



SUHNER® SERIES 3406 SLIM LINE GAS CAPSULE PROTECTORS

Description

SUHNER series 3406 Slim Line protectors provide surge protection for any electronic equipment connected to coaxial lines up to 5.8 GHz. The gas capsule protection principle supports simultaneous transmission of RF, data and DC. The gas capsules are fixed integrated. The protectors can handle any induced surge signals but partial lightning current up to the specified current handling capability only. For higher lightning current handling refer to our gas capsule protector series 3401 and 3402. Multi-carrier applications with high RF peak power and special passive intermodulation requirements are covered by series 3409.



Features

- Surge protection 10 kA once, 5 kA multiple (8/20 μ s test pulse according to IEC 61000-4-5)
- Residual pulse energy <250 μ J (4 kV, 1.2/50 μ s; 2 kA, 8/20 μ s test pulse according to IEC61000-4-5)
- Gas capsule static sparkover voltage 150 to 250 V
- Frequency range from DC to 5.8 GHz (BNC DC to 4 GHz)
- Slim inline design
- Characteristic impedance 50 Ohms
- Connectorization N, TNC, BNC, SMA
- Bulkhead mountable

Applications

Suitable for coaxial links between indoor and outdoor units of all kind of wireless communications equipment including base stations and subscriber units. Keywords are BWA, WMAN, WLL, ISM, MMDS, LMDS, U-NII, WLAN with Bluetooth or Wi-Fi. Covering also PP and PMP radios with IF frequencies up to 5.8 GHz. Care has to be taken concerning the lightning current load. The risk assessment has to be conform to specifications. The protectors are especially suitable for subscriber units which are generally less exposed.

Specification

Electrical Data Requirements

RF:

- Impedance 50 Ω
 - Frequency range generally DC to 5.8 GHz, but refer to product detail specification
 - Return loss refer to product detail specification
 - Insertion loss refer to product detail specification
 - RF power transmission 25 W
- Protection:
- Surge current handling capability ... 10 kA once, 5 kA multiple (8/20 μ s test pulse)

Mechanical Data Requirements

- Coupling nut torque force according to IEC/MIL
- Durability (matings) 500 min.
- Bulkhead mounting torque force: ... 20 Nm/14.7 ft-lb

Environmental Data Requirements/Test Conditions

- Operation temperature range -40 °C... +85 °C / -40 °F... +185 °F
- Waterproof degree (IEC 529) refer to product detail specification
- Temperature shock MIL-STD-202, Meth. 107, Cond. B
- Moisture resistance MIL-STD-202, Meth. 106
- Vibration MIL-STD-202, Meth. 204, Cond. D

Material Data

Component Part	Standard	Material	Plating
Housing	QQ-B-626	brass	silver plating /gold flash
Male contacts	QQ-B-626	brass	gold plating
Female contacts	QQ-C-530	CuBe2	gold plating
Insulators	ASTM-D-1457	PTFE	
Gaskets	ASTM-E-1418 PS 1	silicone rubber	

Products

Series 3406, N interface



SUHNER Type	Frequency Range (GHz)	Connectors Unprotected/Protected Side* If bulkhead mount version, side of bulkhead marked "b".	Mounting/Grounding MH - hole for "b" M - screw brk - bracket	RL min.	IL max.	Water- proof	Weight	Drawing
3406.17.0009	DC-5.8	N(f) - N(f), b	MH24	20 dB	0.2 dB	IP65	90 g	fig. 1
3406.17.0012	DC-5.8	N(m) - N(f), b	MH24	20 dB	0.2 dB	IP65	95 g	fig. 2

Products

Series 3406, TNC interface



SUHNER Type	Frequency Range (GHz)	Connectors Unprotected/Protected Side* If bulkhead mount version, side of bulkhead marked "b".	Mounting/Grounding MH - hole for "b" M - screw brk - bracket	RL min.	IL max.	Water- proof	Weight	Drawing
3406.26.0004	DC - 5.8	TNC(m) - TNC(f), b	MH4	20 dB	0.2 dB	IP20	45 g	fig. 3

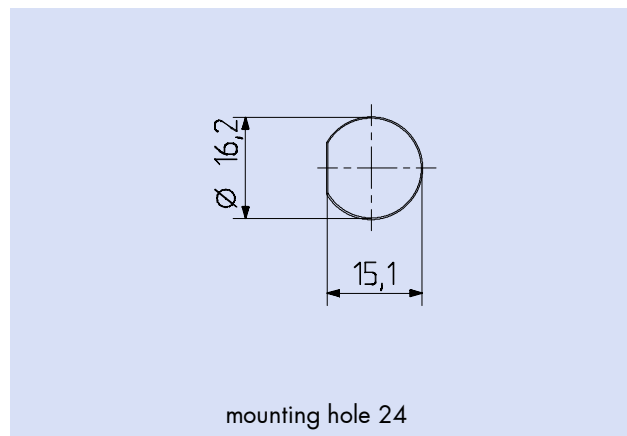
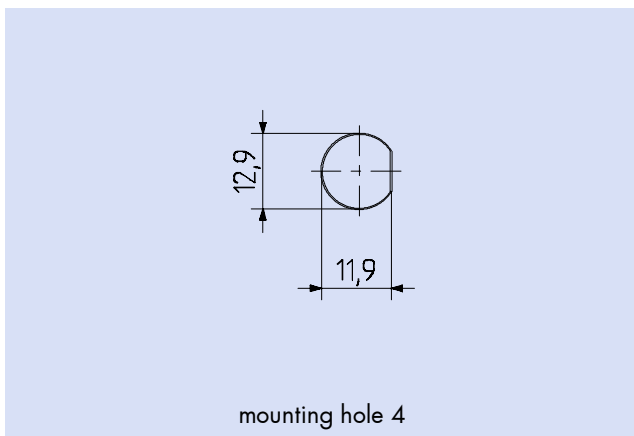
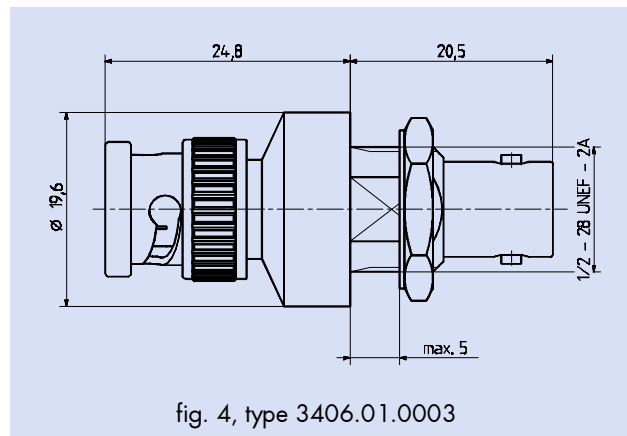
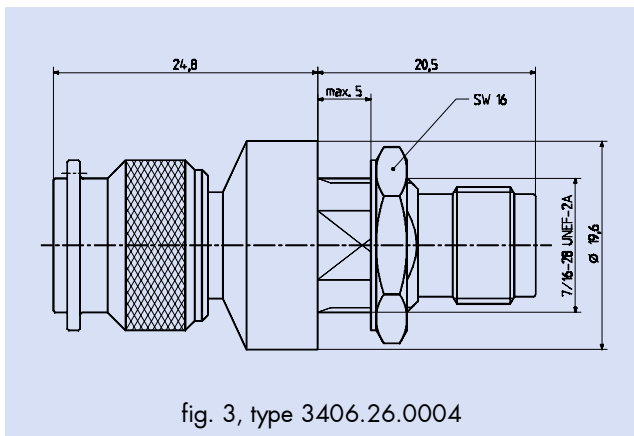
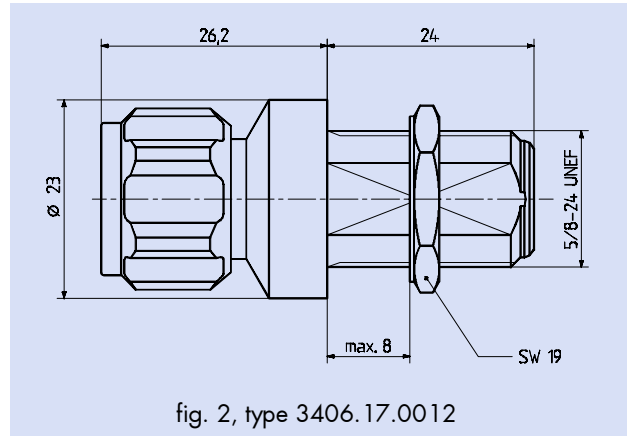
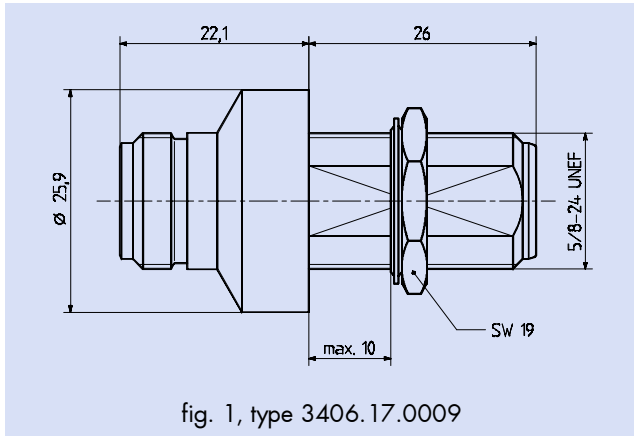
Products

Series 3406, BNC interface



SUHNER Type	Frequency Range (GHz)	Connectors Unprotected/Protected Side* If bulkhead mount version, side of bulkhead marked "b".	Mounting/Grounding MH - hole for "b" M - screw brk - bracket	RL min.	IL max.	Water- proof	Weight	Drawing
3406.01.0003	DC - 4.0	BNC(m) - BNC(f), b	MH4	20 dB	0.2 dB	IP20	45 g	fig. 4

Dimensions



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Document No.: 01.02.0753

Issue No.: 1
Supersedes: --/10.2001

Issued/Checked/Released:
Last amended:

03.2002/4660PRM/st
rework

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