Surge arrester

- Plug-in surge protective adapter for easy retrofitting
- Directly plugs into terminal equipment with coaxial connections
- Integrated indirect shield earthing avoids leakage pickups



Surge arrester designed as cable adapter for protecting coaxial systems such as video and camera systems from potential damage.

UGKF BNC shielded surge arresters are plugged into coaxial terminal equipment or connections. Common applications include the protection of outdoor video surveillance systems or video control centres. In order

to avoid being influenced by leakage pickups, the cable shield is earthed indirectly via a gas discharge tube. The arrester inputs are used as sockets and the protected outputs as plugs.



Devices for protecting video surveillance systems with a higher supply voltage or with sockets on both ends are available on request.



DGA BNC VC ... surge arresters of the DEHNgate family allow easy installation on supporting rails.

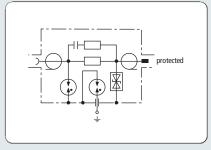


## **UGKF BNC**

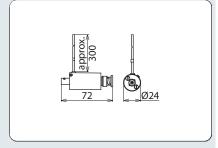




- Easily adaptable
- Avoids leakage pickups
- For installation in conformity with the lightning protection zones concept at the boundaries from  $0_B-2$  and higher



Basic circuit diagram UGKF BNC



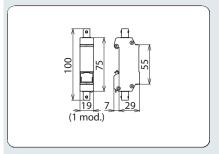
Dimension drawing UGKF BNC

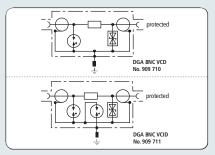
Two-stage surge arrester for protecting video cameras and Arcnet with BNC connection with indirect shield earthing to avoid being influenced by leakage pickups. Special versions for video cameras with a higher nominal voltage are available on request.

Туре	UGKF BNC	
Part No.	929 010	
SPD class	TYPE 2P1	
Nominal voltage (U <sub>N</sub> )	5 V	
Max. continuous operating d.c. voltage (U <sub>C</sub> )	8 V	
C2 Nominal discharge current (8/20 µs) per line (In)	2.5 kA	
C2 Nominal discharge current (8/20 µs) shield-PG (I <sub>n</sub> )	10 kA	
Voltage protection level line-shield for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 25 V	
Voltage protection level line-shield at 1 kV/µs C3 (U <sub>P</sub> )	≤ 15 V	
Voltage protection level shield-PG at 1 kV/µs C3 (Up)	≤ 600 V	
Series impedance per line	10 ohms	
Insertion loss at 265 MHz	≤3 dB	
Return loss at 40 MHz	≥ 20 dB	
Surge impedance (Z)	75 ohms	
Capacitance line-shield (C)	≤ 50 pF	
Operating temperature range	-40°C+80°C	
Connection (input/output)	BNC socket / BNC plug	
Earthing via	outgoing earth conductor (0.75 mm²)	
Shield earthing	indirectly via an integrated spark gap	
Test standards	IEC 61643-21 / EN 61643-21	
Approvals	CSA, UL, GOST	



## **DGA BNC VC**





Dimension drawing DGA BNC VC

Basic circuit diagram DGA BNC VC

The space-saving surge arrester with BNC socket is mounted on supporting rails for protecting video and camera systems. Available with direct (VCD) or indirect shield connection (VCID) to prevent leakage pickups.



- Easily adaptable due to BNC sockets
- Available with direct or indirect shield earthing according to type
- For installation in conformity with the lightning protection zones concept at the boundaries from  $0_B-2$  and higher

Туре	DGA BNC VCD	DGA BNC VCID
Part No.	909 710	909 711
SPD class	TYPE 2 P1	TYPE 2 P1
Nominal voltage (U <sub>N</sub> )	5 V	5 V
Max. continuous operating d.c. voltage (U <sub>C</sub> )	6.4 V	6.4 V
Nominal current (I <sub>L</sub> )	0.1 A	0.1 A
C2 Nominal discharge current (8/20 µs) shield-PG (I <sub>n</sub> )	10 kA	10 kA
C2 Nominal discharge current (8/20 µs) line-shield (In)	5 kA	5 kA
Voltage protection level line-shield for I <sub>n</sub> C2 (U <sub>p</sub> )	≤ 35 V	≤ 35 V
Voltage protection level shield-PG for In C2 (Up)	<del></del>	≤ 650 V
Voltage protection level line-shield at 1 kV/μs C3 (U <sub>p</sub> )	≤ 13 V	≤ 13 V
Voltage protection level shield-PG at 1 kV/µs C3 (Up)		≤ 600 V
Frequency range	0 - 300 MHz	0 - 300 MHz
nsertion loss at 160 MHz	≤ 0.4 dB	≤ 0.4 dB
nsertion loss at 300 MHz	≤ 3 dB	≤ 3 dB
Return loss at 130 MHz	≥ 20 dB	≥ 20 dB
Return loss at 300 MHz	≥ 8 dB	≥ 10 dB
Surge impedance (Z)	50 ohms	50 ohms
Series impedance per line	4.7 ohms	4.7 ohms
Capacitance line-shield (C)	≤ 25 pF	≤ 25 pF
Capacitance shield-PG (C)	<u> </u>	≤ 20 pF
Operating temperature range	-40°C+80°C	-40°C+80°C
Degree of protection	IP 10	IP 10
For mounting on	35 mm DIN rails according to EN 60715	35 mm DIN rails according to EN 60715
Connection (input/output)	BNC socket / BNC socket	BNC socket / BNC socket
Earthing via	35 mm DIN rail according to EN 60715	35 mm DIN rail according to EN 60715
Enclosure material	zinc die casting	zinc die casting
Colour	bare surface	bare surface
Test standards	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21
Approvals	CSA, UL, GOST	CSA, UL, GOST





#### Lightning current and surge arrester



Lightning current / surge arrester designed as a cable adapter for protecting coaxial systems such as CCTV, mobile radio stations and antenna systems from potential damage.

DEHNgate is a family of lightning current / surge arresters designed as a cable adapter for protecting coaxial systems such as mobile radio sta-



DGA arrester family

available on request. The quarter-wave surge arresters

The coaxial DGA arrester family

comes in different designs to suit

a wide range of applications.

Different types of connectors and

arrester technologies allow optimised solutions. Other types are



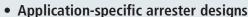
Quarter-wave principle

Principle of a spark-gap-based arrester

are bandpass filter. Only signals within a defined frequency band are transmitted. Since lightning interferences have a low frequency spectrum, the shorting stub acts as a short-circuit, conducting the lightning current to the ground. This makes the surge arresters mechanically very robust and maintenancefree. Due to their low protection level and high discharge capacity, they can be used as combined lightning current and surge arresters.

performance.

Spark-gap-based surge arresters have an internal gas-filled surge arrester and can be defined as a low pass. This also allows d.c. transmission (antenna supply). Voltage spikes exceeding the sparkover value of the gas discharge tube are discharged. These surge arresters provide large-area contact surfaces for a defined contact of the inner conductor with the gas discharge tube. This minimises material burn-off during the discharge process and ensures a constant transmission



- Arrester for use in satellite and broadband cable systems with measuring output
- Combined lightning current and surge arrester with a high discharge capacity and low voltage protection level
- Contact materials with extremely long endurance

tions and antenna systems from potential damage. Depending on the application, different mechanical and electrical types are available.



Scope of delivery of DGA FF TV

The use of quarter-wave surge arresters

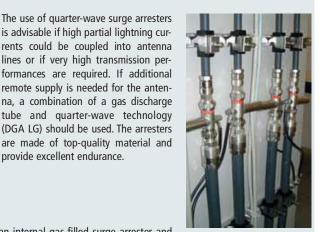
is advisable if high partial lightning cur-

lines or if very high transmission per-

are made of top-quality material and

provide excellent endurance.

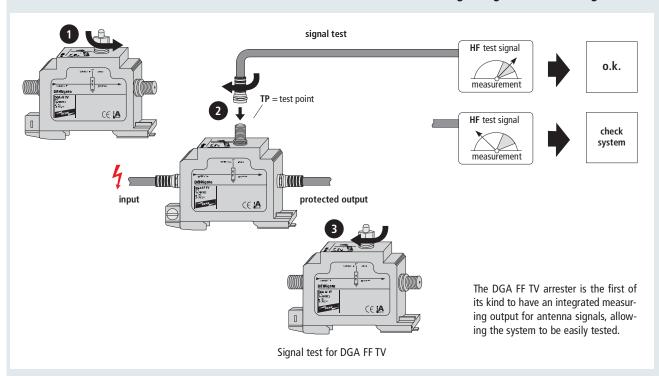
DGA FF TV can be mounted onto a DIN rail in a space-saving way to protect satellite systems with several outputs. For single applications such as broadband cable connections, the device can be simply snapped into a wall-mounted adapter. Two F cable connections are also included.



Application of quarter-wave arresters



## Lightning current and surge arrester

















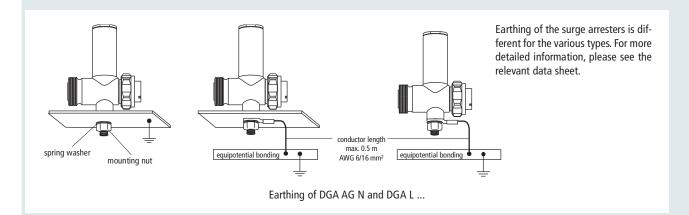








Different DGA ... types



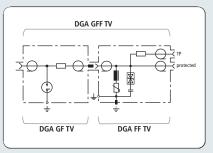


#### **DGATV**

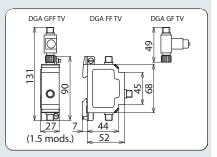
**SPDs for Coaxial Connection** 



- Frequency range for analogue and digital TV, also suitable for reverse LAN channels
- Arresters of type FF and GFF with integrated measuring output
- Three types for adapted use in conformity with the lightning protection zones concept at the boundaries from 0<sub>A</sub> 2 (combined lightning current and surge arresters of type GFF),
  - 0<sub>A</sub> 1 (lightning current arresters of type GF) and
  - 1 2 (surge arresters of type FF)



Basic circuit diagram DGA GFF TV consisting of DGA GF TV and DGA FF TV



Dimension drawing DGA GFF TV consisting of DGA GF TV and DGA FF TV

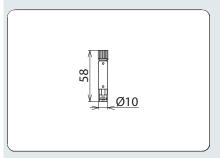
DGA ... TV are arresters with F connection for remote supply for protecting 75 ohm satellite and broadband cable systems. They fulfil the high shielding requirements of class A according to EN 50083-2. They allow space-saving installation into all common TV and satellite applications and are available as lightning current arresters, surge arresters as well as combined lightning current and surge arresters with integrated measuring output for testing installations.

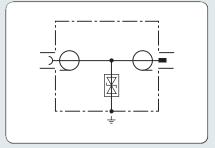


Туре	DGA FF TV	DGA GF TV	DGA GFF TV
Part No.	909 703	909 704	909 705
SPD class	TYPE 3 P1	TYPE 1⊕	TYPE 1 TYPE 3 P1
Max. continuous operating d.c. voltage (U <sub>C</sub> )	24 V	60 V	24 V
Nominal current (I <sub>L</sub> )	2 A	2 A	2 A
D1 Lightning impulse current (10/350 µs) (I <sub>imp</sub> )	0.2 kA	2.5 kA	2.5 kA
C2 Nominal discharge current (8/20 µs) (I <sub>n</sub> )	1.5 kA	10 kA	10 kA
Voltage protection level for I <sub>imp</sub> D1 (U <sub>P</sub> )	≤ 230 V	≤ 700 V	≤ 230 V
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 300 V	≤ 700 V	≤ 300 V
Voltage protection level at 1 kV/µs C3 (U <sub>P</sub> )	≤ 60 V	≤ 600 V	≤ 60 V
Frequency range	d.c., 5 - 3000 MHz	d.c 2400 MHz	d.c., 5-2400 MHz
Insertion loss	_	0.5 dB	
Insertion loss 5 - 862 MHz typ.	1.2 dB		1.7 dB
Insertion loss 862 - 2400 MHz typ.	1.4 dB dB		1.9 dB dB
Insertion loss 2400 - 3000 MHz typ.	2 dB		
Return loss	≥ 14 dB	≥ 18 dB (-1.5 dB/octave) dB	
Return loss (5 - 8 MHz)	_	<del></del>	≥ 10 dB
Return loss (8 - 47 MHz)	_	<del></del>	≥ 14 dB
Return loss (47 - 2400 MHz)	≥ 18 dB (-1.5 dB/octave)		≥ 18 dB (-1.5 dB/octave)
Return loss test socket (5 - 47 MHz)	≥ 18 dB	<del></del>	≥ 18 dB
Test socket connection loss	20 dB		20 dB
Shield attenuation 5 - 300 MHz	≥ 85 dB	≥ 85 dB	≥ 85 dB
Shield attenuation 300 - 470 MHz	≥ 80 dB	≥ 80 dB	≥ 80 dB
Shield attenuation 470 - 1000 MHz	≥ 75 dB	≥ 75 dB	≥ 75 dB
Shield attenuation 1000 - 2400 MHz	≥ 55 dB	≥ 55 dB	≥ 55 dB
Surge impedance (Z)	75 ohms	75 ohms	75 ohms
Operating temperature range	-40°C+80°C	-40°C+80°C	-40°C+80°C
Degree of protection (if lines are connected)	IP 30	IP 30	IP 30
For mounting on	35 mm DIN rails acc. to EN 60715	earthing	35 mm DIN rails acc. to EN 60715
	or wall mounting	brackets	or wall mounting
Connection (input/output)	F socket / F socket	F socket / F plug	F socket / F socket
Earthing via	DIN rail or screw connection	earthing bracket with screw connection	DIN rail or screw connection
Enclosure material	metal	metal	metal
Colour	bare surface	bare surface	bare surface
Test standards	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21
Approvals	GOST	GOST	GOST
Accessories	2 x F plugs	earthing bracket and 2 x F plug	2 x F plug



## SPDs for Coaxial Connection DGA F





Dimension drawing DGA F

Basic circuit diagram DGA F

Quickly operating surge arrester for G.703 interfaces with low-capacitance diode matrix for optimised transmission performance. Earthing via enclosure. 1.6/5.6 connection.



- Easy to retrofit
- For high transmission rates
- For installation in conformity with the lightning protection zones concept at the boundaries from 1 – 2 and higher

Туре	DGA F 1.6 5.6	
Part No.	929 040	
SPD class	TYPE 3 P1	
Nominal voltage (U <sub>N</sub> )	5 V	
Max. continuous operating d.c. voltage (U <sub>C</sub> )	6 V	
Nominal current (I <sub>L</sub> )	0.25 A	
C2 Nominal discharge current (8/20 µs) (I <sub>n</sub> )	0.3 kA	
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 30 V	
Voltage protection level at 1 kV/μs C3 (U <sub>P</sub> )	≤ 12 V	
Frequency range	d.c80 MHz	
Insertion loss	≤ 0.2 dB	
Surge impedance (Z)	75 ohms	
Capacitance line-shield (C)	50 pF	
Operating temperature range	-40°C+80°C	
Degree of protection	IP 20	
Connection (input/output)	1.6/5.6 plug / 1.6/5.6 socket	
Earthing via	externally via shield earthing	
Enclosure material	metal	
Colour	bare surface	
Test standards	IEC 61643-21 / EN 61643-21	
Approvals	GOST	



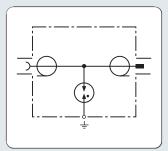


## DGA G

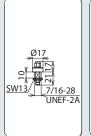


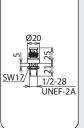


- Compact dimensions
- Extremely wide transmission range
- For installation in conformity with the lightning protection zones concept at the boundaries from  $\theta_B-1$  and higher



Basic circuit diagram DGA G





Dimension drawing DGA G SMA

Dimension drawing DGA G BNC

Dimension drawing DGA G N

Surge arrester for remote power supply with integrated gas discharge tube. Ideally suited for wireless applications for coaxial interfaces of devices and antennas.

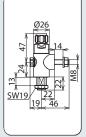
Available with SMA, BNC or N connection for bushing installation.

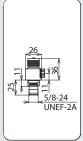
Туре	DGA G SMA	DGA G BNC	DGA G N
Part No.	929 039	929 042	929 044
SPD class	TYPE 2	TYPE 2	TYPE 2
Max. continuous operating d.c. voltage (U <sub>C</sub> )	135 V	135 V	135 V
Nominal current (I <sub>L</sub> )	2 A	3.5 A	6 A
Max. transmission capacity	60 W	25 W	25 W
D1 Lightning impulse current (10/350 µs) (I <sub>imp</sub> )	1 kA	1 kA	1 kA
C2 Nominal discharge current (8/20 µs) (I <sub>n</sub> )	5 kA	5 kA	5 kA
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 700 V	≤ 500 V	≤ 650 V
Frequency range	d.c 5.8 GHz	d.c 4 GHz	d.c 5.8 GHz
Insertion loss	≤ 0.2 dB	≤ 0.2 dB	≤ 0.2 dB
Return loss (d.c 3 GHz)	≥ 20 dB	≥ 20 dB	≥ 20 dB
Return loss (3 GHz - 4 GHz)	≥ 18 dB	≥ 20 dB	≥ 20 dB
Return loss (4 GHz - 5.8 GHz)	≥ 18 dB		≥ 20 dB
Surge impedance (Z)	50 ohms	50 ohms	50 ohms
Operating temperature range	-40°C+85°C	-40°C+85°C	-40°C+85°C
Degree of protection (if lines are connected)	IP 65	IP 20	IP 65
Connection (input/output)	SMA socket / SMA plug	BNC socket / BNC plug	N socket / N plug
Earthing via	bushing (Ø11.2 mm)	bushing (Ø12.9 mm)	bushing (Ø16.2 mm)
Enclosure material	gold-plated brass	brass, gold-plated	brass, gold-plated
Colour	gold	gold	gold
Test standards	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21
Approvals	_	GOST	GOST

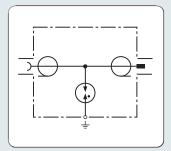




#### **SPDs for Coaxial Connection** DGA AG







Dimension drawing DGA AG BNC

DGA AG N

Dimension drawing Dimension drawing DGA AG U

Basic circuit diagram DGA AG

Surge arrester suitable for remote supply with replaceable gas discharge tube. Excellent HF service life due to minimum contact erosion and large-area contact surface of the gas discharge tube in a



- · Large-area contact surface of gas discharge tubes
- · Longevity due to minimum contact erosion at the inner conductor
- For installation in conformity with the lightning protection zones concept at the boundaries from 0<sub>A</sub> – 1 and higher

Туре	DGA AG BNC	DGA AG N	DGA AG U
Part No.	929 043	929 045	929 057
SPD class	TYPE 1	TYPE 1	TYPE 1
Max. continuous operating d.c. voltage (U <sub>C</sub> )	180 V	180 V	180 V
Nominal current (I <sub>L</sub> )	3.5 A	6 A	10 A
Max. transmission capacity	150 W	150 W	150 W
D1 Lightning impulse current (10/350 µs) (I <sub>imp</sub> )	5 kA	5 kA	5 kA
C2 Nominal discharge current (8/20 µs) (In)	20 kA	20 kA	20 kA
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 750 V	≤ 950 V	≤ 750 V
Frequency range	d.c 1 GHz	d.c 2.5 GHz	d.c 300 MHz
Insertion loss	< 0.1 dB	< 0.2 dB	< 0.1 dB
Return loss	≥ 20 dB	≥ 20 dB	≥ 20.8 dB
Surge impedance (Z)	50 ohms	50 ohms	50 ohms
Operating temperature range	-40°C+85°C	-40°C+85°C	-40°C+85°C
Degree of protection	IP 20	IP 65	IP 20
Connection (input/output)	BNC socket / BNC plug	N socket / N plug	UHF socket / UHF plug
Earthing via	bushing (Ø16.1 mm)	bushing (Ø16.1 mm) or earthing screw	bushing (Ø19.3 mm)
Enclosure material	brass, refined surface	brass, refined surface	brass, refined surface
	with trimetal plating	with trimetal plating	with trimetal plating
Colour	bare surface	bare surface	bare surface
Replaceable gas discharge tube	yes	yes	yes
Test standards	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21
Approvals	GOST	GOST	GOST

#### **Accessory for DEHNgate**

#### **Gas Discharge Tube for DEHNgate**

Lightning current carrying replacement gas discharge tube for DEHNgate arresters. High quality with extremely low capacitance.

Type Part No.	GDT DGA 230 929 498
Lightning impulse current	
carrying capability (10/350 µs)	5 kA
Design	H 8 x 6 mm





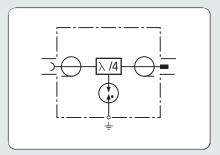


#### **DGA LG**

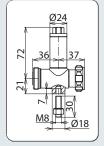
SPDs for Coaxial Connection



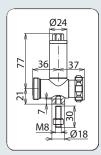
- For multi-frequency applications with d.c. power supply
- Optionally available with self-extinguishing gas discharge capsule for nominal currents up to 2.5 A
- Maximum transmission and PIM performance
- For installation in conformity with the lightning protection zones concept at the boundaries from  $0_A-1$  and higher



Basic circuit diagram DGA LG



Dimension drawing DGA LG 7 16



Dimension drawing DGA LG 7 16 X

Quarterwave arrester combined with a spark gap suitable for remote supply for multi-frequency applications (multi-carrier systems) due to minimum passive intermodulation. Broadband device for all 4+3G services.

DGA LG 7 16 X arresters are equipped with a self-extinguishing gas discharge capsule with automatic reset function for a high degree of safety and negligible system downtimes.

Туре	DGA LG 7 16	DGA LG 7 16 X
Part No.	929 046	929 446
SPD class	TYPE 1	TYPE 1
Max. continuous operating d.c. voltage (U <sub>C</sub> )	65 V	65 V
Nominal current (I <sub>L</sub> )	13 A	2.5 A
Max. transmission capacity	500 W	500 W
D1 Lightning impulse current (10/350 µs) (I <sub>imp</sub> )	5 kA	5 kA
C2 Nominal discharge current (8/20 µs) (In)	20 kA	20 kA
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 1000 V	≤ 1000 V
Frequency range	d.c., 806 MHz - 2.2 GHz	d.c., 806 MHz - 2.2 GHz
Insertion loss	≤ 0.15 dB	≤ 0.15 dB
Insertion loss 2176 MHz	typ. 0.1 dB	typ. 0.1 dB
Return loss	≥ 20 dB	≥ 20 dB
Return loss 2176 MHz	typ. 20.0 dB	typ. 20.0 dB
Surge impedance (Z)	50 ohms	50 ohms
Intermodulation	typ150 dBc @ 2*43 dBm	typ150 dBc @ 2*43 dBm
Operating temperature range	-40°C+85°C	-20°C+85°C
Degree of protection	IP 65	IP 65
Connection (input/output)	7/16 socket / 7/16 plug	7/16 socket / 7/16 plug
Earthing via	earthing screw	earthing screw
Enclosure material	brass, refined surface with trimetal plating	brass, surface-coated with trimetal plating
Colour	bare surface	bare surface
Replaceable gas discharge tube	yes	Part No. 929 496
Test standards	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21
Approvals	GOST	GOST

#### **Accessory for DEHNgate**

#### **Gas Discharge Tube for DEHNgate**

Lightning current carrying replacement gas discharge tube for DEHNgate arresters. High quality with extremely low capacitance.



Type Part No.	GDT DGA 90 929 497
Lightning impulse current	
carrying capability (10/350 μs)	5 kA
Design	H 8 x 6 mm

#### **Accessory for DEHNgate**

#### **Screw-on Gas Discharge Tube**

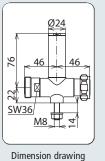
Lightning current carrying screw-on replacement gas discharge tube for DEHNgate LG 7 16 X arresters. Self-extinguishing gas capsule with automatic reset function in case of d.c. supply currents up to 2.5 A or higher HF performances.

Also suited for retrofitting DEHNgate LG 7 16 with conventional gas capsule technology (replacement of the complete capsule unit!).

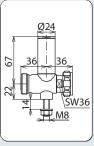


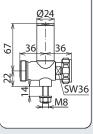
Type	GDT DGA 90 X
Part No.	929 496
Lightning impulse current carrying capability (10/350 µs)	5 kA



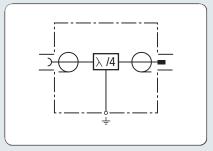


DGA L4 7 16 S





Dimension drawing DGA L4 7 16 B



Basic circuit diagram DGA L4

Combined lightning current and surge arrester with maintenance-free quarterwave technology and adapted frequency band. The arresters are also able to discharge high partial lightning currents. No remote supply as the arrester represents an electrical short circuit for low-frequency signals. Alternative types with other connections are available on request.



- · Maintenance-free combined lightning current and surge arrester (high discharge capacity and low voltage protection level)
- Maximum transmission and PIM performance
- For installation in conformity with the lightning protection zones concept at the boundaries from  $0_A - 2$  and higher

Туре	DGA L4 7 16 S	DGA L4 7 16 B
Part No.	929 047	929 048
SPD class	TYPE 1 P1	TYPE 1 P1
Max. continuous operating d.c. voltage (U <sub>C</sub> )	0 V	0 V
Nominal current (I <sub>L</sub> )	0 A	0 A
Max. transmission capacity	3000 W	1700 W
D1 Lightning impulse current (10/350 µs) (I <sub>imp</sub> )	25 kA	40 kA
C2 Nominal discharge current (8/20 µs) (In)	50 kA	80 kA
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 130 V	≤ 180 V
Frequency range	380 MHz - 512 MHz	800 MHz - 2.2 GHz
Insertion loss	0.1 dB	≤ 0.15 dB
Return loss	≥ 20 dB	≥ 20 dB
Surge impedance (Z)	50 ohms	50 ohms
Intermodulation	<del></del>	typ150 dBc @ 2*43 dBm
Operating temperature range	-40°C+85°C	-40°C+85°C
Degree of protection	IP 65	IP 65
Connection (input/output)	7/16 socket / 7/16 plug	7/16 socket / 7/16 plug
Earthing via	earthing screw	earthing screw
Enclosure material	brass, refined surface with trimetal plating	brass, refined surface with trimetal plating
Colour	bare surface	bare surface
Test standards	IEC 61643-21 / EN 61643-21	IEC 61643-21 / EN 61643-21
Approvals	GOST	GOST





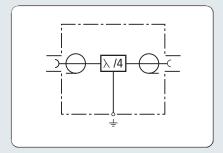
#### DGA L4 N EB



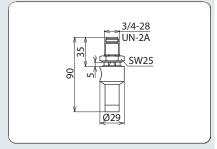




- Maximum transmission performance for WiMax and Wi-Fi applications
- For installation in conformity with the lightning protection zones concept at the boundaries from  $0_A-2$  and higher



Basic circuit diagram DGA L4 N EB



Dimension drawing DGA L4 N EB

Extremely broadband combined lightning current and surge arrester with maintenance-free quarter-wave technology, adapted frequency band for Broadband Wireless Access applications and compact dimensions of the enclosure. No remote supply as the arrester represents an electrical short circuit for low-frequency signals.



Туре	DGA L4 N EB	
Part No.	929 059	
SPD class	TYPE 1 P1	
Nominal voltage (U <sub>N</sub> )	0 V	
Max. continuous operating d.c. voltage (U <sub>C</sub> )	0 V	
Nominal current (I <sub>L</sub> )	0 A	
Max. transmission capacity	300 W	
D1 Lightning impulse current (10/350 µs) (I <sub>imp</sub> )	25 kA	
C2 Nominal discharge current (8/20 µs) (I <sub>n</sub> )	50 kA	
Voltage protection level for I <sub>imp</sub> D1 (U <sub>P</sub> )	≤ 18 V	
Voltage protection level for I <sub>n</sub> C2 (U <sub>P</sub> )	≤ 30 V	
Frequency range	2.0 GHz - 6.0 GHz	
Insertion loss	≤ 0.2 dB	
Return loss	≥ 20 dB	
Surge impedance (Z)	50 ohms	
Operating temperature range	-40°C+85°C	
Degree of protection	IP 65	
Connection (input/output)	N socket / N socket	
Earthing via	bushing (Ø19.3 mm)	
Enclosure material	aluminium	
Colour	bare surface	
Test standards	IEC 61643-21 / EN 61643-21	
Approvals	GOST	



#### **Gas Discharge Tube for DEHNgate**

Lightning current carrying replacement gas discharge tube for DEHNgate arresters. High quality with extremely low capacitance.

Type GDT	DGA 90	DGA 230	DGA 470
Part No.	929 497	929 498	929 499
Lightning impulse current			
carrying capability (10/350 µ	s) 5 kA	5 kA	5 kA
Design in mm	H 8 x 6	H8x6	H 8 x 6
Integrated into Part No.		929 043,	
	929 046	929 045	



#### **Screw-on Gas Discharge Tube**

Lightning current carrying screw-on replacement gas discharge tube for DEHNgate LG 7 16 X arresters. Self-extinguishing gas capsule with automatic reset function in case of d.c. supply currents up to 2.5 A or higher HF performances.

Also suited for retrofitting DEHNgate LG 7 16 with conventional gas capsule technology (replacement of the complete capsule unit!).

Type Part No.	GDT DGA 90 X 929 496
Lightning impulse current	
carrying capability (10/350 µs)	5 kA
Integrated into Part No.	929 446
Can be retrofitted into Part No.	929 046



### **Cable Lug with Earthing Conductor**

Cable lug with highly flexible black copper earthing conductor for earthing DEHNgate arresters (Part Nos. 929 043, 929 044 or 929 045).

Туре	EL 16 B17
Part No.	929 096
Colour	black



#### **Earthing Block 4xF**

Four-pole earthing block with F sockets for equipotential bonding of satellite cable shields or DGA GF TV lightning current arresters.

Туре	EB 4 F
Part No.	929 095
Max. continuous operating d.c. voltage	65 V
D1 Lightning impulse current (10/350 μs)	10 kA
Frequency range	DC - 2400 MHz



#### **Angled Fixing Plate for DEHNgate**

Suitable for installing an DEHNgate arrester (Part Nos. 929 045 – 929 048).

Part No.	106 310
Material	stainless steel



#### **Angled Fixing Plate for DEHNgate**

Suitable for installing an DEHNgate arrester (Part Nos. 929 043 – 929 045), anti-rotation borehole (Ø16 mm)

Part No.	106 314
Material	stainless steel



#### **Angled Fixing Plate for HF Arresters**

With three boreholes for three different sizes of DEHNgate, e.g. 1x 929 042 + 1x 929 057 + 1x (929 043, 929 044, 929 045 or 929 058).

Туре	
Part No.	106 329
Material	stainless steel



# **Equipotential Bonding Busbar for industrial Use**

Suitable for 3x DEHNgate (Part Nos. 929 045 – 929 049, 929 446)

Туре	PAS I 6AP M10 V2A
Part No.	472 209
Material	Stainless steel



# Earthing Conductor, open / closed Cable Lugs

Cable lug 1x open (M8/M10) and 1x closed (M8), can be combined with Part Nos. 106 310, 106 314, 106 329 and 472 209.

Part No.	416 411
Colour	black
Military No.	VG 96927 T011 A109
Supply No.	6150-12-308-6934







