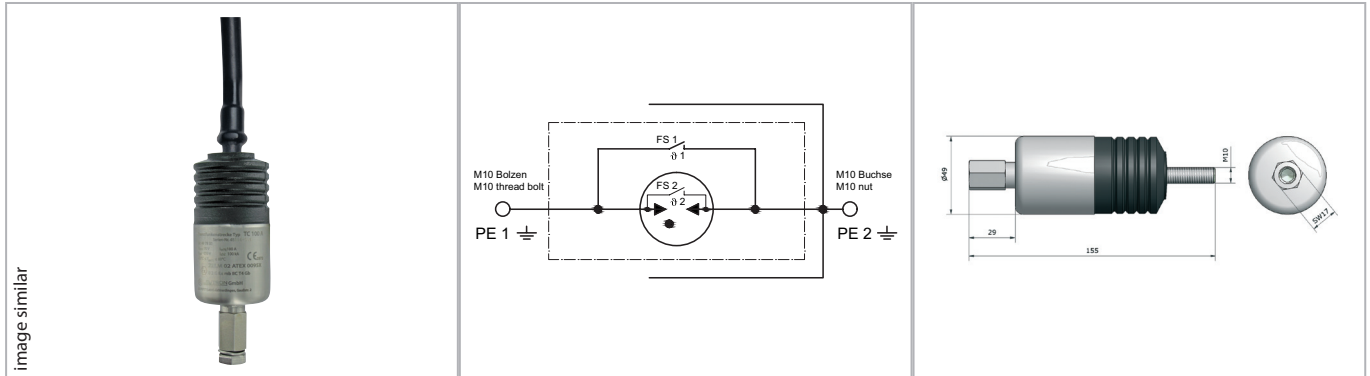


# Datasheet

## Rare-gas-filled insulation spark gaps

### ATEX certificated for explosion hazardous zones



**ATEX approved Ex-protection category. Lightning protective equipotential bonding in hazardous areas, e.g. insulating flanges at gas pipelines, at cathodic corrosion protection and protection of pressure transmitters.**  
**TC 100 A assembled with 500 mm connecting cable.**

- High-quality industrial ceramics
- Rare-gas filled, hermetically sealed
- Free from radioactive substances
- Extremely low sparkover voltage
- High discharge capacity up to 100 kA
- High reliability, robust
- Stable performance, long service life
- Fail-safe behaviour (twofold)
- Test standard DIN EN 62561-3:2018-02
- EAC certification

Technical Data		TC 100 A -K1/500
IEC category		Class H
Nominal DC sparkover voltage at 100 V/s	U <sub>agN</sub>	100 ±20% V=
Nominal AC sparkover voltage (50 Hz)	U <sub>aw</sub>	70 ±20% V
Typical impulse sparkover voltage	U <sub>as</sub>	650 V
Max. impulse sparkover voltage	U <sub>as</sub>	950 V
Lightning impulse current (10/350 μs) total	I <sub>total</sub>	100 kA
Nominal impulse discharge current (10 x 8/20 μs)	I <sub>n</sub>	10x 100 kA
5x Nominal alternating discharge current at 50 Hz, 1 s, 3 min pause	I <sub>wn</sub>	100/1 A/s
Nominal alternating discharge current (50 Hz)		200/0,5 A/s
Spark-gap extinguishing conditions	V <sub>ex</sub>	< 70 V / < 20 A
Insulation resistance at 10 V, 100 V		> 1 GΩ
Self-capacitance at 1 kHz		20 pF
Test category/climatic category		DIN IEC 60068-1 / 40/90/21
Relative humidity		10%...95% rh
Operating temperature range	TU	-20°C ≤ T amb ≤ 80 °C
Degree of protection		IP 67
ATEX protection class		II 2 G Ex mb IIC T4 Gb (ZELM 02 ATEX 0095X)
Dimensions (Ø × L)		ca. 49 × 127 (total 155) mm
3x lightning impulse current (10/350 μs), long-duration current (CENELEC/BTTF 62-2)	I <sub>imp</sub>	75 kA / 38 As / 1,45 MJ/Ω plus 150 A/0,5 s/75 As (max. 1x 100 kA 10/350 μs)
20x lightning impulse current (10/45 μs) half-wave (DIN 48810)		60 kA / 10 As / 0,1 MJ/Ω

Order Data	
Product	TC 100 A-K1/500
Article-No.	49 51 00