltage. Run/stop, direction, high/low speed range and, enable/disable can be controlled simply by shorting the corresponding terminal to the ground. UIM243XX controllers can run the motor without user device. UIM24302 provides 0-2A adjustable phase current, and UIM24301 provides 0-1A adjustable phase current. UIM24302 can be mounted onto NEMA 17 / 23 series stepper motor seamlessly through adapting flanges. The enclosure is made of die-cast aluminum which provides a rugged durable protection and improves the heat dissipation.

Characteristics

Electrical Characteristics (Ambient Temperature 25℃)

Supply Power Voltage	10V - 35VDC
Motor Output Current	Adjustable 0 - 1A / 0 - 2A output current
Driving Mode	PWM constant current
Stepping Resolution	1/8 (fixed)
Speed Range	10pps - 48000pps, i.e., 0.2rpm - 900rpm

Control Methods (Ambient Temperature 25℃)

Communication		4-wire interface: Run/Stop, Direction, Enable/ Disable, H/L Speed Shift
Speed Control	On-Board Trimmer	10KΩ
	Ext. Potentiometer	10KΩ
	Direct Voltage	0 - 5VDC

Working Environment

Cooling	Free Air
Environment	Avoid dust, oil mist and corrosive gases
Temperature	-40 ℃ - +85 ℃
Humidity	<80%RH , no condensation, no frosting
Vibration	3G Max

Features

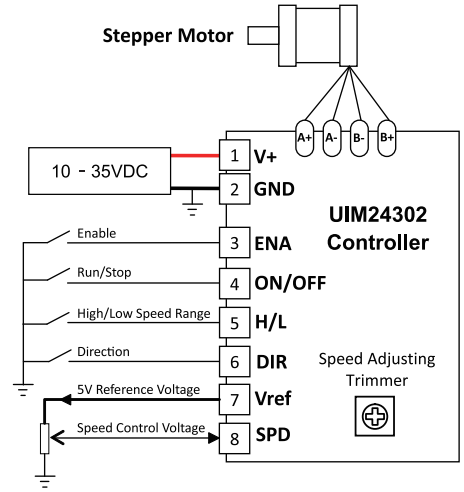
Miniature Integral Design

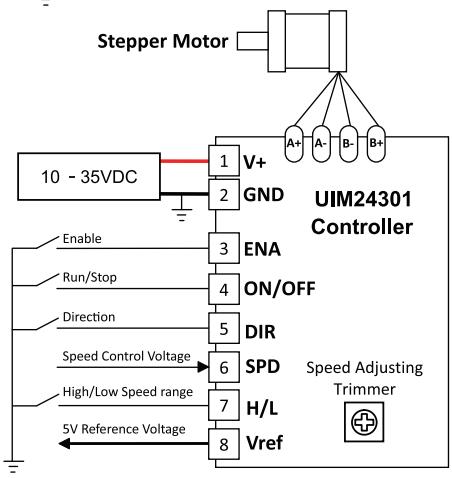
- Size 42.3 mm x 42.3 mm x 16.5 mm (UIM24302)
- Size 25 mm x 18 mm x 2.5 mm (UIM24301)
- Fit onto motors seamlessly (UIM24302)
- Die-cast aluminum enclosure (UIM24302)

Motor Driver Characteristics

- 10 - 35VDC input voltage
  Max 1A / 2A adjustable phase current
- Speed control through on-board trimmer 0.2 - 900 RPM
- Speed control through user potentiometer 0.2 - 900 RPM
- Speed control through 0 - 5V voltage input 0.2 - 900 RPM
- Switch control start/stop, direction, enable
- Automatic power saving

Typical Application





UIM2501

RS232 - CAN2.0B / CAN2.0A

Stepper Motor Control Converter

Description

The UIM2501 RS232-CAN Converter is used in conjunction with UIM242XX stepper motor controller to provide a RS232 interface on the user side and a CAN bus interface on the motor side (factory side). With the UIM2501, user can benefit from the advantages of the CAN network and the simplicity of RS232 protocol, there is no need to deal with the complicated CAN protocol, no worry about the communication distance and noise immunity. One UIM2501 controller can network with up to 100 UIM242XX controllers. Interfacing the UIM2501 is simple, intuitive and fault tolerating. Users are not required to have stepper motor driving or CAN protocol knowledge. UIM2501 is compact in size. The enclosure is made of die_cast aluminum to provide a rugged durable protection and improves the heat dissipation.

Characteristics

Electrical Characteristics（Ambient Temperature 25℃）

Supply Power Voltage	6V - 40VDC
Current Consumption	Max 100mA

Communication (Ambient Temperature 25℃)

To User Device	RS232
Wiring Method	DB9 Female Connector
RS232 Baud Rate	MAX 57600 bps
To UIM242 Controller	Active CAN 2.0B
CAN wiring Method	2-Wire,CANH,CANL
CAN bus	• Supports 1 Mb/s operation • ISO-11898 standard physical layer requirements • Up to 100 nodes can be connected

Working Environment

Cooling	Free Air
Environment	Avoid dust, oil mist and corrosive gases
Temperature	-40 ℃ - +85 ℃
Humidity	<80%RH , no condensation, no frosting
Vibration	3G Max

Features

Embedded With DSP Microprocessor

- Embedded high-performance DSP processor

RS232 Communication

- RS232 three-wire serial communication
- Max baud rate 115200 bps

CAN2.0B Active Communication

- 2-wire interface
- 1 Mega bit/sec operation, long distance
- Differential data bus, high noise immunity

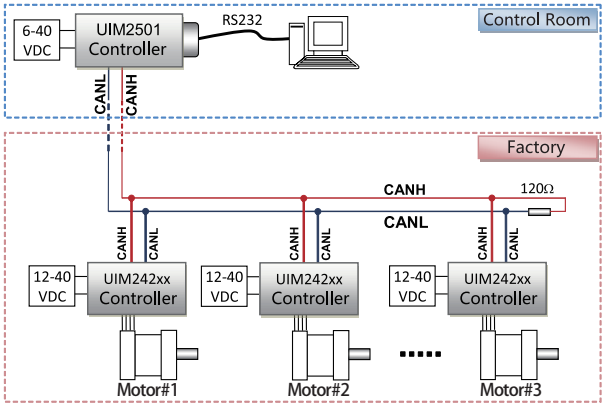
Supply Voltage

- Wide supply voltage range 6 ~ 40VDC

Portable Size

- 66.4mm x 38mm x 18mm

Typical Application



UIM2901-5A

Mach3 5-axis Stepper Motor Control Kits

24V or 36V DC Power Supply

3, 4 or 5 high torque stepper motors with UIM240X stepper drivers

- Nema17 Stepper Motors With UIM24002 Stepper Driver
  32mm length 0.32N.m 47mm length 0.44N.m and 60mm length 0.65N.m
- Nema23 Stepper Motors with UIM24002 or UIM24004 Stepper Drivers
  56mm length1.26N.m 76mm length1.89N.m and 100mm length 2.5N.m
- Nema34 Stepper Motors with UIM24008 Stepper Driver
  98mm length 5N.m and 126mm 8.5N.m

Features

5-axis Mach3 Breakout Board

General

- DB25 interface between PC and user device
- Fully buffered opto-isolated I/O (Input / Output) Ports

Motor Driving Output

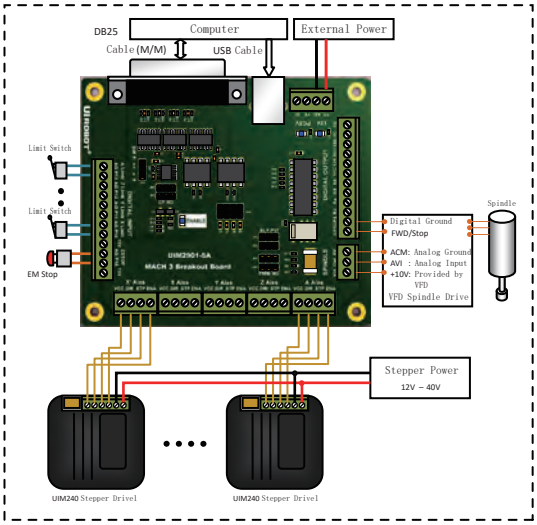
- Support 5 stepping motor simultaneously, X ', X, Y, Z, A
- Hardware generate secondary X' step/direction from X step / direction for Gantry System
- Jumper selectable, X' direction same / different from X direction

Input Signals

- ESTOP hardware logic to disable servo drives and Charge Pump
- Limit switch inputs, X, Y, Z, A
- Jumper selectable anti-noise low pass filter

Output Signals

- Up to 3+ Open-Drain outputs could be extended for Flood / Mist / ATC etc
- Charge Pump relay, 2 normal open, 2 normal close, 30VDC, 2Amp
- Isolated PWM analog output signal for spindle speed control



UID820

CAN2.0B / CAN2.0A DIGITAL I/O CONTROLLER

Description

UID820 is UIROBOT SimpleCAN protocol based Digital I/O & PWM Input/ Output Controller. It has 8 multi-fucntional I/O ports. Two of the ports can be configured as PWM outputs. Base band and duty cycle of PWM can be adjusted through instructions in a realtime fashion. A controller area network can be made up of just UID820s, or a mixture of UID820s and UIM242 stepper controllers. For users that comfortable with CAN protocol, UIROBOT provides the SimpleCAN protocol to control over motor-sensor-solenoid network. For users that are new to CAN network, one can use a UIM2501 CAN/RS232 converter to master the network in order to provide an simple RS232 user interface to facilitate operation at user side. One UIM2501 CAN/RS232 converter can control a network of upto 100 UID820 / UIM242 controllers. UID820 I/O controller also features simple and intuitive instructions.

Characteristics

Electrical Characteristics（Ambient Temperature 25℃）

Power Supply	6V - 40VDC
Input Current	100mA Max
I/O Input Low	Max 1.5V
I/O Input High	Min 3.5V
I/O Input Current	10uA Max (I/O Configured as Input)
I/O Output Low	Max 0.6V
I/O Output High	Min 4.5V
I/O Output Current	Max +/-5mA
PWM Base Frequency	50Hz – 10KHz
PWM Duty Resolution	0.5%

Features

Multiple-Functional I/O Port Features

- 8 multiple-functional programmable ports for digital TTL I/O
- 2 PWM output ports, configurable through instructions, baseband 50 Hz~10000Hz, resolution 0.5%
- Max 800 digital TTL I/O ports (in a network of 100 UID820)
- Max 200 PWM output ports (in a network of 100 UID820)
- Compatibale with UIM242 controller network

Applications

- Control over on/off valve, proportional valve, and DC motor actuators with the help of corresponding relay module
- Support various position switches input, limit switch input and sensor input with help of corresponding level conversion module

Embedded Micro-processor

- Embedded high performance micro-processor
- Simple, intuitive instructions
- Microsoft Windows XP based VB / VC demo software andcorresponding source code provided

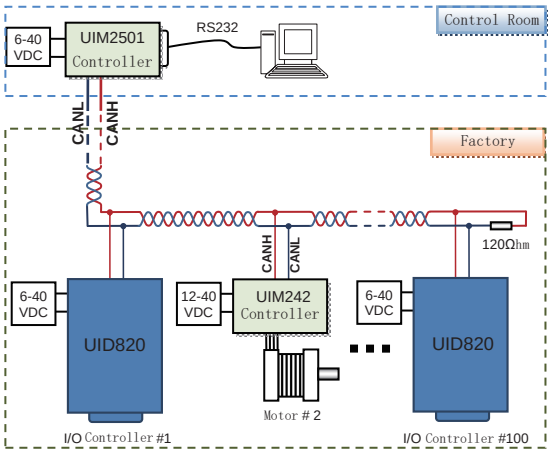
CAN2.0B Communication

- Active CAN2.0B / CAN2.0A
- Max 1M bps operation, 10 km communication distance
- Max 100 nodes
- Differential bus, high noise immunity

Electrical Characteristics

- Wide supply voltage range 6～40VDC

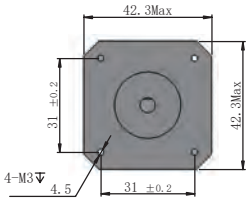
Typical Application

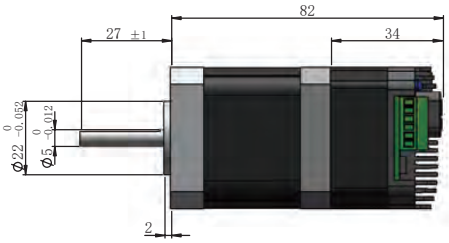


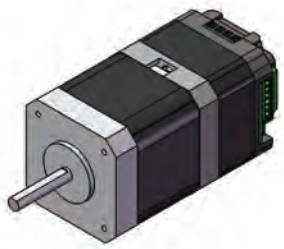
NEMA17 Sized

RS232 / CAN Control

Integrated Closed-loop Servo Steppers







Features

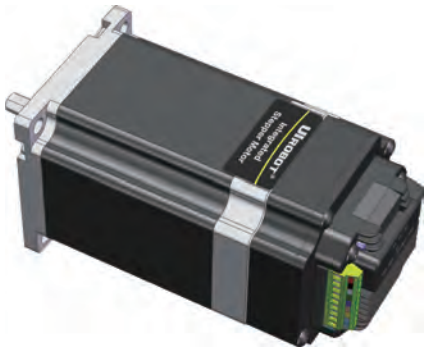
1. Closed-loop control to maintain accurate position without loss of synchronization.
2. Stable holding position without oscillation after completing positioning.
3. User friendly interface. Users are not required to manipulate register or interpret a complicated syntax.
4. Advanced motion control. Linear/non-linear acceleration/deceleration, S-curve displacement and position control can be maintained with advanced motion control module included. Motor can accelerate from 0 to 4,000 RPM in 0.25s and from 0 to 6,600 RPM in 0.5s.
5. Real-time notification and localized processing in motor stall situation.
6. Real-time motor status monitoring.
7. Real-time data acquisition/collection, sensor input change notification and localized processing/controlling.
8. Control event based real-time TTL output control.
9. RTCN (Real-Time Change Notification) sends back any incurring predefined control events in a real time fashion.

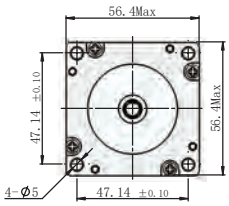
MODEL: UIM42STH48E241 / UIM42STH48E242			
Motor	Encoder	Controller Options	
		Serial Port(UIM241)	CAN2.0B(UIM242)
NEMA17 Motor Frame: 42mm Length: 48mm 2 phase 1.8 deg./full step Phase current: 1.68A Holding torque: 0.44N-m Inductance/phase:2.8mH up to 6600RPM	Quadrature Encoder 200- 2,000 Pulses/revolution	12-40VDC (48VDC Optional) RS232 three-wire serial communication Full-16th micro-stepping Max 57600 bps DSP microprocessor 2 sensor input ports, one accepts analog signal (12 bits) 13 programmable actions triggered by 8 sensor events	(48VDC Optional)12-40VDC (48VDC Optional)CAN2.0B active communication2-wire, max 100 nodes Full to 1/16 micro-stepping Max 1M bps, long distance DSP microprocessor 3 sensor input ports, one accepts analog signal (12 bits) 1 TTL output 13 programmable actions triggered by 8 sensor events (Notice: UIM2501 converter may required for each network to provide RS232 interface)

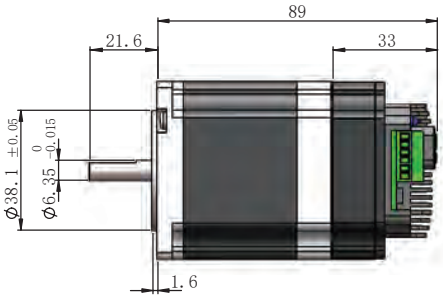
NEMA23 Sized

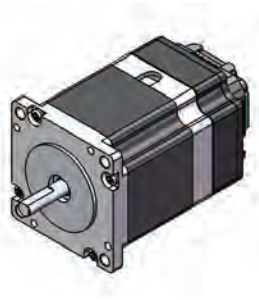
RS232 / CAN Control

Integrated Closed-loop Servo Steppers









Features

1. Closed-loop control to maintain accurate position without loss of synchronization.
2. Stable holding position without oscillation after completing positioning.
3. User friendly interface. Users are not required to manipulate register or interpret a complicated syntax.
4. Advanced motion control. Linear/non-linear acceleration/deceleration, S-curve displacement and position control can be maintained. with advanced motion control module included. Motor can accelerate from 0 to 4,000 RPM in 0.25s and from 0 to 6,600 RPM in 0.5s.
5. Real-time notification and localized processing in motor stall situation.
6. Real-time motor status monitoring.
7. Real-time data acquisition/collection, sensor input change notification and localized processing/controlling.
8. Control event based real-time TTL output control.
9. RTCN (Real-Time Change Notification) sends back any incurring predefined control events in a real time fashion.

Example Models: UIM57STH56E241 / UIM57STH76E241 / UIM57STH56E242 / UIM57STH76E242 (Contact a Sales Rep. for Details)			
Motor	Encoder	Controller Catagories	
		Serial Port(UIM241)	CAN2.0B(UIM242)
NEMA23 Motor Frame: 57mm Length: 56/76mm 2 phase 1.8 deg./full step Phase current: 2.8A Holding torque: 1.26 N-m Inductance/phase: 2.5 mH	Quadrature Encoder 200- 2,000 Pulses/revolution	12-40VDC (48VDC Optional) RS232 three-wire serial communication Full-16th micro-stepping Max 57600 bps DSP microprocessor 2 sensor input ports, one accepts analog signal (12 bits) 9 programmable actions triggered by 6 sensor events	12-40VDC (48VDC Optional) CAN2.0B active communication 2-wire, max 100 nodes Full to 1/16 micro-stepping Max 1M bps, long distance DSP microprocessor 3 sensor input ports, one accepts analog signal (12 bits) 1 TTL output 9 programmable actions triggered by 8 sensor events (Notice: UIM2501 converter may required for each network to provide RS232 interface)

UIrobot Smart Products Selection Chart

UIrobot provides a system of networked industrial smart products. With our smart products,one can setup and run a automatic system in a very short time and at lower cost. Below are some major and selected products. Besides these products, we also offer wider scope and short turn-aroundcustomization services.

Open Loop Stepper Motor Controller/Driver

Category	Modle	Harware					Communication				Normal Motion Control		
		Opto-Isolator	Driver	Pulse Generator	Current Reduction	DSP MCU	Pulse/DIR	RS232	CANBus	Network	Speed/DIR	PT/PVT	Position Feedback
Pulse&Direction	240XX	✓	✓		✓		✓				User Pulse		
Voltage Control	243XX		✓	✓			✓				Voltage		
RS232 Port	241XX		✓	✓	✓	✓		✓			Instruction	✓	✓
CANBus Network	242XX		✓	✓	✓	✓			✓	✓	Instruction	✓	✓

* XX = Output Current (amp), XX = 01, 02, 04, or 08;

Optional Function Modules 1 Advanced Motion Control Modules

Category	Model Affix	Advanced Motion Control Module					Change Notify	
		Speed	Linear/Non-linear Acceleration	S-Curve	Position Tracking (PT)	Position Velocity Tracking (PVT)	Position	Home Position
RS232 Port	M	✓	✓	✓	✓	✓	✓	✓
CANBus Network	M	✓	✓	✓	✓	✓	✓	✓

Optional Function Modules 2 I/O Control Modules

Category	Model Affix	Sensor Input Control Module		TTL Output Control Module		
		Port Quantity	Event-driven Control	Port Quantity	Event-driven Control	Instruction Control
RS232 Port	S	2	✓	0		
CANBus Network	S	2	✓	0		
CANBus Network	SP	3	✓	1	✓	✓

Closed-loop Servo Stepper Control

Category	Model Affix	Basic Control	Advanced Motion Control	Sensor Input Control Module	TTL Output Control Module	Encoder Feedback	Change Notification
RS232 Port	IE	✓	✓	2 Ports		✓	✓
CANBus Network	IE	✓	✓	3 Ports	1	✓	✓

Input / Output Control Module

Category	Model	Digital Input	Digital Output	Programmable PWM Output	Input Change Notification
CAN I/O Control Module	UID8xx	8	8	2	✓

CAN Protocol Converter

Category	Model	RS232 Max Bit Rate	CAN Max Bit Rate	Convert Method
RS232-CAN	UIM2501	57600 BPS	1 Mega BPS	Embedded Motor Control
RS232-CAN	UIC9xx	57600 BPS	1 Mega BPS	Transparent
PCI-CAN	PCI-120 / PCI-110	N/A	1 Mega BPS	PCI-CAN

SMART MODULAR SERNOR

Category	Model	Output	resolution	mesurement principle
Capacitance Measurement Module	UIS1200	5 NPNs or UART	1 pF	Charge Time Measurement

UIM24xxx Series Controller :

- UIM24002
- UIM24004
- UIM24008

- UIM241XX (XX = 02 , 04 or 08)
- UIM241XX-M
- UIM241XX-M-S

- UIM242X (XX = 02 , 04 or 08)
- UIM242XX-M
- UIM242XX-M-S
- UIM242XX-M-SP

- UIM241XXIE
- UIM242XXIE

- UIM24301
- UIM24302A
- UIM24302B

UIPCI 120 / PCI 110

CAN2.0A / CAN2.0B

PCI-CANControl Card

Description

The UIrobot PCI-110 / PCI-120 insert-card serves as an easy-to-use and cost-effective solution for connection of a CAN bus to a PC via a 9-pin SUB-D plug. The pin assignment of which corresponds to the CiA recommendation DS 102-1. The PCI-120 / PCI-110 allow the real-time exchange of CAN messages with a CAN network connected to a PC.
The UIrobot PCI-110 / PCI-120 package includes device drivers for Windows 7/Vista/XP (32/64Bit), the simpleCAN-Based API software and SDK. Linux drivers are also available.

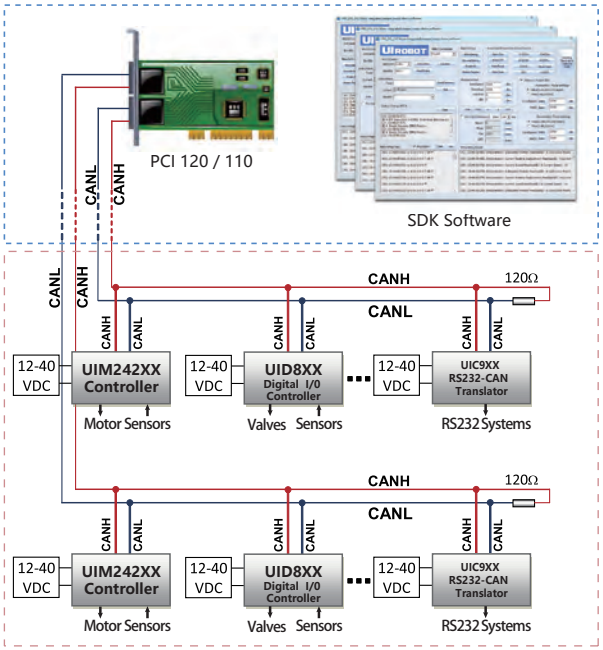
Characteristics

PC Interface	Universal PCI Interface, compatible with PCI2.2 regulation
Transmission Mode	CAN2.0A and CAN2.0B
Number of Channels	Support 1-2 CAN channels, each channel is separately controlled
Bus Speed	50K to 1M bps
Communication Interface	CANBus interface opto-isolated, DC-DC power supply isolated, Isolation Module Isolation voltage 2500V
Nodes and Distance	100 nodes for each channel, longest distance 10 km
Operating Temperature	-25 - +85 C
Ambient Temperature	-55 - +85 C

Features

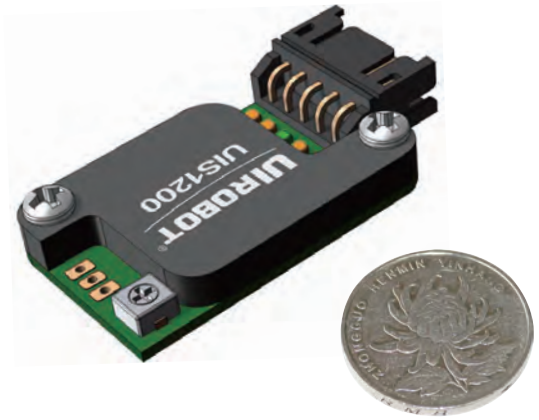
- Transfer rates up to 1 Mbit / s
- Compliant with CAN specifications 2.0A (11-bit ID) and 2.0B (29-bit ID)
- CAN bus connection via D-Sub, 9-pin (to CiA 102)
- NXP SJA1000 CAN controller, 16 MHz clock frequency
- Space-saving dimensions thanks to SMD technology
- Hardware can be reset via software
- 5-Volts supply to the CAN connection can be connected through a solder jumper, e.g. for external transceiver
- Optional galvanic isolation on the CAN connection up to 500V, separate for each CAN channel
- Dual-channel and single-channel version

Typical Application



UIS1200

Sub-Miniature Capacitance Measurement Module



Features

- Small size: 17mm X 27mm X 4mm (no connector)
  17mm X 27mm X 6mm (with connectors)
- Automatically adjust the range and accuracy
- Digital output of the multi-stall
- UART communication output
- Minimum value detection is less than 1pf applies to small changes in capacitance occasions

Description

UIS1200 is a miniature intelligent capacitive sensor detects the controller. Cost-effective, installation is very easy and flexible.

UIS1200 Can generate incentives wave form to transform capacitive sensors(such as liquid level detection, proximity switches) feedback into the 1-5 speed TTL level output.

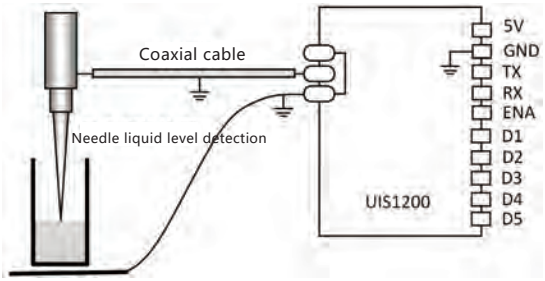
UIS1200 is able to detect less than than 1pf change in capacitance. Intelligent adaptive control, range and sensitivity can be adjust ed automatically according to the capacitance sensor access as well as current conditions to achieve the best detection accuracy. Comes with a precision potentiometer to adjust further.

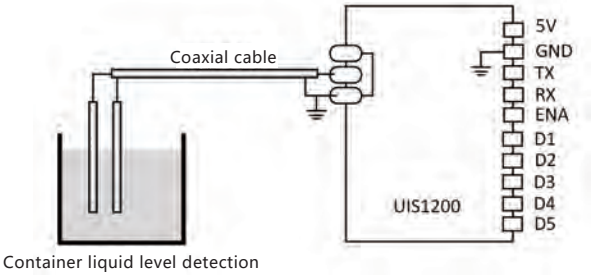
UIS1200 volume is less than 17mm X 27 mm. Its metal shield can effectively prevent the external electric field interference , and to provide mechanical protection for the internal chip. and capacitive sensor interface Flexible and can be soldered , also can use a coaxial cable connector.

Characteristics

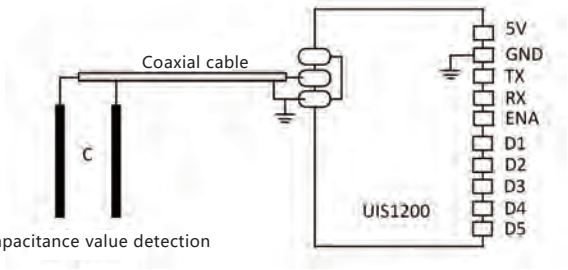
Operating voltage	4 ~5.5V
Output level	0 /3.3Vor open-drain output
Output gear	5 files
Output mode	TTL or UART communication
Detection accuracy	1pf
Detection range	automatically adjust
Frequency response	1K Hz

Typical Application





Container liquid level detection



Capacitance value detection

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