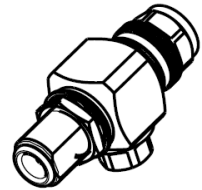
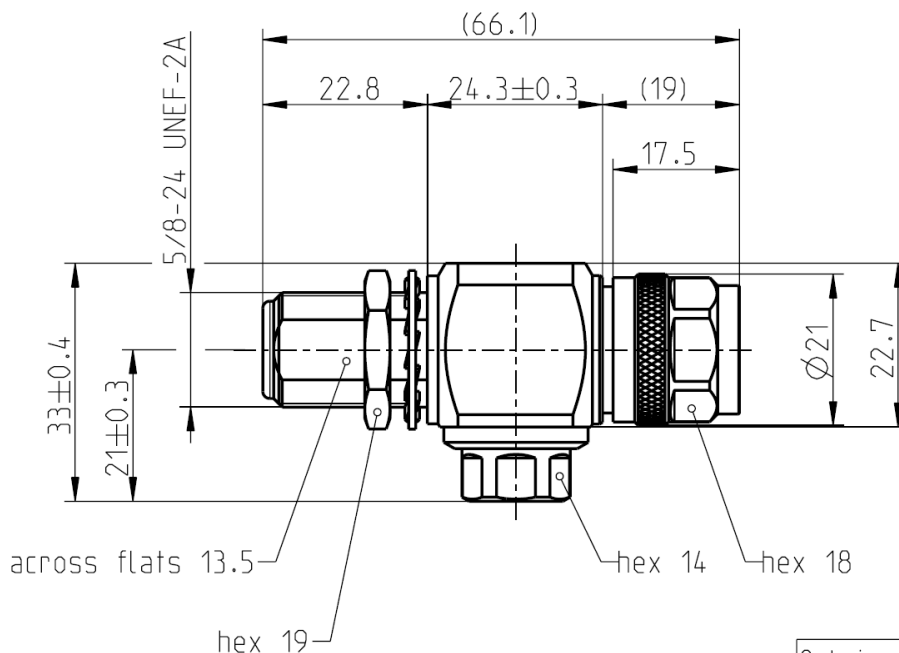


N 50 Ω

**SURGE ARRESTER**  
WITH GAS CAPSULE JACK-PLUG

**53BK501-SXXXN1**



| Ordering number | Voltage depends on gas capsule | Gas capsule order number |
|-----------------|--------------------------------|--------------------------|
| 53BK501-S090N1  | 90V                            | 53ZB01-090               |
| 53BK501-S230N1  | 230V                           | 53ZB01-230               |
| 53BK501-S350N1  | 350V                           | 53ZB01-350               |

All dimensions are in mm; tolerances according to ISO 2768 m-H

**Interface**

According to

IEC 61169-16, MIL-PRF-39012, CECC 22210

**Documents**

Assembly instruction  
Panel piercing

53 MV-A001  
B 13

**Material and plating**

**Connector parts**

Center contact jack side  
Center contact plug side  
Outer contact  
Body  
Dielectric  
Gasket  
Gasket

**Material**

Beryllium copper  
Brass  
Brass  
Brass  
PS  
Silicone  
NBR

**Plating**

Silver, 3-6 µm  
Silver, 3-6 µm  
Flash white bronze over silver(e.g. Optargen®)  
Flash white bronze over silver(e.g. Optargen®)

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RF\_35/05:10/6.0

N 50 Ω

**SURGE ARRESTER**  
WITH GAS CAPSULE JACK-PLUG

**53BK501-SXXXN1**

**Electrical data**

|                                                |                                                                                                                                    |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Impedance                                      | 50 Ω                                                                                                                               |
| Frequency                                      | DC to 3 GHz                                                                                                                        |
| Return loss                                    | ≥ 30 dB, DC to 1 GHz<br>≥ 15 dB, 1 to 2 GHz<br>≥ 10 dB, 2 to 2.7 GHz                                                               |
| Insertion loss                                 | ≤ 0.1 dB, DC to 1 GHz                                                                                                              |
| Insulation resistance                          | ≥ 5 x10 <sup>3</sup> MΩ                                                                                                            |
| Center contact resistance                      | ≤ 1 mΩ                                                                                                                             |
| Outer contact resistance                       | ≤ 0.25 mΩ                                                                                                                          |
| Power handling (at 20 °C, sea level, VSWR 1.0) | P=U <sup>2</sup> /R (W) (depending on the gas capsule)                                                                             |
| RF-leakage                                     | ≥ 128 dB up to 1 GHz                                                                                                               |
| Nominal impulse discharge current              | 20 kA, Wave 8/20 μS                                                                                                                |
| Rated threshold voltage DC                     | 90 V, Gas capsule order no.: 53Z B01-090<br>230 V, Gas capsule order no.: 53Z B01-230<br>350 V, Gas capsule order no.: 53Z B01-350 |
| Rated discharge current                        | 20 A AC                                                                                                                            |
| Attack time                                    | 8 μs                                                                                                                               |

**Mechanical data**

|                                          |                  |
|------------------------------------------|------------------|
| Mating cycles                            | min. 500         |
| Coupling nut retention                   | ≥ 450 N          |
| Center contact captivation: axial        | ≥ 28 N           |
| Coupling test torque                     | max. 1.7 Nm      |
| Recommended torque                       | 0.7 Nm to 1.1 Nm |
| Screw tightening torque with gas capsule | 9 Nm min.        |

**Environmental data**

|                                   |                                 |
|-----------------------------------|---------------------------------|
| Temperature range                 | -40°C to +85°C                  |
| Thermal shock                     | MIL-STD-202, Meth. 107, Cond. B |
| Corrosion                         | MIL-STD-202, Meth. 101, Cond. B |
| Vibration                         | MIL-STD-202, Meth. 204, Cond. B |
| Shock                             | MIL-STD-202, Meth. 213, Cond. I |
| Moisture resistance               | MIL-STD-202, Meth. 106          |
| Degree of protection (mated pair) | IEC 60529, IP68                 |
| 2002/95/EC (RoHS)                 | compliant                       |

**Tooling**

N/A

**Suitable cables**

N/A

**Packing**

|          |              |
|----------|--------------|
| Standard | 1 pce in bag |
| Weight   | 136.0 g/pce  |

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

| Draft                                                                                                                                                  | Date     | Approved  | Date     | Rev. | Engineering change number | Name                                                                                                                  | Date     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|----------|------|---------------------------|-----------------------------------------------------------------------------------------------------------------------|----------|
| Rong Fang                                                                                                                                              | 03/03/11 | M. Wimmer | 24/05/12 | b00  | 12-0003                   | M. Wimmer                                                                                                             | 24/05/12 |
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|                                                                                                                                                        |          |           |          |      |                           | Page<br>2 / 2                                                                                                         |          |