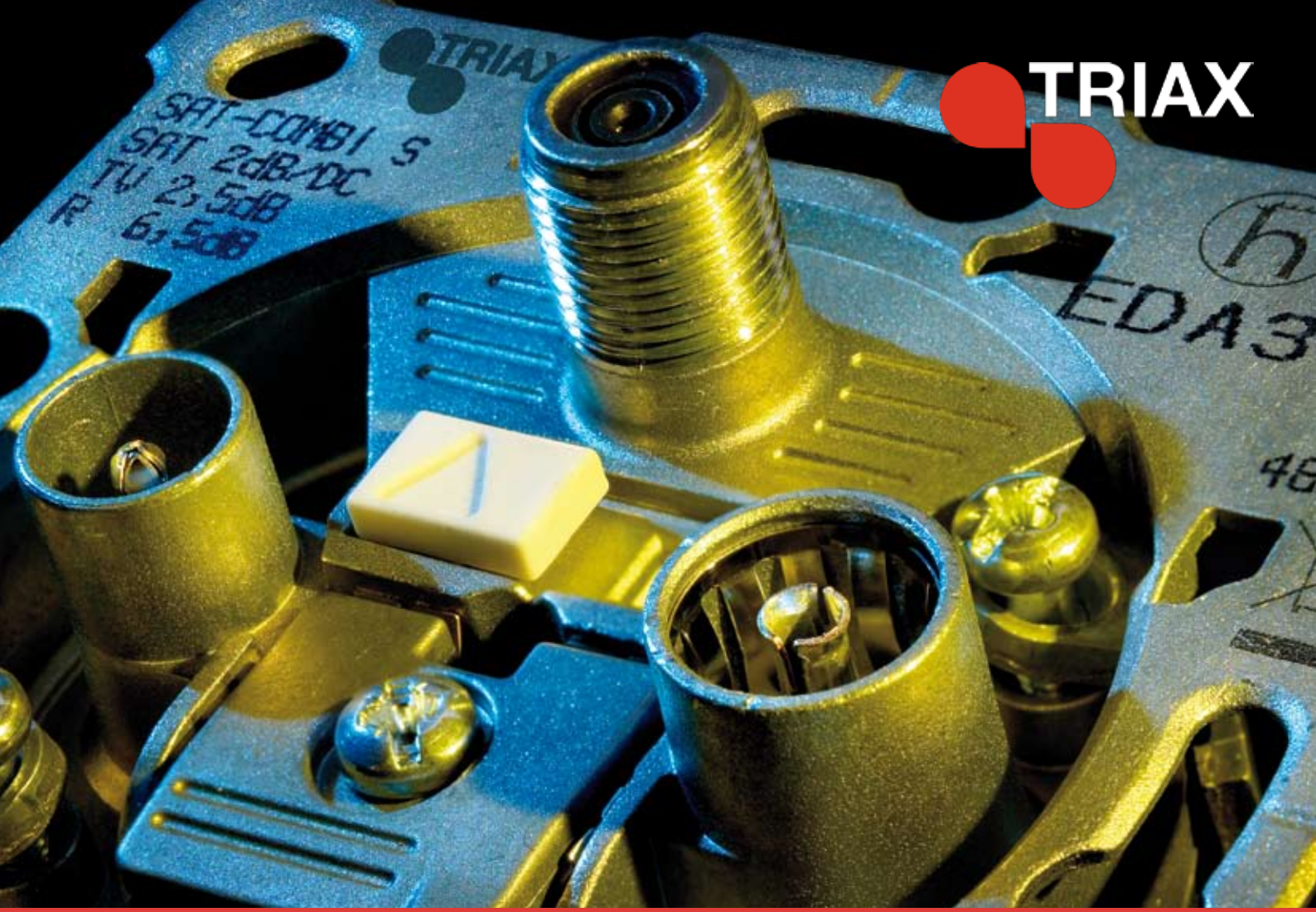


TRIAX

Aerials | Dishes | Receivers | Headends | Multi switches | Amplifiers | Outlets | Home accessories | Fibre cabinets | Enclosures

Convincing technology - faster mounting

New antenna outlet socket generation

TRIAX - your ultimate connection

New generation antenna outlet sockets
Convincing technology and mounting

The advantages of the new antenna outlet sockets generation:

- **comfortable mounting**
- **excellent electrical parameters**
- **reliable and durable**

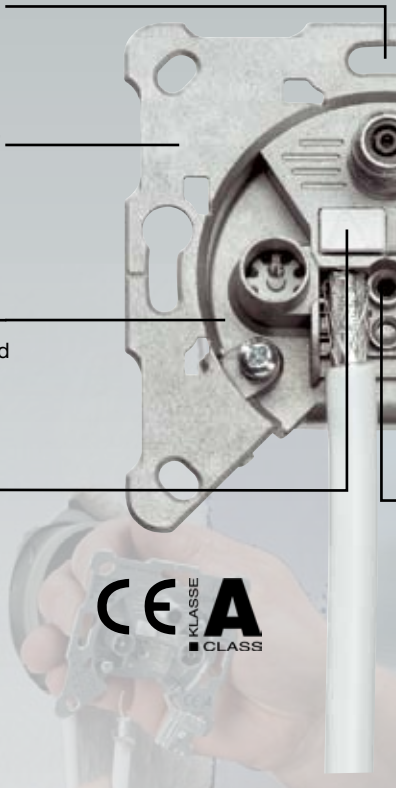
Antenna outlet sockets are used for the individual connection of subscriber terminal equipment such as TV receiver, FM radio, sat receiver or cable modem to the cable TV network or the house antenna system.

In view of their versatility Triax recommends universal antenna outlets for installation in general residential buildings. If the future application is limited to only one type of network operation such as direct satellite reception or cable TV with Internet access, specially designed satellite or wide-band socket boxes are the alternative.

The connectors are designed as IEC connectors or F-connectors. The number and combination of the connectors of a outlet type depends on the subscriber terminal equipment that is common for the respective type of network. However, it is also influenced by specific national and operator requirements resulting in an increased variety of types.

The stable diecast frame of the Triax sockets has been optimized for installation in round size-55 flush-mounted socket boxes. The AR 20 frame (accessory) alternatively allows surface mounting. The AD 23 cover (accessory) is a cover available for 2- or 3-hole socket boxes. The retaining ring form of the socket inserts has been agreed with renowned switch manufacturers so that the decorative covers from their corresponding designer ranges can also be used.

- **Third keyhole –** Improved fixing in hollow-wall flush-mounted socket box.
- **New retaining ring geometry –** Universal for renowned ranges of switches. For easy aligning and improved mold closure.
- **Reduced depth and diameter** Easy to insert into flush-mounted socket box.
- **Push-lock terminal –** Rapid mounting. Firmly secured. Released at the press of a button.



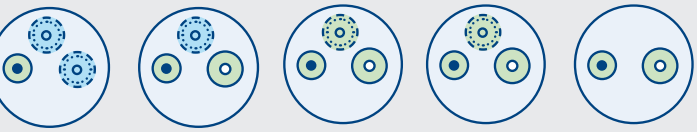
Range overview – the new socket inser

Type	Universal		Sat	
Connectors				
IEC male tv				
IEC female radio				
F female sat/data				
Antenna outlet type	Super wide-band	Sat/CATV combination	Sat filter	
Single type	EDU 04F GAD 204F	EDA 302F	EDS 01	
Pass-through type	GEDU 10, 15, 20 GAD 210, 214, 220	GDA 313 F GAD 313 F	GDS 08, 11	
Frequency ranges				
Tv				
Radio				
Sat/data				
Terminal equipment	Tv-set FM radio DVB-C/-T receiver	Sat receiver Tv-set FM radio DVB-C/-T receiver	Sat receiver DVB-T receive Tv-set	

- **Waste edges at frame corners –** Well equipped for ranges of round switches (Brake off if necessary).
- **Novel claw fastening and close-fitting claw form –** Trouble-free installation in and removal from flush-mounted socket box also with cordless screwdriver (PZ 1-bolt).
- **Lockable hinged clamp –** Comfortable in all mounting positions.
- **Inner conductor terminal in box center –** Facilitates the connection of short cable ends when socket boxes are replaced.

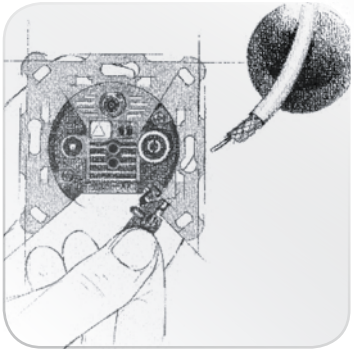
rts for size-55 flush-mounting

CATV/MATV

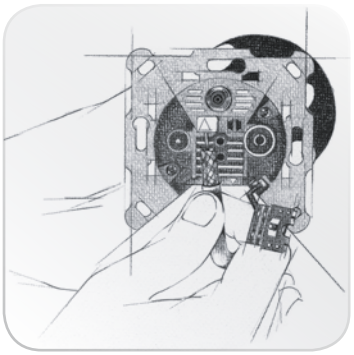


TWIN sat	Sat filter	CATV modem	CATV modem	CATV filter (DC/AC isolated)
EDS 322	FS 302 F	EDM 306	EDM 304	EDC 01 NL
		GDM 312 GDM 316	GDM 310 GDM 315	
win sat receiver DVB-T receiver Tv-set	Sat receiver DVB-T receive Tv-set	Tv-set FM radio Cable modem DVB-C receiver	Tv-set FM radio Cable modem DVB-C receiver	Tv-set FM radio

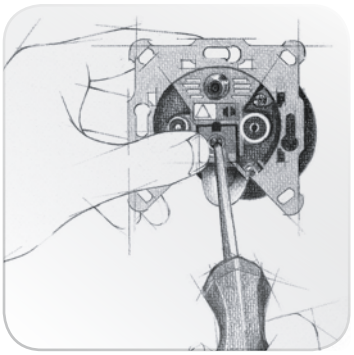
Mounting in detail



Open
Opened simply. Use a screwdriver to lever out the hinged clamp at the recess.
In order to allow free mounting position tilt hinged clamp into fixing position.



Insert
The new technology for inner conductor contacting. Simply insert the stripped coaxial cable into the spring contact until it stops – it is held securely. In order to remove the cable press the button and remove the cable.



Close
Close the hinged clamp and screw it tight. Insert the socket body, align it using the straight edges and anchor it by tightening the claw screws.
PZ 1 screws for cordless screwdriver.

TRIAX - your ultimate connection

Improved functionality with forward-looking technology

Two basic types of outlets

- Single outlet sockets are used to terminate the decoupled branch lines coming from the multi-tap, multi-switch or satellite LNB (star topology).
- Pass-through outlet sockets can also be cascaded (tree topology). The last socket box at a main line or spur is to be provided with a terminating resistor (refer to accessories).

Electrical design

- The filter principle used in most satellite and MATV/CATV outlets provides lowest distribution operating loss as well as additional selective decoupling. These advantages are achieved at the price of transition ranges between the frequency bands that cannot be used.
- Wide-band splitters or directional couplers, on the other hand, transmit the frequency ranges without any gaps. This requires a connection attenuation that is approx. 3 dB higher at single socket boxes. A corresponding example is the super wide-band antenna outlets.
- Both technologies are combined in the Sat-/CATV-combination outlet sockets and in the modem outlets in order to enjoy the advantages of both principles.

Quality

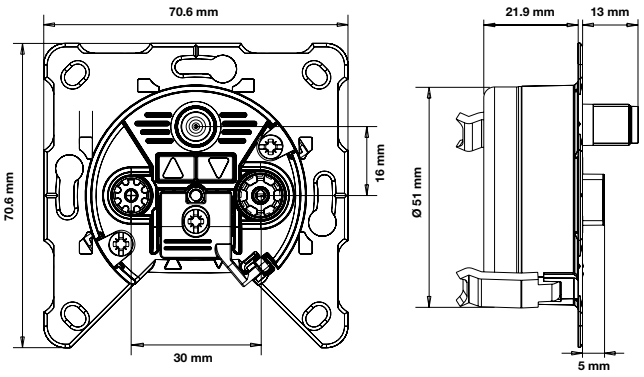
- With the coil on board technology the filigree ferrit core transformer is wound, soldered and its circuiting checked directly on the circuit board.
- 100 percent end check of the most important socket parameters during production.
- Product of the Triax Group. The fully-automatic production line in Denmark ensures the design quality for the whole series.

General technical data

Operating conditions		
Temperature range	-25° to +55° C	ETSI 300 019-1-3 Class 3.3 stationary, water-protected
Reliability (MTBF)	> 1 million hours	Belcore @ 25° C
Connected values		
Terminal impedance	75 Ohm	All RF connections
DC load	Max. 24V/0,5 A/22 kHz	Only via SAT connections
Screen attenuation	Class A	EN 50 083-2
	> 85 dB	30 - 300 MHz
	> 80 dB	300 - 470 MHz
	> 75 dB	470 - 1000 MHz
	> 55 dB	1000 - 2400 MHz
Mechanical elements		
Socket box body	Torsionally rigid passivated zinc diecast	
Weight	Approx. 90 g	
”TV“ outlet	IEC male connector	IEC 60 169-2
”RF“ outlet	IEC female connector	IEC 60 169-2
”SAT“/”DATA“ outlet	F socket	IEC 60 169-24

Installation dimensions

Outlet socket frame

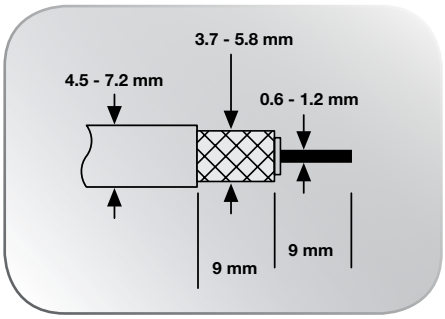


Transportation formats of antenna socket boxes:

- 10 socket boxes in pocketed group packages 229 x 142 x 75 mm
- 100 socket boxes (10 packages) in cardboard box 385 x 285 x 230 mm
- 3,000 socket boxes per Euro-pallet

Transparent blister packaging for a socket box with AD 23 cover on request.

Recommended cable dimensions

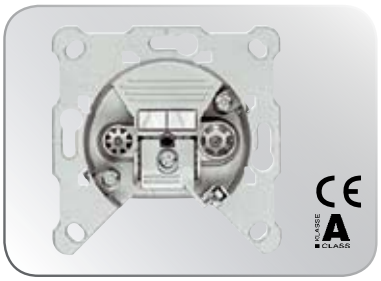


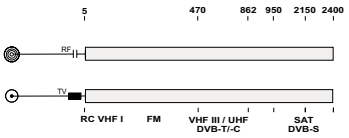
Universal antenna outlets

- Designed for CATV (cable TV) and Sat IF distribution.
- Manifold connection alternatives for the terminal equipment.
- Continuous CATV frequency ranges with reverse channel capability.
- Advantage: Flexible in application and storage.

2-outlet super wide-band sockets

Type		EDU 04 F	GEDU 10	GEDU 15	GEDU 20
Art. No.		306111	306211	306212	306213
Design		Single socket	Pass-through-socket		
Attenuation	**Frequency range**				
IN - OUT (pass-through)	5 to 2150 (2400) MHz	-	2.5 dB	1.0 dB	0.8 dB
IN - TV (IEC male)	5 to 2150 (2400) MHz	4.0 dB	10 dB	15 dB	20 dB
IN - RF (IEC female)	5 to 2150 (2400) MHz	4.0 dB	10 dB	15 dB	20 dB
Isolation					
OUT - TV/RF	VHF, UHF / SAT	-	35/20 dB	38/30 dB	40/30 dB
TV - RF	VHF, UHF / SAT	20/20 dB	38/30 dB	24/24 dB	24/22 dB
DC circuit	13/18V, 22 kHz; max. +24V/0.5 A	TV-IN (IEC-connector)	no	no	no

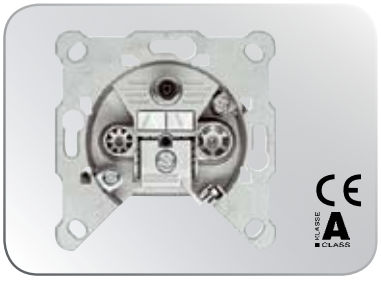


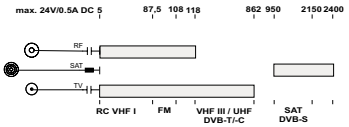


- Wideband socket box with Sat IF range
- Continuous frequency ranges 5 to 2,400 MHz on both outlets (universal socket box)
- **Advantage:** Upgrading or retrofitting of the wideband house network with direct satellite reception always possible

3-outlet sat/CATV combination sockets

Type		EDA 302 F	GDA 313 F
Art. No.		306121	306221
Design		Single socket	Pass-through-socket*
Attenuation	**Frequency range**		
IN - OUT (pass-through)	5 to 2150 (2400) MHz	-	1.0-2.0 (2.8) dB
IN - TV (IEC male)	5 to 862 MHz	2.5 dB	13 dB
IN - RF (IEC female)	5 to 118 MHz	6.5 dB	17 dB
IN - SAT (F female)	950 - 2150 (2400) MHz	2.2 dB	12 (13.5) dB
Isolation			
OUT - TV/RF	VHF, UHF	-	28 dB
OUT - SAT	SAT	-	18 dB
TV - SAT	VHF, UHF / SAT	20/20 dB	20/20 dB
RF- SAT	VHF / SAT	35/30 dB	35/30 dB
TV - RF	VHF, UHF	20 dB	20 dB
DC circuit	13/18V, 22 kHz; max. +24V/0.5 A	SAT-IN (F socket)	SAT -> IN; IN-OUT - circuit





- Sat IF socket box with reverse-channel capable wide-band MATV/CATV outlets (splitter-filter combination)
- GDA 313 F pass-through-socket with diode-decoupled DC circuit (13/18V, 22 kHz) for single-cable solution and satellite sub-distributions* in the residential unit
- **Advantage:** In addition to Sat IF operation, connection options to CATV cable network or terrestrial antenna systems (all-round antenna outlet socket).

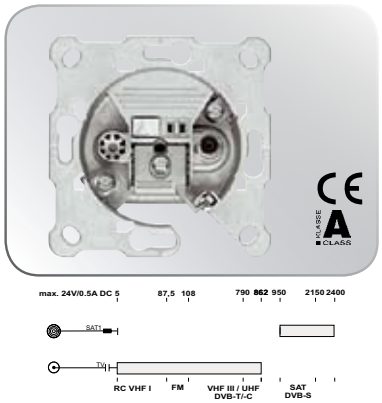
***Note:**
Only one sat receiver can be operated actively at the socket box chain in case of a cascade of pass-through sockets in multi-switch operation.

Find the outlet solution that's right for you at:

www.triax.com

SAT antenna outlets

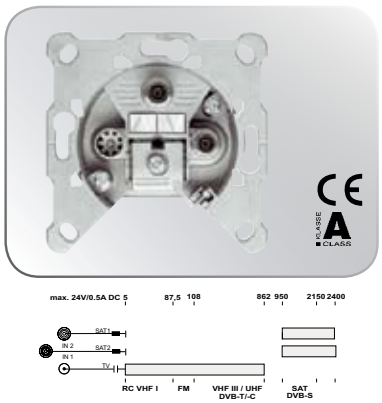
- Special sat antenna outlets for sat IF distribution networks (multi-switch systems or single-cable solution) as well as single satellite systems.
- F connector for sat IF range. Additional connection of terrestrial receiving devices such as DVB-T receiver possible via IEC connectors.
- Selective splitting of the frequency bands via filters with extremely low distribution operating loss.
- Advantages:
  Direct F-connection for sat receiver.
  Cost efficient.



2-outlet sat filter sockets

Type		EDS 01 F	GDS 08 F	GDS 11 F
Art. No.		306131	306231	306232
Design		Single socket	Pass-through-socket*	
Attenuation	**Frequency range**			
IN - OUT	5 - 2150 (2400) MHz	-	2.4 - 3.2 (4.0) dB	1.0 - 1.8 (2.6) dB
IN - TV (IEC male)	5 - 862 MHz	1.0 dB	8.0 dB	11 dB
IN - SAT (F female)	950 - 2150 (2400) MHz	1.2 dB	8.0 dB	11.5 dB
Isolation				
OUT - TV/SAT	VHF, UHF / SAT	-	30/20 dB	30/20 dB
TV - RF	VHF, UHF / SAT	25/18 dB	25/18 dB	25/18 dB
DC circuit	13/18V, 22 kHz; max. +24V/0.5 A	SAT-IN (F socket)	SAT -> IN; IN-OUT - circuit	

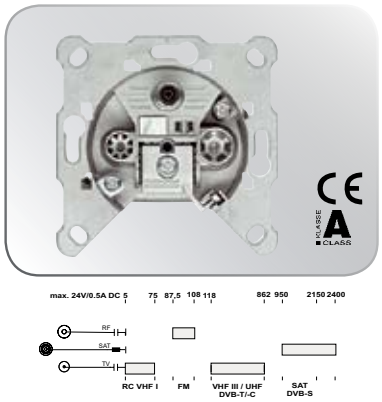
- Conceived specially for Sat IF systems with optional DVB-T operation



TWIN sat socket

Type		EDS 322 F
Art. No.		306141
Design		Single socket
Attenuation	**Frequency range**	
IN1 - TV (IEC male)	5 - 862 MHz	1.0 dB
IN1 - SAT1 (F female)	950 - 2400 MHz	1.2 dB
IN2 - SAT2 (F female)	5 - 2400 MHz	1.2 dB
Isolation		
OUT - TV/SAT	VHF, UHF / SAT	20/20 dB
DC circuit	13/18V, 22 kHz; max. +24V/0.5 A	SAT-IN (F female)

- Two independent inputs and F outlets for TWIN-sat receiver operation with connection option for DVB-T receiver or, via adapter coupling, for FM radio



3-outlet sat filter socket

Type		FS 302 F
Art. No.		306151
Design		Single socket
Attenuation	**Frequency range**	
IN - TV (IEC male)	5 - 75/118…862 MHz	1.5 dB
IN - RF (IEC female)	87 - 108 MHz	1.5 dB
IN - SAT (F female)	950 - 2150 (2400) MHz	2.0 (3.0) dB
Isolation		
TV/RF - SAT	VHF / SAT	30/20 dB
TV - RF	VHF, UHF	20 dB
DC circuit	13/18V, 22 kHz; max. +24V/0.5 A	SAT-IN (F female)

- For sat IF systems (SMATV) with connection options for terrestrial terminal equipment such as FM radio and DVB-T television

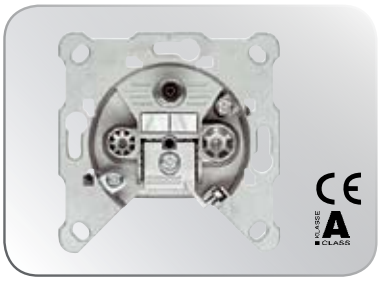
***Note:**
Only one sat receiver can be operated actively at the socket box chain in case of a cascade of pass-through-sockets in multi-switch operation.

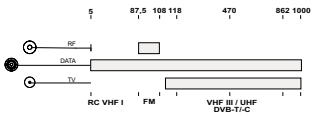
CATV antenna outlets

- Special antenna outlet sockets for connecting to cable TV networks (CATV) or common antenna networks (MATV/SMATV) up to 1 GHz.
- Special outlets designs for different electrical requirements (further special antenna outlets on request).
- Advantage: Optimal electrical characteristics for the respective application.

3-outlet modem sockets

Type		EDM 304	GDM 310	GDM 315
Art. No.		306171	306271	306272
Design		Single socket	Pass-through-socket	
Attenuation	**Frequency range**			
IN - OUT	5 - 1000 MHz	-	2.5 dB	1.6 dB
IN - TV (IEC male)	(111) 118 - 1000 MHz	(6.0) 4.3 dB	(13) 11 dB	(17) 15 dB
IN - RF (IEC female)	87 - 108 MHz	6.0 dB	14 dB	18 dB
IN - DATA (F female)	5 - 1000 MHz	3.5 dB	10 dB	15 dB
Isolation				
OUT - TV/RF	5 - 65 MHz/VHF/UHF	-	65/34/30 dB	65/34/30 dB
OUT - DATA	5 - 65 MHz/VHF/UHF	-	32/38/34 dB	35/35/35 dB
DATA - TV/RF	5 - 65 MHz/VHF/UHF	70/30/30 dB	70/40/36 dB	70/40/38 dB



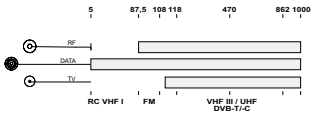


3-outlet modem sockets

Type		EDM 306	GDM 312	GDM 316
Art. No.		306161	306261	306262
Design		Single socket	Pass-through-socket	
Attenuation	**Frequency range**			
IN - OUT	5 - 1000 MHz	-	2.5 dB	(2.0) 2.5 dB
IN - TV (IEC male)	(109) 118 - 1000 MHz	6.0 dB	12.5 dB	15.5 dB
IN - RF (IEC female)	87 - 1000 MHz	6.0 dB	12.5 dB	15.5 dB
IN - DATA (F female)	5 - 1000 MHz	7.8 dB	12.5 dB	15.5 dB
Isolation				
OUT - TV/RF	5 - 65 MHz/VHF/UHF	-	*)	*)
OUT - DATA	5 - 65 MHz/VHF/UHF	-	*)	*)
DATA - TV/RF	5 - 65 MHz/VHF/UHF	70/34/30 dB	*)	*)

- > 4 MHz min. 30 dB, -1.5 dB/octave acc. EN 50083-4, 40-230 MHz min. 30 dB acc. EN 50083-7

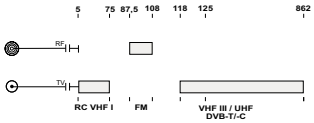
- For interactive multimedia CATV networks with cable modem operation
- Reverse channel range (F female) is decoupled by approx. 70 dB against TV outlet in order to avoid incorrect images during cable modem operation



2-outlet CATV special socket with electrical isolation

Type		EDC 01 NL
Art. No.		306181
Design		Single socket
Attenuation	**Frequency range**	
IN - TV (IEC male)	5 - 75/118 - 862 MHz	1.8 / 0.8 dB
IN - RF (IEC female)	87,5 - 108 MHz	1.8 dB
Isolation		
TV - RF	5 - 862 MHz	12 - 30 dB
DC circuit	Inner conductor TV/RF	capacitive isolated (2 kV)

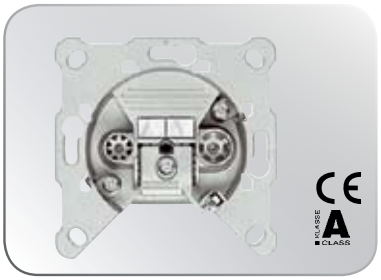
- For CATV networks in the Netherlands and Belgium.

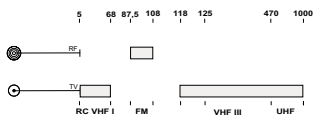


2-outlet MATV filter sockets

Type		FS 01	FS 07	FS 12
Art. No.		306191	306291	306292
Design		Single socket	Pass-through-socket	
Attenuation	**Frequency range**			
IN - OUT	5 - 1000 MHz	-	2.4 dB	1.0 dB
IN - TV (IEC male)	5 - 68/118 to 1000 MHz	0.8 / 0.7 dB	8.0 / 8.0 dB	11 dB
IN - RF (IEC female)	87 - 108 MHz	1.0 dB	9.0 dB	12 dB
Isolation				
OUT - TV/RF	40 - 1000 MHz	-	30 dB -1,5 dB / Octave	

- For wideband community networks (MATV, SMATV) or single terrestrial systems





Accessories

AR 20 surface-mounted frame

- White
- Ivory
- Dimensions: 81 x 81 mm
- Transportation format: 10/100 pieces

R 77 terminating resistor

- Transportation format: 10/100 pieces
- 75 Ohm for low-reflection terminating of the last pass-through-socket as of the type GDM, GEDU, FS 07, FS 12
- Frequency range 0 - 2400 MHz

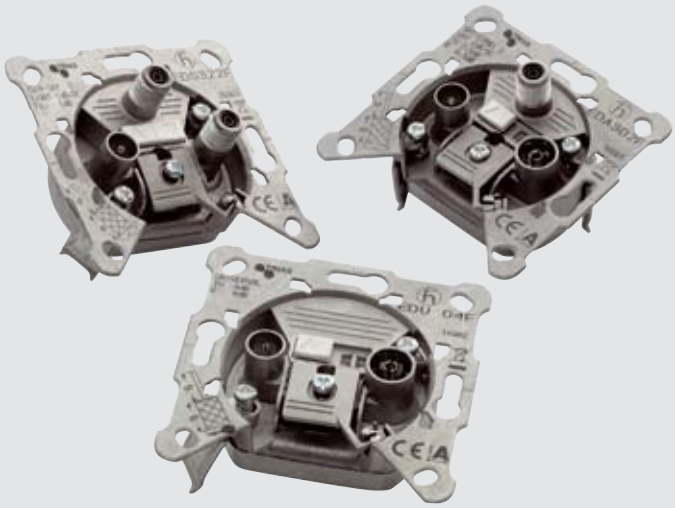
AD 23 cover

- White
- Ivory
- Dimensions: 81 x 81 mm
- Transportation format: 10/100 pieces

R 77 DCB terminating resistor

- Transportation format: 5/100 pieces
- 75 Ohm with capacitive isolation for low-reflection termination of the last pass-through-socket as of type GDA, GDS with DC operation
- Frequency range 10 - 2400 MHz

Note:
Unless nothing to the contrary is stated the technical data in this brochure are typical characteristics averaged across the frequency range and the manufacturing tolerance and are subject to the usual tolerances. All the data, specification and representations correspond to the state valid at the moment of printing.



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