Switching spark gap

Triggered SSG

Series/Type:	**TF28**
Ordering code:	**B88069X9091B011**
Date:	2017-08-21
Version:	07

Features

- Long life time
- Stable performance over life
- High voltage and high current switching
- Very short breakdown time
- High reliability by robust design
- RoHS-compatible

Application

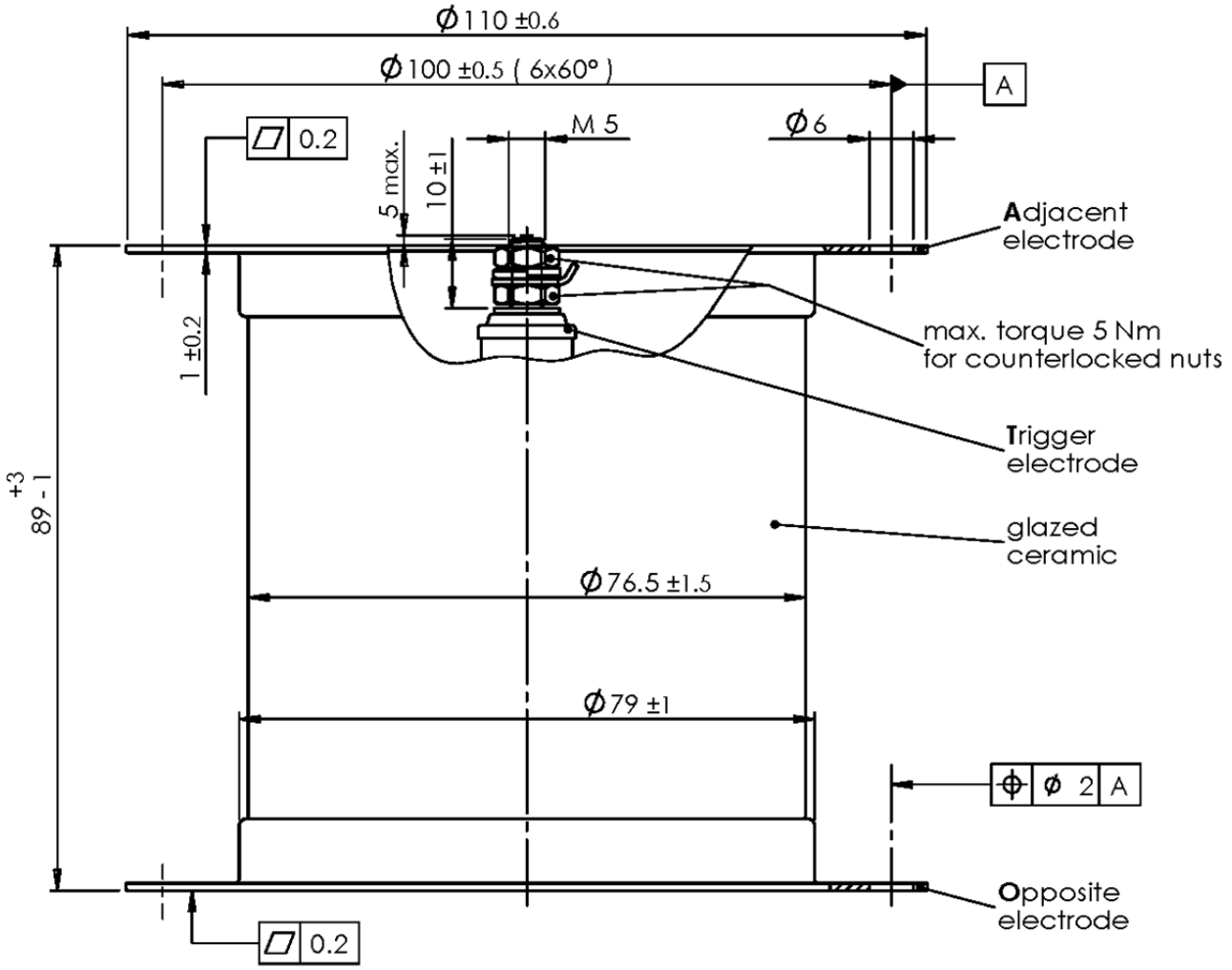
- High power impulse switching for medical applications

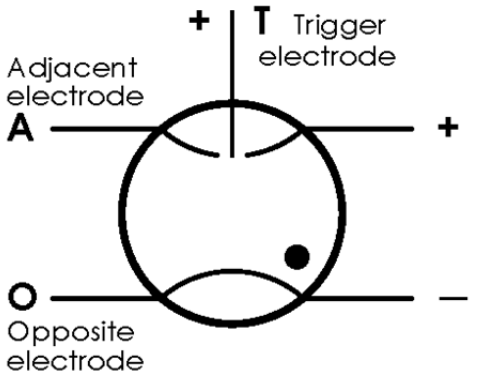
Electrical specifications

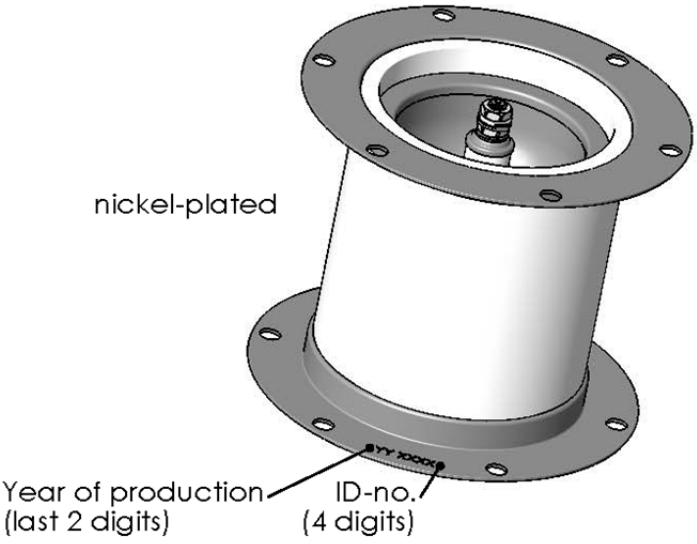
Self breakdown voltage - SBV	28 ±10	kV %
Electrical life time		
Triggered breakdown voltage V_B, initial	8.5 ... 22	kV
Triggered breakdown voltage V_B, during life test	10.0 ... 20	kV
Switching operations in total (minimum)	2 000 000	Impulses
at V_B = 10 kV	400 000	Impulses
at V_B = 15 kV	1 200 000	Impulses
at V_B = 19.5 kV	400 000	Impulses
Typical failure rate	< 0.1	%
Test circuit parameters [1)]		
Operation voltage V_B	19.5	kV
Discharge capacitance C	1.2	µF
Load circuit inductance L	1.0	µH
Load circuit ohmic resistance R	0.75	Ω
Discharge peak current I_P	~ 8.0	kA
Trigger parameters [1)]		
Trigger transformer primary voltage	240	V
Trigger capacitance	0.45	µF
Open circuit peak amplitude	≥ 35	kV
Trigger voltage slope	≥ 15	kV/µs
Trigger peak current	~ 10	A
General technical data		
Insulation resistance at 100 V	> 100	MΩ
Typical breakdown time	≤ 50	ns
Typical delay time, V_B at 70% SBV	< 100	ns
Typical delay time, V_B at 40% SBV	< 10	µs
Maximum switching frequency	2	Hz
Weight	~ 750	g
Marking, black positive	**TF28 YY** TF_ _ - Series 28 - Nominal voltage in kV YY - Year of production	

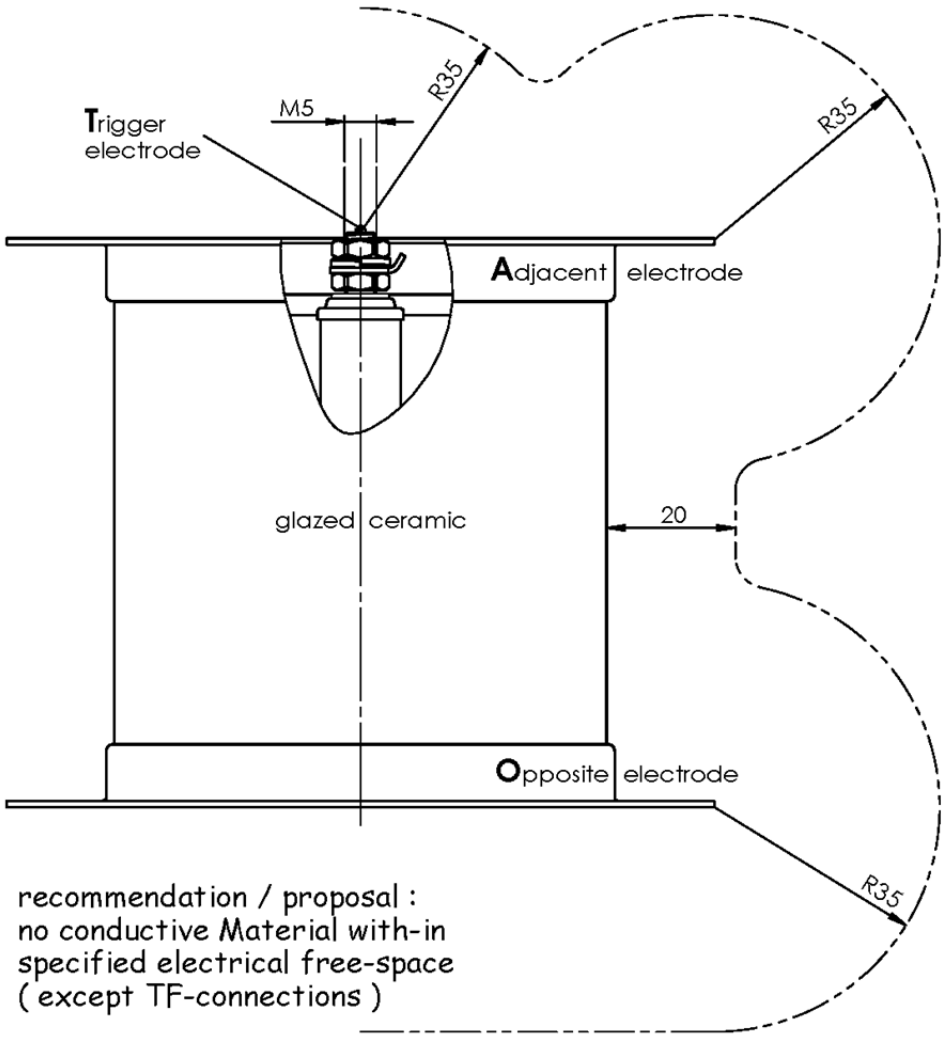
[1)] According to enclosed test circuit (page 4) with strongly damped oscillation, 3 half waves

Dimensional drawing in mm

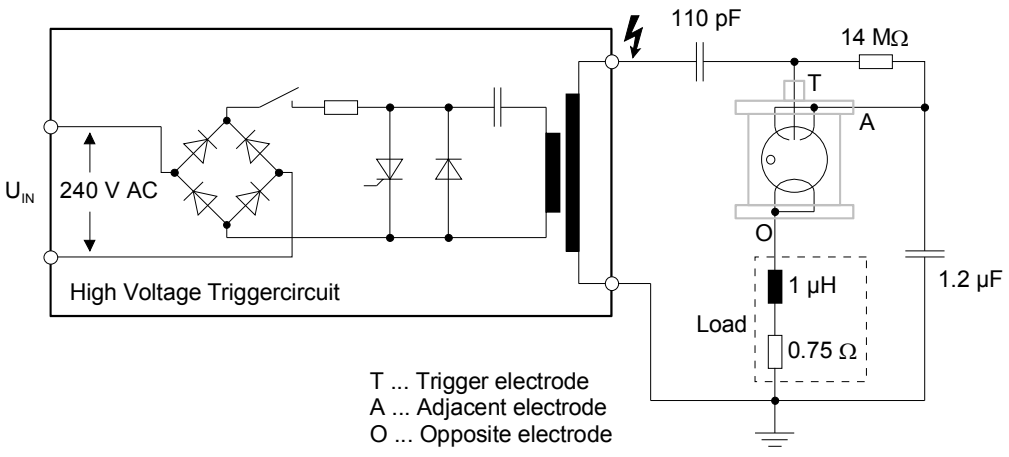






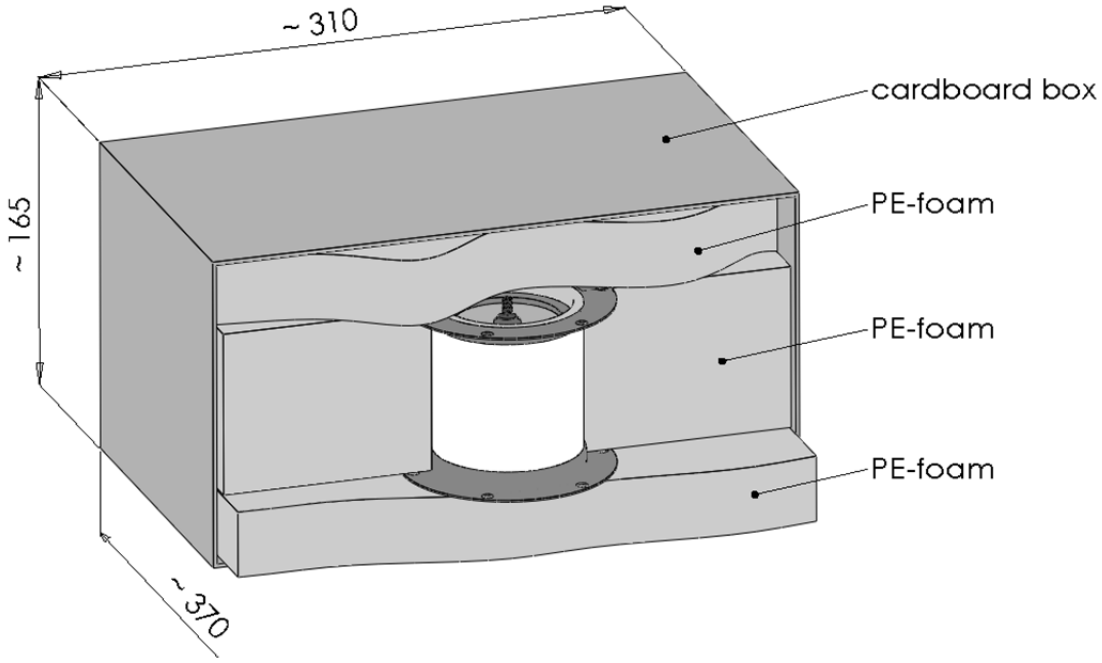


Test circuit



Ordering code and packing advice

*B88069X9091**B011** = 1 pc. in foam tray*



Cautions and warnings

- Switching spark gaps may be used only within their specified values.
- Switching spark gaps must be handled with care and must not be dropped.
- Do not continue to use damaged switching spark gaps.
- Store switching spark gaps in original packaging only. Do not open the package prior to storage.
- Operators who suffer from excessive sensitivity to metals should wear light gloves (e.g. cotton gloves) when performing manual assembly operations involving switching spark gaps.

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