POWER ELECTRONICS

SD750

ACCESSORIES MANUAL

PT100 EXPANSION BOARD

LOW VOLTAGE VARIABLE SPEED DRIVE

SD750

LOW VOLTAGE VARIABLE SPEED DRIVE

Accessories Manual

PT100 expansion board

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ABOUT THIS MANUAL

PURPOSE

This manual contains important instructions for the installation, configuration and use of **the optional PT100 expansion board** for Power Electronics' SD750 variable speed drives.

TARGET AUDIENCE

This manual is intended for qualified customers who will install, operate and maintain Power Electronics SD750 variable speed drives.

Only trained electricians may install and commission the drives.

REFERENCE MANUALS

The following reference documents are available for SD750 variable speed drives:

- Hardware and Installation Manual.
- Programming and Software Manual.
- Maintenance Manual.
- Pumps Application Manual.

POWER ELECTRONICS CONTACT INFORMATION

Power Electronics USA Inc.
4777 N 44th Ave
Phoenix
AZ 85031
UNITED STATES OF AMERICA
US Sales: 602-354-4890 / (480) 519-5977
Fax: (415) 874-3001

Power Electronics España, S.L.
Polígono Industrial Carrases
Ronda del Camp d'Aviació nº 4
46160, Llíria (Valencia)
SPAIN
Fax: (+34) 96 131 82 01
Website: www.power-electronics.com

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SAFETY SYMBOLS

Always follow safety instructions to prevent accidents and potential hazards from occurring.

In this manual, safety messages are classified as follows:

 **WARNING**	Identifies potentially hazardous situations where dangerous voltage may be present, which if not avoided, could result in minor personal injury, serious injury or death. Be extremely careful and follow the instructions to avoid the risk of electrical shocks.
 **CAUTION**	Identifies potentially hazardous situations, which if not avoided, could result in product damage, or minor or moderate personal injury. Read the message and follow the instructions carefully.
 **NOTICE**	Identifies important measures to take in order to prevent damage equipment and warranty lost, as well as encouraging good use and environmental practices.

Other symbols used in this manual for safety messages are the following:

	Hot surface. Be careful and follow the instructions to avoid burns and personal injuries.
	Risk of fire. Be careful and follow the instructions to prevent causing an unintentional fire.
	Caution, risk of electric shock. Energy storage timed discharge. Wait for the indicated time to avoid electrical hazards.
	Caution, risk of hearing damage. Wear hearing protection.

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SAFETY INSTRUCTIONS

IMPORTANT!

Read carefully this manual to maximize the performance of the product and to ensure its safe installation and use.

In order to appropriately use the drive, please, follow all instructions described in the *Hardware and Installation Manual* which refer to transportation, installation, electrical connection and commissioning of the equipment.

For maintenance operations, follow the instructions from the *Maintenance Manual.*

Power Electronics accepts no responsibility for any damages resulting from incorrect use of equipment.

CAUTION

Read carefully the *Hardware and Installation Manual,* the *Maintenance Manual* and all documentation related to the drive to guarantee its safe use and avoid the risk of personal injuries and damages to the equipment.

Ensure compliance with local and national regulations of the installation site.

INTRODUCTION

1

SD750 drives are compatible with several optional boards:

- Communication boards (Ethernet/IP, Profinet, CANopen, Profibus…).
- Encoder board.
- Digital and analog I/O expansion boards.
- Optical fiber board.

…among others. Up to three optional boards can be connected.

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This manual focuses on the optional PT100 expansion board. This board allows temperature monitoring with the connection of up to 8 PT100 / PT1000 temperature sensors (RTD, *Resistance Temperature Detector*).

Thanks to this board, the user can visualize the temperature of the sensors connected to the drive and set temperature value limits to activate equipment failure.

Below is the front of the PT100 expansion board:

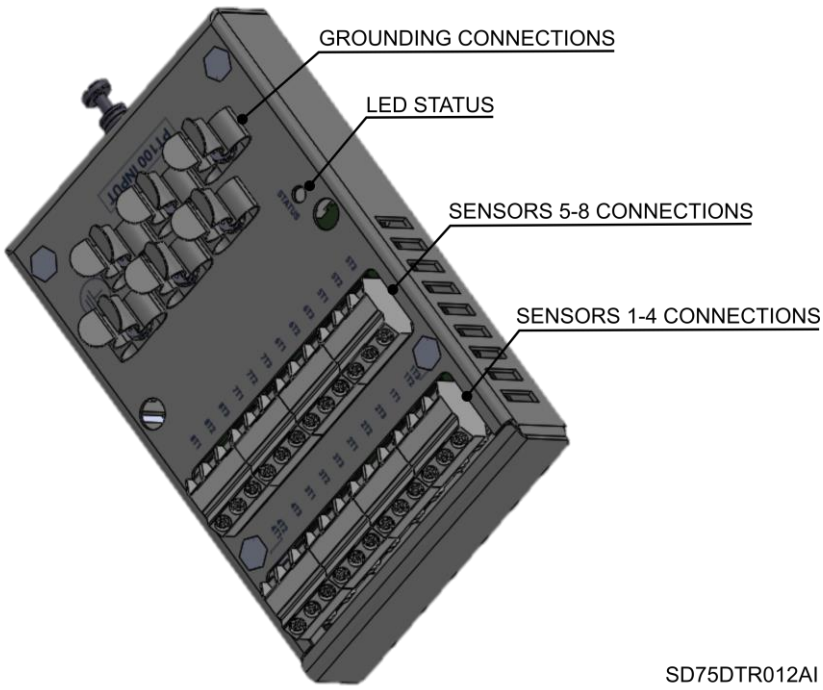
PT100 expansion board specifications

- Device type: Expansion board PT100.
- Form factor: Insertion board.
- Type of wiring: Shielded hose.

LED indicators

The PT100 expansion board includes 1 led indicator (status) that provides information about the operation of the board. It can be green or red according to the operating state of the system, which is explained in the following table:

LED	COLOR / FREQUENCY	DESCRIPTION
STATUS	Green / slow blinking	The system is operating correctly [1].
	Red / fast blinking	Communication between the PT100 expansion board and the central microcontroller has been lost. .



1 When we state that the system operates correctly, it means that the communication between the expansion board, the network controller and the central SD750 microcontroller is correct.

CONNECTION TO THE DRIVE

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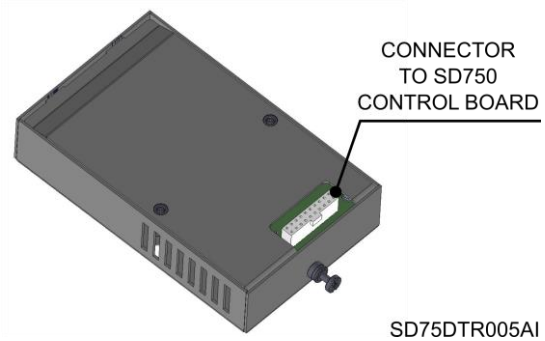
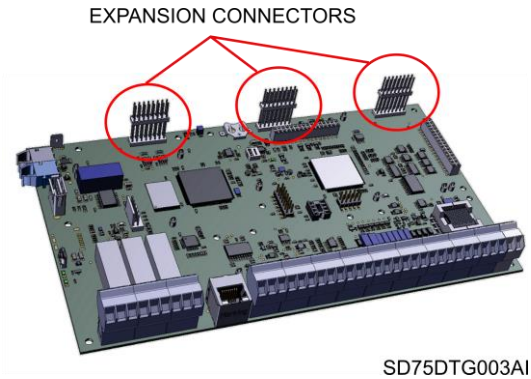
The PT100 expansion board connects directly to any of the three expansion connectors on the central control board of the SD750 drive using the sixteen-pin ID connector on the back. Once connected, it allows to provide the drive with additional PT100 / PT1000 temperature sensors and to display new groups of parameters.



Rear side of the board

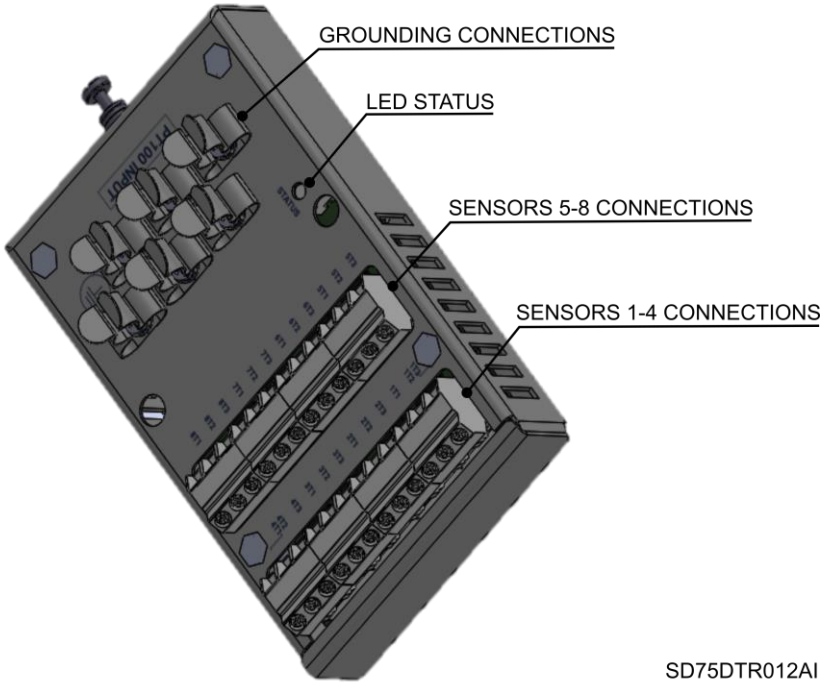


CAUTION

Power Electronics' SD750 drives operate with high electric energy.

Make sure that the power has been disconnected and allow at least 10 minutes to ensure that the DC bus has been discharged. Make sure with a multimeter that there is no voltage at the input, output or DC bus before installing the expansion board. Otherwise, there is a risk of personal injury or accident

Connectors description



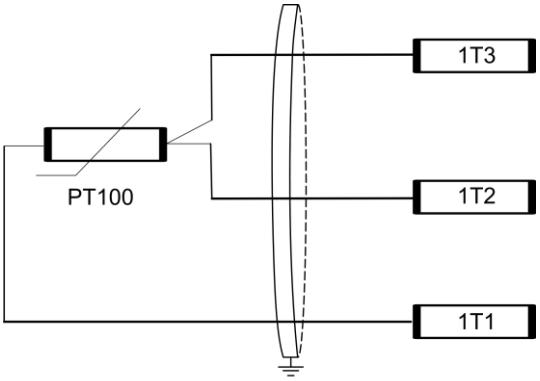
The PT100 expansion board has two terminals on the front for the PT100 sensor inputs, one will be for the sensors 1 to 4 connections and the other terminal will be for the sensros 5 to 8 connections.

The measurement process for each PT100 / PT1000 sensor connected to the terminal block is as follow:

a. From connector XT1 (where X is the number of the connected PT100 / PT1000) a current is injected through the PT100 or PT1000.

b. With injected current, the PT100 / PT1000 resistance is calculated.

c. With the PT100 / PT1000 table, and knowing the resistance, temperature is obtained.



The front of the PT100 expansion board also has ground connectors. RTD sensors are very sensitive to noise, it is recommended to ground the shielded cable shields of the expansion board sensors.

On the back there is a the sixteen-pin ID connector to connect it to the central board of the SD750 drive.

COMMISSIONING

3

The PT100 expansion board allows to receive information from the PT100 / PT1000 temperature sensors integrated in the SD750.

Follow the next steps to carry out the commissioning of the PT100 expansion board:

1. After stopping and de-energizing the drive, connect the expansion board to one of the free connectors of the equipment.
2. Once the expansion board is connected, close the drive door, and re-energize the equipment.
3. Check that the communication with the SD750 is correct, visualizing the status of the PT100 expansion board (G23.1.1) is “Enabled”. In this case, the settings and visualization parameters of the expansion board will be enabled.

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NOTICE

In case of a communication error, it is recommended to activate parameter G23.4.1. Remove expansion boards, in order to delete the identification number stored on the control board from the history of expansion boards ever connected. Check again if the communication is correct.

4. Set the inputs/outputs according to the desired behavior (G23.1.3 to G23.1.28).

If user want to see if the sensor values are as expected, check the temperature values in group V11.

Parameters setting

The parameters that are activated once the board is connected are summarized below. For details about the range of values and Modbus addresses, refer to the Software and Programming Manual for SD750 drives.

Subgroup 23.1: PT100

This sub-group allows to configure the PT100 board.

<table>
<tr><th>Screen</th><th>Range</th><th>Function</th><th>Set on RUN</th></tr>
<tr><td>G23.1.1 PT100 status = Off</td><td>Off
On</td><td>Shows the status of the digital input of the expansion PT100 board.

<table><tr><th>OPT.</th><th>FUNCTION</th></tr><tr><td>Off</td><td>The board is disabled.</td></tr><tr><td>On</td><td>The board is enabled.</td></tr></table>
Note: this parameter is read-only.</td><td>NO</td></tr>
<tr><td>G23.1.2 PT100 test = No</td><td>No
Yes</td><td>Allows to perform a communications test. By enabling this parameter, a led on the PT100 boards starts flashing. This is useful to identify the board when there are several boards that are identical.
Note: this parameter is only displayed if the PT100 board is connected.</td><td>NO</td></tr>
<tr><td>G23.1.3 RTD control mode = PT100</td><td>PT100
PT1000</td><td>Allows to select the type of resistive temperature detector (RTD), PT100 or PT1000 sensor.

<table><tr><th>OPT.</th><th>FUNCTION</th></tr><tr><td>PT100</td><td>The values refer to a PT100 sensor.</td></tr><tr><td>PT1000</td><td>The values refer to a PT1000 sensor.</td></tr></table></td><td>YES</td></tr>
<tr><td>G23.1.4 PT100 RTD Enabled = 65535</td><td>0 to 65535</td><td>Allows to enable / disable each of the RTD temperature sensors available on the drive. RTD sensors are represented with 8 bits, RTD1 being the first bit from the right. To enable them through communications, the corresponding binary value must be converted to decimal and the resulting value entered in G23.1.4.

Examples:
Enable RTD1 → 00000001 → G23.1.4 = 1
Enable RTD2 y RTD4 → 00001010 → G23.1.4 = 10
Enable all sensors → 11111111 → G23.1.4 = 255

Note: If the connection is made through PowerMonitoring, the user can select the sensors to be enabled in the submenu.</td><td>YES</td></tr>
<tr><td>G23.1.5 PT100 1 fault temperature = -Off</td><td>Off = -21ºC
- 20ºC to 180 ºC</td><td>Allows to set the temperature limit in degree Celsius to activate the temperature fault F114 of the PT100 / PT1000 1 sensor.

Note: F114 will be activated when the temperature detected by the sensor is higher than G23.1.5 and the time set in G23.1.6 has been elapsed.</td><td>YES</td></tr>
<tr><td>G23.1.6 PT100 1 fault temperature timeout = 30 s</td><td>0 to 3000 s</td><td>Timeout in seconds for the fault of the probe 1.

Note: This parameter will be only available if probe 1 is activated in G23.1.4.</td><td>YES</td></tr>
<tr><td>G23.1.7 PT100 1 Low Pass Filter = 10.0 s</td><td>Off = 0.0
0.1 to 20.0s</td><td>Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc.

Note: The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.</td><td>YES</td></tr>
<tr><td>G23.1.8 PT100 2 fault temperature = Off</td><td>Off = -21 ºC
- 20ºC to 180 ºC</td><td>Allows to set the temperature limit in degree Celsius to activate the temperature fault F115 of the PT100 / PT1000 2 sensor.

Note: F115 will be activated when the temperature detected by the sensor is higher than G23.1.8 and the time set in G23.1.9 has been elapsed.</td><td>YES</td></tr>
<tr><td>G23.1.9 PT100 2 fault temperature timeout = 30 s</td><td>0 to 3000 s</td><td>Timeout in seconds for the fault of the probe 2.

Note: This paremeter is only available if probe 2 is activated in G23.1.4.</td><td>YES</td></tr>
</table>

Screen	Range	Function	Set on RUN
G23.1.10 PT100 2 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES
G23.1.11 PT100 3 fault temperature = Off	Off = -21 ºC - 20ºC to 180 ºC	Allows to set the temperature limit in degree Celsius to activate the temperature fault F116 of the PT100 / PT1000 3 sensor. **Note**: F116 will be activated when the temperature detected by the sensor is higher than G23.1.11 and the time set in G23.1.12 has been elapsed.	YES
G23.1.12 PT100 3 fault temperature timeout = 30 s	0 to 3000 s	Timeout in seconds for the fault of the probe 3. **Note**: This paremeter is only available if probe 3 is activated in G23.1.4.	YES
G23.1.13 PT100 3 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES
G23.1.14 PT100 4 fault temperature = Off	Off = -21 ºC - 20ºC to 180 ºC	Allows to set the temperature limit in degree Celsius to activate the temperature fault F117 of the PT100 / PT1000 4 sensor. **Note**: F117 will be activated when the temperature detected by the sensor is higher than G23.1.14 and the time set in G23.1.15 has been elapsed.	YES
G23.1.15 PT100 4 fault temperature timeout = 30 s	0 to 3000 s	Timeout in seconds for the fault of the probe 4. **Note**: This paremeter is only available if probe 4 is activated in G23.1.4.	YES
G23.1.16 PT100 4 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES
G23.1.17 PT100 5 fault temperature = Off	Off = -21 ºC - 20ºC to 180 ºC	Allows to set the temperature limit in degree Celsius to activate the temperature fault F118 of the PT100 / PT1000 5 sensor. **Note**: F118 will be activated when the temperature detected by the sensor is higher than G23.1.17 and the time set in G23.1.18 has been elapsed.	YES
G23.1.18 PT100 5 fault temperature timeout = 30 s	0 to 3000 s	Timeout in seconds for the fault of the probe 5. **Note**: This paremeter is only available if probe 5 is activated in G23.1.4.	YES
G23.1.19 PT100 5 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES
G23.1.20 PT100 6 fault temperature = Off	Off = -21 ºC - 20ºC to 180 ºC	Allows to set the temperature limit in degree Celsius to activate the temperature fault F119 of the PT100 / PT1000 6 sensor. **Note**: F119 will be activated when the temperature detected by the sensor is higher than G23.1.20 and the time set in G23.1.21 has been elapsed.	YES
G23.1.21 PT100 6 fault temperature timeout = 30 s	0 to 3000 s	Timeout in seconds for the fault of the probe 6. **Note**: This paremeter is only available if probe 6 is activated in G23.1.4.	YES
G23.1.22 PT100 6 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES
G23.1.23 PT100 7 fault temperature = Off	Off = -21 ºC - 20ºC to 180 ºC	Allows to set the temperature limit in degree Celsius to activate the temperature fault F120 of the PT100 / PT1000 7 sensor. **Note**: F120 will be activated when the temperature detected by the sensor is higher than G23.1.23 and the time set in G23.1.24 has been elapsed.	YES

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Screen	Range	Function	Set on RUN
G23.1.24 PT100 7 fault temperature timeout = 30 s	0 to 3000 s	Timeout in seconds for the fault of the probe 7. **Note**: This paremeter is only available if probe 7 is activated in G23.1.4.	YES
G23.1.25 PT100 7 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES
G23.1.26 PT100 8 fault temperature = Off	Off = -21 ºC - 20ºC to 180 ºC	Allows to set the temperature limit in degree Celsius to activate the temperature fault F121 of the PT100 / PT1000 8 sensor. **Note**: F121 will be activated when the temperature detected by the sensor is higher than G23.1.26 and the time set in G23.1.27 has been elapsed.	YES
G23.1.27 PT100 8 fault temperature timeout = 30 s	0 to 3000 s	Timeout in seconds for the fault of the probe 8. **Note**: This paremeter is only available if probe 8 is activated in G23.1.4.	YES
G23.1.28 PT100 8 Low Pass Filter = 10.0 s	Off = 0.0 0.1 to 20.0s	Allows adjusting a filtering to the value received from the PT100 / PT1000. By adjusting the value of this time constant, it is possible to eliminate possible instabilities in the signal caused by noise, wiring faults, etc. **Note:** The application of a low pass filter to any analogue signal produces a delay of approximately the value of the configured time constant.	YES

Visualization parameters

Group V11: Exp PT100

This group shows the temperatures received by the inputs of the PT100 board.

Screen	Units	Description
SV11.1 PT100 RTD 1 temp = 0 ºC	ºC	Shows the temperature of the first RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.2 PT100 RTD 2 temp = 0 ºC	ºC	Shows the temperature of the second RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.3 PT100 RTD 3 temp = 0 ºC	ºC	Shows the temperature of the third RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.4 PT100 RTD 4 temp = 0 ºC	ºC	Shows the temperature of the fourth RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.5 PT100 RTD 5 temp = 0 ºC	ºC	Shows the temperature of the fifth RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.6 PT100 RTD 6 temp = 0 ºC	ºC	Shows the temperature of the sixth RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.7 PT100 RTD 7 temp = 0 ºC	ºC	Shows the temperature of the seventh RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.
SV11.8 PT100 RTD 8 temp = 0 ºC	ºC	Shows the temperature of the eighth RTD (Resistive Temperature Detector) of the PT100 in a range between -30ºC and 180ºC.

EN

Modbus Addresses

Programming parameters

The configuration parameters for the expansion PT100 board are summarized below:

Parameter	Screen	Address	Range	Modbus Range	Access [1]
G23.1.1	PT100 status = Off	41133	Off On	0 to 1	RO
G23.1.2	PT100 test = No	41134	No Sí	0 to 1	RW
G23.1.3	RTD control mode = PT100	41132	PT100 PT1000	0 to 1	RW
G23.1.4	PT100 RTD Enabled = 65535	41131	0 to 65535	0 to 65535	RW
G23.1.5	PT100 1 fault temperatura = Off	43991	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.6	PT100 1 fault temperature timeout = 30 s	41421	0 to 3000 s	0 to 3000	RW
G23.1.7	PT100 1 Low Pass Filter = 10.0s	41991	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.8	PT100 2 fault temperatura = Off	43992	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.9	PT100 2 fault temperature timeout = 30 s	41422	0 to 3000 s	0 to 3000	RW
G23.1.10	PT100 2 Low Pass Filter = 10.0s	41992	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.11	PT100 3 fault temperatura = Off	43993	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.12	PT100 3 fault temperature timeout = 30 s	41423	0 to 3000 s	0 to 3000	RW
G23.1.13	PT100 3 Low Pass Filter = 10.0s	41993	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.14	PT100 4 fault temperatura = Off	43994	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.15	PT100 4 fault temperature timeout = 30 s	41424	0 to 3000 s	0 to 3000	RW
G23.1.16	PT100 4 Low Pass Filter = 10.0s	41994	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.17	PT100 5 fault temperatura = Off	43995	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW

Parameter	Screen	Address	Range	Modbus Range	Access [1]
G23.1.18	PT100 5 fault temperature timeout = 30 s	41425	0 to 3000 s	0 to 3000	RW
G23.1.19	PT100 5 Low Pass Filter = 10.0s	41995	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.20	PT100 6 fault temperatura = Off	43996	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.21	PT100 6 fault temperature timeout = 30 s	41426	0 to 3000 s	0 to 3000	RW
G23.1.22	PT100 6 Low Pass Filter = 10.0s	41996	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.23	PT100 7 fault temperatura = Off	43997	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.24	PT100 7 fault temperature timeout = 30 s	41427	0 to 3000 s	0 to 3000	RW
G23.1.25	PT100 7 Low Pass Filter = 10.0s	41997	Off = 0.0, 0.1 to 20.0s	0 to 200	RW
G23.1.26	PT100 8 fault temperatura = Off	43998	Off = -21ºC -20ºC to 180 ºC	-21 to 180	RW
G23.1.27	PT100 8 fault temperature timeout = 30 s	41428	0 to 3000 s	0 to 3000	RW
G23.1.28	PT100 8 Low Pass Filter = 10.0s	41998	Off = 0.0, 0.1 to 20.0s	0 to 200	RW

[1] **Access**: **RW**: Read and write. **RO**: Read only.

Visualization Parameters

Parameter	Screen	Description	Address	Modbus Range
SV11.1	PT100 RTD 1 temp = 0 ºC	Shows the temperature of the first RTD.	**44721**	Real Value = Modbus Value
SV11.2	PT100 RTD 2 temp = 0 ºC	Shows the temperature of the second RTD.	**44722**	Real Value = Modbus Value
SV11.3	PT100 RTD 3 temp = 0 ºC	Shows the temperature of the third RTD.	**44723**	Real Value = Modbus Value
SV11.4	PT100 RTD 4 temp = 0 ºC	Shows the temperature of the fourth RTD.	**44724**	Real Value = Modbus Value
SV11.5	PT100 RTD 5 temp = 0 ºC	Shows the temperature of the fifth RTD.	**44725**	Real Value = Modbus Value
SV11.6	PT100 RTD 6 temp = 0 ºC	Shows the temperature of the sixth RTD.	**44726**	Real Value = Modbus Value
SV11.7	PT100 RTD 7 temp = 0 ºC	Shows the temperature of the seventh RTD.	**44727**	Real Value = Modbus Value
SV11.8	PT100 RTD 8 temp = 0 ºC	Shows the temperature of the eighth RTD.	**44728**	Real Value = Modbus Value

FAULT MESSAGES. DESCRIPTIONS AND ACTIONS

4

This section displays new faults and warnings that will only be available if PT100 expansion board is connected.

Please refer to the full list of faults and warnings in the *SD750 drives Software and Programming Manual.*

EN

Description of Fault List

DISPLAY	DESCRIPTION
F114:Exp PT100 (1) fault	Failure of the first Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F115:Exp PT100 (2) fault	Failure of the second Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F116:Exp PT100 (3) fault	Failure of the third Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F117:Exp PT100 (4) fault	Failure of the fourth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F118:Exp PT100 (5) fault	Failure of the fifth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F119:Exp PT100 (6) fault	Failure of the sixth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F120:Exp PT100 (7) fault	Failure of the seventh Resistive Temperature Detector (RTD) connected to the PT100 expansion board.
F121:Exp PT100 (8) fault	Failure of the eighth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.

Troubleshooting

DISPLAY	POSSIBLE CAUSE	ACTIONS
F114:Exp PT100 (1) fault	Failure of the first Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F115:Exp PT100 (2) fault	Failure of the second Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F116:Exp PT100 (3) fault	Failure of the third Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F117:Exp PT100 (4) fault	Failure of the fourth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F118:Exp PT100 (5) fault	Failure of the fifth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F119:Exp PT100 (6) fault	Failure of the sixth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F120:Exp PT100 (7) fault	Failure of the seventh Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.
F121:Exp PT100 (8) fault	Failure of the eighth Resistive Temperature Detector (RTD) connected to the PT100 expansion board.	Check the sensor wiring.

CONFIGURATION REGISTER

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VARIABLE SPEED DRIVE: SD750.
SERIAL Nº: MODEL.
APPLICATION: PT100 BOARD.
DATE:
CUSTOMER:
Notes:

PARAMETER	DEFAULT VALUE	SETTING 1	SETTING 2
G23: Expansion – G23.1: PT100			
G23.1.1 PT100 status	Off	_____	_____
G23.1.2 PT100 test	No	_____	_____
G23.1.3 RTD control mode	PT100	_____	_____
G23.1.4 PT100 RTD Enabled	65535	_____	_____
G23.1.5 PT100 1 fault temperature	Off	_____	_____
G23.1.6 PT100 1 fault temperature timeout	30 s	_____	_____
G23.1.7 PT100 1 Low Pass Filter	10.0 s	_____	_____
G23.1.8 PT100 2 fault temperature	Off	_____	_____
G23.1.9 PT100 2 fault temperature timeout	30 s	_____	_____
G23.1.10 PT100 2 Low Pass Filter	10.0 s	_____	_____
G23.1.11 PT100 3 fault temperature	Off	_____	_____
G23.1.12 PT100 3 fault temperature timeout	30 s	_____	_____

PARAMETER	DEFAULT VALUE	SETTING 1	SETTING 2
G23.1.13 PT100 3 Low Pass Filter	10.0 s		
G23.1.14 PT100 4 fault temperature	Off		
G23.1.15 PT100 4 fault temperature timeout	30 s		
G23.1.16 PT100 4 Low Pass Filter	10.0 s		
G23.1.17 PT100 5 fault temperature	Off		
G23.1.18 PT100 5 fault temperature timeout	30 s		
G23.1.19 PT100 5 Low Pass Filter	10.0 s		
G23.1.20 PT100 6 fault temperature	Off		
G23.1.21 PT100 6 fault temperature timeout	30 s		
G23.1.22 PT100 6 Low Pass Filter	10.0 s		
G23.1.23 PT100 7 fault temperature	Off		
G23.1.24 PT100 7 fault temperature timeout	30 s		
G23.1.25 PT100 7 Low Pass Filter	10.0 s		
G23.1.26 PT100 8 fault temperature	Off		
G23.1.27 PT100 8 fault temperature timeout	30 s		
G23.1.28 PT100 8 Low Pass Filter	10.0 s		

EN

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