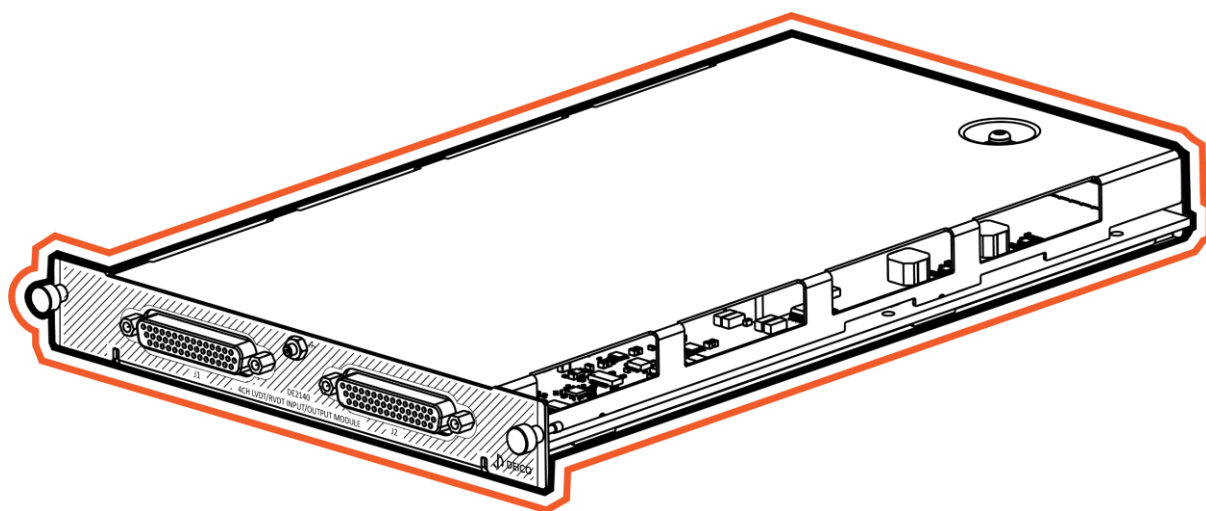


DE2140 DATASHEET

LVDT/RVDT INPUT/OUTPUT MODULE



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DESCRIPTION

LVDT/RVDT Input/Output Module is a powerful data acquisition and waveform generation module. The module can be used with LXI Switching and DAQ Mainframe 8 Slot (DE2000) and LXI Single Module Mainframe (DE2001).

The general features of LVDT/RVDT Input/Output Module are listed below.

Key Features

- ⇒ 4 LVDT/RVDT input channels/simulated outputs
- ⇒ 16-bit resolution
- ⇒ 4, 5 and 6-wire configuration ability
- ⇒ 100Hz to 10kHz excitation frequency range
- ⇒ Up to 50mA excitation current
- ⇒ Fully isolated (Channel to Channel and Channel to Mainframe)

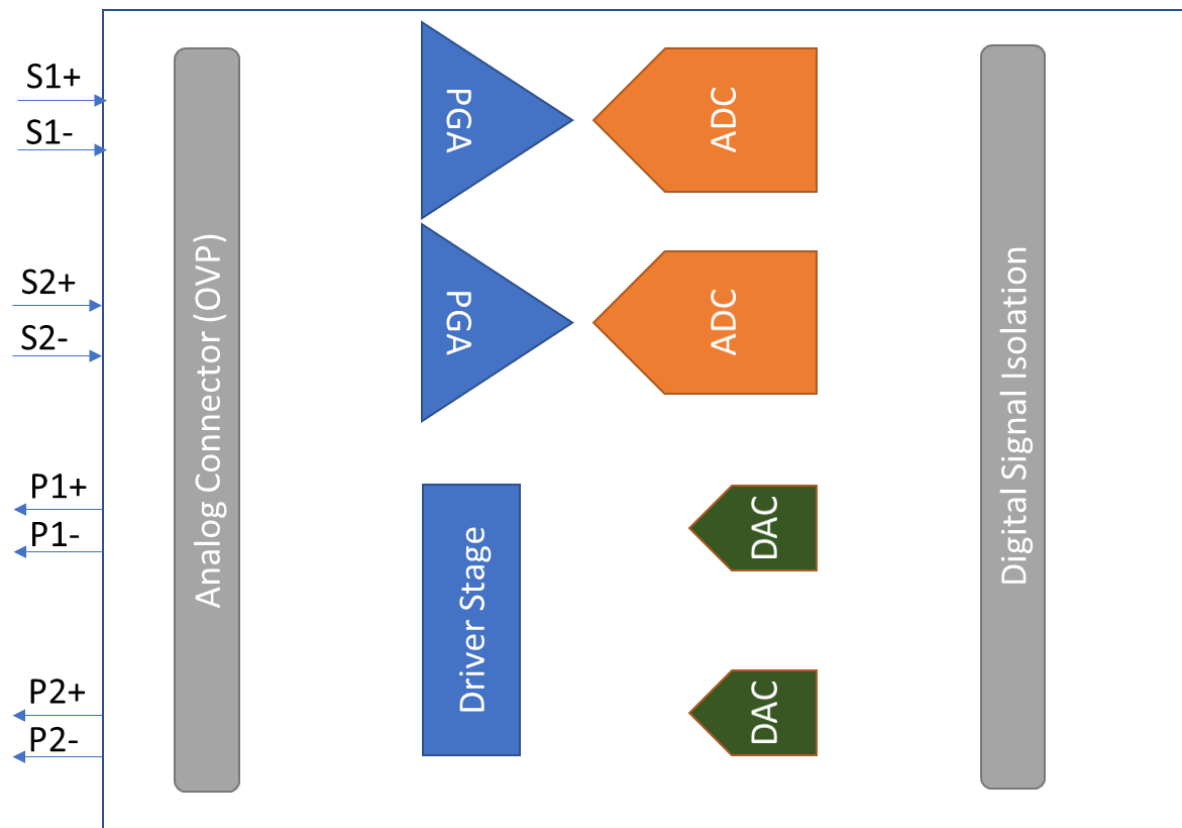
DE2140 is compatible with *IEC 60068-2-1 / IEC 60068-2-2 / IEC 60068-2-78 / IEC 60068-2-27 / IEC 60068-2-64 / EN 61326 (IEC 61326) / EN 55011 (CISPR 11) / AS/NZS CISPR 11 / FCC 47 CFR Part 15B / ICES-001* standards.

Areas of application include:

- ⇒ LAB Usage
- ⇒ Sensor Output Simulation
- ⇒ Data Acquisition
- ⇒ Automated Test Equipment

HARDWARE OVERVIEW

Circuitry



Circuit Diagram for One Channel

Hardware Specifications

Electrical

Specification	Min	Typical	Max	Notes
Resolution	-	16-bit	-	-
Input Signal Voltage	-	-	28Vrms	-
Output Signal Voltage	-	-	10Vrms	-
Output Signal Drive Current	-	-	50mA	-
Configuration	-	-	-	4, 5 and 6-wire
Excitation Frequency	100Hz	-	10kHz	-

Physical

Specification	Description
Dimensions (L/W)	281.5mm x 180.1mm
Height (H)	25.7mm
Front Panel Connectors (x2)	HARTING DSUB44 PN: 09563527613

Environmental

Specification	Condition	Value
Operating Humidity	Relative, non-condensing	10% - 90%
Storage Humidity	Relative, non-condensing	5% - 95%
Operating Temperature	Forced-air cooling from chassis	0°C - 55°C
Storage Temperature	-	-40°C - 71°C

SOFTWARE OVERVIEW

This module is compatible with IVISwch class.

SIGNAL CONNECTIONS

Front Panel Connectors Pinout

J1 Pin	J1 Pin Description	J2 Pin	J2 Pin Description
1	P1-(CH2)	1	P1-(CH4)
2	P2+(CH2)	2	P2+(CH4)
18	S1-(CH2)	18	S1-(CH4)
3	S1+(CH2)	3	S1+(CH4)
4	S2+(CH2)	4	S2+(CH4)
20	GND(CH2)	20	GND(CH4)
5	GND(CH2)	5	GND(CH4)
6	NC	6	NC
22	NC	22	NC
7	NC	7	NC
8	NC	8	NC
24	NC	24	NC
9	NC	9	NC
10	GND(CH1)	10	GND(CH3)
26	P1+(CH1)	26	P1-(CH3)
11	P1-(CH1)	11	P1+(CH3)
12	P2+(CH1)	12	P2+(CH3)
28	S1-(CH1)	28	S1-(CH3)
13	S1+(CH1)	13	S1+(CH3)
14	S2+(CH1)	14	S2+(CH3)
30	GND(CH1)	30	GND(CH3)
15	GND(CH1)	15	GND(CH3)
16	P1+(CH2)	16	P1+(CH4)
32	GND(CH2)	32	GND(CH4)
19	S2-(CH2)	19	S2-(CH4)
35	GND(CH2)	35	GND(CH4)
36	NC	36	NC
21	NC	21	NC

37	NC	37	NC
38	NC	38	NC
23	NC	23	NC
39	NC	39	NC
40	GND(CH1)	40	GND(CH3)
25	GND(CH1)	25	GND(CH3)
41	GND(CH1)	41	GND(CH3)
42	GND(CH1)	42	GND(CH3)
27	P2-(CH1)	27	P2-(CH3)
43	GND(CH1)	43	GND(CH3)
44	GND(CH1)	44	GND(CH3)
29	S2-(CH1)	29	S2-(CH3)
31	GND(CH2)	31	GND(CH4)
33	GND(CH2)	33	GND(CH4)
17	P2-(CH2)	17	P2-(CH4)
34	GND(CH2)	34	GND(CH4)

SAFETY GUIDELINES



Caution Do not operate the DE2140 in a manner not specified in this document. Product misuse can result in a hazard. You can compromise the safety protection built into the product if the product is damaged in any way. If the product is damaged, return it for repair.

COMPATIBILITY GUIDELINES

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC). These requirements and limits provide reasonable protection against harmful interference when the product is operated in the intended operational electromagnetic environment.

This product is intended for use in industrial locations. However, harmful interference may occur in some installations, if the product is connected to a peripheral device or test object, or if the product is used in residential or commercial areas. To minimize interference with radio and television reception and prevent unacceptable performance degradation, install and use this product in strict accordance with the instructions specified in the product documentation.

Furthermore, any changes or modifications to the product not expressly approved by DEICO could void your authority to operate it under your local regulatory rules.



Caution To ensure the specified EMC performance, operate this product only with shielded cables and accessories.

Caution To ensure the specified EMC performance, the length of any cable attached to front connectors must not be longer than 3 m (10 ft.)

SUPPORTING PRODUCTS & SOFTWARE

DE2140 should be used with LXI Switching and DAQ Mainframe 8 Slot (DE2000) or LXI Single Module Mainframe (DE2001).



Note If DE2140 is used with DE2001, Ethernet speed will be 1Gbps.



Caution Do not operate DE2140 without DE2000 or DE2001. Do not try to connect anything to the rear panel connector.



Contact

DEICO Head Office

Teknopark Ankara, Serhat Mah.,
2224 Cad., No:1 F Blok, Z-12,
Yenimahalle, Ankara, Türkiye

support@deico.com.tr

+90 312 395 68 44



www.deico.com.tr