

V18345-2010421001

TZIDC Digital Electro-Pneumatic Positioner

INSTALLATION, INTERFACE AND VALIDATION WORKBOOK

ABB V18345-2010421001 is a TZIDC positioner that converts a 4-20 mA setpoint into double-acting fail-safe pneumatic actuator movement.

STEP	GATE	ENGINEERING PURPOSE
01	IDENTIFY	Confirm article, host and hardware
02	ISOLATE	Secure power and stored energy
03	CONNECT	Restore documented interfaces
04	VALIDATE	Prove diagnostics and function

WORKBOOK PURPOSE

Field-ready identity, isolation, connection, commissioning and closeout records for this exact ABB article.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



V18345-2010421001

Installation Readiness Gate

Complete the identity, host-system and isolation checks before disturbing the installed hardware.

- 1

Confirm the complete order code and actuator duty.
- 2

Secure the valve and process in the maintenance state.
- 3

Isolate both signal loops and the air supply.
- 4

Record polarity, feedback and pneumatic connections.

Pre-Work Evidence

EVIDENCE ITEM	RECORDED VALUE
Complete article marking	V18345-2010421001
Host / carrier	ABB TZIDC digital valve-positioning system
Primary system role	Converts a 4-20 mA two-wire setpoint into controlled pneumatic actuator movement
Acceptance boundary	Prove signal tracking, feedback and fail-safe travel.
Source record	TZIDC Digital Positioner Data Sheet

WORK AUTHORIZATION RECORD

Work order: _____ Drawing / revision: _____
Checked by: _____ Date: _____

Isolation and Access Register

CONTROL POINT	ENGINEER RECORD
Incoming supply	Isolated / proved
Stored energy	Discharged / proved
Field connections	Identified / protected
ESD control	Established / recorded

Pre-Work Documentation

DOCUMENT	ENGINEER RECORD
Connection photograph	Reference / file
Configuration backup	Reference / revision
Diagnostic baseline	Reference / result

Connection and Installation Sequence

INSTALLATION PRINCIPLE

Match the NAMUR or VDI/VE 3845 mounting, 4-20 mA polarity, NPT air connections and analog feedback loop. Run Auto Adjust and prove controlled fail-safe travel.

- 1 Inspect mounting, linkage, tubing and grounding.
- 2 Restore travel direction, limits and Auto Adjust.
- 3 Review LCD position, deviation and diagnostics.
- 4 Prove signal tracking, feedback and fail-safe travel.

Connection Record

CONNECTION GROUP	AS-FOUND / AS-LEFT RECORD	STATUS
Power / field connection	Reference / terminal	Checked
Signal / interface	Reference / connector	Checked
Ground / shield	Reference / point	Checked
Accessory / carrier	Reference / part	Checked

MODEL-SPECIFIC RELEASE LIMIT

Confirm the complete order code, actuator mounting, 4-20 mA input and feedback, double-acting fail-safe air routing, NPT connections, supply pressure and Auto Adjust result.

Interface Acceptance Criteria

ACCEPTANCE ITEM	REQUIRED EVIDENCE
Identity	V18345-2010421001
Host match	ABB TZIDC digital valve-positioning system
Connection proof	Restore travel direction, limits and Auto Adjust.
Configuration proof	Review LCD position, deviation and diagnostics.

Commissioning and Acceptance Record

Record each controlled verification step before the equipment returns to automatic operation.

NO.	ACCEPTANCE CHECK	RESULT	RECORD
1	Article and host identity	PASS / FAIL	Initial / date
2	Mechanical installation	PASS / FAIL	Initial / date
3	Power and field wiring	PASS / FAIL	Initial / date
4	Grounding and shielding	PASS / FAIL	Initial / date
5	Configuration restoration	PASS / FAIL	Initial / date
6	Signal or power-path response	PASS / FAIL	Initial / date
7	Diagnostics and alarms	PASS / FAIL	Initial / date
8	Final functional release	PASS / FAIL	Initial / date

Engineering Notes

RECORD AREA	ENGINEER ENTRY
As-found condition	
Corrective action	
As-left configuration	
Outstanding restriction	
Release authorization	

CONTROLLED COMMISSIONING

Prove signal tracking, feedback and fail-safe travel.

Diagnostics and Release Log

EVENT	ENGINEERING RECORD
Initial energization	Result / observation
Interface or signal response	Result / observation
Alarm and diagnostic review	Result / observation
Functional release	Name / date

Maintenance Verification and Closeout

Linear valve positioning

Positions a NAMUR-mounted linear actuator.

Rotary actuator modulation

Controls a VDI/VDE 3845 rotary actuator.

Double-acting fail-safe duty

Applies the documented safe-position response.

Analog position feedback

Returns actuator position through 4-20 mA.

Related Engineering Pages

MODEL	ENGINEERING ROLE	APTER POWER PAGE
DSTD110A	Apter Power product page	View DSTD110A page
DSQC346G	Apter Power product page	View DSQC346G page
RR1A-01	Apter Power product page	View RR1A-01 page
INTKM01	Apter Power product page	View INTKM01 page
PFTK101A-YM222001-UC	Apter Power product page	View PFTK101A-YM222001-UC page
3BSE004725R1-DSTD196	Apter Power product page	View 3BSE004725R1-DSTD196 page
DSTY101-57120001-KY	Apter Power product page	View DSTY101-57120001-KY page
SPA-ZC-402	Apter Power product page	View SPA-ZC-402 page

MANUFACTURER SOURCE RECORD

TZIDC Digital Positioner Data Sheet
ABB Measurement & Analytics DS/TZIDC-EN Rev. I

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



V18345-2010421001