Autonics

1 axis / 2 axis Motion Controller

PMC-1HS / PMC-2HS Series
CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.
The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Features

- High-speed processing up to 4 Mpps
- 4 operation modes : Scan mode, Continuous mode, Index mode, Program mode
- 12 control commands and up to 64 steps of programming per axis
- Parallel interface input/output terminal to communicate with various PLCs
- Operation programming, parameter configuration and editing with dedicated software
- Joystick signal support for convenient XY stage control
- Remote controlling possible with serial port (RS232C) on all models
- Teaching and monitoring with Teaching Unit (PMC-2TU-232)

Ordering Information

This is only for reference, the actual product does not support all combinations..
For selecting the specified model, follow the Autonics website.

PMC	-	❶	-	❷

❶ **Axis / Type**
1HS: 1 axis high speed stand alone
2HS: 2 axis high speed stand alone

❷ **Communication type**
232: RS232C
USB: USB / RS232C

Product Components

- Product
- User manual
- CD
- D-Sub cable
- Power connector
- I/O connector (P I/F, X axis, Y axis)
- RS232C comm. cable 1.5 m
- USB comm. cable 1 m (PMC-☐-USB Series)

Software

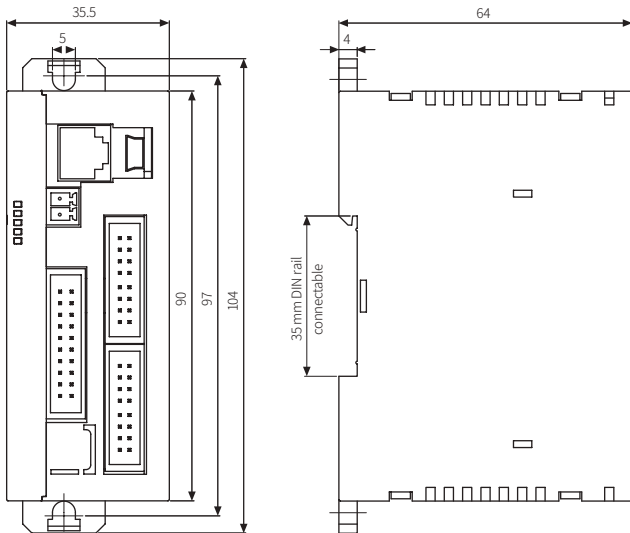Download the installation file and the manuals from the Autonics website.
■ **atMotion**
The program allows to manage the motor driver's parameter setting and monitoring data.
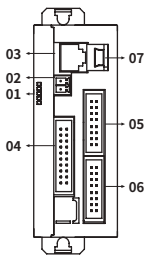
Specifications

Model	PMC-1HS-232	PMC-1HS-USB	PMC-2HS-232	PMC-2HS-USB
Power supply	24 VDC⎓ ± 10%			
Power consumption	≦ 6 W			
Control axes	1 axis		2 axis (each axis can be programmed independently)	
Motor control	Pulse input stepper motor or servo motor			
In-Position setting	ABSOLUTE method / INCREMENTAL method			
In-Position range	-8,388,608 to +8,388,607 (available pulse scaling function)			
Drive speed	1 pps to 4 Mpps (1 to 8000×magnification 1 to 500)			
Pulse output method	2 pulse output method (line driver output)			
Operation mode	Jog mode, Continuous mode, Index mode, Program mode			
No. of drive speed	4			
Program save	EEPROM			
Index steps	64 step per each axis			
Steps	64 Step			
Control command	ABS, INC, HOM, IJP, OUT, OTP, JMP, REP, RPE, END, TIM, NOP			
Program function	Power On Program Start, Power On Home Search			
Home search mode	High speed near home search (STEP1) → Low speed near home search (STEP2) → Encoder Z phase search (STEP3) → Offset movement (STEP4) Configuring the detection direction and Enable/Disable in each step			
General output	1 point		2 point	
Control interface	Parallel I/F			
Ambient temp.	0 to 45°C (no freezing or condensation)			
Ambient humi.	35 to 85%RH (no freezing or condensation)			
Approval	C€ EℋC			
Unit weight (packaged)	≈ 96.8 g (≈ 386 g)	≈ 96.9 g (≈ 421.6 g)	≈ 100.2 g (≈ 393.6 g)	≈ 100.4 g (≈ 432.2 g)

Dimensions

• Unit: mm, For the detailed drawings, follow the Autonics website.

Unit Descriptions

01. **Power / Status indicator**

02. **Power connector (CN1)**

03. **RS232C comm. connector (CN2)**

04. **Parallel I/F connector (CN3)**

05. **X axis I/O connector (CN4)**

06. **Y axis I/O connector (CN5)** [01]

07. **USB comm. connector (CN6)** [02]

01) The corresponding connector is only available on PMC-2HS-☐.
02) The corresponding connector is only available on PMC-☐-USB.

Sold Separately : Teaching Unit PMC-2TU-232

The teaching unit (PMC-2TU-232) is a device that builds the operation mode parameter and operation program for the main body without a PC.
In addition, it can carry out the start of the operation program, the home search and Jog operation.
The teaching unit is used by connection the private cable (1.5 m) to the RS-232C connector (CN2) of the main body.

■ Dimensions

• Unit: mm, For the detailed drawings, follow the Autonics website.
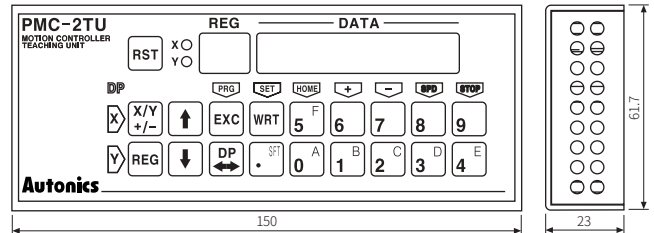
■ Operation mode

• When power ON, it starts as the drive control mode (dP).
• The [DP] button is used to convert the status of the data edit mode and the drive operation mode.

Mode	Operation	REG display
Data edit	• Adding operation mode parameter and operation program • Index drive operation	Register number
Drive control	• Displaying the current position • Jog operation • Home search • Program execution	dP (drive operation)

■ Unit descriptions
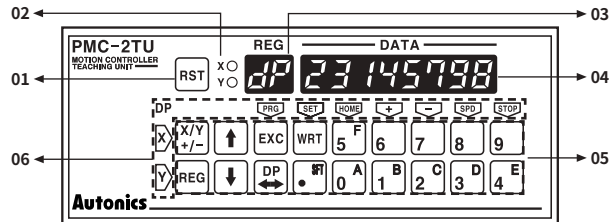
01. **Reset**
   Reset the controller and teaching unit.

02. **X/Y display**
   Display the currently selected axis.

03. **Register number display/dp**
   Displays the currently selected register number when data is editing and dp when operating drive.

04. **Data display**
   Displays the data of each register when data is editing and the current position of the selected axis when operating drive.

05. **Input button**
   X/Y: Converts the selecting axis. It is used to convert the sign of an input value when the value is entered and a mode data that the mode data is entered.
   REG: It is used to input the register number to display.
      If this button is pressed on the data input, the data input is canceled and returns to the state before the data input.
   ↑ ↓ : Increases / decreases the displayed register number.
   EXC: Runs the displayed command. However, this command is only valid for ABS, INC, OUT, OTP and HOM 1 to 4 commands.
   DP: Converts the drive handling status and the data edit status.
   WRT: Adds a value when data is editing.

06. **Button display for drive operation**
   Displays button function as yellow letters to the left or the top of the input button in drive handling status. The top end and the bottom end of the button handle X axis and Y axis respectively.

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