



## SPINNER Surge Protectors

## Installation and Grounding Instructions M30814b

These instructions are written for qualified and experienced personnel. Please study them carefully before starting any work. Any liability or responsibility for the results of improper or unsafe installation practices is disclaimed. Please respect valid environmental regulations for assembly and waste disposal.

SPINNER Surge Protectors provide reliable protection against any surge signals on coaxial transmission lines when installed and grounded correctly according to these instructions. Surges led from the inner to the outer conductor by the arrestor have to be led to the ground by suitable measures carried out according to the rules of IEC 62305.

### Installation

In accordance with IEC 62305 the installation of a bulkhead flange in a well-conducting grounded metal wall is recommended. The stub or gas discharge arrestor should be outside the wall in the unprotected side so that the wall protects the zone inside like a Faraday cage. For proper contact between the protector and the wall use the washer according to the figures below and tighten the mounting nut with the specified torque.

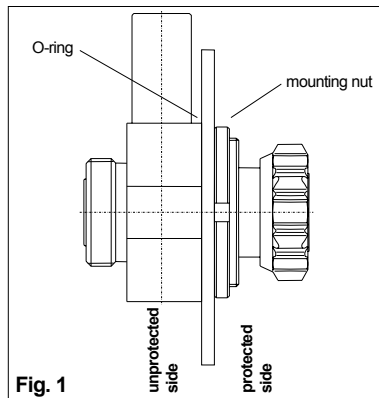


Fig. 1

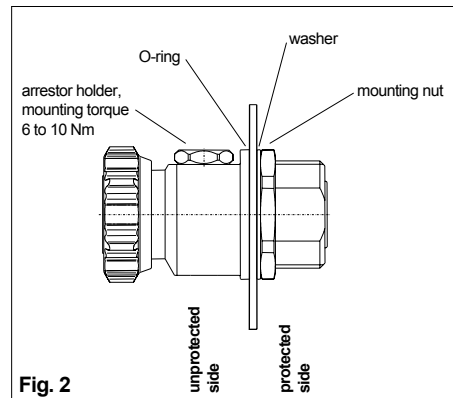


Fig. 2

If there is no suitable wall available or for protectors without bulkhead flange the installation of a grounding cable is essential (see Fig. 3). For effective lightning protection the cable or cord shall have a cross section of minimum 16 mm<sup>2</sup> / AWG 5. For general surge protection (no lightning) or as potential equalisation a cross section of 6 mm<sup>2</sup> / AWG 9 is sufficient. The grounding cable shall not be longer than 0.6 m (2 ft). Both types of ready to install cables are available at Spinner optionally.

The installation directly onto a grounding bar should be preferred to a cable. An array of several protectors on an adequate bar is possible (see Fig. 4).

### Installation for Outdoor Applications

Notice the correct placement of the sealing O-ring (see Fig. 1 and 2)!

The mating connector (with sealing) has to be suitable for outdoor installation and must be connected with the specified coupling torque of the manufacturer.

### General Remarks and Recommendations

- Be sure that all contacts are clean and smooth (important for surge protection and water proofness) before installation.
- The path of grounding current shall be the shortest possible.
- Mounting torque for bulkhead mounting / grounding:
  - AF ≤ 19 mm: 8 to 12 Nm
  - AF ≤ 27 mm: 18 to 22 Nm
  - AF > 27 mm: 30 to 35 Nm
- The bending torque applied by connected components must not exceed the specified value (N type 1 Nm max. / 7-16 type 50 Nm max.).

### Warnings

- Notice that only a complete grounding and protection system according to IEC 61024 and IEC 62305 perfectly protects equipment and personnel.
- Notice that Spinner surge protectors protect only the entrance of RF lines into the protection zone. All other lines (mains, telephone, data etc.) must be protected separately.
- Never handle or maintain surge protectors with RF power on the transmission line.
- Protectors for gas discharge arrestors are normally delivered without arrestor. Be sure an arrestor with suitable spark over voltage is inserted in the protector body before taking it into operation. Without arrestor no protection is provided and VSWR performance is degraded.
- For protectors with gas discharge arrestors notice to respect the specified maintenance rate. Change arrestor insert after a lightning stroke having destroyed components ahead (e.g. antenna).

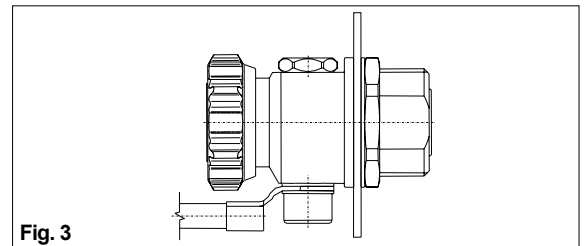


Fig. 3

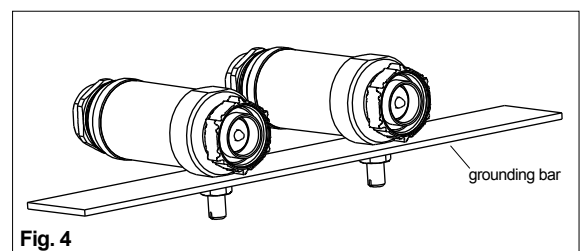


Fig. 4



部件名称/Component Name	有毒有害物质或元素/Toxic or Hazardous Substances and Elements					
	铅/Pb	汞/Hg	镉/Cd	六价铬/Cr6+	多溴联/PBB	多溴二噁/PBDE
金属零件/metal parts	X	0	0	0	0	0

产品在正常使用条件下,其环保使用期限才在此标识有效期内。 / The environmental protection use period is valid if the product is used as intended.