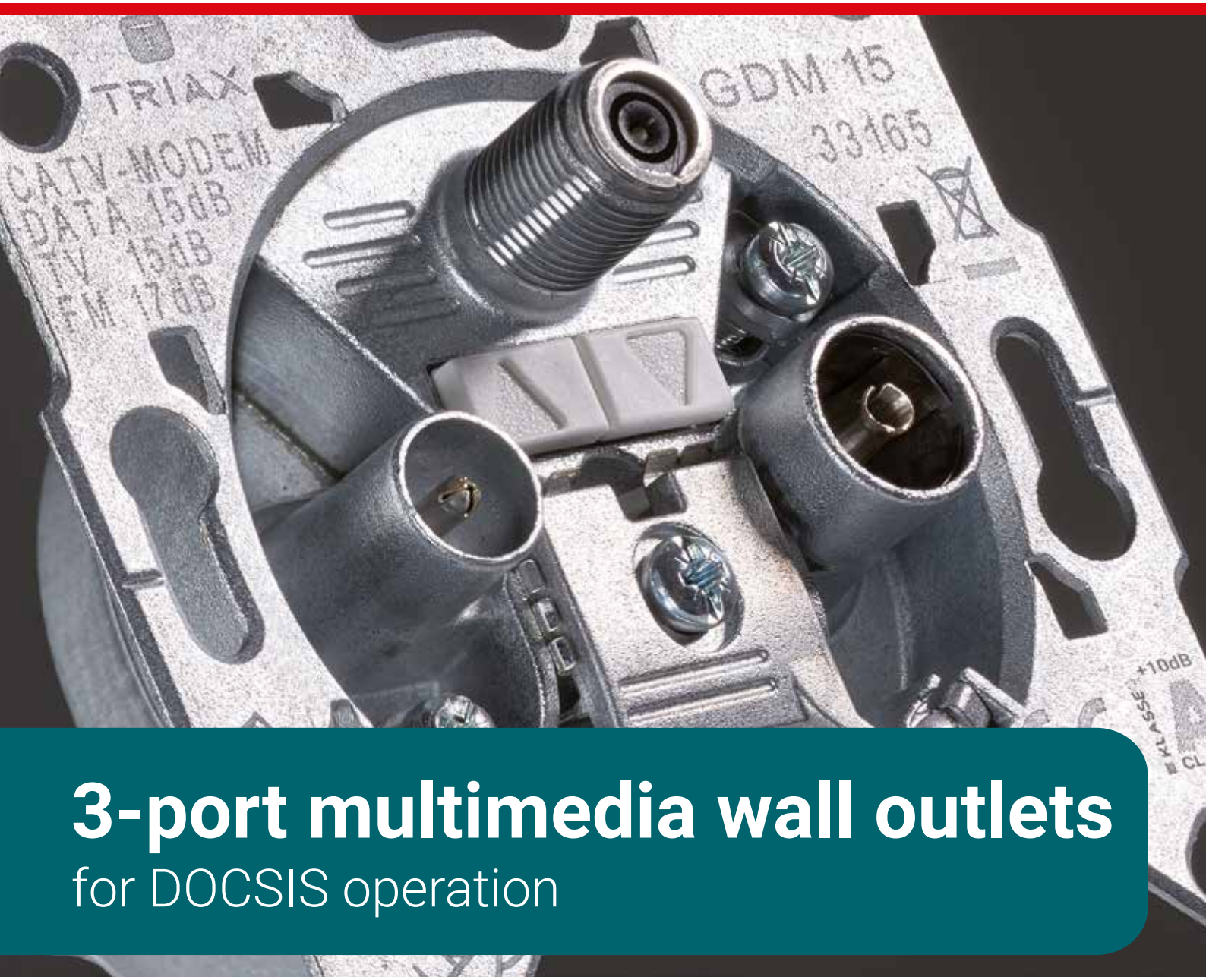
TRIAX

connecting the future



3-port multimedia wall outlets

for DOCSIS operation

Making connectivity easy

We're making it easy to prepare for the network of tomorrow, with our brand new range of 3-port multimedia wall outlets for TV, radio and data.

Our fully updated platform saves you time now and money in the future, bringing you cutting-edge electrical performance alongside our tried and trusted, hassle-free installation solution.

Available in single terminated (EDM) and loop through (GDM) models.

Your benefits

- Superb electrical performance
- High shielding and expanded frequency range
- Quick and easy mounting
- Approved by
  Vodafone - Kabel Deutschland

triax.com

TRIAX

Future ready engineering

THE DOCSIS OUTLET SOLUTION

As the demand for ever higher bandwidth grows, users expect a high quality, reliable service from their CATV provider. At TRIAX we're proud to have developed an outlet solution that exceeds technical demands while making the installation process a breeze. We're taking the pain out of your network upgrade.

Our expanded frequency range gives you all you need to exploit the blistering data speeds of future DOCSIS 3.1 network upgrades, whilst supporting today's standards.

By choosing to upgrade with our fully updated platform, you can expect:

Future proof operation

- Frequency range of 5-1200-1800 MHz for all levels of DOCSIS 3.1 migration – still compatible with standards (5-65MHz Data return path, 87.5-108MHz Radio, 109-862MHz TV)

Unrivalled reliability

- High isolation between Data and TV ports, and low intermodulation, suppress TV signal interference caused by upstream modem traffic.
- Class A+ 10dB screening attenuation protects against ingress and LTE interference.
- IEC-standard contacts for cables and connectors guarantee reliable and long lasting operation.

Clear cost savings

- Low insertion loss, finely graded tap losses: the flattest possible frequency response means less amplifier power in the network.
- Tried and trusted push-lock mechanism: unbeatably fast and efficient installation.

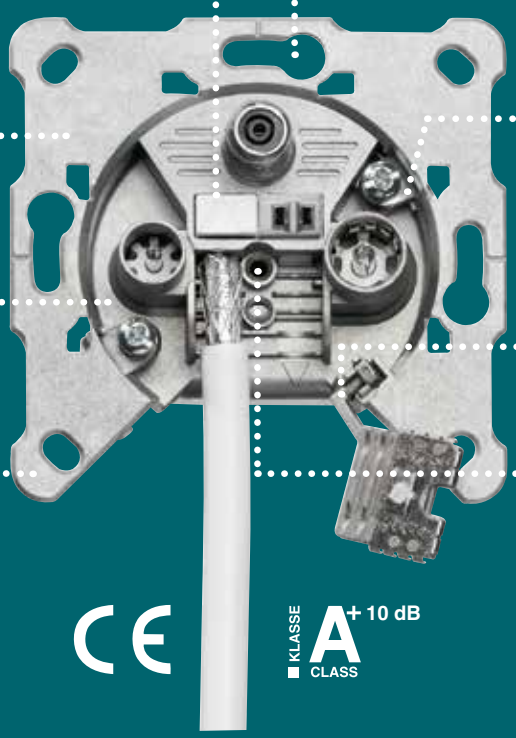
Hassle-free installation

PUSH-LOCK TERMINAL
Rapid mounting. Firmly secured. Released at the press of a button.

NEW RETAINING RING GEOMETRY
Universal for renowned ranges of switches. For easy aligning and improved mould closure.

REDUCED DEPTH AND DIAMETER
Easy to insert into flush-mounted socket box.

WASTE EDGES AT FRAME CORNERS
Well equipped for ranges of round switches (Can be broken off if necessary).



THIRD KEYHOLE
Improved fixing in hollow-wall flush-mounted socket box.

NOVEL CLAW FASTENING & 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.

CE KLASSE A+ CLASS 10 dB

More on DOCSIS

Cable TV networks, traditionally relied upon purely for signal distribution, are facing increasing demand for high-speed broadband, with upstream data flow now as critical as downstream data and broadcast signals.

DOCSIS, available in versions 2.0, 3.0 and the latest 3.1 edition, specifies the way signal flow is managed over coaxial connections, and how it interfaces with attached devices such as cable modems. It can accommodate a multitude of network configurations that have evolved differently over time, so operators are still free to use any configuration that best suits them.

Our 3-port multimedia outlets isolate TV, Radio and Data signals in order to avoid mutual interference – particularly important given a cable modem's high return path transmission levels.

If the 65 MHz return path range of today is extended to 85, 204 or 400 MHz in line with DOCSIS 3.1, so should the downstream range also be increased to one of the recommended upper band limits (1006, 1218 or 1784 MHz) – so we've designed our Data ports for the entire 5 to 1800 MHz frequency range (EDM 6 and all GDM models).

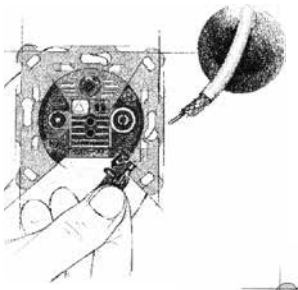
Extending the upstream range beyond 65 MHz proves to be more of a challenge, as radio transmission is inevitably blocked. Since the FM socket no longer serves a purpose, it can be closed with a terminating resistor. The return path block filter on the TV/FM path is designed for upstream up to 65 or 85 MHz.

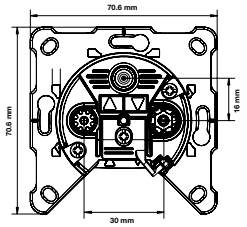
The specially developed directional couplers also achieve high isolation between the DATA and TV ports for return paths up to 204 or 400 MHz, and can be easily increased at a later stage if required by attaching a small TRIAX filter on the TV port, which means the socket needn't be replaced when the network is upgraded.

TRIAX also supplies outlets with a switchable 65/85 ↔ 204 MHz upstream filter (our 'DS' models) – contact us and we'll be happy to discuss all your needs.

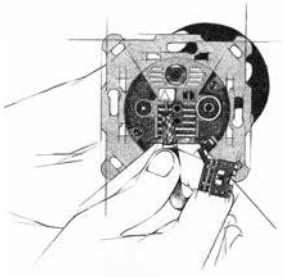
Mounting in detail

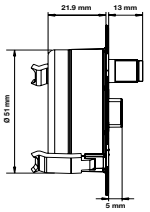
- **Open**
  Simply use a screwdriver to lever out the hinged clamp at the recess. In order to allow a free mounting position, tilt the clamp into fixing position.



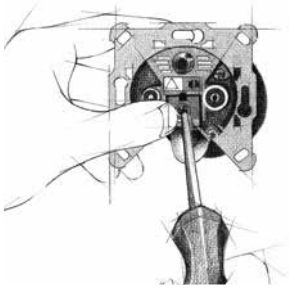


- **Insert**
  The technology for inner conductor contact. Simply insert the stripped coaxial cable into the spring contact until it stops – it's held securely. In order to remove the cable, just press the button.





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



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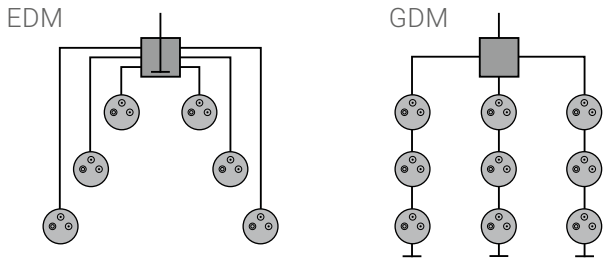
Network structures

- EDM (single terminated type)
- GDM (loop through type)



Technical Specification:

Type			EDM 1	EDM 6	GDM 10	GDM 12	GDM 15	GDM 19
Art. No.			**306270**	**306271**	**306272**	**306273**	**306274**	**306275**
Application			Single ended	Single ended	Loop through			
Electrical characteristics								
Transmission bands	IN > OUT	MHz	-	-	5 - 1794	5 - 1794	5 - 1794	5 - 1794
	IN > DATA	MHz	5-65 /109-1794	5 - 1794	5 - 1794	5 - 1794	5 - 1794	5 - 1794
	IN > TV	MHz	109 - 1218	109 - 1218	109 - 1218	109 - 1218	109 - 1218	109 - 1218
	IN > FM	MHz	87,5 - 108	87,5 - 108	87,5 - 108	87,5 - 108	87,5 - 108	87,5 - 108
	IN > DATA (RP)	MHz	5 - 65	5 - 65	5 - 65	5 - 65	5 - 65	5 - 65
Insertion loss								
IN > OUT	5 -1218 MHz	dB +/- 1	-	-	3,6	2,6	1,5	1,5
	1000-1218 MHz	dB +/- 1	-	-	3,8	2,8	1,6	1,6
	1218 -1794 MHz	dB +/- 1,5	-	-	4,8	3,8	2,6	2,4
IN > DATA	5 -1218 MHz	dB +/- 1	1/4 [1]	6	10,2	12	15	19
	1218 -1794 MHz	dB +/- 1	5	7	11,2	13	16	19,5
IN > TV	5- 65 MHz	dB >	52	52	52	52	52	52
	109-1000 MHz	dB +/- 1	4	6	10	12	15	19
	1000-1218 MHz	dB +/- 1	4	6	10	12	15,5	19,5
IN > R	5-65 MHz	dB >	52	52	52	52	52	52
	87,5-108 MHz	dB +/- 1,5	7,5	8.5	12.5	14.5	17	21
Isolation								
DATA-TV,R	5-65 MHz	dB >	52	60	60	60	60	60
DATA-TV	65-85 MHz	dB >	-	60	60	60	60	60
	85-200 MHz	dB >	20	36	40	40	45	45
	200-862 MHz	dB >	20	30	30	30	30	30
	862-1218 MHz	dB >	20	20	20	20	20	20
OUT-TV,R	5-65 MHz	dB >	-	-	60	60	60	60
	65-862 MHz	dB >	-	-	25	22	22	25
	862-1218 MHz	dB >	-	-	20	21	20	22
OUT-DATA	5-200 MHz	dB >	-	-	20	30	30	40
	200-1218 MHz	dB >	-	-	20	20	19	19
	1218-1794 MHz	dB >	-	-	18	12	15	15
TV-R	87,5-862 MHz	dB >	10	20	20	20	20	20
Return loss [2]								
IN, OUT		dB >	14 -1,5/oct	16 -1,5/oct	18 -1,5/oct	18 -1,5/oct	18 -1,5/oct	18 -1,5/oct
DATA		dB >	14 -1,5/oct	18 -1,5/oct	18 -1,5/oct	18 -1,5/oct	18 -1,5/oct	18 -1,5/oct
TV		dB >	14 -1,5/oct	14 -1,5/oct	14 -1,5/oct	14 -1,5/oct	14 -1,5/oct	14 -1,5/oct
R		dB >	10	10	10	10	10	10
IN,OUT,DATA	1218-1794MHz	dB >	From 1218 MHz linearly decreasing to 8 dB at 1794 MHz					
Intermodulation			EN 60728-4 5.3.4.8					
all Ports			15 dBµV in DS @ US two tone 120 dBµV after surge					
Shielding			EN 50083-2 5.5 (enhanced to A +10dB)					
	5 - 470 MHz	> dB	95					
	470 - 1000 MHz	> dB	85					
	1000 - 1800 MHz	> dB	85					
Standards of reference								
Passive broadband devices for coaxial networks			EN 60728-4					
System performance of forward path			EN 60728-1					
Connectors	IEC		IEC 61169-2					
	F-con		IEC 61169-24					
EMC (CE)			EN 50083-2					
RoHS2 (CE)								

[1] 1dB @ 5-65 MHz and 4dB @ 109-1794 MHz

[2] Reference frequency 47 MHz

For more information
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