
SET-2310

Specifications

2026-09-09



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These specifications apply to the SET-2310.

Revision History

Version	Date changed	Description
379241B-01	October 2025	Clarified variant information in current rating tables.
379241A-01	August 2025	Initial release.

Looking For Something Else?

For information not found in the specifications for your product, such as operating instructions, browse *Related Information*.

Related information:

- [SET-2310 User Manual](#)
- [Dimensional Drawings](#)
- [Product Certifications](#)
- [Letter of Volatility](#)
- [Discussion Forums](#)
- [NI Learning Center](#)

Definitions

Warranted Specifications describe the performance of a model under stated operating conditions and are covered by the model warranty.

Characteristics describe values that are relevant to the use of the model under stated operating conditions but are not covered by the model warranty.

- **Typical**—describes the performance met by a majority of models.
- **Nominal**—describes an attribute that is based on design, conformance testing, or supplemental testing.
- **Measured**—describes the measured performance of a representative model.

Values are *Typical* unless otherwise noted.

Conditions

Specifications are valid under the following conditions unless otherwise noted.

- All voltages are relative to GND unless otherwise noted.

Physical Characteristics

Table 1. Physical Characteristics

Dimensions (HxWxD)	10 mm x 52 mm x 235 mm (0.39 in x 2.04 in x 9.25 in) For more information, visit ni.com/dimensions and search by module number.
Weight	382 g (13.47 oz)
Front board-to-board connector (X1)	2x20 pin female socket terminal strip
Back board-to-board connector (X2)	2x20 pin terminal strip

Electrical Characteristics

Table 2. Maximum Initial Contact Resistance

Channel signal to fault bus	300 mΩ
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Table 3. Relay Expected Electrical Lifetime

1 A, +30 VDC resistive	10 ⁵ operations
1.5 A, +30 VDC resistive	10 ⁴ operations

Table 4. Update Time

Update Time	10 ms
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Power Specifications



Caution The values in these tables are the maximum rated values for the SET-2310, however when plugged into an SLSC module, the rated value may be lower. Check the documentation of the SLSC module and use the lower of the rated values.

Table 5. Channel Signals, Fault Bus

Maximum input voltage, any pin (channel-to-channel, channel-to-ground)	+/-60 VDC
Maximum switching power (DC resistive load)	60 W



Caution Do not supply hazardous voltages (>30 V RMS/42 Vpk/60 V DC) to the SET-2310.

Table 6. Maximum Current Rating (Including Channels, Instrument Bus, and Signal Reference)

Per Channel	1.5 A
Sum of All Channels	24 A

Table 7. Fault Bus Maximum Current Rating Per Fault Bus Signal (SET-2310 with NI Part number ending with -02L. See part number label on the unit. NI Part Number has the format of 115790C-02L)

Chassis Intake Temperature	Maximum Current Rating
0 °C to 35 °C	8 A
35 °C to 40 °C	6 A

Table 8. Fault Bus Maximum Current Rating Per Plug-in Module (SET-2310 with NI Part number ending with -02L. See part number label on the unit. NI Part Number has the format of 115790C-02L)

Chassis Intake Temperature	Maximum Current Rating
0 °C to 35 °C	16 A

Chassis Intake Temperature	Maximum Current Rating
35 °C to 40 °C	12 A

Table 9. Fault Bus Maximum Current Rating Per Fault Bus Signal (SET-2310 with NI Part number ending with –01L or with SET Part Number. See part number label on the unit. NI Part Number has the format of 115790C-01L. SET Part Number has the format of 9040BGR0340A01)

Signal Voltage	Chassis fan intake temperature	Maximum Current Rating
≤ 18 VDC	0 °C to 35 °C	8 A
≤ 18 VDC	35 °C to 40 °C	6 A
>18VDC to ≤ 25 VDC	0 °C to 40 °C	6 A
>25VDC to ≤ 35 VDC	0 °C to 40 °C	4.5 A
>35VDC to ≤ 42 VDC	0 °C to 40 °C	3.5 A
>42 VDC to ≤ 50 VDC	0 °C to 40 °C	3 A
>50 VDC to ≤ 60 VDC	0 °C to 40 °C	2.5 A

Table 10. Fault Bus Maximum Current Rating Per Plug-in Module (SET-2310 with NI Part number ending with –01L or with SET Part Number. See part number label on the unit. NI Part Number has the format of 115790C-01L. SET Part Number has the format of 9040BGR0340A01)

Signal Voltage	Chassis fan intake temperature	Maximum Current Rating
≤ 18 VDC	0 °C to 35 °C	16 A
≤ 18 VDC	35 °C to 40 °C	12 A
>18VDC to ≤ 25 VDC	0 °C to 40 °C	12 A
>25VDC to ≤ 35 VDC	0 °C to 40 °C	9 A
>35VDC to ≤ 42 VDC	0 °C to 40 °C	7 A
>42 VDC to ≤ 50 VDC	0 °C to 40 °C	6 A
>50 VDC to ≤ 60 VDC	0 °C to 40 °C	5 A

Environmental Guidelines



Notice Failure to follow the mounting instructions in the product

documentation can cause temperature derating.



Notice This product is intended for use in indoor applications only.

Environmental Characteristics

Table 11. Temperature

Characteristic	Specification
Operating	0 °C to 40 °C chassis intake
Storage	-40 °C to 85 °C

Table 12. Humidity

Characteristic	Specification
Operating	10% to 90% relative, non condensing
Storage	5% to 95% relative, non condensing

Table 13. Pollution Degree

Characteristic	Specification
Pollution degree	2

Table 14. Maximum Altitude

Characteristic	Specification
Maximum altitude	2000 m

Table 15. Shock and Vibration

Characteristic	Specification
Operating vibration	5 Hz to 500 Hz, 0.3 g RMS
Non-operating vibration	5 Hz to 500 Hz, 2.4 g RMS
Operating shock	30 g, half-sine, 11 ms pulse
Non-operating shock	50 g, half-sine, 11 ms pulse