

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. Always make sure to use appropriate personal protection!

RFS Hybrid Arrestors provide reliable protection against dangerous surge signals on coaxial lines. This includes all kinds of interference e.g. resistive, magnetic field and electric field coupling caused by lightning strikes, switching and other natural or man made electrical effects.

Best protection is archived if the protector is properly integrated in the bonding/grounding system of the electronic equipment following the lightning protection zone principle of IEC 61312-1.

## 1. Bulkhead assembly, preferred installation

The protection zone principle favors the feed through installation in a conductive bulkhead which is simultaneously the boarder to the higher protection zone containing the equipment to be protected. It is recommended to place surge arrestor outside as follows.



Note: If the grounding of entry panel is not possible, use wire connection as shown under point 2.

## 2. In-Line installation

If it is not possible to install the surge arrestor in a bulkhead assembly the protector should be connected to the bonding facility by a sufficiently sized grounding cable ( $16 \text{ mm}^2/\text{AWG 6 min. e.g.}$  with grounding cable Mod. No: GW-16-20) at short distance (0.5m / 1.5 ft max.).



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## 3. Procedure to replace the gas capsule of RFS surge arrestor

Note: Replacement of gas capsule can be necessary as part of a regular preventive maintenance program or in case of reported lightning strikes to the system. Further consideration is outside the scope of this document.

Gas capsule model: UC90-F

|  |   | 00   |                         |
|--|---|--|-------------------------|
| 1. Remove surge arrestor<br>from its position and<br>place on a clean working<br>surface | 2. Unscrew the stub with<br>open-ended spanner<br>(23mm af) | 3. Remove all piece-parts  | 4. Re-insert the spring |
|  |   | Contraction of the second seco |                         |
| 4. Insert the <u>new</u> gas   | 5. Fit the insulation                                       | 6. Carefully insert the  | 7. Screw together       |
| capsule  | sleeve over the basket                                      | stub and engage the  | carefully to mechanical |
|  |   | thread   | stop                    |

## 4. Warning

Disconnect or switch off in-line equipment when installing, checking, disconnecting and connecting lightning protectors. This includes also the exchange of gas capsule. Keep back from such activities during thunderstorms. Be aware that only a complete protection system according to IEC 61024-1 and IEC 61312-1 can protect your equipment and personnel against the impact of lightning. This includes an external lightning protection system with air terminal, down conductor and grounding system and bonding of all incoming and outgoing lines (e.g. protectors for mains, data and telephone lines) – not RF lines only. With gas capsule protectors take care that the gas capsule has been properly installed before putting the equipment into operation. Please also observe national and/or company regulations that may have more stringent requirements.