GXT Series
3-electrode Spark Gaps

The data should be read in conjunction with the 3-electrode Spark Gap Preamble.

DESCRIPTION

The GXT Series of triggered 3-electrode spark gaps are gas discharge tubes, hermetically sealed in a ceramic/metal envelope. Tubes with a DC hold-off voltage in the range 3 to 38 kV are available. This is signified by numerals following the type letters, expressed in hundreds of volts, i.e. the range of available types is from GXT50B (5 kV) to GXT380B (38 kV).

TYPICAL APPLICATIONS

- Medical lithotripsy
- Crowbar circuits
- High di/dt switching
- High voltage switches for laser firing
- High energy switches
- General switching applications

ELECTRICAL AND PHYSICAL CHARACTERISTICS

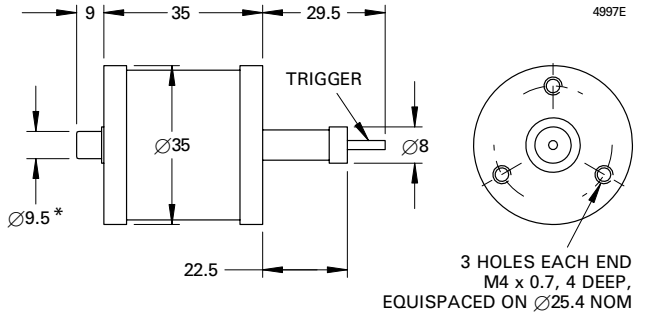
All ratings given in this data sheet are absolute, non-simultaneous ratings. It is the equipment designer's responsibility to ensure that they are not exceeded. The spark gap life depends on circuit conditions such as peak discharge current and duration, charge transfer per discharge and the repetition rate.

DC hold-off voltage range (see note 1)	5 to 38 kV
Hold-off voltage tolerance	0 to +10%
Operating voltage range	40 to 80% of hold-off
Trigger requirements	50% of hold-off (5 kV min) at $\geqslant$15 kV/μs (open circuit peak amplitude), trigger current $>$1.0 A
Repetition rate	100 pps max
Peak current, single discharge	100 kA max
Charge transfer, single discharge	0.5 C max
Capacitive stored charge transfer (230 μC); total transferred	1 mC max
Cumulative charge transfer at 1 mC per discharge, 6 Hz, 3 kA peak current (oscillating)	1000 C typ
Anode delay time	$<$15 μs (see note 2)
Operating temperature	$-$20 to +90 °C
Mechanical shock, half-sine	40 g for 6 ms
Mounting position (see Preamble)	any
Net weight	140 g approx

NOTES

1. Other voltage variants are available. For use above 10 kV, immersion in insulating oil to BS148:1972 or equivalent is recommended, or the devices can be supplied with an insulating sleeving around the trigger for operation in air.
2. Typical value measured from 90% of trigger breakdown to anode peak current, at 60 to 80% of hold-off voltage.

OUTLINE (Dimensions in millimetres, maximum unless stated)

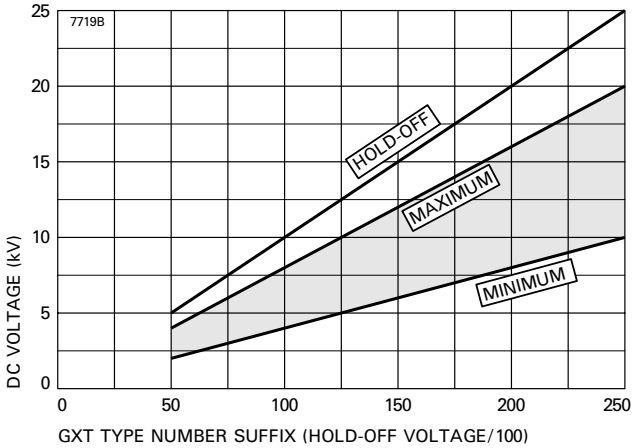


Outline Notes

The holes at each end are in the same angular position to within $\pm$ 5°; **one end must be flexibly connected.**

*** Do not clamp or connect to this cover.**

OPERATING VOLTAGE RANGE



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