

Product Description

The bases set is part of the Ponto Series and allow the direct connection among field signals and the electronic modules. Such system eliminates the need for intermediary terminal blocks and fuse cases in the electrical panel, as well as allows hot swap without disconnecting the cables. The bases may come with high reliability spring or screw terminal blocks. The available options cover all the needs for automation of processes or machineries.

The main features are:

- High density of IOs with up to 32 IOs per base
- Option for spring or screw terminal blocks
- Available with fuse cases
- Analog version with temperature sensor (cold joint)
- Compatible with GBL communication standard
- Identification of IOs on the terminal blocks
- Connection between bases through sliding connectors
- Mechanical switches to restrict module assembly
- Automatic addressing
- Assembling on DIN TS35 rails



Ordering Information

Product Packaging

The product packaging comes with one base:

- PO60xx or PO61xx

Product Code

Please use following product code when ordering the product:

Code	Description
PO6000	IO Base: Digital Spring
PO6001	IO Base: Analog Spring
PO6002	IO Base: Digital Spring Common Line
PO6003	IO Base: VAC Spring
PO6050	IO Base: Digital Screw
PO6051	IO Base: Analog Screw
PO6052	IO Base: Digital Screw Common Line
PO6053	IO Base: VAC Screw
PO6100	IO Base: Digital Spring with Fuse
PO6101	IO Base: Analog Spring with Fuse
PO6102	IO Base: Digital Spring with Fuse and Common Line
PO6103	IO Base: VAC Spring with Fuse
PO6150	IO Base: Digital Screw with Fuse
PO6151	IO Base: Analog Screw with Fuse
PO6152	IO Base: Digital Screw with Fuse and Common Line
PO6153	IO Base: VAC Spring with Fuse

Related Products

Depending on your system requirements, the following products might be ordered along with the PO1112. Please check with your sales representative if you have any questions.

Code	Description
PO8510	10 Sheets with 14 labels of 16 tags for printer
PO8511	10 Sheets with 14 labels of 32 tags for printer
PO8520	16 fuses 3 A 250 VAC
PO8521	16 fuses 32 mA 250 VAC
PO8522	Lock for assembly in TS35 rail
PO8523	Spring Terminal Block Tool

Features

	PO60xx and PO61xx
Product Type	Bases for IP20 Ponto Series modules
Maximum current capacity for base	Please see Technical Characteristics of module to be used.
Terminal block configuration	3 rows of 18 terminal blocks
Configurable parameters	None
Protections	Fuse for each contact: 3 A , 250 VAC when using fused bases. Analog bases: fuses 3A, 250 VAC for protection of sensors powering and fuses 32 mA for protection of current signals.
External power supply	Connection through the terminal blocks (A) and (B) as indicated by the Technical Characteristics of module to be used.
Isolation	
Terminal blocks to logic	1500 VAC per 1 minute, 250 VAC continuous
Terminal blocks to ground	1500 VAC per 1 minute, 250 VAC continuous
Among terminal blocks	1500 VAC per 1 minute, 250 VAC continuous
Bus power consumption	None.
Maximum operating temperature	60 °C for non condensing humidity
Dimensions	See item: Physical dimensions
Norms	IEC 61131 CE See Series generic features CT109000

Notes

Screw terminal blocks: this type of terminal block has a screw for securing the cable. It has high reliability when connected to tinned cables or with terminals. We recommend to use screw drivers with 3.5 mm width and isolated handle. The maximum current capacity is 24A per IO, even though usually the module to be used only supports a lower current capacity.

Spring terminal blocks: this type of terminal block has a high reliability spring for securing the cable (it reliable even on installations subject to shaking). Please use the tool PO8523 when assembling it and please follow the procedure specified on the Ponto Series Utilization Manual - MU209000. One of its main advantages is the easy and quick assembling of electrical cables. The maximum current capacity is 12A per IO, even though usually the module to be used only supports a lower current capacity.

Fuse: the digital bases PO6100 and PO6150 have fuse 3A 250 VAC in line with the signals connected to the terminal blocks 20 to 37. They allow a free configuration for protection against short-circuit on interlocked.

The digital bases PO6102 and PO6152 have 3A fuses for individual protection of PO2022 relays when common point is required.

The digital bases PO6103 and PO6153 share one 3A 250 VAC fuse for terminal blocks 00 to 17.

The analog bases PO6101 and PO6151 have fuses to protect the power supply for sensors, terminal blocks Px, connected on blocks A (+VDC) and B (-VDC) with 3ADC fuses assembled on odd numbering (01 to 17). The current measurement signals are protected by 32mA fuses assembled on even numbering (00 to 16). Please see CT109312 and CT109412 for further details.

The bases come with the fuses installed. The PO8520 and PO8521 are available as spare parts.

Temperature sensor: the analog input module PO1112 utilizes two sensors internally assembled in its bases for measurement of environment temperature (cold joint compensation for thermocouples) and monitors the environment temperature, creating a diagnostic word when such temperature exceeds 60 oC.

Common line: the common line configuration facilitates the assembly of outputs with contacts type wet (one common contact for all outputs). The terminal blocks 20 to 37 are internally interconnected. Please see CT of used module in order to check interconnection options.

PO8522, Lock for assembly in TS35 rails: the lock keeps the bases from sliding on a DIN TS35 rail. We recommend to use one lock at each end even when the bases are horizontally placed. This procedure will secure the set for transportation or when it is

used in environments subject to shaking. The lock assembly is done through a screw driver without need to make additional holes on the rail.

PO8523, Spring Terminal Block Tool: high resistant plastic tool to be used on Ponto Series spring bases. It is designed to allow the exchange or installation of cables without problems due to the proximity of the rail and the cabling. In the Ponto Series Utilization Manual there is further description on how to use this tool.

Code	Spring Terminal Block	Screw Terminal Block	Fuse	Digital	Analog	Common Line	Compatible Modules
PO6000	X			X			PO1000, PO1003, PO1004, PO1010, PO2020, PO2022,
PO6001	X				X		PO1112, PO2132
PO6002	X			X		X	PO1000, PO2020, PO2022
PO6003	X			X			PO1001, PO1002
PO6050		X		X			PO1000, PO1003, PO1004, PO1010, PO2020, PO2022
PO6051		X			X		PO1112, PO2132
PO6052		X		X		X	PO1000, PO2020, PO2022
PO6053		X		X			PO1001, PO1002
PO6100	X		X	X			PO1000, PO1003, PO1004, PO1010, PO2020, PO2022
PO6101	X		X		X		PO1112
PO6102	X		X	X		X	PO1000, PO2020, PO2022
PO6103	X		X	X		X	PO1001, PO1002
PO6150		X	X	X			PO1000, PO1003, PO1004, PO1010, PO2020, PO2022
PO6151		X	X		X		PO1112
PO6152		X	X	X		X	PO1000, PO2020, PO2022
PO6153		X	X	X		X	PO1001, PO1002

Installation

The bases installation must follow instructions accordingly to the Ponto Series Utilization Manual - MU209000 and Technical Characteristics of modules to be used.

Mechanical Assembly

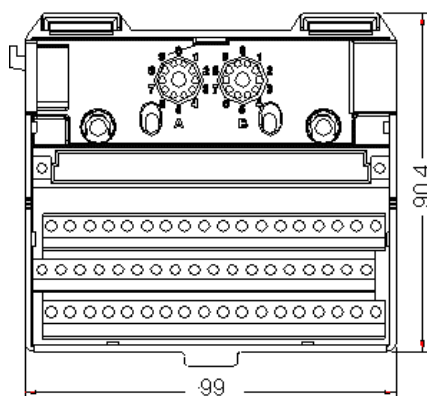
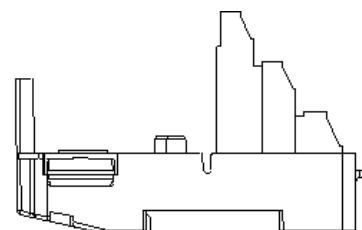
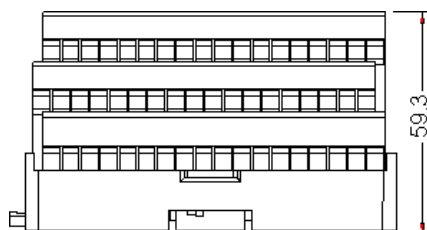
The mechanical assembly is described in the Ponto Series Utilization Manual.

Before assembling the modules please adjust the mechanical codes. Those codes will secure the installation of modules into correct positions.

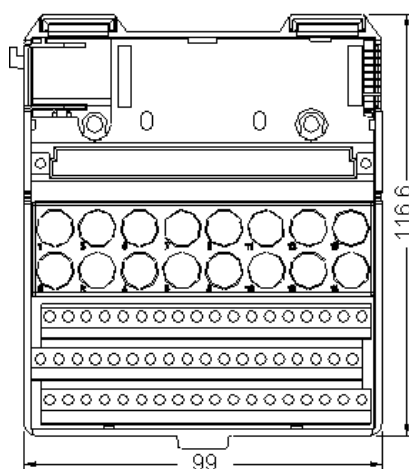
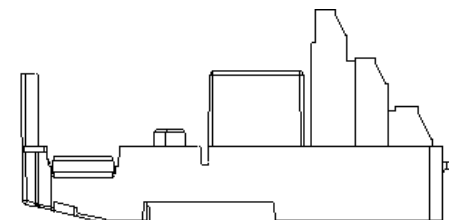
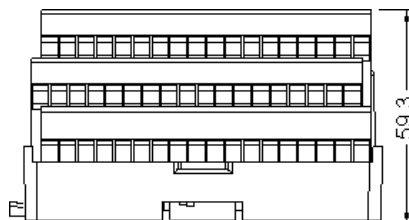
Physical Dimensions

In order to plan the panel dimensioning please consult the Ponto Series Utilization Manual - MU209000.

Here are the representations of non fused PO60XX bases.



Here are the representations of fused PO61XX bases.



Maintenance

The hot swap procedure is described in the Ponto Series Utilization Manual.

Please shut down the system before handling the bases or replacing fuses.

When replacing fuses, please handle the fuse cases cover with your finger tips or plastic tools in order to avoid damaging the fuse.

Manuals

For further technical details, configuration, installation and programming of Ponto Series products please consult following documents:

Document Code	Description
CT109000	Ponto Series General Characteristics
MU209000	Ponto Series Utilization Manual
MU209100	Utilization Manual PO3045- CPU
MU209503	PO5063 Utilization Manual – PROFIBUS Head
MU299040	MT6000 Utilization Manual - MasterTool ProPonto

Also please consult the Technical Characteristics of the modules to be used.