

for 4 ... 20 mA two-wire technology

- Low operating cost
- Compact design
- Well-proven technology
- Robust and environmentally ruggedized
- Wide operating temperature range -40 ... 85 °C
- Easy to commission, “single pushbutton” operating philosophy
- Mechanical position indicator
- ATEX, FM, CSA, GOST and IECEx approvals
- For SIL2 safety loops



Compact, well-proven, and flexible

5.6 Environmental capabilities

Ambient temperature

For operation, storage and transport: -40 ... 85 °C

When using proximity switches SJ2-S1N (NO): -25 ... 85 °C

Relative humidity

Operational (with closed housing and air supply switched on): 95 % (annual average), condensation permissible

Transport and storage: 75 % (annual average), non-condensing

5.7 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.

Electrical connections

Screw terminals: Max. 1.0 mm² for options,
Max. 2.5 mm² for analog signal.

Note: Do not expose the terminals to strain.

Cable entry: 2 tap holes 1/2-14 NPT or
M20 x 1.5 (1 x with cable gland and
1 x with pipe plug)

Pneumatic connections

Threads G 1/4 or 1/4-18 NPT

Weight

1.7 kg

Mounting orientation

any orientation allowed

Dimensions

see dimensional drawings

5.8 Safety Integrity Level



Note

Applies to applications with single-acting and depressurizing pneumatics.

EXIDA report no.: ABB 03/09-13 R003, Revision R1.0

The positioner TZIDC and the emergency shutdown module for TZIDC meet the requirements regarding:

- functional safety in accordance with IEC 61508 / IEC 61511-1
- explosion protection (depending on the model)
- electromagnetic compatibility in accordance with EN 61000

In case of a failure of electrical power or compressed air supply or when a positioner malfunction occurs, the actuator is depressurized by the positioner, and the return spring in the actuator moves the valve to a pre-defined, safe end position (either OPEN or CLOSED).

SIL specific safety-related characteristics:

	TZIDC	Emergency shutdown module for TZIDC
Category	SIL2	SIL2
SFF	85 %	94 %
PFDav	7.52×10^{-4}	1.76×10^{-4}
$\lambda_{dd} + \lambda_s$	1011 FIT	718 FIT
λ_{du}	172 FIT	40 FIT

For details refer to the Management Summary in the SIL-Safety Instructions 37/18-79XA.

7 Dimensions

All dimensions in mm (inch)

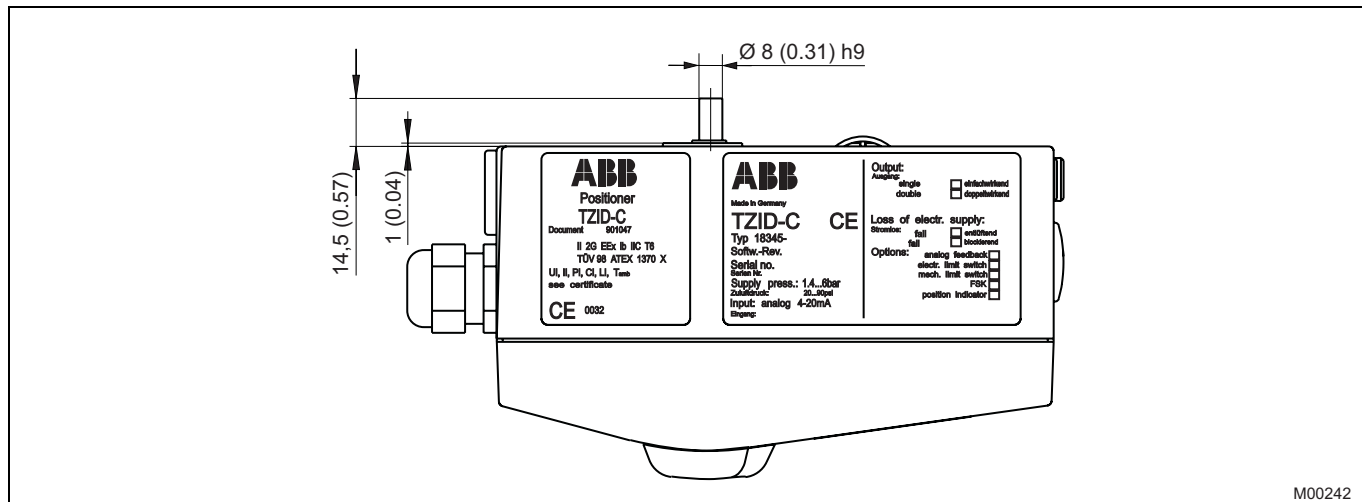


Fig. 9: Top view

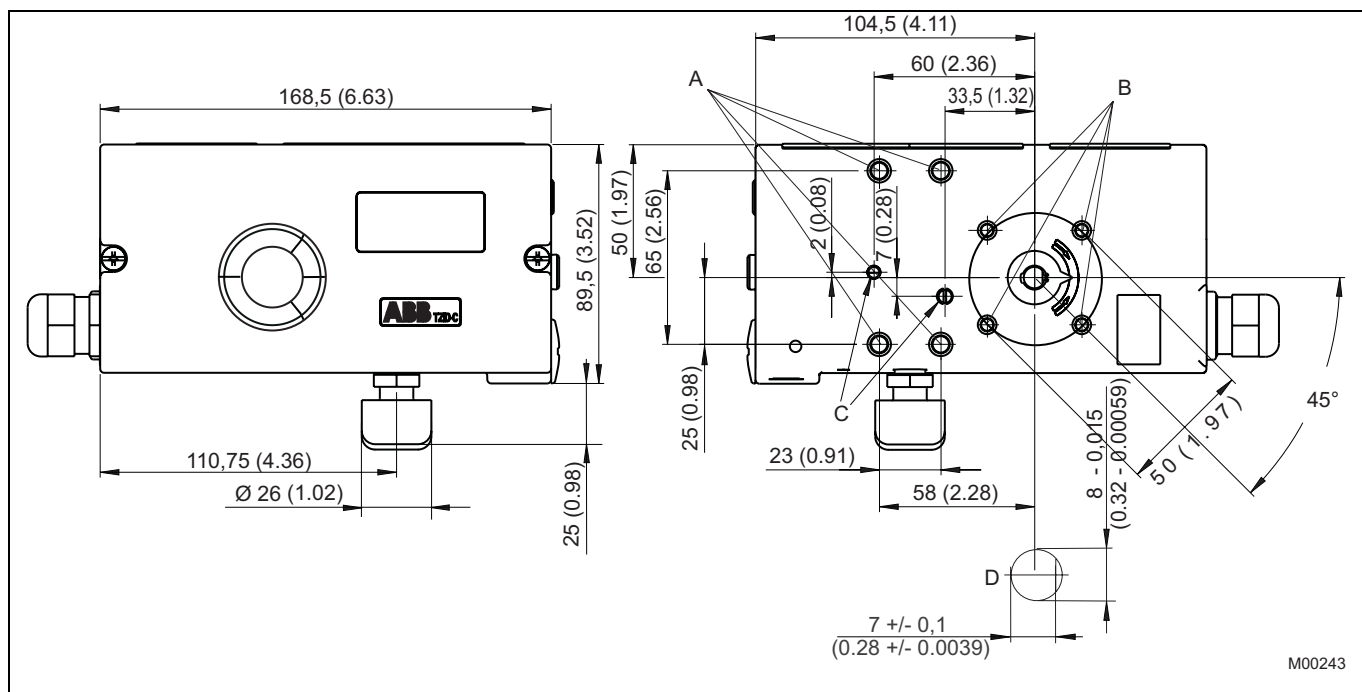


Fig. 10: Front and rear views

- A Tap hole M8 (10 mm low)
- B Tap hole M6 (8 mm low)

- C Tap hole M5 x 0.5 (air vents for direct mount)
- D Sensor shaft (larger than scale)