DSTY101 57120001-KY

DSTY 101 Analog Isolation Amplifier

ABB DSTY101 57120001-KY is a single-channel analog isolation amplifier in the S100 I/O family. It isolates and conditions a voltage or current loop before the signal is handled by the connected ABB control system.

PRODUCT SNAPSHOT

BRAND	FAMILY
ABB	ABB S100 I/O
PART	ORIGIN / HS
57120001-KY	Sweden / 8537101190

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PRODUCT OVERVIEW

ABB DSTY101 57120001-KY is a single-channel analog isolation amplifier in the S100 I/O family. It isolates and conditions a voltage or current loop before the signal is handled by the connected ABB control system.

1. Galvanically separates one analog measurement or control channel
2. Accepts the documented voltage or current signal range on one channel
3. Supports S100 I/O signal conditioning in legacy ABB control installations
4. Provides a 24 V DC-powered isolation stage between field and system circuits

SYSTEM COMPONENTS

- ABB S100 I/O installation
- 24 V DC module supply
- one bipolar voltage or current circuit
- matching field and system-side terminals

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
DSAI145 57120001-HA	Analog input module	**Open product page**
DSAI130 57120001-P	Analog input board	**Open product page**
DSAO110 57120001-AT	Analog output board	**Open product page**
DSTA170 57120001-FC	ABB Master termination unit	**Open product page**

TECHNICAL DATA

PARAMETER	VALUE
Product identifier	57120001-KY
Module designation	DSTY 101
Product type	I/O module
Channels	1
Signal voltage range	0 to +/-10 V
Signal current range	0 to +/-20 mA
Isolation withstand	3 kV

PARAMETER	VALUE
Linearity accuracy, bipolar	0.3%
Linearity accuracy, asymmetric	0.5%
Supply voltage	24 V DC
Exchange number	7650 055-210
Product hierarchy	S100 I/O module
Battery quantity	0
WEEE category	5, small equipment

TECHNICAL NOTE

Identify the field side, system side and 24 V DC supply conductors before removing DSTY101 57120001-KY. Recheck isolation, polarity, zero and span with a controlled source after replacement and before reconnecting the process loop.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Analog-loop galvanic isolation

Galvanically separates one analog measurement or control channel

Bipolar voltage signal conditioning

Accepts the documented voltage or current signal range on one channel

Bipolar current signal conditioning

Supports S100 I/O signal conditioning in legacy ABB control installations

Legacy S100 I/O cabinet renewal

Provides a 24 V DC-powered isolation stage between field and system circuits

PRODUCT PRECAUTIONS

1. Verify DSTY101 and 57120001-KY on the physical marking before disconnecting conductors.
2. Isolate the 24 V DC supply and both sides of the analog circuit before removal.
3. Label field, system and supply terminals so the isolation boundary is preserved.
4. Use ESD controls and keep conductive contamination away from the amplifier assembly.
5. Do not apply the voltage and current input ranges to the same terminal arrangement simultaneously.
6. Confirm polarity for the selected bipolar or asymmetric signal execution.
7. Verify dielectric separation according to the site's approved low-energy test method.
8. Prove zero, span and control-system indication with a controlled source before release.

ENGINEER FAQ

Q1 Which signal types can DSTY101 57120001-KY isolate?

The ABB product data identifies one channel for 0 to +/-10 V or 0 to +/-20 mA signal conditioning.

Q2 What supply is required by DSTY101 57120001-KY?

Provide the documented 24 V DC supply with field and system circuits correctly separated at the terminals.

Q3 Where is DSTY101 57120001-KY used?

ABB classifies it as an S100 I/O isolation-amplifier module for legacy Advant and related control-system installations.

Q4 What isolation rating applies to DSTY101 57120001-KY?

The ABB product description specifies 3 kV isolation for the single analog channel.

Q5 How should polarity be checked on DSTY101 57120001-KY?

Identify field-side and system-side conductors, then apply a controlled signed input and confirm the expected signed output before reconnecting the process loop.

Q6 What must be recorded before replacing DSTY101 57120001-KY?

Record the terminal assignment, selected voltage or current mode, signal polarity, loop zero and span, and the 24 V DC supply connection.

Q7 How is DSTY101 57120001-KY tested after installation?

Use an approved source to check zero, positive span, negative span where used, isolation behavior and the receiving control-system indication.

Q8 Can a different S100 isolation amplifier replace DSTY101 57120001-KY?

Only when its channel type, signal range, supply, isolation rating, terminal arrangement and control-system documentation match the installed circuit.

SOURCE ABB Product Detail 57120001-KY | Exchange No. 7650 055-210

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