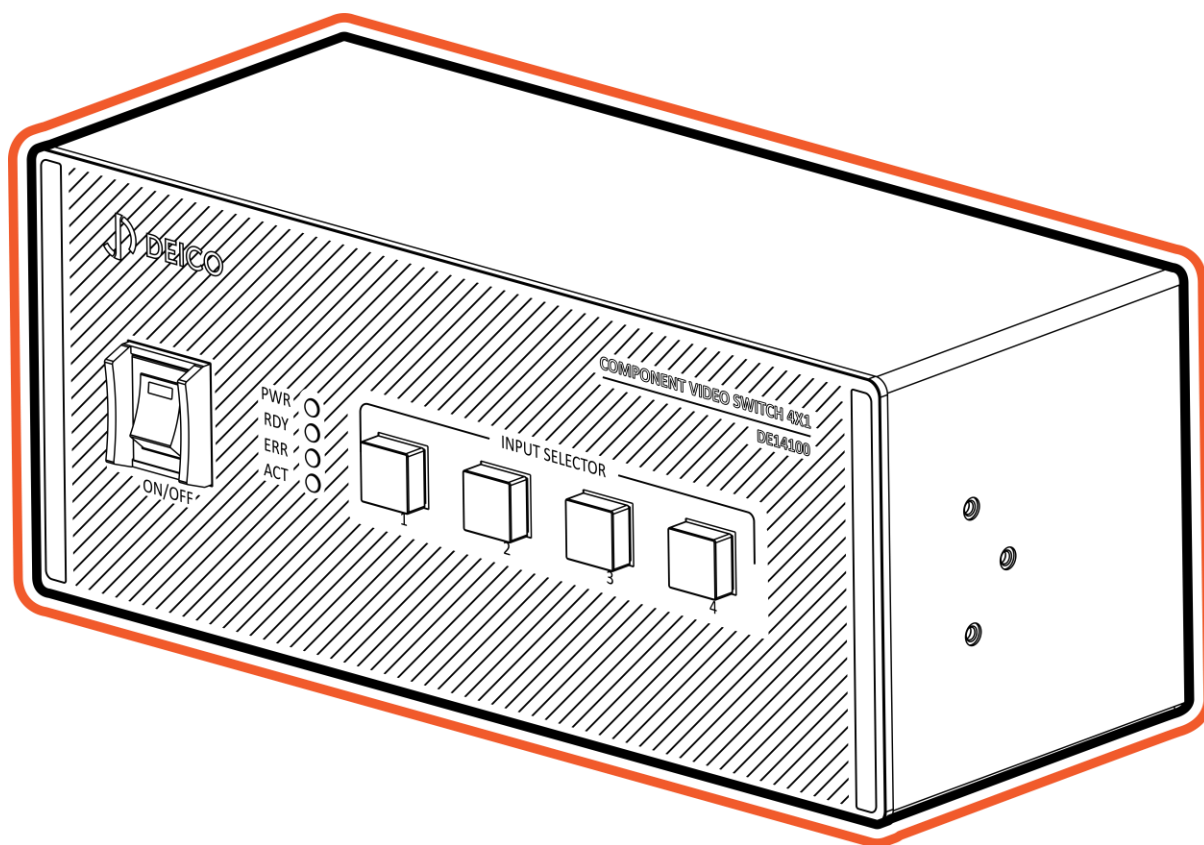


DE14100 DATASHEET

COMPONENT VIDEO SWITCH 4X1



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DESCRIPTION

The DE14100 – Component Video Switch 4x1 product switches four video inputs to one video output. DE14100 provides user buttons for switching. DE14100 also provides Ethernet, USB, RS-232, and GPIO interfaces for programming switch configurations. It maintains high resolution video – beautiful HDTV resolutions up to 1080i are easily achieved.

Key Features

- ⇒ Accepts 480i, 480p, 576i, 576p, 720p and 1080i resolutions
- ⇒ 100Mbps ethernet interface
- ⇒ USB2.0 full-speed interface
- ⇒ RS-232 interface
- ⇒ Discrete I/O control
- ⇒ User button control
- ⇒ USB type-C or barrel jack power in

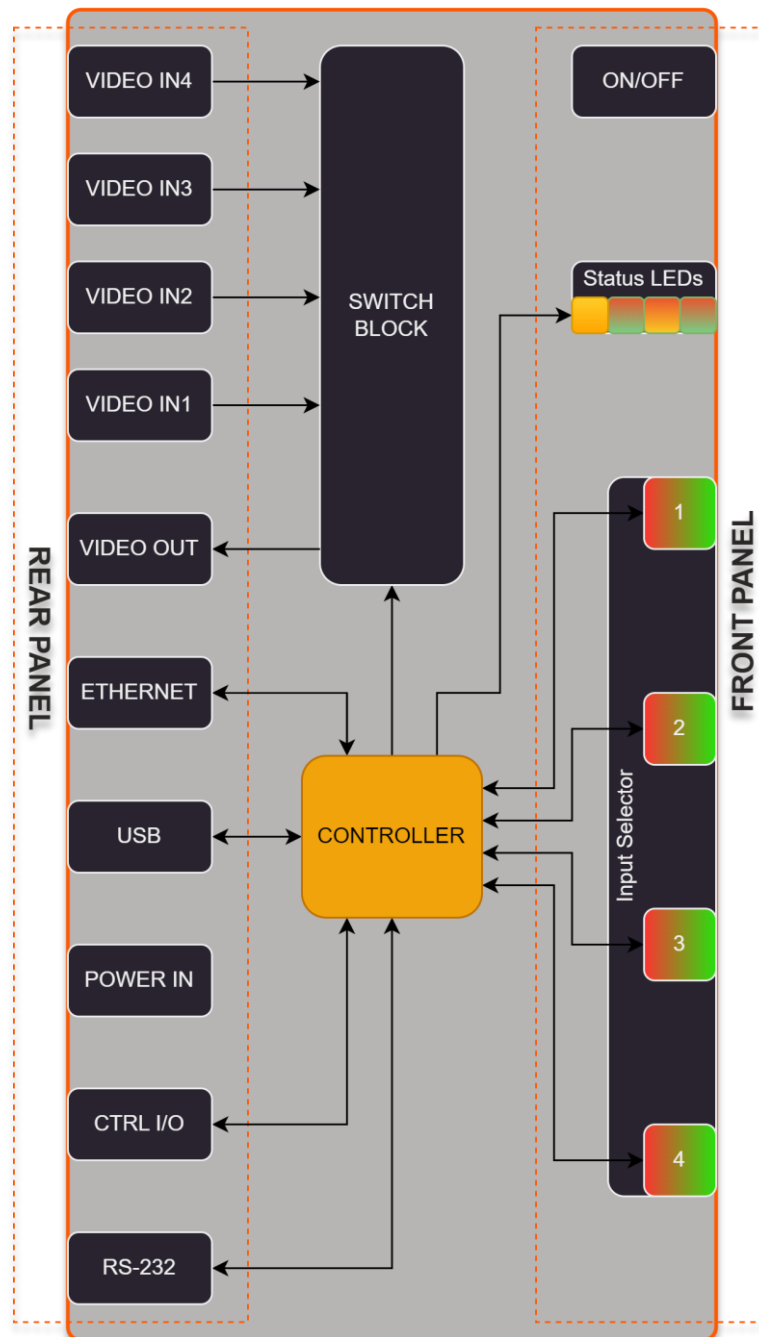
DE14100 is compatible with *IEC 60068-2-1 / IEC 60068-2-2 / IEC 60068-2-78 / IEC 60068-2-27 / IEC 60068-2-64 / EN 61326 (IEC 61326) / EN 55011 (CISPR 11) / AS/NZS CISPR 11 / FCC 47 CFR Part 15B / ICES-001* standards.

Areas of application include:

- ⇒ Video Switching
- ⇒ Component Video Testing

HARDWARE OVERVIEW

Circuitry



DE14100 General Block Diagram

Hardware Specifications

General

Specification	
Video Input	4 Composite Videos (YPbPr), 1Vpp/75Ω on a BNC connector
Video Output	1 Composite Video (YPbPr), 1Vpp/75Ω on a BNC connector
Maximum Video Output	2Vpp
Video Bandwidth (-3dB)	750MHz (2Vpp)
Differential Gain Error	0.02%
Differential Phase Error	0.02°
K-Factor	<0.03%
Crosstalk	-85dB@5MHz, and -58dB@100MHz
Coupling	DC
Control Mode	Local + Remote
Control Connector	DB9, RJ45
Power Input	USB Type-C or Barrel Jack 2.5x5.5mm

Electrical

Specification	Min	Typical	Max
Input Voltage	5V	12V	24V
Power Consumption	-	12V DC, 205mA	-
Reverse Voltage Protection	-	-	40V
Ethernet	-	-	100Mbps
RS232	-	-	250kbps
USB2.0	-	-	12Mbps
Discrete I/O VIH	1.8V	3.3V	3.6V
Discrete I/O VIL	-0.3V	0V	1.1V

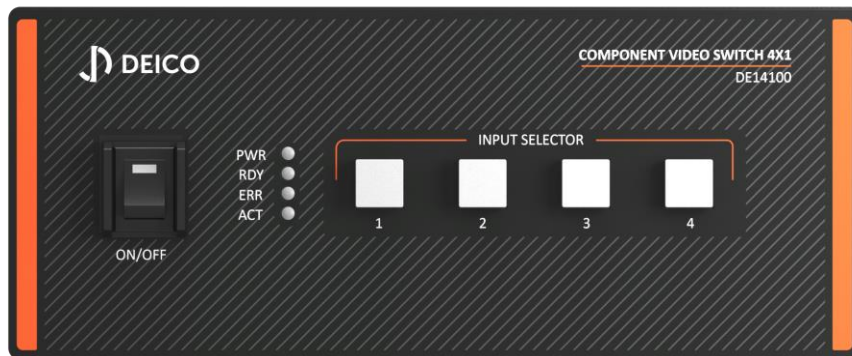
Physical

Specification	Typical	Notes
Dimensions	215mm x 88.5mm x 88.5mm	Interface connectors are not included.
Power Connector	PN: CUI / PJ-090BH 2.50mm ID (0.098"), 5.50mm OD (0.217")	Mating Connector (recommended): CUI / PP3-002B.
RS232 & I/O Connector	PN: Kycon, Inc. / K88X-ED-9S-BRJ	Standard DSUB9 mating connector can be used.

Environmental

Specification	Condition	Value
Operating Humidity	Relative, non- condensing	10% - 90%
Storage Humidity	Relative, non- condensing	5% - 95%
Operating Temperature	Operational	0°C - 40°C
Storage Temperature	Non-operational	-40°C - 85°C

Front Side



DE14100 Front Side

Rear Side



DE14100 Rear Side

SIGNAL CONNECTIONS

Power Connector



Power Plug 2.5x5.5mm

Pin	Description
Center Pin	Positive
Outer Leads	Negative

RS-232 Connector (DB9)

Pin	Description
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	RTS
8	CTS
9	NC

CTRL IO Connector (DB9)

Pin	Description
1	CTRL IO1
2	CTRL IO2
3	CTRL IO3
4	CTRL IO4
5	GND
6	CTRL IO5
7	CTRL IO6
8	CTRL IO7
9	CTRL IO8



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