ABB Service Manual

V18345-2021421001

1. Description

V18345-2021421001

3. Product Information

V18345-2021421001 | ABB | TZIDC Electro-Pneumatic Positioner

Manufacturer : ABB

Product No. : V18345-2021421001

Product type : TZIDC Electro-Pneumatic Positioner

V18345 : TZIDC = intelligent, configurable with indicator and operator panel

Case / Mounting : 2 = Case made of aluminium, varnished,protection IP 65 (NEMA 4X) for mounting to linear actuators acc. to DIN/IEC 534 / NAMUR or to rotary actuators acc. to VDI/VDE 3845 as above, but with mechanical position indicator

Input / communication port : 2 = Input 4...20 mA, two-wire 1 = with connector plug for LKS adapter and FSK module for HART communication

Explosion protection : 1 = ATEX Ex II 2 G EEx ib II C T6

Output / safe position (in case of an electrical power failure) : 4 = Double acting, fail safe

Connections : 2 = Cable: Thread 1/2-14 NPT, Air pipe: Thread 1/4-18 NPT

Option modules for analog or digital position feedback : 1 = Plug-in module analog position feedback (sign. range 4 ... 20 mA)

Optional mechanical kit for digital position feedback : 0 = without

Design (varnish / coding) : 1 = Standard

Output signal (two-wire technology) Nominal range : 4 ... 20 mA

Digital input : Control voltage 0 ... 5 V DC logical switching state "0" 11 ... 30 V DC logical switching state "1"

Digital output (control circuit to DIN 19234/NAMUR) Supply voltage : 5 ... 11 V DC

Supply pressure : 1.4 ... 6 bar (20 ... 90 psi)

Air consumption : < 0.03 kg/h / 0.015 scfm (independent of supply pressure)

Housing Material/Protections : Aluminum, protection class IP 65 / NEMA 4X

Surface/color : Electrostatic dipping varnish with epoxy resin, stove-hardened. Case varnished black, RAL 9005, matte, housing cover Pantone 420.

Pneumatic connections : Threads G 1/4 or 1/4-18 NPT

Weight : 1.7 Kg

Operating parameters

Signal range

Minimum signal 4 mA, maximum signal 20 mA (0...100 %)

freely selectable for split_x0001_range operation

minimum range 20 % (3.2 mA),

recommended range > 50% (8.0 mA)

Action (signal)

Direct: Signal 4...20 mA = position 0...100 %

Reverse: Signal 20...4 mA = position 0...100 %

Characteristic curve (travel = f {signal})

linear,

equal percentage 1:25 or 1:50 or 25:1 or 50:1,

or user_x0001_configurable with 20 reference points

Digital input

One of the following protective functions can be selected for

the digital input, either via the local operator panel or remotely

via the configuration program:

_x0001_ no function (default setting)

_x0001_ move to 0% position

_x0001_ move to 100 % position

_x0001_ hold last position

_x0001_ disable local configuration

_x0001_ disable local configuration and operation

_x0001_ disable any access (no local or remote access (via a PC))

The selected function is activated once the 24 V DC signal is

no longer applied (< 10 V DC).