

# APTER POWER FIELD WORKBOOK

INSTALLATION | APPLICATION | VERIFICATION

## DSTY101 57120001-KY

### DSTY 101 Analog Isolation Amplifier

CONTROLLED ENGINEERING COPY

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.

| INSTALLATION IDENTITY | REQUIRED VALUE      |
|-----------------------|---------------------|
| Complete model        | DSTY101 57120001-KY |
| Manufacturer part     | 57120001-KY         |
| Hardware type         | 57120001-KY         |
| System family         | ABB S100 I/O        |



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# 01 PRE-INSTALLATION PLAN

- 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.

## MATCHED HARDWARE

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

## INSTALLATION CONTROL RECORD

| CONTROL ITEM       | REQUIRED RECORD                                                  |
|--------------------|------------------------------------------------------------------|
| Identity           | DSTY101 57120001-KY / 57120001-KY recorded                       |
| Physical interface | ABB S100 I/O installation                                        |
| Companion check    | 24 V DC module supply                                            |
| Functional proof   | Galvanically separates one analog measurement or control channel |
| Application test   | Analog-loop galvanic isolation                                   |

## 02 WIRING & INTERFACE CHECKS

| CHECK ITEM                     | REQUIRED 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               |
| 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 |

### FIELD 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.

### 03 COMMISSIONING WORKFLOW



#### COMMISSIONING ACCEPTANCE EVIDENCE

| EVIDENCE ITEM      | ACCEPTANCE CONDITION                                             |
|--------------------|------------------------------------------------------------------|
| Identity           | DSTY101 57120001-KY / 57120001-KY recorded                       |
| Physical interface | ABB S100 I/O installation                                        |
| Companion check    | 24 V DC module supply                                            |
| Functional proof   | Galvanically separates one analog measurement or control channel |
| Application test   | Analog-loop galvanic isolation                                   |

## 04 RETURN-TO-SERVICE RECORD

- ☐ Confirm polarity for the selected bipolar or asymmetric signal execution.
- ☐ Verify dielectric separation according to the site's approved low-energy test method.
- ☐ Prove zero, span and control-system indication with a controlled source before release.
- ☐ Confirm the intended process response before normal operation.

### VERIFICATION RECORD

TECHNICIAN

DATE

CABINET / POSITION

FINAL DIAGNOSTIC STATE

### RELATED PRODUCTS ON APTER POWER

| MODEL               | SYSTEM ROLE                 | APTER POWER PAGE                  |
|---------------------|-----------------------------|-----------------------------------|
| DSAI145 57120001-HA | Analog input module         | <a href="#">Open product page</a> |
| DSAI130 57120001-P  | Analog input board          | <a href="#">Open product page</a> |
| DSAO110 57120001-AT | Analog output board         | <a href="#">Open product page</a> |
| DSTA170 57120001-FC | ABB Master termination unit | <a href="#">Open product page</a> |

### SOURCE IDENTIFIERS

ABB Product Detail 57120001-KY

Exchange No. 7650 055-210

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