

Product Description

The PO1006 module is part of the Ponto Series and each has 8 digital inputs 24Vdc and monitored using in applications when the line is interrupted and should be detected as well the correct monitoring and continuum connection from the input to the transducer. This module is developed for detection systems of fire and safety where many sensors are connected to alarms.

The picture shows the product assembled in a base for digital IOs with spring type terminal blocks. The main features are:



- High density of IOs with feeding and return for each individual input.
- Hot swap, no interference on panel cabling.
- Field cabling is directly connected to the base, thus eliminating need for intermediary terminal blocks.
- Remote and local diagnosis, with indication for no communication with CPU and failure on external power supply.
- Protection of all inputs through one fuse assembled in the base PO6103 or PO6153.
- Automatic addressing.
- Automatic verification of module type by the bus head.
- Input status signalization by LED.
- Input can interrupt the CPU for immediate processing.
- Identification tag.

Ordering Information

Product Packaging

The product package contains:

- Module PO1006
- Installation Guide

Product Code

Please use following product code when ordering the product:

Code	Description
PO1006	8 DI 24 Vdc

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
PO6000	Digital IO Base - Spring
PO6050	Digital IO Base – Screw
PO8510	10 Sheets with 14 labels of 16 tags for printer
PO8522	Lock for assembling in the TS35 rail
PO8523	Spring Terminal Block Tool

Features

	PO1006
Module type	8 isolated and monitored digital inputs
Input voltage	- normal operation: Minimum voltage = 5,0 V Maximum voltage = 11,9 V - failure: Minimum voltage = 0,0 V Maximum voltage = 2,3 V - alarm: Minimum voltage = 16,0 V Maximum voltage = 30,0 V
Input current	20 mA @ 24 Vdc
Input type	Type 1, for switches
Input impedance	1,2 KOhm
Terminal block configuration	1 terminal block per inputs and 1 terminal block for feeding each input
Transition time	0 - 1: 1,9 ms 1 - 0 : 1,5 ms
Status indication	One LED per input
Diagnosis indication	One multifunctional LED with indication for Ok, non-accessed module and no external power supply.
Configurable parameters	Diagnosis of missing DC voltage.
Hot swap	Yes.
External power supply	19 a 30 Vdc, to power all inputs.
Isolation	
Inputs to ground	1500 VAC per 1 minute, 250 VAC continuous
Inputs to logic circuits	1500 VAC per 1 minute, 250 VAC continuous
Among inputs	No isolation
Bus current consumption	80 mA
Power	9,6 W with all inputs on (nominal)
Maximum operating temperature	60 °C
Dimensions	99 x 49 x 81 mm
Norms	IEC 6131 CE UL Please see Series generic features on CT109000
Compatible base	PO6000, PO6050

Mechanical Assembly

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

Please adjust the mechanical code on the assembly base to 0 (zero) on switch A and 6 on switch B for the PO1006

Parameterization

The CPU or field network head defines via software the PO1006 parameterizations. Such parameterization may be set by the MasterTool when using Altus CPUs or by the software that configures the field bus master. For further information please consult Ponto Series Utilization Manual, MasterTool Utilization Manual and Manuals for the Interfaces and Field Network Heads. The parameterization is set through user-friendly menus. For reference purposes, following are the binary codes.

Parameters Bytes

The module parameterization is defined in one byte.

The parameterization bits are described as follows:

Byte	Parameters
0	Module generics

Byte 0 – Module generics								Description
7	6	5	4	3	2	1	0	
							1	Number of parameters bytes (always 1)
		0	0	0	0	0		Always zero
	0							Disable monitored mode function
	1							Enable monitored mode function
0								Always zero

Diagnosis

Diagnosis Bytes

The PO1006 module has one byte for module operating diagnosis.

Byte	Diagnosis
0	Module generics

Following the diagnosis bits are described:

Byte 0 - Module generics								PROFIBUS message code	Description
7	6	5	4	3	2	1	0		
0			0	0	0	0	0	-	Always zeros
		0						-	No errors on input points
		1						01	Hardware failure in any input point <i>Short circuit</i>
	0							-	External power supply present.
	1							02	No external power supply or below minimum <i>Undervoltage</i>

Diagnosis LED

The diagnosis LED indicates the following situations:

LED DG	Meaning	Causes
On	Normal operation	
Blinking 1X	Module non accessed by the head or failure on module logic	<ul style="list-style-type: none"> - Wrong module type for position - Non declared module - Damaged module
Blinking 3X	No external DC voltage	- The external module power supply is below the specific limit.
Blinking 4X	Failure in one input lace.	- One or more laces in open loop.

Note:

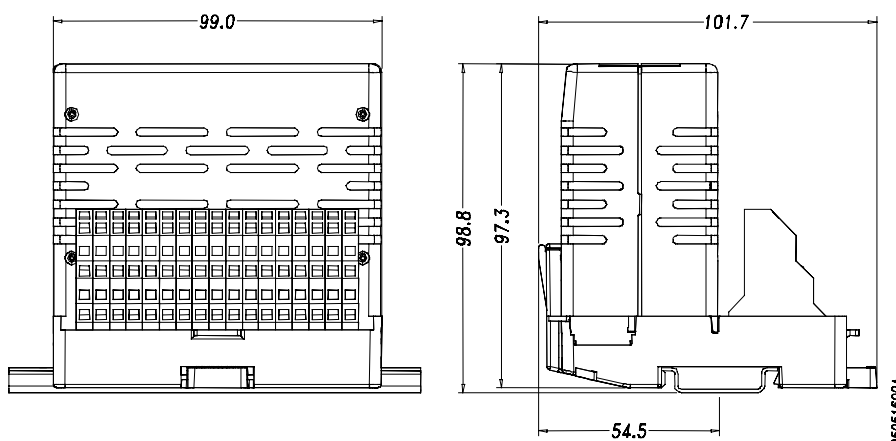
The message *Short circuit* in PROFIBUS signifies that exists a failure in some module input point.

Physical Dimensions

Dimensions in mm considering the module assembled in its base.

Please consult the Ponto Series Utilization Manual IP20 - MU209000 for general panel dimensions.

Here is the PO1006 module assembled in a PO6000 base in DIN TS35 rails.



Maintenance

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

Manuals

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

Document Code	Description
MU209000	Ponto Series Utilization Manual
MU209100	Utilization Manual PO3045 - CPU
MU209503	Utilization Manual PO5063 – PROFIBUS Head
MU209010	Configuration Manual PROFIBUS Remote
MU229040	Utilization Manual MT6000 - MasterTool ProPonto

Also please consult the utilization manuals for the field network heads and compatible CPUs.