braun teleCom

Quality on Line.

Coaxial Technology

Distribution equipment, wall outlets and cables

Version 2.2.6

As a supplier of broadband communication technology braun teleCom has stood for competence and continuity for more than 30 years. With our long experience and constantly growing know-how we have become a leading supplier of systems and system components for HFC and FTTX broadband networks.

While, in many areas, our activities focus on the development and production of our own products, we also serve as distributor for selected high-performance cooperation partners to achieve best possible customer satisfaction.

Further to our HFC and FTTX product lines, consisting of active and passive components, we have continually expanded our range by successfully integrating sophisticated services into our portfolio.

We have set highest quality standards for our entire range of products and services, while ensuring that we offer the best possible price-performance ratio to our customers.

braun teleCom is part of the BTV Multimedia Group. Our aim as a leading value-added supply partner is to provide our customers with the best products and services in the broadband industry.

braun teleCom

Quality on Line.

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PASSIVE DISTRIBUTION EQUIPMENT

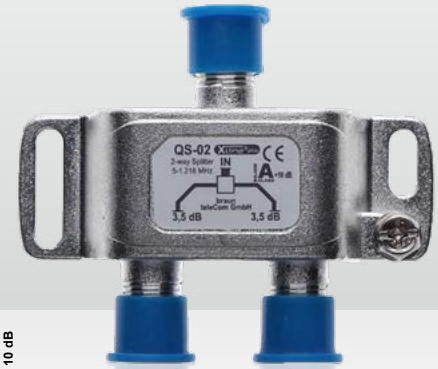
Do you have questions concerning our products or want to place an order?

We look forward to your call!
+49 511 757086

Do you already know, which products you need?
shop.brauntelecom.com

“XiLine plus” taps and splitters

2-way, 3-way, 4-way, 6-way and 8-way splitters



50002001
QS-02

50003501
QS-03A

KLASSE A CLASS + 10 dB

Xiline® plus

- Frequency range 5 – 1.218 MHz
- High-grade ferrit technology with excellent intermodulation resistance
- 360° gold plated inner conductors, high-grade dielectric inserts for excellent linearity and adaptation
- Housing plated with CuSn white bronze
- Block capacitors at each in- and output port against DC hum modulation
- Compact die-cast housing with grounding connections
- 6-way and 8-way splitters as well as 4-way, 6-way and 8-way taps are mountable in horizontal and vertical positions
- High screening factor (≥ 110 dB) exceeding EN 50083-2 Class A +10 dB
- Return loss > 22 dB at 47 MHz -1,5 dB/Oct. according EN 60728-4 Grade 1

Parameter		Frequency [MHz]	2-way splitter **QS-02**	3-way splitter **QS-03**	3-way splitter unbalanced **QS-03A**	4-way splitter **QS-04**
Through loss [dB]	IN – OUT	5 – 10	3,5 ± 0,3	5,5 ± 0,3	3,5/2 x 7,0 ± 0,3	7,0 ± 0,3
		10 – 65	3,5 ± 0,3	5,5 ± 0,3	3,5/2 x 7,0 ± 0,3	7,0 ± 0,3
		65 – 470	3,5 ± 0,3	5,5 ± 0,5	3,5/2 x 7,0 ± 0,5	7,0 ± 0,5
		470 – 862	3,5 ± 0,5	5,5 ± 0,8	3,5/2 x 7,0 ± 0,8	7,0 ± 0,8
		862 – 1.006	3,5 ± 0,8	5,5 ± 1,0	3,5/2 x 7,0 ± 1,0	7,0 ± 1,0
		1.006 – 1.218	3,5 ± 1,2	5,5 ± 1,2	3,5/2 x 7,0 ± 1,2	7,0 ± 1,2
Isolation [dB typ.]	OUT – OUT	5 – 10	> 25	> 22	> 23	> 28
		10 – 65	> 30	> 30	> 30	> 33
		65 – 470	> 28	> 28	> 28	> 28
		470 – 862	> 26	> 26	> 25	> 26
		862 – 1.006	> 24	> 24	> 24	> 24
		1.006 – 1.218	> 20	> 22	> 22	> 22
Dimensions (W x H x D) [mm]			58 x 53 x 18	80 x 53 x 18	80 x 53 x 18	80 x 53 x 18
Order No.			**50002001**	**50003001**	**50003501**	**50004001**

Parameter		Frequency [MHz]	6-way splitter **QS-06**	8-way splitter **QS-08**
Through loss [dB]	IN – OUT	5 – 10	9,5 ± 0,3	11,0 ± 0,3
		10 – 65	9,5 ± 0,3	11,0 ± 0,3
		65 – 470	9,5 ± 0,5	11,0 ± 0,5
		470 – 862	9,5 ± 0,8	11,0 ± 0,8
		862 – 1.006	9,5 ± 1,0	11,0 ± 1,0
		1.006 – 1.218	9,5 ± 1,3	11,0 ± 1,5
Isolation [dB typ.]	OUT – OUT	5 – 10	> 28	> 26
		10 – 65	> 33	> 30
		65 – 470	> 28	> 26
		470 – 862	> 26	> 24
		862 – 1.006	> 24	> 22
		1.006 – 1.218	> 22	> 20
Dimensions (W x H x D) [mm]			133 x 46,5 x 38	155 x 46,5 x 38
Order No.			**50006001**	**50008001**

50003501
QS-03A

50004001
QS-04

50006001
QS-06

50008001
QS-08

Subject to technical changes!

1-way, 2-way and 3-way taps

50106001
QT-1-6

50312001
QT-3-12

Parameter		Frequency [MHz]	1-way taps					
			QT-1-6	QT-1-8	QT-1-10	QT-1-12	QT-1-16	QT-1-20
Through loss [dB]	IN – OUT	5 – 10	2,4 ± 0,3	1,8 ± 0,3	1,2 ± 0,3	0,8 ± 0,3	0,7 ± 0,3	0,5 ± 0,3
		10 – 65	2,4 ± 0,3	1,8 ± 0,3	1,2 ± 0,3	0,8 ± 0,3	0,7 ± 0,3	0,5 ± 0,3
		65 – 470	2,4 ± 0,5	1,8 ± 0,5	1,2 ± 0,5	0,8 ± 0,5	0,7 ± 0,3	0,5 ± 0,3
		470 – 862	2,4 ± 0,6	1,8 ± 0,6	1,2 ± 0,6	0,8 ± 0,6	0,7 ± 0,5	0,5 ± 0,5
		862 – 1.006	2,4 ± 0,8	1,8 ± 0,8	1,2 ± 0,8	0,8 ± 0,8	0,7 ± 0,5	0,5 ± 0,5
		1.006 – 1.218	2,4 ± 1,0	1,8 ± 1,0	1,2 ± 1,0	0,8 ± 1,0	0,7 ± 0,8	0,5 ± 0,8
Tap loss [dB]	IN – TAP	5 – 10	6,5 ± 0,8	8,5 ± 0,5	10,5 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5
		10 – 65	6,5 ± 0,5	8,5 ± 0,5	10,5 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5
		65 – 470	6,5 ± 0,5	8,5 ± 0,5	10,5 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5
		470 – 862	6,5 ± 0,8	8,5 ± 0,8	10,5 ± 0,8	12,5 ± 0,8	16,0 ± 0,8	20,0 ± 0,8
		862 – 1.006	6,5 ± 1,0	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0	16,0 ± 1,0	20,0 ± 1,0
		1.006 – 1.218	6,5 ± 1,2	8,5 ± 1,2	10,5 ± 1,2	12,5 ± 1,2	16,0 ± 1,2	20,0 ± 1,2
Directivity [dB typ.]	OUT – TAP	5 – 10	> 40	> 35	> 40	> 45	> 45	> 45
		10 – 65	> 40	> 35	> 40	> 45	> 45	> 45
		65 – 470	> 30	> 30	> 30	> 35	> 35	> 38
		470 – 862	> 26	> 25	> 25	> 30	> 30	> 32
		862 – 1.006	> 26	> 23	> 23	> 30	> 28	> 30
		1.006 – 1.218	> 22	> 22	> 20	> 26	> 26	> 28
Dimensions (W x H x D) [mm]			58 x 53 x 18					
Order No.			**50106001**	**50108001**	**50110001**	**50112001**	**50116001**	**50120001**

Parameter	Frequency [MHz]	2-way taps					3-way taps		
		QT-2-8	QT-2-10	QT-2-12	QT-2-16	QT-2-20	QT-3-12	QT-3-16	QT-3-20
Through loss [dB] IN – OUT	5 – 10	3,9 ± 0,5	2,2 ± 0,5	1,3 ± 0,5	1,2 ± 0,3	0,9 ± 0,3	2,8 ± 0,5	2,2 ± 0,5	1,8 ± 0,5
	10 – 65	3,9 ± 0,5	2,2 ± 0,5	1,3 ± 0,5	1,2 ± 0,3	0,9 ± 0,3	2,8 ± 0,5	2,2 ± 0,5	1,8 ± 0,5
	65 – 470	3,9 ± 0,5	2,2 ± 0,5	1,3 ± 0,5	1,2 ± 0,5	0,9 ± 0,3	2,8 ± 0,5	2,2 ± 0,5	1,8 ± 0,5
	470 – 862	3,9 ± 0,6	2,2 ± 0,6	1,3 ± 0,6	1,2 ± 0,6	0,9 ± 0,5	2,8 ± 0,8	2,2 ± 0,8	1,8 ± 0,8
	862 – 1.006	3,9 ± 1,0	2,2 ± 1,0	1,3 ± 1,0	1,2 ± 1,0	0,9 ± 0,8	2,8 ± 1,0	2,2 ± 1,0	1,8 ± 1,0
	1.006 – 1.218	3,9 ± 1,2	2,2 ± 1,5	1,3 ± 1,2	1,2 ± 1,2	0,9 ± 1,2	2,8 ± 1,5	2,2 ± 1,5	1,8 ± 1,5
Tap loss [dB] IN – TAP	5 – 10	8,5 ± 0,5	10,5 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5
	10 – 65	8,5 ± 0,5	10,5 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5
	65 – 470	8,5 ± 0,5	10,5 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5	12,5 ± 0,5	16,0 ± 0,5	20,0 ± 0,5
	470 – 862	8,5 ± 0,8	10,5 ± 0,8	12,5 ± 0,8	16,0 ± 0,8	20,0 ± 0,8	12,5 ± 0,8	16,0 ± 0,8	20,0 ± 0,8
	862 – 1.006	8,5 ± 1,0	10,5 ± 1,0	12,5 ± 1,0	16,0 ± 1,0	20,0 ± 1,0	12,5 ± 1,0	16,0 ± 1,0	20,0 ± 1,0
	1.006 – 1.218	8,5 ± 1,2	10,5 ± 1,2	12,5 ± 1,2	16,0 ± 1,2	20,0 ± 1,2	12,5 ± 1,2	16,0 ± 1,2	20,0 ± 1,2
Isolation [dB typ.]	5 – 10	> 32	> 40	> 45	> 50	> 50	>36	>40	>45
	10 – 65	> 32	> 40	> 45	> 50	> 50	>40	>40	>45
	65 – 470	> 28	> 38	> 40	> 42	> 42	>36	>40	>42
	470 – 862	> 28	> 34	> 34	> 35	> 35	>34	>36	>36
	862 – 1.006	> 28	> 32	> 30	> 33	> 33	>32	>32	>34
	1.006 – 1.218	> 28	> 28	> 30	> 32	> 32	>30	>32	>32
Directivity [dB typ.] OUT – TAP	5 – 10	> 26	> 30	> 32	> 35	> 40	>26	>35	>35
	10 – 65	> 26	> 30	> 34	> 35	> 40	>26	>35	>35
	65 – 470	> 23	> 28	> 32	> 32	> 32	>26	>30	>32
	470 – 862	> 22	> 26	> 25	> 27	> 27	>22	>26	>28
	862 – 1.006	> 22	> 26	> 25	> 25	> 25	>20	>26	>26
	1.006 – 1.218	> 22	> 24	> 22	> 23	> 23	>20	>22	>24
Dimensions [mm]		80 x 53 x 18							
Order No.		**50208001**	**50210001**	**50212001**	**50216001**	**50220001**	**50312001**	**50316001**	**50320001**

Subject to technical changes!

4-way, 6-way and 8-way multitaps

50400001
QMT-4

50600001
QMT-6

Parameter	Frequency [MHz]	4-way multitap, staggered tap ports QMT-4	4-way multitap, equal tap ports QMT-4S	6-way multitap, staggered tap ports QMT-6	6-way multitap, equal tap ports QMT-6S	8-way multitap, staggered tap ports QMT-8	8-way multitap, equal tap ports QMT-8S
Through loss [dB] IN – OUT	5 – 10	3,2 ± 0,5	4,2 ± 0,7	6,0 ± 0,5	5,5 ± 0,5	8,5 ± 0,5	7,5 ± 0,5
	10 – 65	3,2 ± 0,5	4,2 ± 0,5	6,0 ± 0,5	5,5 ± 0,5	8,5 ± 0,5	7,5 ± 0,5
	65 – 470	3,2 ± 0,5	4,2 ± 0,5	6,0 ± 0,5	5,5 ± 0,5	8,5 ± 0,5	7,5 ± 0,5
	470 – 862	3,2 ± 0,8	4,2 ± 0,6	6,0 ± 0,8	5,5 ± 0,8	8,5 ± 0,8	7,5 ± 0,8
	862 – 1.006	3,2 ± 1,0	4,2 ± 1,0	6,0 ± 1,0	5,5 ± 1,0	8,5 ± 1,0	7,5 ± 1,0
	1.006 – 1.218	3,2 ± 1,5	4,2 ± 1,2	6,0 ± 1,3	5,5 ± 1,3	8,5 ± 1,3	7,5 ± 1,3
Tap loss* [dB] IN – TAP	5 – 10	12,5/13,5 14,5/15,5	2 x 11,5/2 x 12,5 ± 0,7	12,5/13,5 14,5/15,5 16,5/17,5	6 x 15,5 ± 0,5	12,5/13,5 14,5/15,5 16,5/17,5 18,5/19,5	8 x 17,5 ± 0,5
	10 – 65		2 x 11,5/2 x 12,5 ± 0,5		6 x 15,5 ± 0,5		8 x 17,5 ± 0,5
	65 – 470		2 x 11,5/2 x 12,5 ± 0,5		6 x 15,5 ± 0,5		8 x 17,5 ± 0,5
	470 – 862		2 x 11,5/2 x 12,5 ± 0,6		6 x 15,5 ± 0,8		8 x 17,5 ± 0,8
	862 – 1.006		2 x 11,5/2 x 12,5 ± 1,0		6 x 15,5 ± 1,0		8 x 17,5 ± 1,0
	1.006 – 1.218		2 x 11,5/2 x 12,5 ± 1,2		6 x 15,5 ± 1,2		8 x 17,5 ± 1,2
Isolation [dB typ.]	5 – 10	> 42	> 40	> 42	> 42	> 42	> 42
	10 – 65	> 42	> 40	> 42	> 42	> 42	> 42
	65 – 470	> 38	> 36	> 38	> 38	> 38	> 38
	470 – 862	> 36	> 34	> 36	> 36	> 36	> 36
	862 – 1.006	> 32	> 32	> 32	> 32	> 32	> 32
	1.006 – 1.218	> 30	> 30	> 30	> 30	> 30	> 30
Directivity [dB typ.] OUT – TAP	5 – 10	> 32	> 30	> 35	> 32	> 35	> 35
	10 – 65	> 32	> 30	> 35	> 32	> 35	> 35
	65 – 470	> 30	> 25	> 30	> 30	> 30	> 30
	470 – 862	> 25	> 25	> 25	> 26	> 28	> 26
	862 – 1.006	> 22	> 25	> 23	> 24	> 26	> 24
	1.006 – 1.218	> 20	> 23	> 22	> 22	> 24	> 22
Dimensions [mm]		133 x 46,5 x 38				155 x 46,5 x 38	
Order No.		**50400001**	**50405001**	**50600001**	**50605001**	**50800001**	**50805001**

* Tap port tolerances: ± 1,0 dB (5 – 1.006 MHz); ± 1,2 dB (1.006 – 1.218 MHz)

50405001
QMT-4S

50800001
QMT-8

50605001
QMT-6S

50805001
QMT-8S

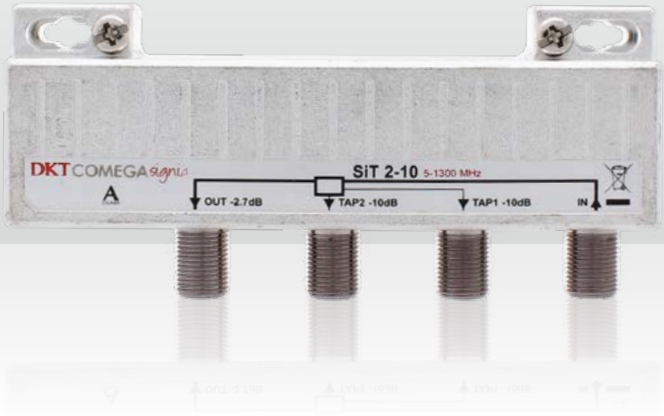
Subject to technical changes!

“Signia” taps and splitters

1-way and 2-way taps

84020110
SiT 1-10

84020220
SiT 2-20



KLASSE A CLASS

- Frequency range 5 – 1.300 MHz
- Nickel-tin plated brass connectors lead to a minimum failure rate
- Literally maintenance-free, creating a unique OPEX advantage
- Field proven! No lose cable connectors as the Signia connector is temperature- and corrosion-resistant
- Designed for DOCSIS® 3.1
- The Signia product series contains ferrite cores, which are protected against unwanted strong signals and can be driven above their linear range of operation at high power
- Protected against dust & humidity
- Screening factor Class A

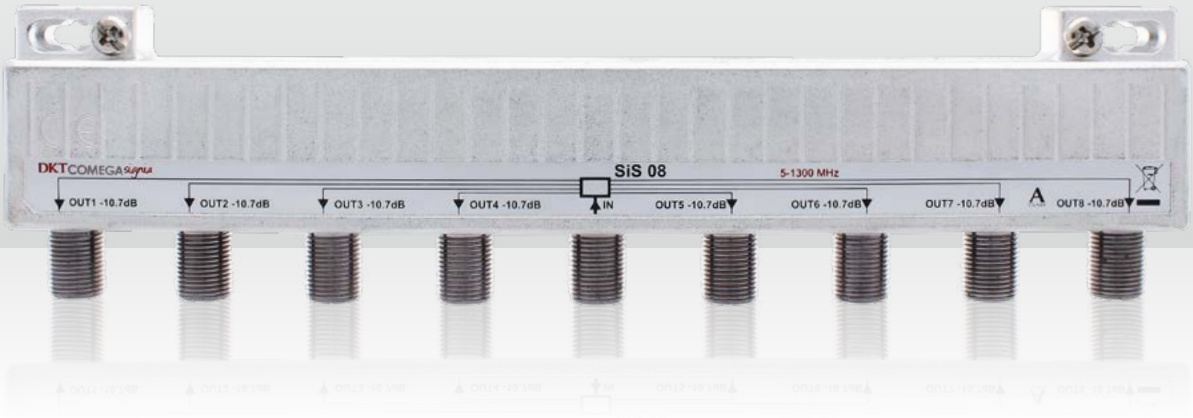
Parameter	Frequency [MHz]	1-way taps							
		SiT-1-6	SiT-1-8	SiT-1-10	SiT-1-12	SiT-1-16	SiT-1-20	SiT-1-24	SiT-1-30
Tap loss [dB typ.] IN – TAP	10 – 1.300	6,6 (± 0,6)	8,3 (± 0,6)	10,2 (± 0,6)	12,1 (± 0,6)	16,0 (± 0,6)	20,0 (± 0,6)	23,9 (± 0,6)	30,2 (± 0,6)
Through loss [dB typ.] IN – OUT	10 – 470	2,3	1,7	1,0	0,7	0,6	0,6	0,6	0,6
	470 – 862	2,8	2,1	1,4	1,0	0,8	0,8	0,8	0,8
	862 – 1.006	3,0	2,4	1,8	1,2	1,0	1,0	1,0	1,0
	1.006 – 1.300	3,1	2,8	2,4	1,8	1,6	1,6	1,3	1,3
Directivity typ./min. [dB] TAP – OUT	10 – 470	27/22	27/22	33/24	30/24	36/28	36/28	36/28	40/28
	470 – 862	22/20	23/20	29/21	29/22	30/23	32/24	35/26	38/28
	862 – 1.006	22/20	22/20	25/20	25/21	25/22	27/22	30/24	36/25
	1.006 – 1.300	22/20	22/20	25/20	25/20	25/21	28/21	30/21	35/23
Dimensions [mm]		65 x 50 x 16							
Order No.		**84020106**	**84020108**	**84020110**	**84020112**	**84020116**	**84020120**	**84020124**	**84020130**

Parameter	Frequency [MHz]	2-way taps						
		SiT-2-8	SiT-2-10	SiT-2-12	SiT-2-16	SiT-2-20	SiT-2-24	SiT-2-28
Tap loss [dB typ.] IN – TAP	10 – 1.300	8,5 (± 0,8)	10,2 (± 0,8)	12,4 (± 0,8)	16,3 (± 0,8)	20,0 (± 0,8)	24,0 (± 0,8)	28,0 (± 0,8)
Through loss [dB typ.] IN – OUT	10 – 470	3,2	1,9	1,2	1,1	1,1	1,1	1,1
	470 – 862	3,5	2,7	1,7	1,4	1,4	1,4	1,4
	862 – 1.006	3,7	3,2	2,1	1,6	1,6	1,6	1,6
	1.006 – 1.300	3,9	3,8	2,4	2,1	2,1	2,1	2,1
Directivity typ./min. [dB] TAP – OUT	10 – 470	35/26	35/26	36/26	38/26	42/28	44/30	44/30
	470 – 862	30/22	30/ 23	30/23	30/23	35/24	37/25	37/25
	862 – 1.006	24/21	27/21	28/21	29/22	31/22	33/24	33/24
	1.006 – 1.300	24/20	27/20	27/20	27/20	27/20	29/22	29/22
Isolation typ./min. [dB] TAP – TAP	10 – 470	31/25	35/29	40/32	45/34	60/35	64/35	64/35
	470 – 862	31/22	34/27	38/30	38/34	52/35	60/35	60/35
	862 – 1.006	29/21	32/26	36/28	36/32	46/33	51/35	51/35
	1.006 – 1.300	27/21	31/22	34/25	36/28	43/31	49/34	49/34
Dimensions [mm]		109 x 50 x 16						
Order No.		**84020208**	**84020210**	**84020212**	**84020216**	**84020220**	**84020224**	**84020228**

Subject to technical changes!

3-way to 8-way taps and splitters

84148008
SiS 08



KLASSE A CLASS

Parameter	Frequency [MHz]	3-way taps		4-way taps				
		SiT-3-16	SiT-3-20	SiT-4-12s	SiT-4-16s	SiT-4-24s	SiT-2-24	SiT-4-28s
Tap loss [dB typ.] IN – TAP	10 – 1.300	16,1 (± 0,8)	20,1 (± 0,8)	12,4 (± 0,8)	16,2 (± 0,8)	20,0 (± 0,8)	24,0 (± 0,8)	28,0 (± 0,8)
Through loss [dB typ.] IN – OUT	10 – 470	2,0	1,2	3,7	2,7	1,5	1,5	1,5
	470 – 862	1,9	1,5	3,8	2,7	1,8	1,8	1,8
	862 – 1.006	2,2	1,7	4,3	2,9	2,1	2,1	2,1
	1.006 – 1.300	2,7	2,3	5,1	3,7	2,7	2,7	2,7
Directivity typ./min. [dB] TAP – OUT	10 – 470	35/24	44/28	32/24	34/24	40/24	43/25	43/25
	470 – 862	32/22	33/22	31/22	31/21	33/21	40/24	40/24
	862 – 1.006	28/21	29/21	27/20	27/21	29/21	33/22	33/22
	1.006 – 1.300	25/20	25/20	25/20	25/20	27/20	29/20	29/20
Isolation typ./min. [dB] TAP – TAP	10 – 470	50/34	59/34	48/34	50/36	52/38	54/38	54/38
	470 – 862	45/32	51/32	43/32	45/34	47/36	49/36	49/36
	862 – 1.006	41/32	44/32	40/30	42/32	45/34	47/34	47/34
	1.006 – 1.300	37/30	42/30	38/28	40/30	43/32	45/32	45/32
Dimensions [mm]		109 x 50 x 16		131 x 50 x 16				
Order No.		**84148316**	**84148320**	**84148430**	**84148431**	**84148432**	**84148433**	**84148434**

Parameter	Frequency [MHz]	Internally terminated 4-way taps		Internally terminated 6-way tap	Internally terminated 8-way tap
		SiTT-4-10	SiTT-4-12	SiTT-6-14	SiTT-8-15
Tap loss [dB typ.] IN – TAP	10 – 1.300	10,2 (± 0,9)	12,3 (± 0,9)	14,1 (± 0,8)	15,8 (± 1,1)
Isolation typ./min. [dB] TAP – TAP	10 – 470	40/30	43/32	40/34	42/36
	470 – 862	34/30	36/32	40/32	40/32
	862 – 1.006	32/28	34/30	38/30	40/30
	1.006 – 1.300	30/26	32/28	34/28	37/28
Dimensions [mm]		109 x 50 x 16		196 x 50 x 16	196 x 50 x 16
Order No.		**84148410**	**84148411**	**84148614**	**84148815**

Parameter	Frequency [MHz]	2-way splitter	3-way splitter	3-way splitter, asymmetric	4-way splitter	6-way splitter	8-way splitter
		SiS-02	SiS-03	SiS-03A	SiS-04	SiS-06	SiS-08
Through loss [dB typ.] IN – OUT	10 – 470	3,3	5,2	3,3/6,6	6,6	8,4	10,1
	470 – 862	3,5	5,6	3,7/7,0	7,1	9,0	10,7
	862 – 1.006	3,7	5,8	3,8/7,3	7,5	9,4	11,2
	1.006 – 1.300	4,0	6,2	4,2/7,8	7,9	9,9	11,9
Isolation typ./min. [dB] OUT – OUT	10 – 470	34/28	32/25	32/24	35/24	33/23	33/24
	470 – 862	30/23	30/22	30/24	30/22	28/20	32/22
	862 – 1.006	29/22	26/20	30/24	30/20	28/20	31/20
	1.006 – 1.300	24/20	23/18	28/21	30/20	28/18	30/20
Dimensions [mm]		65 x 50 x 16	109 x 50 x 16		109 x 50 x 16	196 x 50 x 16	196 x 50 x 16
Order No.		**84148002**	**84148003**	**84148005**	**84148004**	**84148006**	**84148008**

Subject to technical changes!

Outdoor splitters and taps

1,2 GHz power inserter, splitters and couplers

52703000
SPLRE-03

52710800
TPLRE-1-8

KLASSE A CLASS + 10 dB

- Watertight aluminium alloy housing with PU coating (IP68)
- Waterproof condition 15 PSI
- AC current path with jumpers can be switched to all outputs
- High screening factor Class A +10 dB
- All connections are 5/8"-threads
- Power rating max. 15 A, 90 VAC
- Hum modulation distance at 10 A with 70 dB average
- Surge protection 1 kV 1,2/50 µs
- Operating temperature range: -40°C … +60°C
- Mounting angle not included (Order No. 52999000)

Parameter	Frequency [MHz]	Power inserter PIRE-01 IN – OUT	2-way splitter SPLRE-02 IN – OUT 1; 2	3-way splitter SPLRE-03 IN – OUT 1	SPLRE-03 IN – OUT 2; 3	SPLRE-03E IN – OUT 1; 2; 3
Through loss [dB]	5 – 10	0,7	4,1	4,1	7,4	7,0
	10 – 65	0,7	4,1	4,1	7,4	6,5
	65 – 300	0,7	4,3	4,3	7,5	6,5
	300 – 550	0,7	4,5	4,5	7,6	7,0
	550 – 750	1,0	4,6	4,6	7,7	7,3
	750 – 862	1,3	4,7	4,7	7,8	7,5
	862 – 1.006	1,3	4,8	4,8	8,0	8,5
	1.006 – 1.218	1,4	5,5	6,0	9,5	9,0
		Power max. 20 A, 90 VAC				
Return loss [dB min.]	5 – 10	17	16	16		16
	10 – 47	18	18	18		16
	47 – 300	18*	18*	18*		18*
	300 – 1.218	16	16	16		16
Isolation [dB min.]	5 – 10	75	20	21		18
	10 – 550	60	25	22		22
	550 – 750	60	25	21		22
	750 – 862	50	22	20		21
	862 – 1.006	50	20	20		20
	1.006 – 1.218	45	18	20		20
Dimensions [mm]		138 x 124 x 72				
Order No.		**52701000**	**52702000**	**52703000**		**52703500**

Parameter	Frequency [MHz]	1-way directional coupler TPLRE-1-8	TPLRE-1-12	TPLRE-1-16
Through loss [dB]	5 – 10	1,8	1,2	1,3
	10 – 65	1,6	1,2	1,3
	65 – 550	2,0	1,5	1,3
	550 – 750	2,5	1,5	1,3
	750 – 862	2,9	1,8	1,6
	862 – 1.006	3,1	2,2	1,6
	1.006 – 1.218	3,3	2,7	2,2
Tap loss [dB max.]	5 – 1.006	9,5	13,0	17,0
	1.006 – 1.218	10,2	13,5	17,5
Return loss [dB min.]	5 – 10	16	16	16
	10 – 47	16	18	18
	47 – 300	18*	18*	18*
	300 – 1.218	16	16	16
Directivity [dB min.]	5 – 10	18	19	21
	10 – 65	28	23	25
	65 – 300	28	25	30
	300 – 550	25	25	25
	550 – 750	21	20	20
	750 – 1.218	18	18	20
Dimensions [mm]		138 x 124 x 72		
Order No.		**52710800**	**52711200**	**52711600**

* At 47 MHz -1,5 dB/Oct

Subject to technical changes!

1,2 GHz 2-way outdoor taps

52722040
MTRE-122-4

52722320
MTRE-122-32

KLASSE A CLASS + 10 dB

- Watertight aluminium alloy housing with PU coating (IP65), when connecting waterproof and dustproof F connectors to the F ports (e. g. Cabelcon Hardline F connectors) IP 68
- Waterproof condition 15 PSI
- NiSn65 alloy coated, watersealed F-female connectors
- AC/RF bypass in the loop (IN – OUT) in case of a removed faceplate max. 12 A, 65 VAC
- High screening factor Class A +10 dB
- Terminals: Tap F-female; IN/OUT 5/8"
- Hum modulation distance at 10 A with 70 dB average
- Surge protection 1 kV 1,2/50 µs
- Operating temperature range: -40°C … +60°C
- Mounting angle not included (Order No. 52999000)
- SA type on request

Parameter	Frequency [MHz]	MTRE-122-4		MTRE-122-8		MTRE-122-11		MTRE-122-14		MTRE-122-17	
Through loss [dB]	5 – 65	–		3,6		1,6		1,1		1,1	
	65 – 300	–		4,0		1,8		1,3		1,2	
	300 – 550	–		4,7		2,5		1,9		1,7	
	550 – 750	–		5,0		2,7		2,1		1,8	
	750 – 862	–		5,0		3,0		2,3		2,0	
	862 – 1.006	–		5,1		3,1		2,4		2,1	
	1.006 – 1.218	–		5,3		3,3		2,6		2,3	
Tap loss [dB max.]	5 – 862	5,0		9,0		12,0		15,0		18	
	862 – 1.218	5,5		9,5		12,5		15,5		18,5	
Return loss [dB min.]	5 – 10	16		16		15		16		16	
	10 – 47	18		18		18		18		18	
	47 – 300	18*		18*		18*		18*		18*	
	300 – 1.006	16		16		16		16		16	
	1.006 – 1.218	14		14		14		14		14	
		Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap
Isolation [dB min.]	5 – 10	–	20	18	20	22	20	24	20	27	22
	10 – 65	–	26	27,5	26	29	26	30,5	26	32	26
	65 – 862	–	24	25,5	24	27	24	28,5	24	30	24
	862 – 1.218	–	22	23,5	22	25	22	26,5	22	28	22
Dimensions [mm]		95 x 98,5 x 76									
Order No.		52722040		52722080		52722110		52722140		52722170	

Parameter	Frequency [MHz]	MTRE-122-20		MTRE-122-23		MTRE-122-26		MTRE-122-29		MTRE-122-32	
Through loss [dB]	5 – 65	0,8		0,8		0,7		0,7		0,7	
	65 – 300	0,9		0,9		0,9		0,8		0,8	
	300 – 550	1,3		1,3		1,3		1,2		1,2	
	550 – 750	1,5		1,5		1,4		1,3		1,3	
	750 – 862	1,8		1,7		1,7		1,4		1,4	
	862 – 1.006	1,9		1,8		1,8		1,5		1,5	
	1.006 – 1.218	2,1		2,0		2,0		1,7		1,7	
Tap loss [dB max.]	5 – 862	21		24		27		30		33	
	862 – 1.218	21,5		24,5		27,5		30,5		33,5	
Return loss [dB min.]	5 – 10	16		16		16		16		16	
	10 – 47	18		18		18		18		18	
	47 – 300	18*		18*		18*		18*		18*	
	300 – 1.006	16		16		16		16		16	
	1.006 – 1.218	14		14		14		14		14	
		Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap
Isolation [dB min.]	5 – 10	30	25	30	25	34	25	38	25	38	25
	10 – 65	33,5	26	35	26	36,5	26	38	26	38	26
	65 – 862	31,5	24	33	24	34,5	24	36	24	36	24
	862 – 1.218	29,5	22	31	22	32,5	22	34	22	34	22
Dimensions [mm]		95 x 98,5 x 76									
Order No.		52722200		52722230		52722260		52722290		52722320	

* At 47 MHz -1,5 dB/Oct

Subject to technical changes!

1,2 GHz 4-way outdoor taps

52722080
MTRE-124-8

52724260
MTRE-124-26

KLASSE A CLASS + 10 dB

- Watertight aluminium alloy housing with PU coating (IP65), when connecting waterproof and dustproof F connectors to the F ports (e.g. Cabelcon Hardline F connectors) IP 68
- Waterproof condition 15 PSI
- NiSn65 alloy coated watersealed F-female connectors
- AC/RF bypass in the loop (IN – OUT) in case of a removed faceplate max. 12 A, 65 VAC
- High screening factor Class A +10 dB
- Terminals: Tap F-female; IN/OUT 5/8"
- Hum modulation distance at 10 A with 70 dB average
- Surge protection 1 kV 1,2/50 µs
- Operating temperature range: -40°C … +60°C
- Mounting angle not included (Order No. 52999000)
- SA type on request

Parameter	Frequency [MHz]	MTRE-124-8		MTRE-124-11		MTRE-124-14		MTRE-124-17		MTRE-124-20	
Through loss [dB]	5 – 65	–		3,6		1,6		1,1		1,1	
	65 – 300	–		4,0		1,8		1,3		1,2	
	300 – 550	–		4,7		2,5		1,9		1,7	
	550 – 750	–		5,0		2,7		2,1		1,8	
	750 – 862	–		5,0		3,0		2,3		2,0	
	862 – 1.006	–		5,1		3,1		2,4		2,1	
	1.006 – 1.218	–		5,3		3,3		2,6		1,3	
Tap loss [dB max.]	5 – 862	9		12		15		18		21	
	862 – 1.218	9,5		12,5		15,5		18,5		21,5	
Return loss [dB min.]	5 – 10	16		15		15		15		16	
	10 – 47	18		18		18		18		18	
	47 – 300	18*		18*		18*		18*		18*	
	300 – 1.006	15		15		15		15		15	
	1.006 – 1.218	14		14		14		14		14	
		Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap
Isolation [dB min.]	5 – 10	–	20	20	20	21	20	22	20	27	20
	10 – 65	–	26	29	26	30,5	26	32	26	33,5	26
	65 – 862	–	24	27	24	28,5	24	30	24	31,5	24
	862 – 1.218	–	22	25	22	26,5	22	28	22	29,5	22
Dimensions [mm]		95 x 98,5 x 76									
Order No.		52724080		52724110		52724140		52724170		52724200	

Parameter	Frequency [MHz]	MTRE-124-23		MTRE-124-26		MTRE-124-29		MTRE-124-32	
Through loss [dB]	5 – 65	0,8		0,8		0,7		0,7	
	65 – 300	0,9		0,9		0,9		0,8	
	300 – 550	1,3		1,3		1,3		1,2	
	550 – 750	1,5		1,5		1,4		1,3	
	750 – 862	1,8		1,7		1,7		1,4	
	862 – 1.006	1,9		1,8		1,8		1,5	
	1.006 – 1.218	2,1		2,0		2,0		1,7	
Tap loss [dB max.]	5 – 862	24		27		30		33	
	862 – 1.218	24,5		27,5		30,5		33,5	
Return loss [dB min.]	5 – 10	16		16		16		16	
	10 – 47	18		18		18		18	
	47 – 300	18*		18*		18*		18*	
	300 – 1.006	15		15		15		15	
	1.006 – 1.218	14		14		14		14	
		Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap
Isolation [dB min.]	5 – 10	30	20	34	20	35	20	36	20
	10 – 65	35	26	36,5	26	38	26	39,5	26
	65 – 862	33	24	34,5	24	36	24	37,5	24
	862 – 1.218	31	22	32,5	22	34	22	35,5	22
Dimensions [mm]		95 x 98,5 x 76							
Order No.		52724230		52724260		52724290		52724320	

* At 47 MHz -1,5 dB/Oct

Subject to technical changes!

1,2 GHz 8-way outdoor taps

52728110
MTRE-128-11

52728290
MTRE-128-29

KLASSE A CLASS + 10 dB

- Watertight aluminium alloy housing with PU coating (IP65), when connecting waterproof and dustproof F connectors to the F ports (e. g. Cabelcon Hardline F connectors) IP 68
- Waterproof condition 15 PSI
- NiSn65 alloy coated watersealed F-female connectors
- AC/RF bypass in the loop (IN – OUT) in case of a removed faceplate max. 12 A, 65 VAC
- High screening factor Class A +10 dB
- Terminals: Tap F-female; IN/OUT 5/8"
- Hum modulation distance at 10 A with 70 dB average
- Surge protection 1 kV 1,2/50 µs
- Operating temperature range: -40°C … +60°C
- Mounting angle not included (Order No. 52999000)
- SA type on request

Parameter	Frequency [MHz]	MTRE-128-11		MTRE-128-14		MTRE-128-17		MTRE-128-20	
Through loss [dB]	5 – 65	–		3,6		1,6		1,1	
	65 – 300	–		4,0		1,8		1,3	
	300 – 550	–		4,7		2,5		1,9	
	550 – 750	–		5,0		2,7		2,1	
	750 – 862	–		5,0		3,0		2,3	
	862 – 1.006	–		5,1		3,1		2,4	
	1.006 – 1.218	–		5,3		3,6		2,6	
Tap loss [dB max.]	5 – 862	12		15		18		21	
	862 – 1.218	12,5		15,5		18,5		21,5	
Return loss [dB min.]	5 – 10	16		16		16		16	
	10 – 47	18		18		18		18	
	47 – 300	18*		18*		18*		18*	
	300 – 1.006	16		16		16		16	
	1.006 – 1.218	14		14		14		14	
		Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap
Isolation [dB min.]	5 – 10	–	22	22	22	22	22	26	22
	10 – 65	–	26	30,5	26	32	26	33,5	26
	65 – 862	–	24	28,5	24	30	24	31,5	24
	862 – 1.006	–	22	26,5	22	28	22	29,5	22
	1.006 – 1.218	–	20	24,5	20	26	20	27,5	20
Dimensions [mm]		117,5 x 145,5 x 78							
Order No.		52728110		52728140		52728170		52728200	

Parameter	Frequency [MHz]	MTRE-128-23		MTRE-128-26		MTRE-128-29		MTRE-128-32	
Through loss [dB]	5 – 65	1,1		0,8		0,8		0,7	
	65 – 300	1,2		0,9		0,9		0,9	
	300 – 550	1,7		1,3		1,3		1,3	
	550 – 750	1,8		1,5		1,5		1,4	
	750 – 862	2,0		1,8		1,7		1,7	
	862 – 1.006	2,1		1,9		1,8		1,8	
	1.006 – 1.218	2,3		2,1		2,0		2,0	
Tap loss [dB max.]	5 – 862	24		27		30		33	
	862 – 1.218	24,5		27,5		30,5		33,5	
Return loss [dB min.]	5 – 10	16		16		16		16	
	10 – 47	18		18		18		18	
	47 – 300	18*		18*		18*		18*	
	300 – 1.006	16		16		16		16	
	1.006 – 1.218	14		14		14		14	
		Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap	Out-Tap	Tap-Tap
Isolation [dB min.]	5 – 10	33	22	35	22	40	22	40	22
	10 – 65	35	26	36,5	26	38	26	39,5	26
	65 – 862	33	24	34,5	24	36	24	37,5	24
	862 – 1.006	31	22	32,5	22	34	22	35,5	22
	1.006 – 1.218	29	20	30,5	20	32	20	33,5	20
Dimensions [mm]		117,5 x 145,5 x 78							
Order No.		52728230		52728260		52728290		52728320	

* At 47 MHz -1,5 dB/Oct

Subject to technical changes!

Remote power filters and equalizers

Remote power rating high pass filters in modular concept

57863000
DCM-HF30

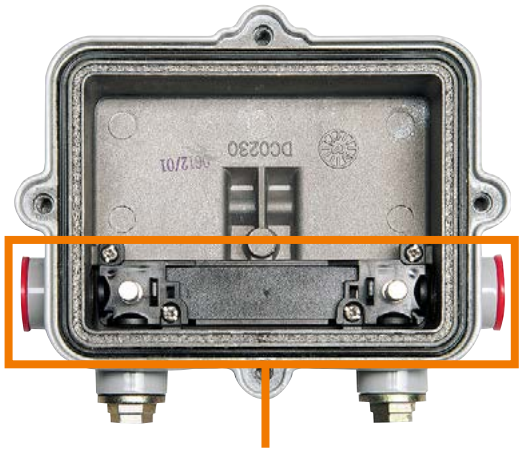
57860000
Basic housing FSP

KLASSE A CLASS

- Flexible configuration of high pass filter via plug-in modules DCM-HFxx
- AC/RF bypass switch in the loop for uninterrupted service in case of a removed faceplate, e. g. to change the plug-in module
- Power passing to the loop (IN – OUT) by 12 A at 65/90 VAC
- Hum modulation distance at 10 A/90 VAC -60 dB average
- Surge protection 6 kV 1,2/50 µs
- Watertight aluminium alloy housing with PU coating (IP65)
- Waterproof condition 15 PSI
- All connections are 5/8" threads
- 100 dB min. RFI isolation
- Mounting angle not included (Order No. 52999000)

Parameter	Plug-in module high pass filter DCM-HF30	Plug-in module high pass filter DCM-HF85
Pass band [MHz]	30 – 1.000	84 – 1.000
Through loss [dB]	≤ 1,5 ± 0,5	≤ 1,5 ± 0,5
Stop band [MHz]	5 – 25	5 – 65
Rejection [dB]	> 50	> 50
Return loss [dB]	> 16	> 16
Dimensions [mm]	144 x 118 x 75	
Order No.	**57863000**	**57868500**

Uninterrupted AC & RF transmission in the loop



An integrated power passing bar between in- and output provides an uninterrupted AC and RF signal forwarding to the downstream network.

Assembling of tap modules into the FSP housing

1. Remove the cover from the housing (Order No. 57860000).

2. Insert the DCM module as shown into the plug-in socket. The direction of the modules is guided by a guide rail on the plug-in socket.

3. Mount the cover onto the housing and paste the matching sticker for identification of the high pass filter onto the label.

Subject to technical changes!

Remote power rating line equalizer in modular concept

52711806
DCM-65EQ-6G

52711800
Basic housing
FSP-DCM-EQ

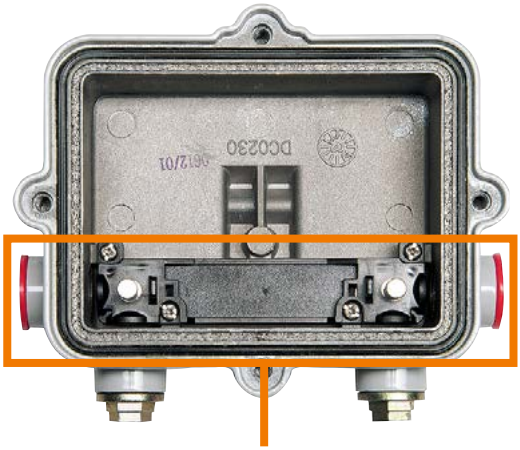
KLASSE A CLASS

- Flexible configuration of the equalizer via plug-in modules DCM-65EQ-xx
- AC/RF bypass switch in the loop for uninterrupted service in case of a removed faceplate, e. g. to change the plug-in module
- Power passing to the loop (IN – OUT) by 12 A at 65/90 VAC
- Hum modulation distance at 10 A/90 VAC -70 dB average
- Surge protection 6 kV 1,2/50 µs
- Watertight aluminium alloy housing with PU coating (IP68)
- Waterproof condition 15 PSI
- All connections are 5/8" threads
- 100 dB min. RFI isolation
- Mounting angle not included (Order No. 52999000)

Parameter	Frequency [MHz]	DCM-65EQ-3G	DCM-65EQ-6G	DCM-65EQ-9G	DCM-65EQ-12G
Through loss [dB]	5 – 60	0,9 ± 0,6	0,9 ± 0,6	0,9 ± 0,6	0,9 ± 0,6
	60 – 65	1,8 ± 0,7	1,8 ± 0,7	1,8 ± 0,7	1,8 ± 0,7
	85 – 1.006	5 ± 0,75 - 2 ± 0,75	8 ± 0,75 - 2 ± 0,75	11 ± 0,75 - 2 ± 0,75	14,5 ± 0,75 - 2 ± 0,75
	1.006 – 1.218	2 ± 0,75 - 1,8 ± 1	2 ± 0,75 - 1,8 ± 1	2 ± 0,75 - 1,8 ± 1	2 ± 0,75 - 1,8 ± 1
Return loss [dB]		> 16	> 16	> 16	> 16
Order No.		**52711803**	**52711806**	**52711809**	**52711812**

Parameter	Frequency [MHz]	FSP-DCM-EQ
Through loss with removed faceplate [dB max.]	5 – 1.006	0,5
	1.006 – 1.218	1
Dimensions [mm]		144 x 118 x 75
Order No.		**52711800**

Uninterrupted AC & RF transmission in the loop



An integrated power passing bar between in- and output provides an uninterrupted AC and RF signal forwarding to the downstream network.

Assembling of tap modules into the FSP housing

1. Remove the cover from the housing (Order No. 57860000).
2. Insert the DCM module as shown into the plug-in socket. The direction of the modules is guided by a guide rail on the plug-in socket.
3. Mount the cover onto the housing and paste the matching sticker for identification of the high pass filter onto the label.

Subject to technical changes!

Shrink sleeves

Shrink sleeves, repair gaskets and house leading-in shrink sleeves

42455000
SHE 14-8/800 (MD 1)

Shrink sleeves

Parameter		BK-CS 25-7/170	BK-CS 34-7/130	BK-CS 32-8/210	BK-CS 28-6/1000	BK-CS 38-10/1000
Length A [mm]		170	130	210	1.000	1.000
Inner diameter B [mm]	Before shrinking	25	34	32	28	38
	After shrinking	7	7	8	6	10
Cleaning cloth and flame protection winding included?		Yes	No	Yes	No	No
Order No.		**43027000**	**43030000**	**43032000**	**43023500**	**43024000**

Repair gaskets

For a simple, safe, and fast repair of defective sheathing of plastic-insulated cables and wires.

Suited for	Outdoor, underground and indoor cabling
Internal pressure density	Up to 0,15 Mpa (1,5 bar)
Wall thickness (shrunk)	2,3 mm
Correct length of gasket	At least twice the cable or wire diameter, to ensure sufficient overlap on both sides of the damaged part

Parameter		RM 47-13/250
Length A [mm]		200
Cable diameter [mm]	Minimum	15
	Maximum	46
Inner diameter B [mm]	Before shrinking	47
	After shrinking	13
Order No.		**43026000**

House leading-in shrink sleeves

For a professional cable lead-in into buildings. Cables led through walls of up to 500 mm wall thickness can be effectively sealed by house lead-in shrink sleeves.

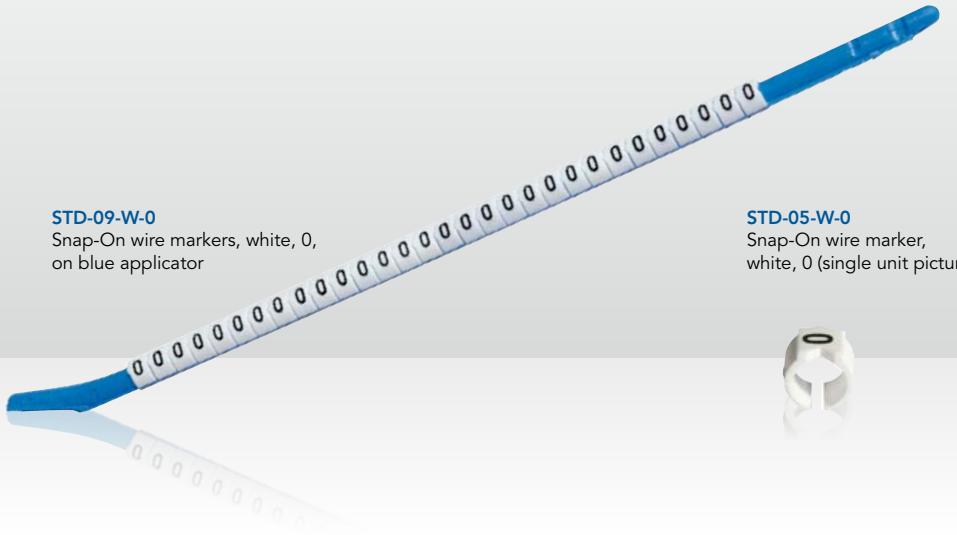
Tested and field-proven according DBP TL-Nr. 736 840 TV 2 standards. Waterproof up to 1 bar; gasproof up to 0,2 bar.

Parameter		SHE 14-8/800 (MD 1)	SHE 26-12/800 (MD 2)
Length [mm]		800	800
Cable diameter [mm]	Minimum	8	12
	Maximum	14	26
Wall thickness [mm]	Maximum	500	500
Diameter of drilled hole [mm]	Minimum	40	55
Order No.		**42455000**	**42465000**

Subject to technical changes!

Snap-On wire markers

STD Snap-On wire markers and STD/STB applicators



STD-09-W-0
Snap-On wire markers, white, 0,
on blue applicator

STD-05-W-0
Snap-On wire marker,
white, 0 (single unit pictured)

STD-12-Y-0
Snap-On wire marker,
yellow, 0 (single unit pictured)

STD Snap-On wire markers

For simple and permanent marking or assignment of cables, wires, leads and cores after their installation.
Easy installation: The "wand" applicator is pushed over the marking line and the marker with your thumb over it. The marker opens and firmly grips the cable. Due to the particularly high material tension, the markers are non-slip.

Features and benefits

- Made of high-quality, extremely elastic polyoxymethylene
- Resistant against oil, cleaning agents, fuels and alkaline solutions
- Guarantees strength, dimensional stability, low moisture absorption and resistance to chemicals
- Halogen-free
- No stress crack generation
- Highest resilience
- Good sliding behaviour
- Operating temperature range -40°C ... +106°C

Snap-On wire markers

Description	Color code	Color of applicator	Amount	Suitable for cable outer diameter
STD-01	Y (yellow) or W (white)	green	300 markers on 10 applicators	1,00 – 1,40 mm
STD-03	Y (yellow) or W (white)	green	300 markers on 10 applicators	1,90 – 2,65 mm
STD-05	Y (yellow) or W (white)	natural	300 markers on 10 applicators	2,30 – 3,00 mm
STD-06	Y (yellow) or W (white)	red	300 markers on 10 applicators	2,60 – 3,50 mm
STD-09	Y (yellow) or W (white)	blue	300 markers on 10 applicators	3,25 – 4,50 mm
STD-12	Y (yellow) or W (white)	yellow	300 markers on 10 applicators	4,50 – 6,00 mm
STD-15	Y (yellow) or W (white)	–	50 markers without applicator	5,80 – 8,00 mm

Applicators

Description	Color of applicator	Use	Packaging unit
STD 15 applicator	orange	for STD-15	5 applicators
STD 17 applicator	orange	for STD-17	5 applicators
STD 21 applicator	grey	for STD-21	2 applicators
STD 24 applicator	grey	for STD-24	2 applicators

Composition of the article name

Example for an order:

STD	-	**06**	-	**W**	-	**4**
Snap-On wire markers		Size		Color (W or Y)		Imprint (digit 4)

We do not have the perfect Snap-On wire markers in our product portfolio yet?

We are happy to produce Snap-On wire markers according to your requirements, even in small quantities!

Subject to technical changes!

Connectors

CX3 compression connectors

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Parameter	GF-UE-6 (5,1) ULTRAEASE	5/8MU-RG11-CX3 7,5	3,5/12m-RG11-CX3-7,5
For cable type	e. g. Oren HD-113	e. g. Oren HD-163, PRG-11-Cu and PRG-11-DB+	e. g. Belden PRG-11-Cu and PRG-11-DB+
Connector type	F connection	5/8 connection	
Installation	Mounting without special tools	Mounting only with compression tool, please find further information concerning compression tools within our tools catalogue	
Frequency range [MHz]	0,3 – 3.000		
Screening factor [dB]	> 120		
Transfer impedance [mΩ/connector]	< 0,1		
Impedance [Ω]	75		
Temperature range [°C]	-40 ... +100		
Return loss [dB]	> 30		
Order No.	**54271000**	**54269702**	**54269300**

Parameter	Frequency [MHz]	FM-RG11-CX3 7,5	IECF-56-CX3 4,9	IECF-56-CX3 5,1	IECM-56-CX3 4,9	IECM-56-CX3 5,1
For cable type		Oren HD-163 and Belden PRG-11-DB+, PRG-11-Cu	Oren HD-103 and Belden H-126-T-00	Oren HD-113	Oren HD-103 and Belden H-126-T-00	Oren HD-113
Connector type		RG11	IEC-Female	IEC-Female	IEC-Male	IEC-Male
Installation						
Length [mm]		44,0	33,5	33,5	33,5	33,5
Connector F-nut		HEX 14	–			
Frequency range [MHz]		0,3 – 3.000				
Screening factor [dB]	30 – 1.000	> 100	> 90	> 90	> 90	> 90
Transfer impedance [mΩ/connector]		< 2,0	< 0,2	< 0,2	< 0,2	< 0,2
Impedance [Ω]		75				
Temperature range [°C]		-40 ... +100				
Return loss [dB]	0,3 – 1.000	> 30	> 20	> 20	> 20	> 20
Order No.		**54266000**	**54269000**	**54269200**	**54268000**	**54268200**

Accessories

Grounding ring RG11/220
Include the RG11-CX3 compression connectors into the local potential equalization, suitable for the compression connectors FM-RG11-CX3 7,5; 3,5/12M-RG11-CX3 7,5; 5/8MU-RG11-CX3 7,5 and IEC14M-RG11-CX3 7,5 Order No.. **60300900**

Subject to technical changes!

TrueDrop connectors

54280121
F-59-TD
SELF INSTALL
3,9 NI

54280131
F-6-TD
SELF INSTALL
4,9 NI

54280136
F-6-TD
SELF INSTALL
5,1 NI

54280201
FM-MINI-TD
QM 3,1
W/O O-RING

54280202
FM-MINI-TD
QM 4,0
W/O O-RING

54280204
F-MINI-TD
QM 4,0
SHORT

54280206
FM-MINI-TD
QM 4,5
W/O O-RING

54280208
F-MINI-TD
QM 4,5
SHORT

54280210
FM-MINI-TD
QM 5,0
W/O O-RING

54280212
F-MINI-TD
QM 5,0
SHORT

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Less signal noise, more user-friendliness and better overall reliability thanks to our proprietary, self-centering, conical connector interface, make TrueDrop connectors very adaptable to a variety of connection conditions, offer a uniform 360-degree contact, eliminate air gaps, reduce damage to the O-ring and counteract the rotation of the sleeve.

Parameter	Frequency [MHz]	F-59-TD SELF INSTALL 3,9 NI	F-6-TD SELF INSTALL 4,9 NI	F-6-TD SELF INSTALL 5,1 NI
For cable type		e. g. Oren HD-083 and Belden H-121-T-00	e. g. Oren HD-103 and Belden H-126-T-00	e. g. Oren HD-113
Type		Self-Install		
Installation		Mounting without special tools		
Frequency range [MHz]		0,3 – 3.000 MHz		
Screening [dB]	30 – 1.000	> 105, Class A++		
Transfer impedance/item [mΩ]	5 – 30	< 0,53	< 0,18	< 0,53
Impedance [Ω]		75		
Operating temperature range [°C]		-40 – +70		
Return loss [dB]	0,3 – 1.000	> 37	> 35	> 36
Order No.		**54280121**	**54280131**	**54280136**

Parameter	Frequency [MHz]	FM-MINI-TD QM 3,1 W/O O-RING	FM-MINI-TD QM 4,0 W/O O-RING	F-MINI-TD QM 4,0 SHORT	FM-MINI-TD QM 4,5 W/O O-RING	F-MINI-TD QM 4,5 SHORT	FM-MINI-TD QM 5,0 W/O O-RING	F-MINI-TD QM 5,0 SHORT
For cable type		e. g. Telass 40	e. g. Oren HD-063 and Belden H-123-B	e. g. Oren HD-063 and Belden H-123-B	e. g. Belden H-123	e. g. Belden H-123	e. g. Belden H-121-T	e. g. Belden H-121-T
Type		Quick Mount™						
Installation		Mounting only with compression tool, please find further information concerning compression tools in our tools catalogue						
Frequency range [MHz]		0,3 – 3.000 MHz						
Screening* [dB]	30 – 1.000	> 93 Class A	> 85 Class A	> 105 Class A++	> 75 Class A	> 85 Class A	> 85 Class A	> 105 Class A++
Transfer impedance/item [mΩ]	5 – 30	< 0,39	< 0,27	< 0,11	< 0,14	< 0,11	< 0,39	< 0,05
Impedance [Ω]		75						
Operating temperature range [°C]		-40 – +70						
Return loss [dB]	0,3 – 1.000	> 37	> 31	> 25	> 28	> 33	> 32	> 28
Order No.		**54280201**	**54280202**	**54280204**	**54280206**	**54280208**	**54280210**	**54280212**

* Please note that the specified screening depends on the cable used. With high-quality coaxial cables, it is often possible to achieve better values than specified. You can find information on high-quality coaxial cables in our corresponding product category.

Subject to technical changes!

54280214
F-59-TD QM
6,0 SHORT

54280220
F-6-TD
QM 7,0

54280221
F-6-TD QM
7,0 W/O
O-RING

54280222
F-6-TD QM
7,0 SHORT
W/O O-RING

54280316
F-59-TD 3,7

54280321
F-59-TD 3,9

54280335
F-59-TD
3,9 HEC

54280341
F-6-TD 4,9

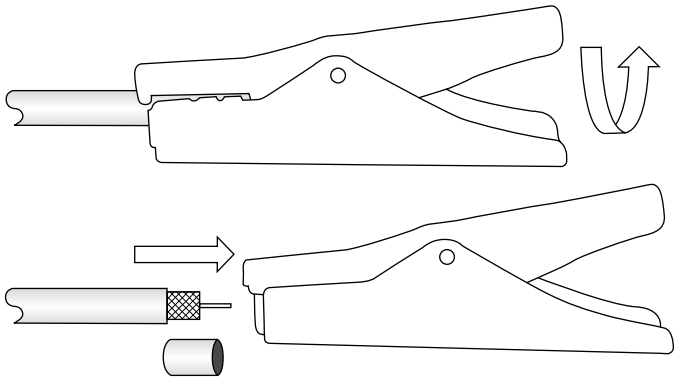
54280346
F-6-TD 5,1

Parameter	Frequency [MHz]	F-59-TD QM 6,0	F-6-TD QM 7,0	F-6-TD QM 7,0 W/O O-RING	F-6-TD QM 7,0 SHORT W/O O-RING
For cable type		e. g. Oren HD-083	e. g. Oren HD-103 and HD-113	e. g. Oren HD-103 and HD-113	e. g. BKS1,1/4,8-90, BKS2050/30
Type		Quick Mount™			
Installation		Mounting only with compression tool, please find further information concerning compression tools in our tools catalogue			
Frequency range [MHz]		0,3 – 3.000 MHz			
Screening [dB]	30 – 1.000	> 105 Class A++	> 130 Class A++	> 130 Class A++	> 105 Class A++
Transfer impedance/item [mΩ]	5 – 30	< 0,07	< 0,09	< 0,09	< 0,14
Impedance [Ω]		75			
Operating temperature range [°C]		-40 – +70			
Return loss [dB]	0,3 – 1.000	> 26	> 29	> 29	> 29
Order No.		**54280214**	**54280220**	**54280221**	**54280222**

Parameter	Frequency [MHz]	F-59-TD 3,7	F-59-TD 3,9	F-59-TD 3,9 HEC	F-6-TD 4,9	F-6-TD 5,1
For cable type		e. g. Belden H-121-T	e. g. Oren HD-083 and Belden H-121-T-00	CommScope Kabel e. g. F59 HEC-2VV	e. g. Oren HD-103	e. g. BKS1,1/4,8-90, BKS2050/30
Type		Compression				
Installation		Mounting only with compression tool, please find further information concerning compression tools in our tools catalogue				
Frequency range [MHz]		0,3 – 3.000 MHz				
Screening [dB]	30 – 1.000	> 105 Class A++	> 105 Class A++	> 105 Class A++	> 105 Class A++	> 105 Class A++
Transfer impedance/item [mΩ]	5 – 30	< 0,68	< 0,68	< 0,1	< 0,09	< 0,68
Impedance [Ω]		75				
Operating temperature range [°C]		-40 – +70				
Return loss [dB]	0,3 – 1.000	> 32	> 39	> 30	> 39	> 35
Order No.		**54280316**	**54280321**	**54280335**	**54280341**	**54280346**

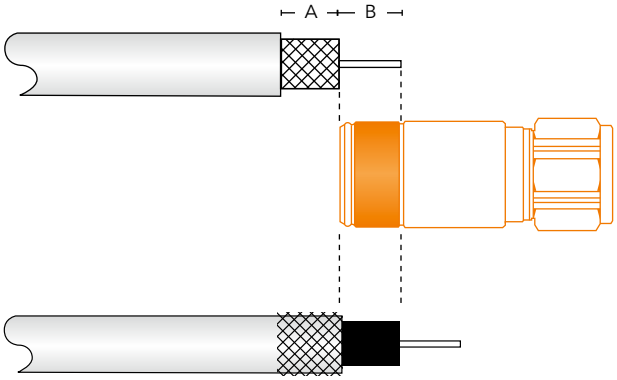
Subject to technical changes!

Mounting instructions for F-TrueDrop connectors



Step 1

Strip the cable.
Cut and remove the outer braid and foil. Leave only the first layer of braid (if needed, adjust cable stripper accordingly). Clean the cable inner and outer conductor with a conductor cleaner or any other appropriate equipment.
For your safety and best results Corning Cabelcon's pre-adjusted Cable Stripper is recommended. Please find further information concerning these tools within our tools catalogue. Don't forget – read the enclosed user instruction before using the tool.

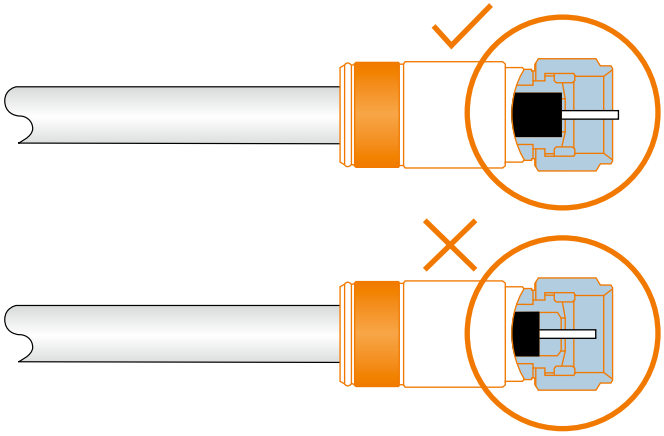


Step 2

Verify stripped dimensions by using the cutting guide on the connector.
A = 6,5 mm (outer conductor)
B = 6,5 – 8,0 mm (inner conductor)

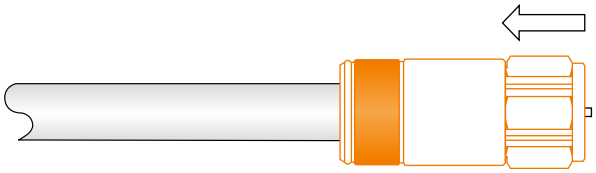
Step 3

Brush/fold exposed braid back over jacket by using a stripping tool brush (if available) or any other nonmetallic brush.



Step 4

Push the connector over the foil, allow the support sleeve to slide between the foil and braid. Press and turn until the dielectric is flush with the support mandrel face.
For better connector and cable grip, a connector mounting and cable rubber grip tool can be used. Please find further information in our tools catalogue.



Step 5

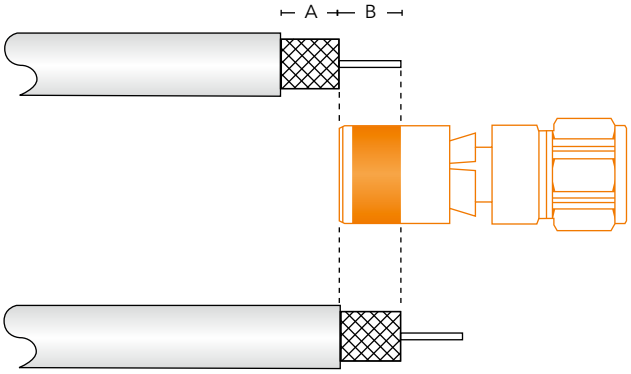
Compress the connector by using the recommended compression tool.
Please find further information on compression tools in our tools catalogue.

Subject to technical changes!

Mounting instructions for FM QM-TrueDrop connectors

Step 1

Strip the cable.
Cut and remove the outer braid and foil. Leave only the first layer of braid (if needed, adjust cable stripper accordingly). Clean the cable inner and outer conductor with a conductor cleaner or any other appropriate equipment.
For your safety and best results Corning Cabelcon's pre-adjusted Cable Stripper is recommended. Please find further information concerning these tools within our tools catalogue.
Don't forget - read the enclosed user instruction before using the tool.

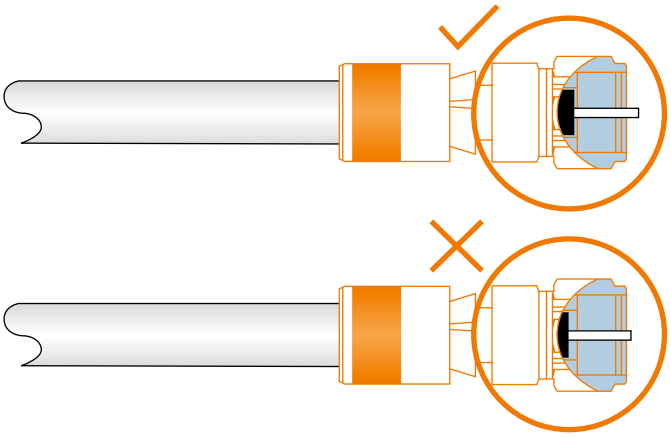


Step 2

Verify stripped dimensions by using the cutting guide on the connector.
A = 6,5 mm (outer conductor)
B = 6,5 – 8,0 mm (inner conductor)

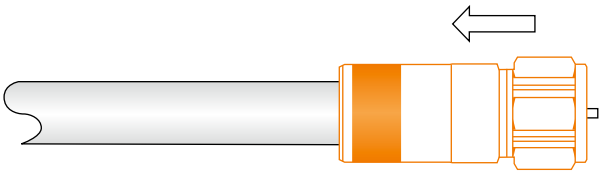
Step 3

DO NOT FOLD BACK THE BRAID.



Step 4

Slide the connector gently on the cable until the PushPin™ is visible as shown left to indicate proper installation of the cable. Do not twist the connector during this operation. Make sure that the braid goes nicely into the connector. Do not bend the braid back.



Step 5

Compress the connector by using the recommended compression tool. Please find further information on compression tools in our tools catalogue.

Subject to technical changes!

CX3 Quick Mount™, SpringConnect and Self-install connectors

54266002
FM-RG11-CX3 QM 10,5

54269304
3,5/12m-RG11-CX3 QM 10,5

54263903
F SC-59-CX3 3,9 Short

54264903
F SC 56-CX3 4,9 Short

54265111
F SC-56-CX3 5,1 Short

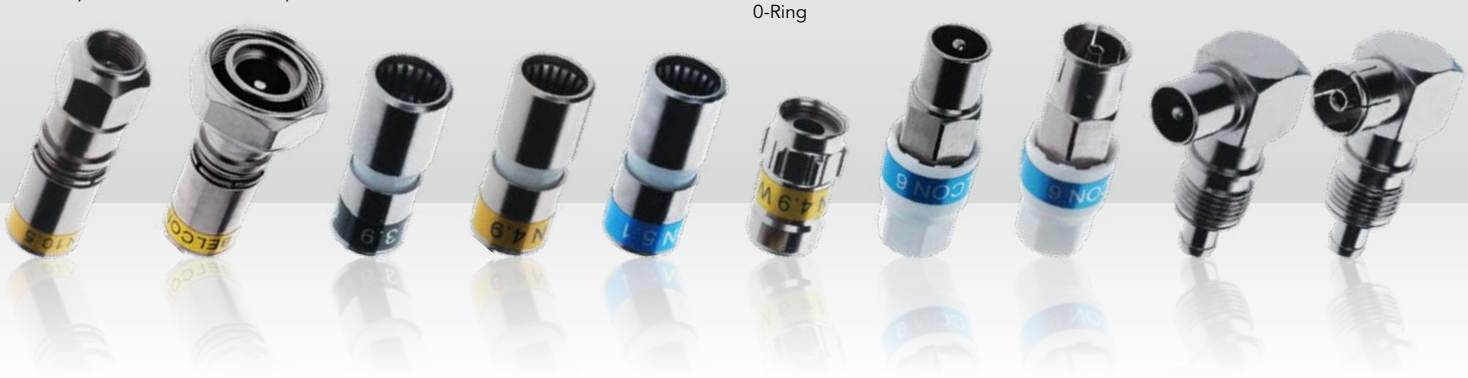
54265122
F-56 4,9 W - Self Install + 0-Ring

54265133
IECM-56 5,1 - Self Install

54265134
IECF-56 5,1 - Self Install

54265135
90-IECM-56 5,1 - Self Install

54265136
90-IECF-56 5,1 - Self Install



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Quick Mount connectors

Item	Order No.
FM-RG11-CX3 QM 10,5 Compression F-connector QUICK-MOUNT, waterproof, suitable for a wide range of cables with an outer diameter of approx. 10,5 mm, e. g. Oren HD-163	**54266002**
3,5/12m-RG11-CX3 QM 10,5 Suitable for a wide range of cables with an outer diameter of approx. 10,5 mm, e. g. Oren HD-163, mounting with compression tool (Order No. 55415700), please find further information concerning compression tools within our tools catalogue	**54269304**

SpringConnect connectors

Item	Order No.
F SC-59-CX3 3,9 Short Compression F-connector SpringConnect for Oren HD-083, Belden 121-T-00, F 59 TSV and RG 59-cable types, suitable as quick-connection for every F-female without screwing	**54263903**
F SC 56-CX3 4,9 Short Compression F-connector SpringConnect for Oren HD-103 suitable as quick-connection for every F-female without screwing	**54264903**
F SC-56-CX3 5,1 Short Compression F-connector SpringConnect for Oren HD-113 and Belden H-125-CH, suitable as quick-connection for every F-female without screwing	**54265111**

Self-install connectors

Item	Order No.
F-56 4,9 W - Self Install + 0-Ring Compression F-connector with sealing ring for Belden H-126-T-00 and Oren HD-103, mounting without special tools	**54265122**
IECM-56 5,1 - Self Install IEC-connector for e. g. Oren HD-113, mounting without special tools	**54265133**
IECF-56 5,1 - Self Install IEC-female for e. g. Oren HD-113, mounting without special tools	**54265134**
90-IECM-56 5,1 - Self Install IEC-angled-connector for e. g. Oren HD-113, mounting without special tools	**54265135**
90-IECF-56 5,1 – Self Install IEC-angled-female for e. g. Oren HD-113, mounting without special tools	**54265136**

Subject to technical changes!

Crimp connectors

54246100
F-59-ALM 3,7/6,4

54248500
F-56-ALM 5,1/8,4

54253000
F-56-ALM 4,9/8,4

54249000
FM-RG11-
ALM 7,6/11,7

- All connector F-nuts are HEX 11
- Designed for very high strain relief
- Optimal fitting to the corresponding cable type
- High unalloyed brass as base material, NITIN surface

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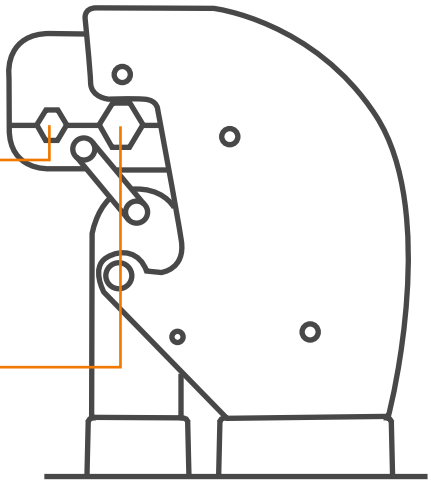
Parameter	F-59-ALM 3,7/6,4	F-56-ALM 5,1/8,4	F-56-ALM 4,9/8,4	FM-RG11-ALM 7,6/11,7
For cable type	Belden H-121-T-00, H-121-B	Belden H-125-CH and Ören HD-113	Belden H-126-T-00 and Ören HD-103	PRG 11 Cu, PRG 11 DB+ and Ören HD-163
Length [mm]	20,5	20,5	20,5	35,2
Frequency range [MHz]	5 – 2.500			
Screening factor [dB]	> 90			
Impedance [Ω]	75			
Operating temperature range [°C]	-37 ... +70			
Return loss [dB]	> 30			
Order No.	**54246100**	**54248500**	**54253000**	**54249000**

Crimp your connectors here for:
- H-121,
- H-121-B,
- MKL 0,8/3,5,
- BTC 1000/26,
- H125 CH,
- BKS 2050/30,
- BTC 1000/20 Cu,
- WKL 1,0/4,6 und
- WKL 1,0/4,8 CH.

Crimp your connectors here for:
- PRG 11 Cu,
- PRG 11 DB+ and
- KKL 1,6/7,2.



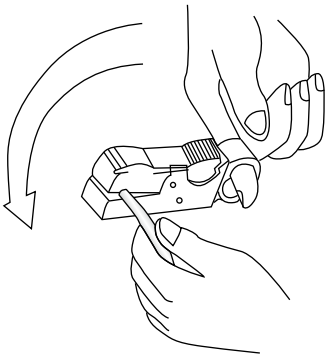
CRP 106F - .324" + .475"

Please use only the recommended crimp tool with Order No. 55230000!

Please find further information within our tools catalogue.

Subject to technical changes!

Splicing instructions for compression connectors



Step 1: Strip the cable

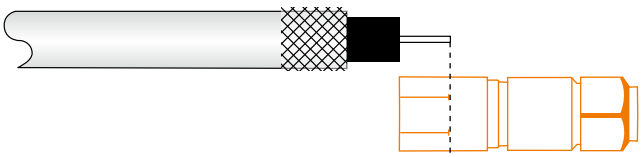
We strongly recommend the use of our pre-adjusted Rotary Cable Stripper for RG 6, RG 59, H 121 B and H 123 B (Order No. 55294000) especially the cable stripper RG 11 (Order No. 55295000) for proper preparation of the cable. You can find further information concerning cable strippers within our tools catalogue. Please read the instructions supplied with the tool. Make sure not to damage the braid or foil during the stripping process. After completing the operation, the braid and foil must be smooth and the prepared.

Cable dimensions: A = 6,5 mm; B = 6,5 mm

Do not cut off the braid or cut into the foil or center conductor!

Step 2: Prepare the cable

Fold exposed braid back over the jacket. **This does not apply for FM-CX3 Mini and QuickMount connectors.** For "Quad shield", "Tri shield" and "Super shield" cables: Remove the outer braid and foil only. Fold back the inner braid. Leave the inner foil attached to the dielectric. Make sure that the foil is undamaged and smooth. If the inner conductor is too long, you may cut it down to a length of 6,5 mm. Check the length to fit the guide as shown.

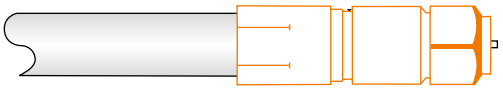


Step 3: Mount the connector

Press the front part of the connector (with the built-in "tool") against the cable and turn it slowly to prepare the foil entering the connector (not for FM-RG11-CX3, FM CX3 Mini, QuickMount and IEC-connectors).

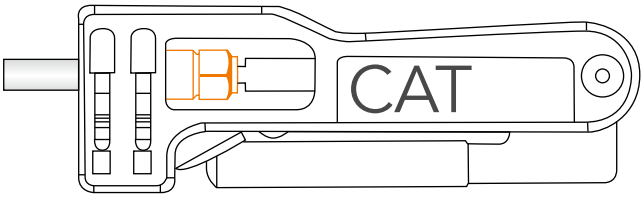
Push the connector over the foil and allow the support mandrel to slide between the foil and the braid. A crimp handle (Order No. 55240000, only for F-connectors) and a rubber tool for cable support can be used to keep better grip on the connector and the cable during this operation. Please find further information within our tools catalogue.

Press-on the connector and turn until the dielectric is flush with the support mandrel face. At the FM-RG11-CX3 push the connector against the cable until the moveable pin is pushed forward and becomes visible as shown.



Step 4: Compress the connector

Use the compression crimp tool CAT-AS-IEC/F-FX (Order No. 55410100). Release the tool handle, insert the connector with mounted cable and close the tool handle completely as shown. Release the tool handle and remove the compressed connector. You can use the compressiontool CX3 (Order No. 55415500) alternatively. Please find further information concerning compression tools within our tools catalogue.

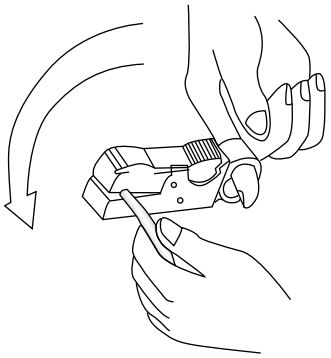


ATTENTION!

When mounting the connector into the tap, please make sure to tighten the nut with a torque of 3,4 – 5,6 Nm to avoid a decreased of performance within your network. You can find a corresponding torque wrench in our tools catalogue.

Subject to technical changes!

Splicing instructions for F-crimp connectors



Step 1

We strongly recommend the use of the Rotary Cable Stripper for RG 6, RG 59, H 121 B and H 123 B (Order No. 55294000) for proper preparation of the cable. You can find further information concerning cable strippers within our tools catalogue.

Stripping dimensions:

A = 6,5 mm (4 mm for EPA short).

B = 6,5 mm at IEC 169-24 (Europe) (8 mm for EPA short).

B = 8,0 mm at SCTE SP 401-199x (USA) (9,5 mm for EPA short).

However, a "B-dimension" of 6,5 mm (8,0 mm for EPA short) will be sufficient in most cases.

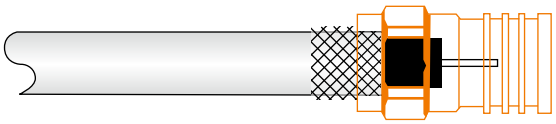
Do not cut off the braid or cut into the foil or center conductor!

Step 2

Fold exposed braid back over jacket. For "Quad shield", "Tri shield" and "Super shield" cables: Remove the outer braid and foil only. Fold back the inner braid. Leave the inner foil attached to dielectric. Make sure that the foil is undamaged and smooth.

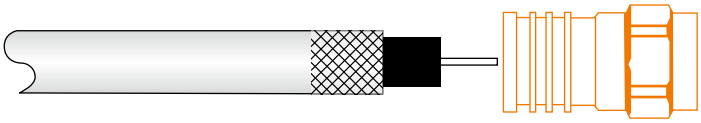
Step 3

Press the front part of the connector (with the built-in "tool") against the cable and turn it slowly to prepare the foil entering the connector (not EPA).



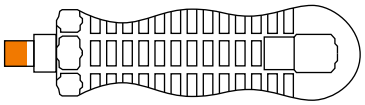
Step 4

Push the connector over the foil and allow the support mandrel to slide between the foil and braid.



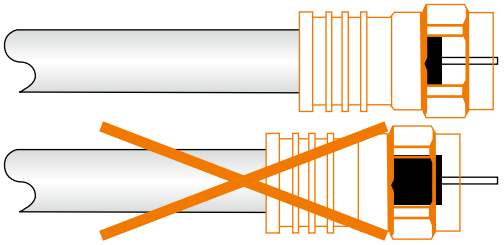
Step 5

A crimp handle can be used to keep a better grip on the connector during installation. Please find further information within our tools catalogue.



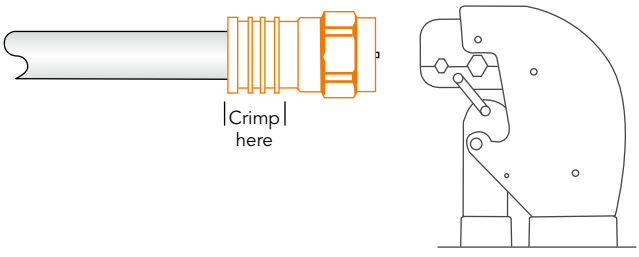
Step 6

Press and turn until the dielectric is flush with the support mandrel face.



Step 7

Crimp the connector using the proper crimp tool dimension: MINI = .262", ALM = .324", UNIV = .360", EPA = .360" (for cables of type RG 11: ALM = .475", EPA = .475").



ATTENTION!

When mounting the connector into the tap, please make sure to tighten the nut with a torque of 3,4 – 5,6 Nm to avoid a decreased of performance within your network. You can find a corresponding torque wrench in our tools catalogue.

Subject to technical changes!

Cable fittings

For connecting coaxial cables and cables on in-ground tap-offs

60121000
IEC14m-TL 232

60130100
IEC14f-TL 101

60180340
PG11mu-TL 232

KLASSE A CLASS

Instruction how to chose the correct connector

1. Select the cable you are using from the table below.
2. Chose the fitting connector from the following page.
3. Replace the "- XX" with the braun teleCom type number.
4. Now you are able to order your desired connectors with the given name.

Übersicht der Koaxialkabel mit der entsprechenden Typ-Nummer

Parameter	Frequency [MHz]	Applies to all connectors named below
Frequency range [MHz]		5 – 3.000
Max. line power [A]		12
Screening factor [dB]		> 94
Temperature range [°C]		-37 ... +70
Through loss [dB]		< 0,1
Return loss [dB]	5 – 500	> 35,25
	500 – 1.000	> 32,50
	1.000 – 2.150	> 25,30

Coaxial cable	Inner conductor [mm]	Dielectric [mm]	Outer conductor [mm]	Outer sheath [mm]	Type No.
HD-083	0,81	3,66	–	5,80	-TL 111
H126 Txx	1,02	4,57	5,50	7,00	-TL 101
HD-103	1,02	4,60	–	6,80	-TL 101
HD-113	1,01	4,80	–	6,80	-TL 101
75 D 1,7/7,0 ikx	1,63	6,9	7,5	10,5	-TL 202
FB 11, COAX 6	1,61	7,55	8,2	11,1	-TL 212
HD-163	1,63	7,20	–	10,00	-TL 232
PRG 11 Cu	1,55	7,25	7,90	10,20	-TL 232
PRG 11 DB+	1,55	7,25	8,10	10,20	-TL 232
A-2YK2Y 1 ikx	1,10	7,30	7,80	11,00	-TL 243
KJ 1108	1,1	7,25	7,5	10,2	-TL 244
RG7 CU	1,25	5,7	6,3	8,1	-TL 245
A-2Y0K2Y 1 nkx	2,20	8,80	9,30	12,50	-TL 303
LCM 15	1,75	11,2	11,8	14,5	-TL 404
HD-223	2,20	10,20	–	13,80	-TL 413
COAX 4 FFB 14	2,20	10,20	11,00	13,80	-TL 413
COAX 3 FFB 20	3,40	14,90	15,80	19,80	-TL 646
A-2Y0K2Y 1 qkx	3,30	13,40	14,00	17,00	-TL 525
A-2Y0K2Y 1 skx	4,90	19,30	20,00	24,50	-TL 717

Grounding rings

Item	For the connectors ...	Order No.
Grounding ring type 2	-TL202, -TL205, -TL212, -TL 232, -TL240, -TL 243, -TL244, -TL245, -TL246, -TL202FI, -TL220STI, -TL250TI, -02, -12, -22, -32, -42, -203, -206, -210, -230, -240, -243, -244, -245, -246, -C202, -C212, -C220, -C232, -C243, -C250, -C263	60300200
Grounding ring type 3	-TL303, -TL306FI, -TL309, -TL310STI, -TL313, -TL319TI, -TL326, -TL343TI, -TL363, -TL383STI, -13, -63, -83, -303, -304, -309, -310, -319, -C303, -C314, -C319	60300300
Grounding ring type 4	-TL404, -TL406, -TL412, -TL413, -TL417STI, -TL418, -TL419TI, -TL424, -TL427, -TL414, -TL434TI, -TL414TI, -TL441TI, -TL444, -TL470TI, -TL494STI, -04, -14, -24, -34, -43, -44, -54, -64, -83, -84, -94, -341, -402, -405, -412, -413, -418, -419, -427, -C419, -C470	60300400
Grounding ring type 5	-TL501, -TL502, -TL505, -TL505TI, -TL506TI, -TL515, -TL517STI, -TL525, -TL530TI, -TL540TI, -05, -15, -25, -75, -502, 526, -530, -C525, -C540, -C553	60300500
Grounding ring type 6	-TL606, TL-609TI, -TL610TI, -TL611STI, -TL616, -TL619TI, -TL626, -TL636, -TL646, -TL655, -TL666TI, -TL676, -TL696STI, -06, -16, -36, -46, -55, -56, -66, -76, -96, -609, -610, -611, -C610, -C611,-C619	60300600

60152995
3,5/12f-C418

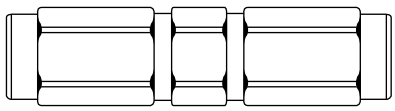
3,5/12f-C418 for connecting cable on in-ground tap-offs

Specially designed 3,5/12f connector for supplementary mounting to in-ground tap-offs with KES contact bush. Return loss > 44 dB at 1 GHz, impedance 75 Ω, waterproof, corrosion-resistant, max. tensile strength of 1.000 N.
Order No. 60152995

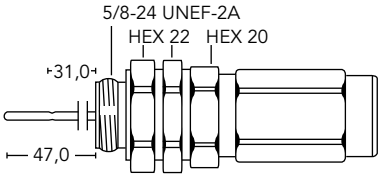
Mounting Instructions
Cut off the KES-contact bush, strip the cable with a special dual-strip tool, screw on the backnut to the corrugated copper tube, insert the inner conductor of the cable into the connector body and screw the backnut together with the body.

Subject to technical changes!

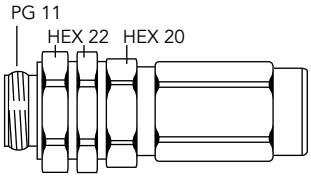
Connector types for cable fittings



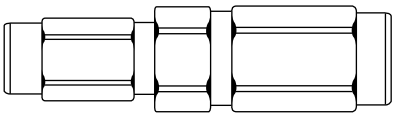
SP-XX



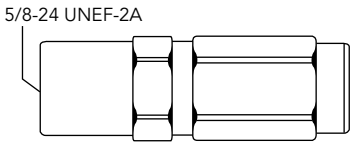
5/8mu-XX



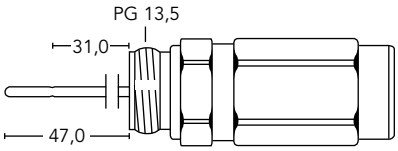
PG11FTU-XX



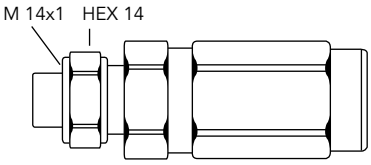
SR-XX-XX



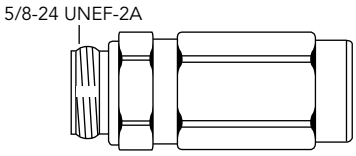
5/8-XX



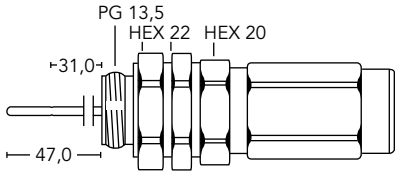
PG13,5m-XX



IEC14m-XX



5/8FT-XX



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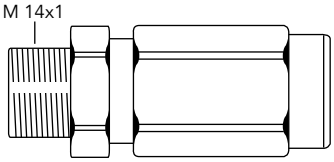
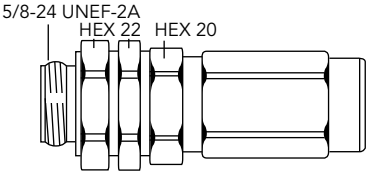
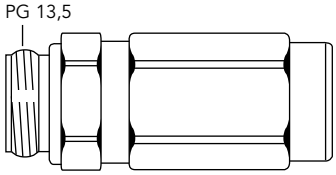


IEC14f-XX



5/8FTU-XX



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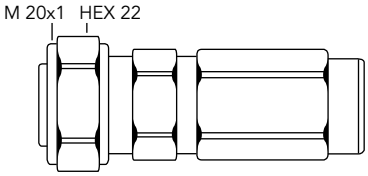

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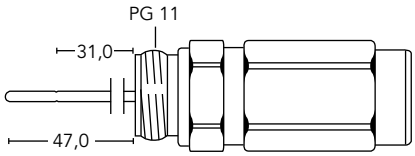
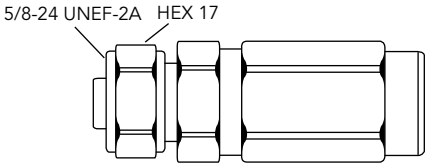
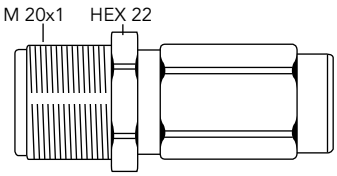


PG11m-XX



Nm-XX



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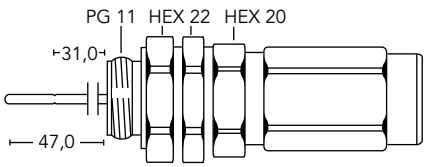

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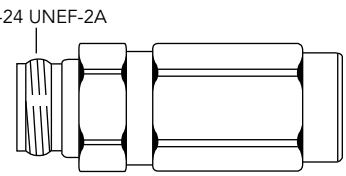
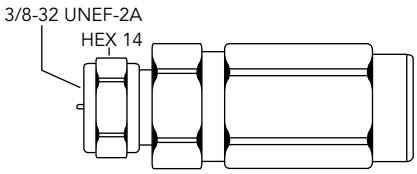
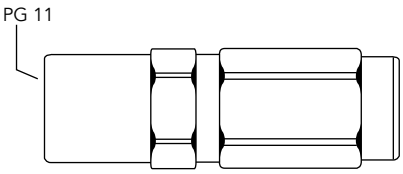


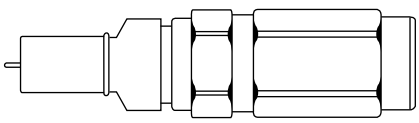
Nf-XX



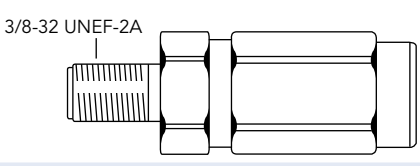
Fm-XX



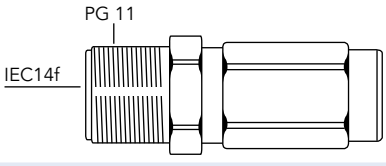
PG11f-XX



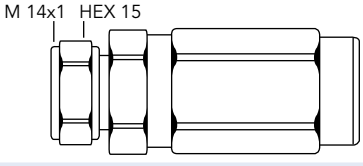
GBD-XX



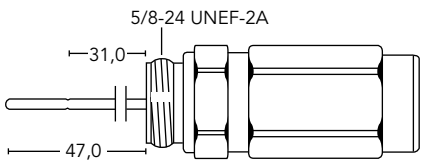
Ff-XX



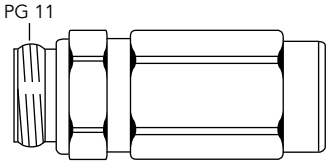
PG11/IEC14f-XX



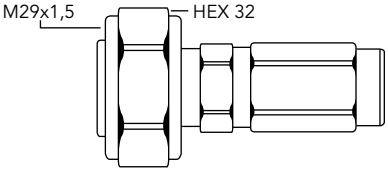
Em-XX



5/8m-XX



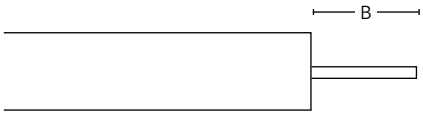
PG11FT-XX



7/16m-XX

Subject to technical changes!

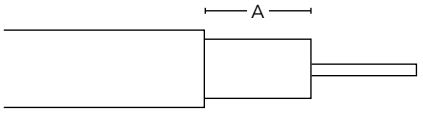
Splicing instructions for cable fittings, here: type-46, COAX 3FFB20



Remove the sheath, the outer conductor and the dielectric in length of:

B = 16 mm

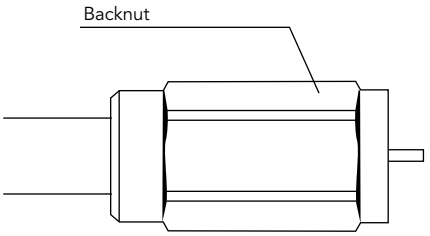
For splicereducers (SR) please see the corresponding instructions.



Remove the sheath in length of:

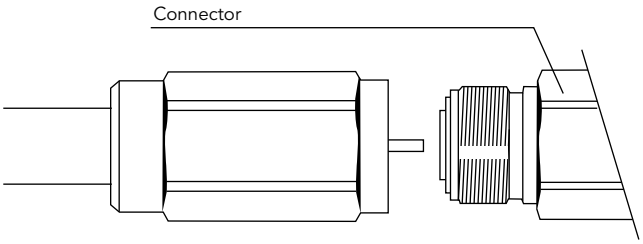
A = 14 mm

For splicereducers (SR) please see the corresponding instructions.



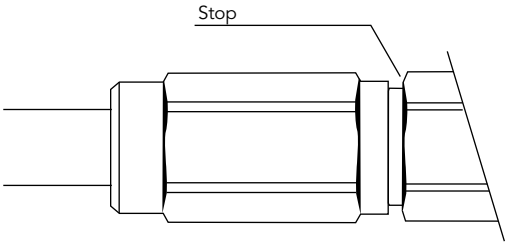
Pull the backnut over the cable as far as possible.

For couplings (SP) and cable transitions (SR), the opposite set side mounted in a similar manner.

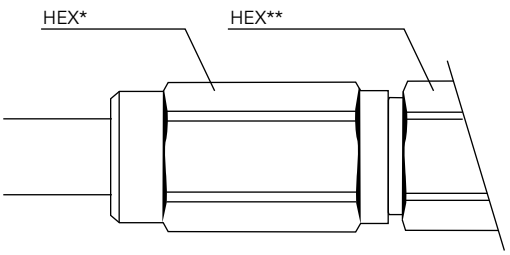


Pull the connector body over the cable's inner conductor and screw the nut tightly onto the connector body.

For couplings (SP) and cable transitions (SR), the opposite set side mounted in a similar manner.



Please use two open-end wrenches. The nut is turned onto the connector body until it stops (metal against metal). Always hold the connector body while screwing the nut! Please find further information concerning wrenches within our tools catalogue



HEX* = 27 mm , HEX** = 27 mm

For cable transitions (SR), the largest nut must be tightened first.

Please note:
The connectors are waterproof, but must be shielded by a shrinksleeve when buried!

Subject to technical changes!

Jumper cables

60400721	60400731	60400737	60400741	60400751	60400761	60400781	60400795
FM-CXJ6A+-FM/TD/B/0,2	FM-CXJ6A+-FM/TD/B/0,3	FM-CXJ6A+-FM/TD/B/0,35	FM-CXJ6A+-FM/TD/B/0,4	FM-CXJ6A+-FM/TD/B/0,5	FM-CXJ6A+-FM/TD/B/0,6	FM-CXJ6A+-FM/TD/B/0,8	FM-CXJ6A+-FM/TD/B/1,0

Parameter	FM-CXJ6A+-FM/ TD/B/0,3 KDG	FM-CXJ6A+-FM/ TD/B/0,4 KDG	FM-CXJ6A+-FM/ TD/B/0,5 KDG	FM-CXJ6A+-FM/ TD/B/0,6 KDG	FM-CXJ6A+-FM/ TD/B/0,8 KDG
Description	Mini jumper F-Male to F-Male				
Length [m]	0,3	0,4	0,5	0,6	0,8
Screening [dB]	> 95	> 95	> 95	> 95	> 95
Return loss [dB]	> 34	> 32	> 35	> 34	> 34
Waterproof	Yes				
Compliant with EN 60966-2-6 Class A	Yes, A+				
Connector type	TrueDrop				
Approved by Vodafone Kabel Deutschland	Yes				
Imprint „KDG 1 TS 151“	Yes				
Order No.	**60400732**	**60400742**	**60400752**	**60400762**	**60400782**

KLASSE A CLASS

Parameter	FM-CXJ6A+-FM/TD/B/0,2	FM-CXJ6A+-FM/TD/B/0,3	FM-CXJ6A+-FM/TD/B/0,35	FM-CXJ6A+-FM/TD/B/0,4	FM-CXJ6A+-FM/TD/B/0,5	FM-CXJ6A+-FM/TD/B/0,6	FM-CXJ6A+-FM/TD/B/0,8	FM-CXJ6A+-FM/TD/B/1,0
Description	Mini jumper F-Male to F-Male							
Length [m]	0,2	0,3	0,35	0,4	0,5	0,6	0,8	1,0
Screening [dB]	> 95	> 95	> 95	> 95	> 95	> 95	> 95	> 95
Return loss [dB]	> 34	> 34	> 34	> 34	> 34	> 34	> 34	> 34
Waterproof	Yes							
Compliant with EN 60966-2-6 Class A	Yes, A+							
Connector type	TrueDrop							
Order No.	**60400721**	**60400731**	**60400737**	**60400741**	**60400751**	**60400761**	**60400781**	**60400795**

KLASSE A CLASS

We do not have the perfect jumper cable in our product portfolio yet?

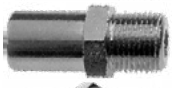
We are happy to produce jumper cables according to your requirements, even in small quantities!

Subject to technical changes!

Adapters and terminators

	Artikel	Beschreibung	Bestell-Nr.
	PG 11M - IEC 14f	Adapter PG 11-male to IEC-female with M 14 thread	**60280100**
	PG 11M - 3,5/12f	Adapter PG 11-male to 3,5/12-female	**60280301**
	Fm - 3,5/12f	Adapter F-male to 3,5/12-female	**60280406**
	PG 11M - Ff	Adapter PG 11-male to F-female	**60280600**
	90 - Fm - Ff HQ	Angled adapter F-male to F-female	**60280811**
	IEC 14f - IEC 14f	Adapter IEC-female to IEC-female	**60280900**
	IEC 14f - Ff	Adapter IEC-female to F-female	**60280905**
	IEC 14f - CHASSIS Ff	Adapter IEC-female to F-female as chassis connector	**60280910**
	3,5/12M - IEC 14f	Adapter 3,5/12-male to IEC-female with M 14 thread	**60281005**
	3,5/12M - Ff	Adapter 3,5/12-male to F-female	**60281010**
	3,5/12M - 3,5/12M	Adapter 3,5/12-male to 3,5/12-male	**60281011**
	3,5/12f - 3,5/12f CHASSIS	Adapter 3,5/12-female to 3,5/12-female as chassis connector with PG 11 thread	**60281000**
	3,5/12f CHASSIS - Ff	Adapter 3,5/12-female to 3,5/12-female as chassis connector with PG 11 thread	**60281020**
	BNCf 75 Ohm - Fm	Adapter BNC-female to F-female 75 Ohm	**60281710**
	BNCf 75 Ohm - IECf	Adapter BNC-female to IEC-female	**60281750**
	5/8M - IEC 14f	Adapter 5/8-male to IEC-female with M 14 thread	**60280210**
	5/8M - Ff	Adapter 5/8-male to F-female	**60280500**
	5/8M - 3,5/12f	Adapter 5/8-male to 3,5/12-female	**60280550**
	5/8 - PG 11	Adapter ring 5/8-male to 3,5/12-female	**60280565**
	PG 11M-R 75 AC Blocking	PG 11-male as 75 Ω terminator with AC blocking	**60260100**
	IEC 14M-R 75 AC Blocking	IEC-male with M 14 cap nut as 75 Ω terminator with AC blocking	**60260200**
	3,5/12M-R 75 AC Blocking	3,5/12-male as 75 Ω terminator with AC blocking	**60260300**
	5/8m-R 75 AC Blocking	5/8-male as 75 Ω terminator with AC blocking	**60260500**

Subject to technical changes!

	Artikel	Beschreibung	Bestell-Nr.
	PG 11M - AC	PG 11-male as power feed-in for remote power	**60290401**
	5/8M - AC	5/8-male as power feed-in for remote power	**60290501**
	3,5/12M - AC	3,5/12-male as power feed-in for remote power	**60290601**
	Double splice FM-FM	Double splice – F-male to F-male adapter, 27 mm length, nickel plated brass	**54210000**
	F-plug-in adapter Ff-Fm/P	F-plug-in adapter for measures, fits on every F-female without screwing	**54220000**
	F-Schnellstecker Ff-Fm/P HQ	F-plug-in adapter HQ for measures, fits on every F-female without screwing	**54220100**
	F-Adapter FM-IECMP	F-adapter – F-male to IEC-male	**56020000**
	**F-Adapter FF-IECMP**	F-adapter – F-female to IEC-male	**56030000**
	F-Adapter FF-IECMP HQ	F-adapter HQ – F-female to IEC-male	**56030500**
KLASSE A CLASS	**F-Adapter FM-IECFP**	F-adapter – F-male to IEC-female	**56070000**
	F-Adapter FF-IECFP	F-adapter – F-female to IEC-female	**56080000**
	F-Adapter FF-BNCM	F-adapter – F-female to BNC-male	**56040000**
	F-Adapter FF-BNCM HQ	F-adapter HQ – F-female to BNC-male	**56040001**
	TR-59-1/4-HQ	F-terminal resistor 75 Ω – nickel plated brass	**54420000**
KLASSE A CLASS	**CC-LT-R-75-ST with F-thread, long**	Tamper-proof terminal resistor – 75 Ω F-terminator for unused outputs, to avoid signal-theft or interference ingress, only to open with LTT-75 (please find further information within our tools catalogue), with F-thread (26 mm)	**54431000**
	CC-LT-R-75-S without F-thread, short	Tamper-proof terminal resistor – 75 Ω F-terminator for not used outputs, to avoid signal-theft or interference ingress, only to open with LTT-75 (please find further information within our tools catalogue), without F-thread (20 mm)	**54432000**
	CC-Security Shield	In order to secure F-connections against manipulation and unauthorized disassembly, diameter 20 mm, only mountable/removable with specialty tool (Order No. 55445000), please find further information within our tools catalogue	**54440000**
	180-FF-FF-HQ/180-FF-FF-HQ	F-female to F-female adapter with NITIN surface in U-style, gold-plated pins, through loss < 0,2 dB, return loss > 30 dB, screening > 100 dB, transfer impedance < 0,3 mΩ/connector	**54510000**
KLASSE A CLASS	**F-81-HQ-1 F-splice prof.**	F-female to F-female adapter, nickel plated brass, 26 mm length, screening > 96 dB, return loss > 30 dB	**54500000**
	F-NUT + WAL	F-nut and wal for F-81-HQ	**54391000**
KLASSE A CLASS	**Double splice female**	F-female to F-female adapter with high return loss	**54200000**
	F-angle adapter	F-male to F-female adapter with soldered inner pin, nickel plated brass	**54190000**

Subject to technical changes!

CATV accessories

Dual set splitters and attenuators

22330000
Dual set splitter
0,15 ... 1.000 MHz

53050000
AT-10

53051110
AT-10-1G

Dual set splitters 0,15 ... 1.000 MHz

- 2-way splitter for connecting two analogue devices to one antenna wall outlet.
- Not suitable for connection of interactive devices!
- 2-way splitter TV (IN = ○ IEC-F, OUT = 2 x ● IEC-M)

Order No. 22330000

Fixed-value attenuators in F-technique, 1 GHz

Parameter	Frequency [MHz]	AT-3	AT-6	AT-10	AT-12	AT-18
Loss [dB]	5 – 1.006	3 (± 0,3)	6 (± 0,3)	10 (± 0,3)	12 (± 0,3)	18 (± 0,3)
	1.006 – 2.400	–	–	–	–	–
Frequency range [MHz]		5 – 1.006				
Return loss [dB]	5 – 470	> 20				
	470 – 1.006	> 16				
Connectors		F-female/F-male				
Screening factor		Very high according EN 50083-2 Class A				
Diameter [mm]		11	11	11	11	11
Length [mm]		30	30	30	30	30
DC blocking		–	–	–	–	–
Order No.		**53030000**	**53040000**	**53050000**	**53050200**	**53050600**

KLASSE A CLASS

Fixed-value attenuators in F-technique, 1,3 GHz

- Frequency range: 5 – 1.300 MHz
- F-female/F-male connectors according to IEC/EN 61169-24
- Housing with fixed HEX 11 nut at the F-male connector
- Very high screening factor according to EN 50083-2 Class A +10 dB
- Dimensions: Ø 11 mm, length 30 mm
- All fixed-value attenuators with 50 V DC blocking
- Net weight: 9 g
- Operating temperature range: -20°C – +65°C

Parameter	Frequency [MHz]	AT-2-1G	AT-3-1G	AT-4-1G	AT-6-1G	AT-8-1G	AT-10-1G
Frequency range [MHz]		5 – 1.300					
Impedance [Ω]		75					
Insertion loss [dB]	5 – 1.006	2 (± 0,3)	3 (± 0,3)	4 (± 0,3)	6 (± 0,3)	8 (± 0,3)	10 (± 0,3)
	1.006 – 1.300	2 (± 0,5)	3 (± 0,5)	4 (± 0,5)	6 (± 0,5)	8 (± 0,5)	10 (± 0,5)
Return loss [dB]	5 – 470	> 20					
	470 – 1.006	> 16					
	1.006 – 1.300	> 14					
Order No.		**53051102**	**53051103**	**53051104**	**53051106**	**53051108**	**53051110**

Parameter	Frequency [MHz]	AT-12-1G	AT-14-1G	AT-16-1G	AT-18-1G	AT-20-1G
Frequency range [MHz]		5 – 1.300				
Impedance [Ω]		75				
Insertion loss [dB]	5 – 1.006	12 (± 0,3)	14 (± 0,3)	16 (± 0,3)	18 (± 0,3)	20 (± 0,3)
	1.006 – 1.300	12 (± 0,5)	14 (± 0,5)	16 (± 0,5)	18 (± 0,5)	20 (± 0,5)
Return loss [dB]	5 – 470	> 20				
	470 – 1.006	> 16				
	1.006 – 1.300	> 14				
Order No.		**53051112**	**53051114**	**53051116**	**53051118**	**53051120**

KLASSE A CLASS + 10 dB

Subject to technical changes!

Return path attenuators and coax termination boxes

5300900
RW-AT-9-65

43060200
HÜP 862 MA

Return path attenuator in F-technique

- Designed for a symmetrical adjustment of the reverse path loss of each subscriber connection within a house distribution network
- Fixed values of attenuation in the reverse band 5 – 65 MHz, very low through loss inside the forward band 85 – 1.000 MHz
- F-male and F-female connectors for direct mounting onto the passive distribution equipment, diameter 13 mm, length 41 mm
- Very high screening factor according EN 50083-2 Class A

Parameter		Frequency [MHz]	RW-AT-3-65	RW-AT-6-65	RW-AT-9-65	RW-AT-12-65
Through loss [dB]	Reverse path	5 – 65	3,0 ± 0,5	6,0 ± 0,5	9,0 ± 0,5	12,0 ± 0,5
	Forward path	85 – 100	1,5 ± 0,5	1,7 ± 0,7	2,6 ± 0,7	2,7 ± 0,7
		100 – 1.000	0,5 ± 0,7	0,5 ± 0,7	0,5 ± 0,7	0,5 ± 0,7
Return loss [dB typ.]	Reverse path	5 – 55	18	18	18	18
		55 – 65	16	16	16	16
	Forward path	85 – 100	16	16	16	16
		100 – 1.000	18	18	18	18
Order No.			**53100300**	**53100600**	**53100900**	**53101200**

KLASSE A CLASS

HÜP 862 MA coax termination box for VF-KDG

- 5 – 1.000 MHz
- Coax termination box with testpoint at output (IEC)
- Capacitor isolated output
- Protection class IP 54
- Housing sealable
- Surge absorber (ÜsAg) retrofit
- Default delivery status contains HMA1 and HMD1

Order No. 43060200

HÜP 1.218 NA coax termination box for Unitymedia

- Coax termination box with testpoint at input and output (IEC)
- With shiftable highpass (87,5 MHz)
- With shiftable equalizer 3 dB or 6 dB
- Surge absorber (ÜsAg) retrofit
- Capacitor isolated output
- Protection class IP 54
- Housing sealable

Order No. 43060601

Accessories for HÜP 862 MA

Item	Order No.
HMH1 high pass filter 85 MHz	**43060203**
HMH2 high pass filter 47 MHz	**43060204**
HMT1 low pass filter 518 MHz	**43060205**
HME1 equalizer module for HÜP 862MA	**43060206**
HMM1 meter module	**43060207**
Pull-through seal, orange – BP 570, L 175 mm	**43060198**

Subject to technical changes!

Fixed-value equalizer with or without linear reverse path

53110300
RW-EQ-862/3

53120300
EQ-862/3

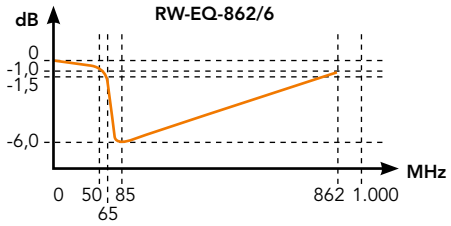
KLASSE A CLASS

Fixed-value equalizer with linear reverse path in F-technique

- For compensation of the frequency-dependent cable slope, only in the forward way
- Frequency range 5 – 65 MHz linear and 85 – 862 MHz as equalizer
- F-male and F-female connectors
- Small, round metal housing with integrated HEX 11 nut
- Very high return loss

Parameter	Frequency [MHz]	RW-EQ-862/3	RW-EQ-862/6	RW-EQ-862/9	RW-EQ-862/12
Through loss [dB] 5 … 50 … 65 MHz		0 … 0,8 … 1,5 ± 0,5	0 … 0,8 … 1,5 ± 0,5	0 … 0,8 … 2,0 ± 0,5	0 … 0,8 … 2,0 ± 0,5
Slope progression [dB] 85 … 862 MHz		3,0 … 1,0 ± 0,5	6,0 … 1,0 ± 0,5	9,0 … 1,0 ± 0,5	12,0 … 1,0 ± 0,5
Return loss [dB typ.]	5 – 65	> 18*	> 18*	> 18*	> 18*
	85 – 862	> 18**	> 18**	> 18**	> 18**
Diameter [mm]		13	13	13	13
Length [mm]		46	46	46	46
Order No.		**53110300**	**53110600**	**53110900**	**53111200**

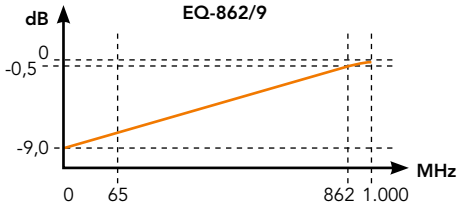
* f = 5 – 50 MHz, between 51 – 65 MHz > 16 dB typ.
** f = 101 – 862 MHz, between 85 – 100 MHz > 16 dB typ.



Fixed-value equalizer 5 – 1.000 MHz in F-technique

Properties as stated above, but without linear reverse path frequency range (equalizer range from 5 – 862/1.000 MHz)

Parameter	EQ-862/3	EQ-862/6	EQ-862/9	EQ-862/12
Slope progression [dB] 5 … 862 … 1.000 MHz	3,0 … 0,5 … 0,3 ± 0,5	6,0 … 0,5 … 0,3 ± 0,5	9,0 … 0,5 … 0,3 ± 0,5	12,0 … 0,5 … 0,3 ± 0,5
Return loss [dB typ.]	> 20	> 20	> 20	> 20
Return loss [dB min.]	> 18	> 18	> 18	> 18
Diameter [mm]	13	13	13	13
Length [mm]	46	46	46	46
Order No.	**53120300**	**53120600**	**53120900**	**53121200**



Subject to technical changes!

Fixed-value cable simulators and UHF de-emphasis equalizers

53130300
KS-862/3

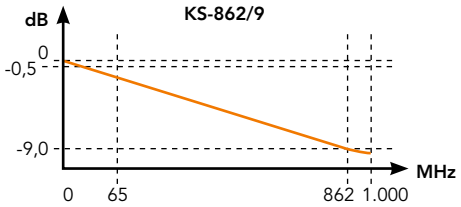
53120800
UHF-EQ-862/8

KLASSE A CLASS

Fixed-value cable simulators 5 – 1.000 MHz in F-technique

- For emulation of a frequency-dependent cable slope in the forward way (balancing of a preemphasis)
- Cable simulator range from 5 – 862/1.000 MHz, non-linearity at all items in the reverse path 5 – 65 MHz ≤ 0,5 dB
- F-male and F-female connectors
- Small, round metal housing with integrated HEX 11 nut
- Very high return loss

Parameter	KS-862/3	KS-862/6	KS-862/9	KS-862/12
Cable simulation progression [dB] 5 … 862 … 1.000 MHz	0 … 3,0 … 3,5 ± 0,5	0 … 6,0 … 6,5 ± 0,5	0 … 9,0 … 9,5 ± 0,5	0 … 12,0 … 12,7 ± 0,5
Return loss [dB typ.]	> 20	> 20	> 20	> 20
Return loss [dB min.]	> 18	> 18	> 18	> 18
Diameter [mm]	13	13	13	13
Length [mm]	46	46	46	46
Order No.	**53130300**	**53130600**	**53130900**	**53131200**

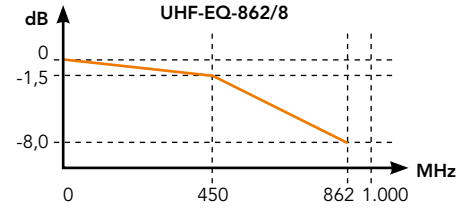


UHF de-emphasis equalizer 450 – 862 MHz in F-technique

- For compensation of the UHF pre-emphasis of C-amplifiers in 862 MHz CATV-networks
- Frequency range DC – 450 MHz almost linear and 450 – 862 MHz with de-emphasis characteristics
- F-male and F-female connectors
- Small, round metal housing with integrated HEX 11 nut
- With DC power pass 50 VDC/300 mA
- Very high return loss

Parameter	UHF-EQ-862/5	UHF-EQ-862/8	UHF-EQ-862/10	UHF-EQ-862/13	UHF-EQ-862/16	UHF-EQ-862/19
Through loss [dB] DC … 450 MHz	0 … 1,5 ± 0,5	0 … 1,5 ± 0,5	0 … 1,5 ± 0,5	0 … 1,5 ± 0,5	0 … 1,5 ± 0,5	0 … 1,5 ± 0,5
Slope progression [dB] 450 … 862 MHz	1,5 … 5,0 ± 0,5	1,5 … 8,0 ± 0,5	1,5 … 10,0 ± 0,5	1,5 … 13,0 ± 0,5	1,5 … 16,0 ± 0,5	1,5 … 19,0 ± 0,5
Return loss [dB typ.]	> 20*	> 20*	> 20*	> 20*	> 20*	> 20*
Diameter [mm]	13	13	13	13	13	13
Length [mm]	41	41	41	41	41	41
Order No.	**53120500**	**53120800**	**53121000**	**53121300**	**53121600**	**53121900**

* f = 40 MHz -1,5 dB/Oct. (> 14 dB min.)



Subject to technical changes!

Galvanic isolators

TRIS-1002/AEN and TZU-10-02

22380010
TRIS-1002/AEN

22380015
TZU-10-02

KLASSE A CLASS

TRIS-1002/AEN

- Galvanic isolation of inner and outer conductor of home installation cables
- Prevention of equipotential bonding currents (DC) between protective grounding of the 230 V network and grounding of the CATV network (connection of these two points when connecting a PC with TV card or a cable modem via outer conductor of the CATV cable)
- Preventing the drain of leakage currents (AC) via the outer conductor of the CATV cable to the CATV grounding point in the absence of protective grounding of the 220 V socket (leakage currents are created by screen filters in power converter PSUs of PCs, with transients to ground – the PC chassis – and subsequently to be discharged via the mains voltage protective conductor to earth)
- A housing for TRIS-1002/AEN, plastic, color: ivory, is available separately with Order No. 22380011.

Parameter		Frequency [MHz]	TRIS-1002/AEN
Through loss [dB]	IN – OUT	5 – 40	0,2 ± 0,3
		40 – 470	0,2 ± 0,3
		470 – 1.000	0,4 ± 0,3
		1.000 – 1.006	0,4 ± 0,3
Return loss [dB typ.]	IN	5 – 40	> 20
		40 – 470	> 18
		470 – 1.000	> 18
		1.000 – 1.006	> 18
	OUT	5 – 40	> 20
		40 – 470	> 18
		470 – 1.000	> 18
		1.000 – 1.006	> 18
Galvanic Isolation Inner conductor IN to inner conductor OUT & outer conductor IN to outer conductor OUT			According to EN 50083-1/A1§9 2.120 VDC for at least 1 minute not exceeding 0,2 mA leakage current, 230 V RMS 50/60 Hz not exceeding 2,0 mA RMS – surge protection at input
Order No.			**22380010**

TZU-10-02

The sheath current filter with isolating transformer TZU-10-02 prevents faults that can arise due to sheath currents or unfavorable grounding conditions.

Parameter	TZU-10-02
Frequency range [MHz]	5 – 1.006
Through loss [dB]	< 0,5
Return loss [dB]	> 20, -1,5 dB/OCT
Impedance [Ω]	75
Connections	F-Female
Norder No.	**22380015**

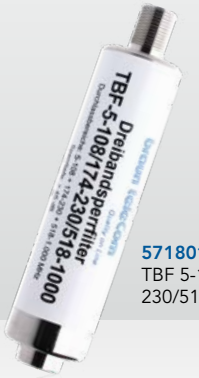
Subject to technical changes!

Block filters

Block filters for star distribution of CATV networks

57225500
M-HPF-85

57011000
HPF-111



57180108
TBF 5-108/174-230/518-1.000

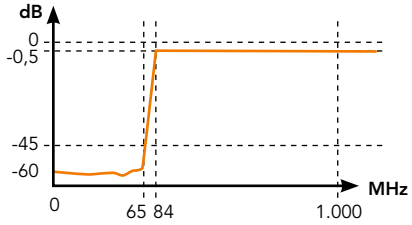
KLASSE A CLASS

- Block filters to lock out some channels or channel groups in CATV star distribution networks
- F-male and F-female connectors for direct mounting onto the passive F-distribution network
- Small, round metal housing with integrated HEX 11 nut (WHPF-xx with HEX 15 nut)
- Very low crossing band width, very high rejection and low through loss
- Very high return loss, screening according EN 50083-2 Class A

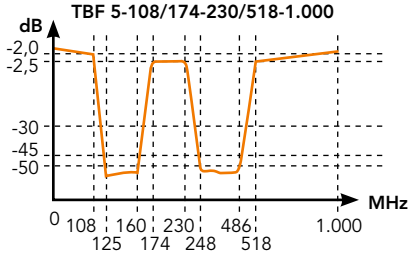
Parameter	Reverse path block filters WHPF-47E	Reverse path block filters M-HPF-85	High pass filter (FM-block filter) HPF-111	Three band block filter TBF 5-108/174-230/518-1.000
Pass band [MHz]	47 – 1.000	84 – 1.000	111 – 1.000 (S 2 – K 69)	5 – 108 174 – 230 518 – 1.000
Through loss [dB]	≤ 1,0	≤ 1,5[1]/≤ 0,5[2]	≤ 3,5 (111 – 130 MHz), ≤ 1,0 (130 – 1.000 MHz)	2,0 (5 – 108 MHz) 2,5 (174 – 230 MHz) 2,5 (518 – 1.000 MHz)
Stop band [MHz]	0 – 30	0 – 64	0 – 108 (0 – UKW)	125 – 160 248 – 1.000
Rejection [dB]	> 50	> 60	> 50 (0 – 100 MHz) > 12 (100 – 108 MHz)	> 45
Cross channels [MHz]	–	–	–	–
Return loss [dB]	> 18*	> 20*	>16 (111 – 130 MHz), > 18 (130 – 1.000 MHz)	16 dB typ (5 – 108 MHz 16 dB typ (174 – 230 MHz) 16 dB typ (518 – 1.000 MHz)
Diameter [mm]	ca. 17	13	21	21
Length [mm]	48,2	39,5	45/57 (with/without F-female)	77/89 (with/without F-female)
Order No.	**57215000**	**57225500**	**57011000**	**57180108**

* f= 85 MHz -1,5 dB/Oct. (> 16 dB min.) [1] 85 – 108 MHz [2] 108 – 1.000 MHz

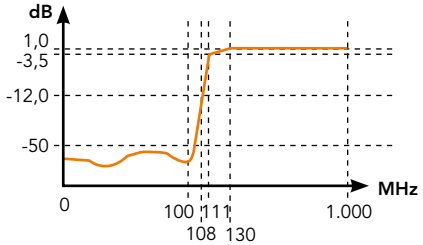
Reverse path block filter M-HPF-85



Three band block filter TBF 5-108/174-230/518-1.000



High pass filter HPF-111 (FM-block-filter)



We do not have the perfect block filter in our product portfolio yet?

We are happy to produce block filters according to your requirements, even in small quantities!

Subject to technical changes!

Block filters for star distribution CATV networks and return path block filter for operations in SAT-IF-distribution networks

57021200
HPF-12MH

57021500
HPF-15MH

57022500
HPF-25MHA

57226000
RSF-8-65

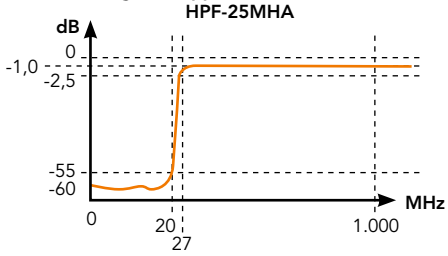
KLASSE A CLASS

Block filters for star distribution CATV networks

Parameter	Ingress suppression block filters		
	HPF-12MH	HPF-15MH	HPF-25MHA
Pass band [MHz]	12 – 1.006	15 – 1.006	25 – 1.006
Through loss [dB]	≤ 1,0[1)]	≤ 1,0[2)]	≤ 1,0[3)]
Stop band [MHz]	0 – 7	0 – 9	0 – 18
Rejection [dB]	> 55	> 55	> 55
Cross channels	–	–	–
Return loss [dB]	> 18*	> 18*	> 18*
Diameter [mm]	approx. 13	approx. 13	approx. 13
Length [mm]	41	41	41
Order No.	**57021200**	**57021500**	**57022500**

[1)] between 12 – 15 MHz ≤ 2,5 dB max.
[2)] between 15 – 18 MHz ≤ 2,5 dB max.
[3)] between 25 – 30 MHz ≤ 2,5 dB max.
* f = 85 MHz -1,5 dB/Oct. (> 16 dB min.)

Ingress suppression block filter HPF-25MHA

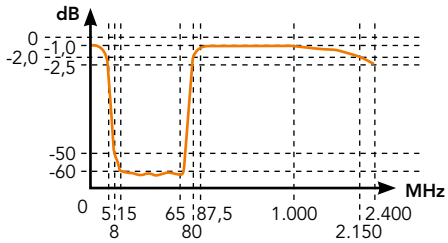


Return path block filter for operations in SAT-IF-distribution networks

- Block filter for blocking the return path frequency range in SAT-IF star-distribution networks in combination with multimedia applications
- Admission of the switching DC voltage and the 22 kHz and DiSEqC signals
- Very low crossing band width, very high rejection and low through loss
- Small rounded metal housing with integrated HEX 11 nut, F-male and F-female connectors
- High return loss, screening according EN 50083-2 Class A

Parameter	Frequency [MHz]	RSF-8-65
Pass band [MHz]		DC – 5 80 – 2.400
Through loss [dB]	DC – 5	≤ 2,0
	80 – 87,5	≤ 2,0
	87,5 – 1.000	≤ 1,0
	1.000 – 2.150	≤ 2,0
	2.150 – 2.400	≤ 2,5
Stop band [MHz]		8 – 65
Rejection [dB]		> 50
Cross channels		–
Return loss [dB]		>16*
DC passing max.		30 V/500 mA
Diameter [mm]		21
Length [mm]		67
Order No.		**57226000**

Return path block filter RSF-8-65



* f = DC – 5 MHz & 80 MHz -1,5 dB/Oct. (> 12 dB min.)

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We are happy to produce block filters according to your requirements, even in small quantities!

Subject to technical changes!

LTE block filters with F-male/F-female connectors, short

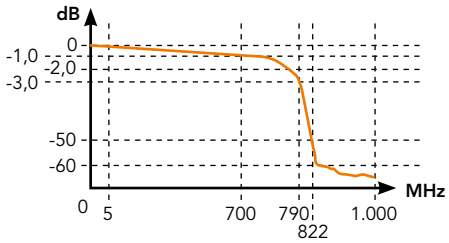
57142790
LPF-790-SHORT

KLASSE A CLASS

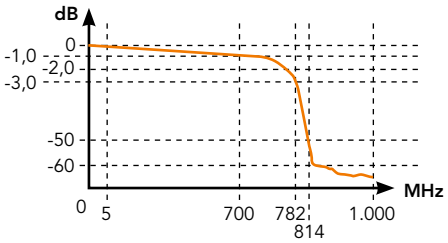
- Block filters for elimination of the impact of harmful interferences from LTE/MFCN base stations at DVB-T devices (Digital Dividend)
- Short, round metal housing, F-male and F-female connectors
- Very low crossing band width, very high rejection and low through loss
- High return loss, screening according EN 50083-2 Class A

Parameter	LPF-790-SHORT	LPF-782-SHORT	LPF-774-SHORT	LPF-766-SHORT	LPF-758-SHORT
Pass band [MHz]	0,3 – 790 (0,3 – channel 60)	0,3 – 782 (0,3 – channel 59)	0,3 – 774 (0,3 – channel 58)	0,3 – 766 (0,3 – channel 57)	0,3 – 758 (0,3 – channel 56)
Through loss [dB]	≤ 1,0 (5 – 700 MHz) ≤ 3,0 (700 – 790 MHz)	≤ 1,0 (5 – 700 MHz) ≤ 3,0 (700 – 782 MHz)	≤ 1,0 (5 – 700 MHz) ≤ 3,0 (700 – 774 MHz)	≤ 1,0 (5 – 700 MHz) ≤ 3,0 (700 – 766 MHz)	≤ 1,0 (5 – 700 MHz) ≤ 3,0 (700 – 758 MHz)
Stop band [MHz]	822 – 1.000	814 – 1.000	806 – 1.000	798 – 1.000	790 – 1.000
Rejection [dB]	> 50	> 50	> 50	> 50	> 50
Cross channels [MHz]	790 – 822 (K 61 – K 64)	782 – 814 (K 60 – K 63)	774 – 806 (K 59 – K 62)	766 – 798 (K 58 – K 61)	758 – 790 (K 57 – K 60)
Return loss [dB]	> 16 (f = 5 – 790 MHz)	> 16 (f = 5 – 782 MHz)	> 16 (f = 5 – 774 MHz)	> 16 (f = 5 – 766 MHz)	> 16 (f = 5 – 758 MHz)
DC passing max.	30 V/500 mA	30 V/500 mA	30 V/500 mA	30 V/500 mA	30 V/500 mA
Diameter [mm]	21	21	21	21	21
Length [mm]	57	57	57	57	57
Order No.	**57142790**	**57142782**	**57142774**	**57142766**	**57142758**

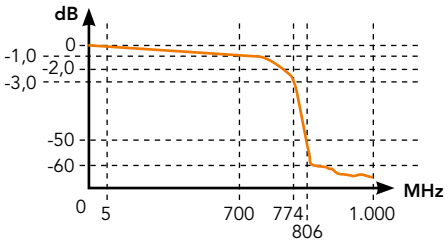
LTE block filter LPF-790-SHORT



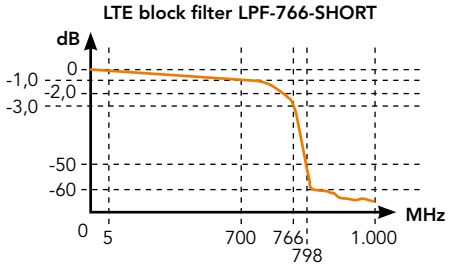
LTE block filter LPF-782-SHORT



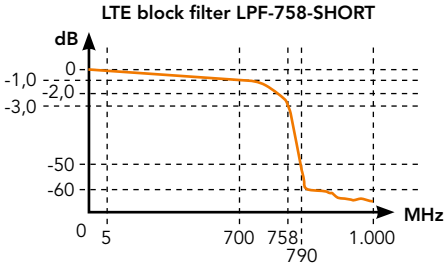
LTE block filter LPF-774-SHORT



LTE block filter LPF-766-SHORT



LTE block filter LPF-758-SHORT



We do not have the perfect block filter in our product portfolio yet?

We are happy to produce block filters according to your requirements, even in small quantities!

Subject to technical changes!

DPX-1 diplex filters in F-technique

57005700
DPX-1-65/85

KLASSE A CLASS

- Diplex filters for combining or splitting of different frequency bands in CATV and SMATV broadband networks
- Compact die-cast housing with grounding connections
- F-female connectors, all connectors are facing in the same direction
- Very low crossing band width, very high rejection and isolation, very high return loss

Parameter		DPX-1-65/85	DPX-1-85/108-1800	DPX-1-204/258	DPX-1-204/258-1800	DPX-1-862/950
Frequency range [MHz]	Port 1	5 – 65	5 – 85	5 – 204	5 – 204	5 – 862
	Port 2	85 – 1.006	108 – 1.800	258 – 1.300	258 – 1.800	950 – 2.400
Tap loss [dB]	Port 1	0,7 ± 0,8 > 55 typ.	1,0 typ. 1,5 max.	1,0 typ. 1,2 max.	1,0 typ. 1,5 max.	1,5 ± 0,8 > 45 typ.
	Port 2	0,5 ± 0,8 > 55 typ.	1,0 typ. 1,5 max.	1,0 typ. 1,2 max.	1,0 typ. 1,5 max.	1,5 ± 0,8 > 42 typ.
Isolation [dB]		≥ 60 (5 – 1.000 MHz)	≥ 45 (5 – 1.800 MHz)	≥ 45 (5 – 1.300 MHz)	≥ 45 (5 – 1.800 MHz)	≥ 42 (5 – 2.400 MHz)
Return loss [dB]	Port 1	> 20 (5 – 60 MHz) > 18 (60 – 65 MHz)	16 min. 18 typ.	16 min. 18 typ.	16 min. 18 typ.	> 20 (5 – 65 MHz) > 16 (65 – 862 MHz)
	Port 2	> 16 (85 – 90 MHz) > 20 (90 – 1.000 MHz)	> 16 (108 – 1.300 MHz) > 12 (1.300 – 1.800 MHz)	16 min. 18 typ.	> 16 (258 – 1.300 MHz) > 12 (1.300 – 1.800 MHz)	> 14 (950 – 2.400 MHz)
DC passing max.	Port 1	–	–	–	–	–
	Port 2	–	–	–	–	24 VDC/1 A (incl. DiSEqC and 22 kHz)
Dimensions [mm]		74,5 x 33 x 18	74,5 x 33 x 18	74,5 x 21 x 18	74,5 x 33 x 18	74,5 x 33 x 18
Order No.		**57005700**	**57005710**	**57005705**	**57005715**	**57006500**

Subject to technical changes!

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Broadband antenna outlets up to 2 GHz

1-port double galvanic isolated antenna outlets up to 2 GHz

24000005
btv-1IEC-NL

24100701
SAD-03

KLASSE A CLASS + 10 dB

- TV-port broadband 5 – 2.000 MHz
- Intermodulation resistant according to EN 60728-4
- High screening according to Class A +10 dB
- Surface coated with CuSn white bronze plating, thereby corrosion resistant
- Available as IEC-version (double galvanic isolated IEC-male for TV) and as F-Version (double galvanic isolated F-female for TV)
- Cover plate SAD-03, color Pure white RAL 9010, with removable blind cap at the radio-port (Oder No. 24100701)
- Surface-mount frame SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010, for multimedia outlets (Ordner No. 22080800)

Parameter		Frequency [MHz]	btv-1IEC-NL
Tap loss [dB]	IN – PORT 1	5 – 12	0,5 ± 0,4
		12 – 470	0,5 ± 0,4
		470 – 1.006	0,5 ± 0,4
		1.006 – 1.700	0,7 ± 0,5
		1.700 – 2.000	0,9 ± 0,5
Return loss [dB]	ALL	5 – 12	≥16
		12 – 300	≥20
		300 – 800	≥18
		800 – 1.006	≥16,5
		1.006 – 1.700	≥14
		1.700 – 2.000	≥12
Intermodulation[1] (dBµV min)			115
Galvanic Isolation			≤ 8 mA, 230V AC 50/60 Hz; ≤ 0,7 mA, 2.120 VDC (1 minute)
Surge protection			1 kV 1,2/50 µs
Order No.			**24000005**

[1] With test signals P = 60 MHz, Q = 65 MHz applied at DATA, TV OUT respectively, intermodulation distortion level is ≤ 15 dBuV at 2 P = 120 MHz, at P + Q = 125 MHz, at 2 Q = 130 MHz

Also available as a bundle!

The btv-1-IEC-NL-SET includes, in addition to the 1-port double galvanic isolated antenna outlet btv-1-IEC-NL, a matching surface-mount frame, a cover plate and 2,0 m Cu grounding cable! Order No. **24000007**

Accessories

Double galvanic isolated connection box, 5 – 2.000 MHz, Input: F-male with groud connector, tap loss typ. 1 x 0,5 dB, intermodulation resistant according to DIN EN 60728-4, high screening according to Class A +10 dB, as bundle incl. ABS isolated plastic frame, Pure white RAL 9010 & 2,0 m Cu grounding wire
btv-DGIB-1-SET: Output 1x IEC-male Order No. **24000008**

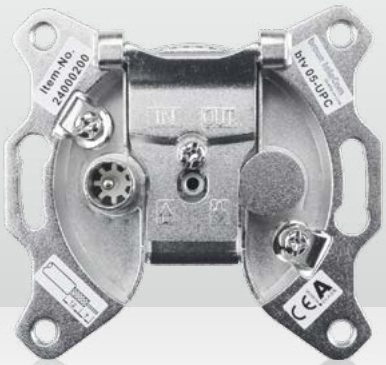
24000008
btv-DGIB-1-SET,
front and back view

KLASSE A CLASS + 10 dB

Subject to technical changes!

1-port and 2-port broadband antenna outlets up to 2 GHz

24000100
btv-03-UPC



24000200
btv-05-UPC

KLASSE A CLASS + 10 dB

- All outlets with broadband ports 5 – 2.000 MHz
- Intermodulation resistant according to EN 60728-4
- High screening according to Class A +10 dB
- Clamp technology for inner conductor with diameter 0,4 – 1,2 mm
- Surface coated with CuSn white bronze plating, thereby corrosion resistant
- Suitable for coax cables with diameter 4,1 – 7,2 mm
- 7 versions with 1-port and 2-port as well as with IEC- and F-connections available
- Cover plate SAD-03, color Pure white RAL 9010, with removable blind cap at the radio-port (Order No. 24100701)
- Surface-mount frame SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010, for multimedia outlets (Order No. 22080800)

Parameter		Frequency [MHz]	Terminal type			Loop-through type		
			btv-01-UPC	btv-03-UPC	btv-04-A	btv-05-UPC	btv-06-UPC	btv-07-UPC
Through loss [dB]	IN – OUT	5 – 12	–	–	–	4,0 ± 0,3	4,0 ± 0,3	4,0 ± 0,3
		12 – 470	–	–	–	3,7 ± 0,4	3,7 ± 0,4	3,7 ± 0,4
		470 – 1.006	–	–	–	4,0 ± 0,4	4,0 ± 0,4	4,0 ± 0,4
		1.006 – 1.700	–	–	–	4,6 ± 0,5	4,6 ± 0,5	4,6 ± 0,5
		1.700 – 2.000	–	–	–	5,2 ± 0,8	5,2 ± 0,8	5,2 ± 0,8
Tap loss [dB]	IN – PORT 1	5 – 12	0,2 ± 0,2	4,0 ± 0,3	4,0 ± 0,3	4,0 ± 0,3	7,4 ± 0,8	7,4 ± 0,8
		12 – 470	0,2 ± 0,2	3,7 ± 0,4	3,7 ± 0,4	3,7 ± 0,4	7,3 ± 0,8	7,3 ± 0,8
		470 – 1.006	0,2 ± 0,2	4,0 ± 0,4	4,0 ± 0,4	4,0 ± 0,4	8,0 ± 0,8	8,0 ± 0,8
		1.006 – 1.700	0,4 ± 0,2	4,6 ± 0,5	4,6 ± 0,5	4,6 ± 0,5	9,0 ± 1,0	9,0 ± 1,0
		1.700 – 2.000	0,5 ± 0,3	5,2 ± 0,8	5,2 ± 0,8	5,2 ± 0,8	10,0 ± 1,5	10,0 ± 1,5
	IN – PORT 2	5 – 12	–	4,0 ± 0,3	4,0 ± 0,3	–	7,4 ± 0,8	7,4 ± 0,8
		12 – 470	–	3,7 ± 0,4	3,7 ± 0,4	–	7,3 ± 0,8	7,3 ± 0,8
		470 – 1.006	–	4,0 ± 0,4	4,0 ± 0,4	–	8,0 ± 0,8	8,0 ± 0,8
		1.006 – 1.700	–	4,6 ± 0,5	4,6 ± 0,5	–	9,0 ± 1,0	9,0 ± 1,0
		1.700 – 2.000		5,2 ± 0,8	5,2 ± 0,8	–	10,0 ± 1,5	10,0 ± 1,5
Isolation [dB]	PORT – PORT	5 – 12	–	25	25	–	25	25
		12 – 470	–	30	30	–	30	30
		470 – 1.006	–	25	25	–	25	25
		1.006 – 1.700	–	20	20	–	20	20
		1.700 – 2.000	–	15	15	–	15	15
	OUT – PORT	5 – 12	–	–	–	25	25	25
		12 – 470	–	–	–	30	30	30
		470 – 1.006	–	–	–	25	25	25
		1.006 – 1.700	–	–	–	20	20	20
		1.700 – 2.000	–	–	–	15	15	15
Return loss [dB]	ALL	5 – 12	≥ 16	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
		12 – 300	≥ 20	≥ 16	≥ 16	≥ 16	≥ 16	≥ 16
		300 – 1.006	≥ 18	≥ 16	≥ 16	≥ 16	≥ 16	≥ 16
		1.006 – 1.700	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
		1.700 – 2.000	≥ 12	≥ 12	≥ 12	≥ 12	≥ 12	≥ 12
MoCA reduces isolation[1] (dB max)		1.200 – 1.625	–	20	20	22	22	22
Intermodulation[2] (dBµV min)			115	115	115	115	115	115
IEC-male TV			Yes	Yes	–	Yes	Yes	–
IEC-female radio			–	Yes	–	–	Yes	–
Amount F-females			–	–	2	–	–	2
Order No.			**24000000**	**24000100**	**24000152**	**24000200**	**24000250**	**24000260**

[1] With open input (accordant POE-Filter)
[2] With test signals P = 60 MHz, Q = 65 MHz applied at DATA, TV OUT respectively, intermodulation distortion level is ≤ 15 dBuV at 2 P = 120 MHz, at P + Q = 125 MHz, at 2 Q = 130 MHz

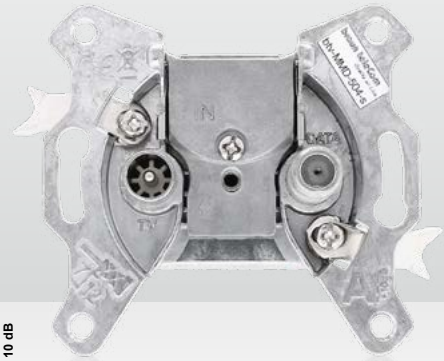
Accessory

btv-01-SET: btv 01-UPC incl. SAD 03 (neutral) as bundle **Order No. 24000002**

Subject to technical changes!

2-port multimedia broadband antenna outlets

with DATA-port (5 – 1.800 MHz) and TV-port (258 – 1.800 MHz)



21932504
btv-MMD-504-s

21932514
btv-MMD-514-d

KLASSE A CLASS + 10 dB

- Dimensions according to DIN 45330
- Quick and comfortable installation thanks to push-pin clamp technology
- High protection against any LTE ingress (LTE safe)
- Zinc die-cast housing with polished finishing
- Clamp technology for inner conductors with a diameter of 0,4 – 1,2 mm
- Suitable for coaxial cables with a diameter of 4,1 – 7,2 mm
- Surge immunity 1 kV according to IEC 61000-4-5 level 2
- Broadband DATA-port 5 – 1.800 MHz, selective TV-port 258 – 1.800 MHz
- Ready for DOCSIS® 3.1
- Cover plate SAD-122, white RAL 9010, is not included and needs to be ordered seperately (Order No. 22080122)
- High screening according to Class A +10 dB following DIN EN 50083-2

Parameter		Frequency [MHz]	btv-MMD-504-s	btv-MMD-510-T	btv-MMD-511-d	btv-MMD-514-d	btv-MMD-517-d	btv-MMD-520-d
Insertion loss [dB]	IN – OUT	5 – 470	–	–	3 ± 0,5 max.	2 ± 0,5	1 ± 0,5	0,5 ± 0,5
		470 – 1.218	–	–	3 ± 1 max.	2 ± 1	1 ± 1	0,5 ± 1
		1.218 – 1.800	–	–	3 ± 1,5 max.	2 ± 1,5	1 ± 1,5	0,5 ± 1,5
	IN – DATA	5 – 1.218	4 ± 1	10 ± 1	11 ± 1	14 ± 1	17 ± 1	20 ± 1
		1.218 – 1.800	4 ± 1,5	10 ± 1,5	11 ± 1,5	14 ± 1,5	17 ± 1,5	20 ± 1,5
	IN – TV	5 – 65	50 min.	50 min.	50 min.	50 min.	50 min.	50 min.
		65 – 204	40 min.	40 min.	40 min.	40 min.	40 min.	40 min.
		258 – 1.218	4,5 ± 1[1]	10,5 ± 1[1]	11,5 ± 1[1]	14,5 ± 1[1]	17,5 ± 1[1]	20,5 ± 1[1]
		1.218 – 1.800	4,5 ± 1,5[2]	10,5 ± 1,5[2]	11,5 ± 1,5[2]	14,5 ± 1,5[2]	17,5 ± 1,5[2]	20,5 ± 1,5[2]
Isolation [dB min.]	TV – DATA	5 – 65	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.
		65 – 204	60 typ. 55 min.	60 typ. 55 min.	60 typ. 55 min.	60 typ. 55 min.	60 typ. 55 min.	60 typ. 55 min.
		204 – 258	55 – 26	55 – 26	55 – 26	55 – 26	55 – 26	55 – 26
		258 – 862	30 typ. 26 min.	30 typ. 26 min.	30 typ. 26 min.	30 typ. 26 min.	30 typ. 26 min.	30 typ. 26 min.
		862 – 1.006	30 typ. 24 min.	30 typ. 24 min.	30 typ. 24 min.	30 typ. 24 min.	30 typ. 24 min.	30 typ. 24 min.
		1.006 – 1.500	25 typ. 20 min.	25 typ. 20 min.	25 typ. 20 min.	25 typ. 20 min.	25 typ. 20 min.	25 typ. 20 min.
		1.500 – 1.800	20 typ. 15 min.	20 typ. 15 min.	20 typ. 15 min.	20 typ. 15 min.	20 typ. 15 min.	20 typ. 15 min.
	OUT – TV	5 – 65	–	–	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.
		65 – 204	–	–	56 typ. 50 min.	60 typ. 55 min.	60 typ. 55 min.	60 typ. 55 min.
		204 – 258	–	–	50 – 25	55 – 28	55 – 28	55 – 28
		258 – 862	–	–	30 typ. 25 min.	35 typ. 28 min.	35 typ. 28 min.	35 typ. 28 min.
		862 – 1.006	–	–	30 typ. 25 min.	30 typ. 26 min.	30 typ. 26 min.	30 typ. 26 min.
		1.006 – 1.800	–	–	30 typ. 25 min.	30 typ. 25 min.	30 typ. 25 min.	30 typ. 25 min.
	OUT – DATA	5 – 65	–	–	35 min.	35 min.	35 min.	35 min.
		65 – 204			30 min.	35 min.	35 min.	35 min.
		204 – 258	–	–	30 min.	30 min.	30 min.	30 min.
		258 – 862	–	–	25 min.	28 min.	28 min.	28 min.
		862 – 1.006	–	–	25 min.	26 min.	26 min.	26 min.
		1.006 – 1.800	–	–	25 min.	25 min.	25 min.	25 min.
Return loss [dB min.]	IN & OUT	5 – 47	16					
		47 – 1.800	16 (at 47 MHz -1,5 dB/Oct. 10 dB min.)					
	TV	258 – 1.800	14 (at 258 MHz -1,5 dB/Oct. 10 dB min.)					
	DATA	5 – 10	14					
		10 – 47	18					
		47 – 1.800	18 (at 47 MHz -1,5 dB/Oct. 10 dB min.)					
Impedance [Ω]			75					
Operating temperature range [°C]			0 – 55					
Harmonic distortion [dBµV] (acc. to IEC/EN 60728-4)[3]	before surge		< 2					
	after 25 VDC surge		< 15					
Order No.			21932504	21932510	21932511	21932514	21932517	21932520

[1] In frequency range 258 – 266 MHz with additional 0,5 dB attenuation
[2] In frequency range 1.700 – 1.800 MHz with additional 0,5 dB attenuation

[3] With 2 x 120 dBµV test signals combined and applied to DATA-Port:
Test 1: f1 = 60 MHz, f2 = 65 MHz, IM2 = 2 x f1 + f1+f2 + 2 x f2
Test 2: f1 = 199 MHz, f2 = 204 MHz, IM2 = 2 x f1 + f1+f2 + 2 x f2

Subject to technical changes!

Broadband push on adapters

2-port and 3-port broadband push on adapters up to 2 GHz

24100002
POA-01-A

24100150
POA-04-UPC

KLASSE A CLASS +10 dB

- All connections with broadband ports 5 – 2.000 MHz
- Intermodulation resistant according to EN 60728-4
- High screening according to Class A +10 dB
- Suitable for mounting onto the TV-port of antenna outlets
- Surface coated with CuSn white bronze plating, thereby corrosion resistant
- Supplied with a protection plastic cap
- Versions with 2-port and 3-port as well as with IEC- and F-connections available
- POA-01-B: RF performance acc. to Kabelkeur PVE 5.0 Keurmerk

Parameter		Frequency [MHz]	POA-01-A	POA-01-B	POA-02-UPC	POA-03-UPC	POA-04-UPC
Through loss [dB]	IN – PORT	5 – 12	4,0 ± 0,3	3,7 ± 0,3	4,0 ± 0,3	6,0 ± 0,5	6,0 ± 0,5
		12 – 470	3,8 ± 0,5	3,7 ± 0,3	3,8 ± 0,5	5,7 ± 0,3	5,7 ± 0,3
		470 – 860	4,0 ± 0,4	3,7 ± 0,3	4,0 ± 0,4	6,0 ± 0,5	6,0 ± 0,5
		860 – 1.006	4,0 ± 0,4	4,0 ± 0,4	4,0 ± 0,4	6,0 ± 0,5	6,0 ± 0,5
		1.006 – 1.218	4,6 ± 0,5	4,4 ± 0,5	4,6 ± 0,5	7,4 ± 0,5	7,4 ± 0,5
		1.218 – 1.700	4,6 ± 0,5	4,6 ± 0,5	4,6 ± 0,5	7,4 ± 0,5	7,4 ± 0,5
		1.700 – 2.000	5,2 ± 0,8	5,2 ± 0,8	5,2 ± 0,8	8,5 ± 1,5	8,5 ± 1,5
Isolation [dB]	PORT – PORT	5 – 15	≥ 25	≥ 20	≥ 25	≥ 25	≥ 25
		15 – 30	≥ 25	≥ 26	≥ 25	≥ 25	≥ 25
		30 – 470	≥ 30	≥ 26 -1,5 dB/Oct	≥ 30	≥ 25	≥ 25
		470 – 1.006	≥ 25	≥ 26 -1,5 dB/Oct	≥ 25	≥ 25	≥ 25
		1.006 – 1.218	≥ 20	≥ 26 -1,5 dB/Oct	≥ 20	≥ 20	≥ 20
		1.218 – 1.700	≥ 20	≥ 20	≥ 20	≥ 20	≥ 20
		1.700 – 2.000	≥ 15	≥ 15	≥ 15	≥ 15	≥ 15
Return loss [dB]	ALL	5 – 12	≥ 14	≥ 13	≥ 14	≥ 14	≥ 14
		12 – 40	≥ 16	≥ 20	≥ 16	≥ 16	≥ 16
		40 – 1.006	≥ 16	≥ 20 -1,5 dB/Oct	≥ 16	≥ 16	≥ 16
		1.006 – 1.218	≥ 14	≥ 20 -1,5 dB/Oct	≥ 14	≥ 14	≥ 14
		1.218 – 1.700	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
		1.700 – 2.000	≥ 12	≥ 12	≥ 12	≥ 12	≥ 12
MoCA reduced isolation[1] [dB max]		1.200 – 1.650	20	20	20	20	20
Intermodulation resistance [dBµV min] (acc. to IEC/EN 60728-4)[2]			> 15	> 10[3]	> 15	> 15	> 15
Number of output ports			2	2	2	3	3
Connector type input			IEC-female	IEC-female	F-quickfix	IEC-female	F-quickfix
Connector type outputs			IEC-male	IEC-male	F-female	IEC-male	F-female
Integrated height adjustment of the protection plastic cap			No	No	Yes	Yes	Yes
Order No.			**24100002**	**24100003**	**24100050**	**24100100**	**24100150**

[1] With open input (accordant POE-Filter)
[2] With 2 x 120 dBµV test signals f1 = 60 MHz and f2 = 65 MHz at all ports, IM2 = 2 x f1 + f1 + f2 + 2 x f2
[3] With 2 x 115 dBµV test signals and after 1 kV pulse acc. to Kabelkeur PVE 5.0 Keurmerk

Subject to technical changes!

2-port push on adapters with band pass filter, IEC-male & F-female

24100012
POA-085

24100015
POA-254

KLASSE A CLASS + 10 dB

- Suitable for mounting onto antenna outlets with IEC-male at TV-port
- 1 input IEC-female at rear side
- 2 outputs, each one IEC-male and F-female
- Intermodulation resistant according to EN 60728-4 and after 1kV pulse applied at each port
- High screening according to EN 50083-2 Class A +10 dB
- Surface coated with CuSn white bronze plating, thereby corrosion resistant
- Supplied with a protection plastic cap (Pure white RAL 9010)
- TV/Radio-port (IEC-male) with band pass filter (specifications below)
- Data-port broadband 5 – 2.000 MHz

Parameter		Frequency [MHz]	POA-085	POA-254
Insertion Loss [dB]	IN – TV/Radio	5 – 65	55 min. (3)	60 typ., 55 min.
		65 – 204	4,7 + 0,3 (2)	60 typ., 50 min.
		254 – 862	4,7 + 0,3 (2)	4,7 + 0,3 (4)
		950 – 2.000	55 min. (5)	55 min. (6)
	IN – Data	5 – 862	3,7 + 0,3	3,7 + 0,3
		862 – 1.006	4,0 + 0,4	4,0 + 0,4
		1.006 – 1.218	4,4 + 0,5	4,4 + 0,5
		1.218 – 1.700	4,8 + 0,8	4,8 + 0,8
		1.700 – 2.000	5,5 + 1,0	5,5 + 1,3
Return Loss [dB]	IN	5 – 12	13 min.	13 min.
		12 – 65	20 min.	20 min.
		65 – 204	20 (1)	20 (1)
		254 – 862	20 (1)	20 (1)
		950 – 1.218	14 min.	14 min.
		1.218 – 2.000	14 typ., 12 min.	14 dB., 12 min.
	TV/Radio	85 – 254	20 (1) (7)	–
		254 – 862	20 (1) (7)	20 dB (1) (8)
	Data	5 – 12	13 min.	13 min.
		12 – 1.218	20 (1)	20 (1)
		1.218 – 2.000	12 min.	12 min.
Isolation [dB]	TV/Radio – Data	5 – 65	55 min. (3)	60 typ., 55 min.
		65 – 204	35 typ. 30 min. (9)	60 typ., 55 min. (10)
		254 – 862	35 typ. 30 min. (9)	35 typ. 30 min. (9)
		950 – 2.000	55 min. (5)	55 min. (6)
Band pass filter at TV/Radio port [MHz]	Reject band 1		5 – 65	5 – 204
	Pass band		85 – 862	254 – 862
	Reject band 2		950 – 2.000	950 – 2.000
Intermodulation [dBµV] (11)	after 25 V surge		≤ 10	≤ 10
	after 1 KV surge		≤ 10	≤ 10
Order No.			**24100012**	**24100015**

(1) At 40 MHz -1.5 dB/Oct.
(2) In frequency range 85 – 125 MHz with additional 0,5 dB loss; means 5,5 dB max.
In frequency range 750 – 800 MHz with additional 0,5 dB loss; means 5,5 dB max.
In frequency range 800 – 862 MHz with additional 2,0 dB loss; means 7,0 dB max.
(3) In frequency range 50 – 65 MHz with additional 2,0 dB tolerances in mass production
(4) In frequency range 254 – 260 MHz with additional 0,5 dB loss; means 5,5 dB max.
In frequency range 750 – 800 MHz with additional 0,5 dB loss; means 5,5 dB max.
In frequency range 800 – 862 MHz with additional 2,3 dB loss; means 7,3 dB max.
(5) In frequency range 950 – 1000 MHz with additional 2,0 dB tolerances in mass production
(6) In frequency range 950 – 1000 MHz with additional 5,0 dB tolerances in mass production
(7) In frequency range 85 – 100 MHz with additional 2,0 dB tolerances in mass production
(8) In frequency range 254 – 260 MHz with additional 2,0 dB tolerances in mass production
(9) In frequency range 470 – 862 MHz with additional 2,0 dB tolerances in mass production
(10) In frequency range 198 – 204 MHz with additional 2,0 dB tolerances in mass production
(11) With 2 carriers 60 & 65 MHz (115 dBµV) applied at OUT – OUT ports, according to EN 60728-4 and after 1 kV surge pulse at each port, intermodulation distortion level is ≤ 10 dBuV at 2 P = 120 MHz, at P + Q = 125 MHz, at 2 Q = 130 MHz.

Subject to technical changes!

2-port and 3-port push on adapters up to 2 GHz with selective radio-port

24100005
POA-1-IEC-NL

24100105
POA-3-IEC-NL

KLASSE A CLASS +10 dB

- Intermodulation resistant according to EN 60728-4
- High screening according to Class A +10 dB
- Suitable for mounting onto antenna outlets with IEC-male at TV-port
- Surface coated with CuSn white bronze plating, thereby corrosion resistant
- Supplied with a protection plastic cap
- TV and DATA-ports with FM filter,therefore transmission range 5 – 65 & 120 – 2.000 MHz (no FM, S 2 and S 3)

Parameter		Frequency [MHz]	POA-1-IEC-NL	POA-3-IEC-NL
Through loss [dB]	IN – TV (IN – DATA)	5 – 65	0,7 ± 0,5	4,6 ± 0,5
		65 – 120	> 20 typ.	> 20 typ.
		120 – 1.218	0,7 ± 0,5	4,6 ± 0,5
		1.218 – 1.700	1,3 ± 0,5	6,2 ± 0,5
		1.700 – 2.000	1,7 ± 0,5	7,2 ± 0,5
	IN – FM	87,5 – 108	2,0 ± 0,5	2,0 ± 0,5
Isolation [dB]	TV – FM (DATA – FM)	5 – 65	≥ 25	≥ 32
		65 – 120	–	–
		120 – 470	≥ 20	≥ 20
		470 – 1.218	≥ 25	≥ 25
		1.218 – 1.700	≥ 22	≥ 25
		1.700 – 2.000	≥ 20	≥ 25
	(TV – DATA)	5 – 15	–	≥ 20
		15 – 65	–	≥ 30
		65 – 120	–	–
		120 – 1.218	–	≥ 20
		1.218 – 1.700	–	≥ 16
		1.700 – 2.000	–	≥ 14
Return loss [dB]	IN	5 – 12	≥ 14	≥ 18
		12 – 65	≥ 16	≥ 18
		87,5 – 108	≥ 16	≥ 15
		108 – 1.006	≥ 16	≥ 18*
		1.006 – 2.000	14 typ.	≥ 18*
	TV (DATA)	5 – 12	≥ 14	≥ 18
		12 – 65	≥ 16	≥ 18
		120 – 1.006	≥ 16	≥ 18*
		1.006 – 2.000	14 typ	≥ 18*
	FM	87,5 – 108	15 typ	15 typ
Intermodulation[1] (dBµV min)			115	115
Amount ports			2	3
TV-port			5 – 65 MHz 120 – 2.000 MHz (IEC-male)	5 – 65 MHz 120 – 2.000 MHz (IEC-male)
Radio-port (selective)			87 – 108 MHz (IEC-female)	87 – 108 MHz (IEC-female)
DATA-port			–	5 – 65 MHz 120 – 2.000 MHz (F-female)
Order No.			**24100005**	**24100105**

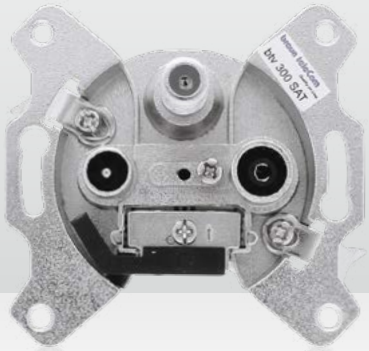
[1] With test signals P = 60 MHz, Q = 65 MHz applied at DATA, TV OUT respectively, intermodulation distortion level is ≤15 dBuV at 2 P = 120 MHz, at P + Q = 125 MHz, at 2 Q = 130 MHz

* f > 40 MHz -1,5 dB/Oct, min. > 12 dB

Subject to technical changes!

3-port SAT antenna outlet

SMATV antenna outlet with frequency range 4 – 2.400 MHz



21030000
btv-300-SAT

KLASSE A CLASS

- Special satellite TV-port (F-female) for the separate connection of a satellite receiver
- Qualified for digital transmission and for a combined transmission of satellite, terrestrial and/or cable TV signals (also S2 and S3)
- Qualified for reverse path transmission, via TV- or RF-port
- TV- and RF-ports designed as broadband ports with equal tap loss on TV and RF
- DC-Powerpass via SAT-port for LNB-powering (incl. 22 kHz- and DiSEqC-signal)
- Very high isolation between TV/RF-port and SAT-port
- Galvanic isolation of the inner conductors at TV- and RF-Port against hum modulation and leakage currents
- Screening according EN 50083-2 Class A:
  > 84 dB (30 – 300 MHz)
  > 80 dB (300 – 470 MHz)
  > 75 dB (470 – 1.000 MHz)
  > 55 dB (1.000 – 2.400 MHz)
- Cover plate SAD-155, 80 x 80 mm, color Pure white RAL 9010, will be delivered together with the outlet (Order No. 22080600)
- Surface-mount frame SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010 (Order No. 22080800)

Parameter		Frequency [MHz]	btv-300-SAT
Tap loss [dB]	TV	4 – 40	4,0 ± 1,0
		40 – 470	3,5 ± 1,0
		470 – 862	4,5 ± 1,0
	RF	4 – 40	4,0 ± 1,0
		40 – 470	3,5 ± 1,0
		470 – 862	4,5 ± 1,0
	SAT	950 – 2.150	1,5 ± 1,0
		2.150 – 2.400	2,5 ± 1,0
Isolation [dB]	TV – RF	4 – 862	> 20 typ.
	TV – SAT	4 – 862	> 20 typ.
		950 – 2.400	> 20 typ.
	RF – SAT	4 – 862	> 20 typ.
		950 – 2.400	> 20 typ.
Return loss	TV		> 14 dB -1,5 dB/oct. (> 10 dB min.)
	RF		> 14 dB -1,5 dB/oct. (> 10 dB min.)
	SAT		> 10 dB decreasing linearly to 7,2 dB
Order No.			21030000

Subject to technical changes!

3-port multimedia antenna outlets

Selective multimedia outlet with 5 – 65 MHz reverse path

221500000
btv-0465e DATA

22080600
SAD-155

KLASSE A CLASS

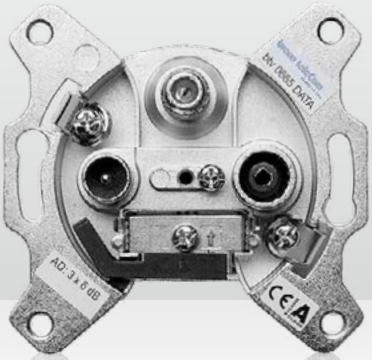
- Special DATA-port (F-female) for the separate connection of a cable modem
- Selective separation of TV and radio frequency ranges by high rejection filters on TV- and RF-port
- Very high isolation between TV and DATA-port to avoid influences of TV-IF frequency by ingress of reverse signals
- Galvanic isolation protection against hum modulation and leakage currents (only inner conductors)
- **Transmission of channels S2 and S3!**
- Screening according EN 50083-2 Class A:
  > 85 dB (30 – 300 MHz),
  > 80 dB (300 – 470 MHz),
  > 75 dB (470 – 862 MHz)
- Cover plate SAD-155, 80 x 80 mm, color Pure white RAL 9010, will be delivered together with the multimedia outlets (Order No. 22080600)
- Surface-mount frame SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010, for multimedia outlets (Order No. 22080800)

Parameter		Frequency [MHz]	btv-0465e DATA
Tap loss [dB]	DATA	5 – 862	3,8 ± 0,5
		862 – 1.000	3,8 ± 0,8
	TV	5 – 65	> 60 typ.
		87,5 – 108	> 10 typ.
		109[1] – 125	5,4 ± 1,0
		125 – 1.000	3,8 ± 0,5
	RF	5 – 65	> 35 typ
		87,5 – 108	7,5 ± 1,0[2]
		109 – 125	> 12 typ.
		125 – 1.000	> 25 typ.
Isolation [dB]	DATA – TV	5 – 65	> 70
		65 – 300	> 30
		300 – 1.000	> 25
	DATA – RF	5 – 65	> 60
		65 – 300	> 30
		300 – 1.000	> 28
	TV – RF	87,5 – 108	> 12
		111 – 125	> 12
		125 – 300	> 35
		300 – 1.000	> 25
Return loss	DATA		> 18 dB -1,5 dB/oct.
	TV		> 12,5 dB f = 111 MHz
	RF		> 10 dB
Order No.			**21500000**

[1] Additionally 2,0 dB at 109 MHz
[2] Additionally 0,5 dB at the filter edges possible

Subject to technical changes!

Multimedia antenna outlets with 5 – 65 MHz return path



21900000
btv-0665-DATA

21920001
btv-1265-DATA-IM

KLASSE A CLASS

Parameter		Frequency [MHz]	End outlet	Loop-through outlets					
			btv-0665-DATA	btv-1165-DATA-IM	btv-1265-DATA-IM	btv-1465-DATA	btv-1565-DATA	btv-1765-DATA	btv-1965-DATA
Tap loss [dB]	IN – OUT	5 – 65	–	3,8 ± 0,8	2,5 ± 0,8	1,8 ± 0,8	2,0 ± 0,8	1,5 ± 0,8	1,0 ± 0,8
		87,5 – 108	–	3,8 ± 0,8	2,5 ± 0,8	1,8 ± 0,8	2,0 ± 0,8	1,5 ± 0,8	1,0 ± 0,8
		109 – 1.006	–	3,8 ± 0,8	2,5 ± 0,8	1,8 ± 0,8	2,0 ± 0,8	1,5 ± 0,8	1,0 ± 0,8
	TV	5 – 65	60 typ.	60,0 typ.	60,0 typ.	60,0 typ.	60,0 typ.	60,0 typ.	60,0 typ.
		87,5 – 108	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		109 – 1.006	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
	Radio	5 – 65	60 typ.	60,0 typ.	60,0 typ.	60,0 typ.	60,0 typ.	60,0 typ.	60,0 typ.
		87,5 – 108	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		109 – 1.006	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
	DATA	5 – 65	6,5 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		87,5 – 108	6,5 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		109 – 1.006	6,5 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
Through loss [dB]	IN – OUT	5 – 65	–	3,8 ± 0,8	2,5 ± 0,8	1,8 ± 0,8	2,0 ± 0,8	1,5 ± 0,8	1,0 ± 0,8
		84 – 470	–	3,8 ± 0,8	2,5 ± 0,8	1,8 ± 0,8	2,0 ± 0,8	1,5 ± 0,8	1,0 ± 0,8
		470 – 1.006	–	3,8 ± 0,8	2,5 ± 0,8	1,8 ± 0,8	2,0 ± 0,8	1,5 ± 0,8	1,0 ± 0,8
	IN – DATA	5 – 65	6,5 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		84 – 470	6,5 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		470 – 1.006	6,5 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
	IN – TV	5 – 65	60 typ.	60 typ.	60 typ.	60 typ.	60 typ.	60 typ.	60 typ.
		84 – 470	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
		470 – 1.006	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
	IN – Radio	5 – 65	60 typ.	60 typ.	60 typ.	60 typ.	60 typ.	60 typ.	60 typ.
		84 – 470	6,0 ± 1,0	10,0 ± 1,0	12,0 ± 1,0	14,0 ± 1,0	15,5 ± 1,0	17,0 ± 1,0	19,0 ± 1,0
Isolation [dB]	DATA – TV	5 – 65	> 70	≥ 70	≥ 70	≥ 70	≥ 70	≥ 70	≥ 70
		84 – 300	≥ 30	≥ 36	≥ 42	≥ 42	≥ 42	≥ 42	≥ 42
		300 – 862	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36
		862 – 1.006	≥ 30	≥ 26	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30
	DATA – Radio	5 – 65	> 30	≥ 36	≥ 42	≥ 42	≥ 42	≥ 42	≥ 42
		84 – 862	> 30	≥ 36	≥ 42	≥ 42	≥ 42	≥ 42	≥ 42
		300 – 862	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36
		862 – 1.006	> 30	≥ 26	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30
	TV – Radio	87,5 – 1.006	> 25	≥ 25	≥ 25	≥ 25	≥ 20	≥ 20	≥ 20
	OUT – DATA	5 – 65	–	≥ 35	≥ 30	≥ 35	≥ 40	≥ 40	≥ 40
		84 – 300	–	≥ 30	≥ 30	≥ 30	≥ 32	≥ 32	≥ 32
		300 – 862	–	≥ 26	≥ 30	≥ 30	≥ 26	≥ 30	≥ 30
		862 – 1.006	–	≥ 26	≥ 26	≥ 26	≥ 26	≥ 26	≥ 26
	OUT – TV	5 – 65	–	≥ 65	≥ 65	≥ 65	≥ 65	≥ 65	≥ 65
		84 – 862	–	≥ 30	≥ 30	≥ 30	≥ 32	≥ 32	≥ 32
		862 – 1.006	–	≥ 25	≥ 30	≥ 30	≥ 32	≥ 32	≥ 32
	OUT – Radio	5 – 65	–	≥ 70	≥ 70	≥ 70	≥ 70	≥ 70	≥ 70
		84 – 862	–	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30
		862 – 1.006	–	≥ 25	≥ 30	≥ 30	≥ 30	≥ 30	≥ 30
Return loss [dB]	IN, OUT	5 – 10	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
		10 – 1.006	> 18*	> 18*	> 18*	> 18*	> 18*	> 18*	> 18*
	DATA	5 – 1.006	> 18*	> 18*	> 18*	> 18*	> 18*	> 18*	> 18*
	TV	84 – 1.006	> 14,0**	> 14,0**	> 14,0**	> 14,0**	> 14,0**	> 14,0**	> 14,0**
	Radio	84 – 1.006	> 10,0	> 10	> 10	> 10	> 14,0**	> 14,0**	> 14,0**
Order No.			**21900000**	**21910001**	**21920001**	**21930000**	**21930015**	**21930017**	**21930019**

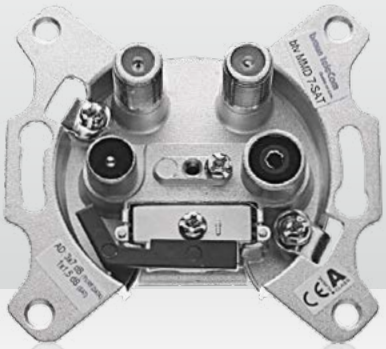
- Special DATA-port (F-female) for the separate connection of a cable modem
- TV- and RF-ports designed as broadband ports with equal through loss on TV and RF
- Very high isolation between TV and DATA to avoid influences of TV-IF frequency by ingress of reverse signals
- Galvanic isolation protection against hum modulation and leakage currents (inner conductors only)
- Screening according EN 50083-2 Class A: > 85 dB (5 – 300 MHz), > 80 dB (300 – 470 MHz), > 75 dB (470 – 862 MHz)
- Cover plate SAD-155, 80 x 80 mm, color Pure white RAL 9010, will be delivered together with the multimedia outlets (Order No. 22080600)
- Surface-mount frame SAD 165, 80 x 80 x 33 mm, color Pure white RAL 9010, for multimedia outlets (Order No. 22080800)

* f = 40 MHz -1,5 dB/Oct.
** f = 109 MHz -1,5 dB/Oct.

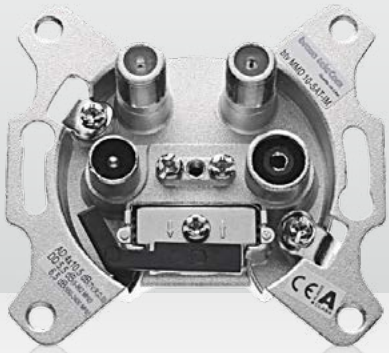
Subject to technical changes!

4-port multimedia/SAT antenna outlets

with an additional SAT-port, 5 – 65 MHz reverse path



21940700
btv-MMD-7-SAT



21940711
btv-MMD-10-SAT-IM

KLASSE A CLASS

- Specially designed for operations in satellite IF distribution networks in combination with multimedia applications
- Special SAT-port (F-female) 950 – 2.400 MHz for the separate connection of a satellite receiver
- DC Powerpass SAT to IN for LNB powering 500 mA max. including 22 kHz and DiSEqC signals
- Special DATA-port (F-female) for the separate connection of a cable modem
- TV- and RF-ports designed as broadband ports with equal tap loss on TV and RF
- Very high isolation between TV/RF and DATA-port to avoid influences of TV-IF frequency by ingress of reverse signals
- Galvanic isolation protection of TV-, RF- and DATA-port against hum modulation and leakage currents (inner conductors only)
- Intermodulation resistant according to DIN EN 60728-4
- Screening according EN 50083-2 Class A:
  > 85 dB (30 – 300 MHz),
  > 80 dB (300 – 470 MHz),
  > 75 dB (470 – 862 MHz)
- Cover plate SAD-401, 80 x 80 mm, color Pure white RAL 9010, will be delivered together with the multimedia outlets (Order No. 22090401)
- Surface-mount frame SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010, for multimedia outlets (Order No. 22080800)

Parameter		Frequency [MHz]	End outlet	Loop-through outlets		
			btv-MMD-7-SAT	btv-MMD-10-SAT-IM	btv-MMD-14-SAT-IM	btv-MMD-19-SAT-IM
Through loss [dB]	IN – OUT	5 – 862	–	5,5 ± 1	3,5 ± 1	2 ± 1
		950 – 2150	–	6,5 ± 1	4,8 ± 1	2,7 ± 1
		2.150 – 2.400	–	9,5 max.	7,5 max.	4,7 max.
Tap loss [dB]	IN – SAT	950 – 970	1,5 ± 1	10,5 ± 1,5	14,5 ± 1,5	19,5 ± 1,5
		970 – 2.150	1,5 ± 1	10,5 ± 1	14,5 ± 1	19,5 ± 1
		2.150 – 2.400	1,5 ± 1	12,5 max.	16 max.	21 max.
	IN – DATA	5 – 862	7 ± 1	10,5 ± 1	14 ± 1	19,5 ± 1
	IN – TV IN – R	5 – 65	55 typ. 50 min.	60 typ. 50 min.	60 typ. 50 min.	60 typ. 50 min.
		84 – 470	7,0 ± 1	10,5 ± 1	14 ± 1	20 ± 1
		470 – 862	7,0 ± 1,5	10,5 ± 1	14 ± 1	20 ± 1
Isolation [dB]	OUT – DATA	5 – 15	–	22 min.	22 min.	28 min.
		15 – 65	–	28 min.	27 min.	32 min.
		84 – 862	–	22 min.	26 min.	26 min.
	OUT – TV OUT – Radio	5 – 65	–	55 min.	55 min.	55 min.
		84 – 470	–	30 min.	23 min.	25 min.
		470 – 862	–	22 min.	22 min.	22 min.
	OUT – SAT	950 – 2.400	–	18 min.	18 min.	18 min.
	TV – Radio	84 – 862	20 min	20 min.	20 min.	20 min.
	TV/R – DATA	5 – 65	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.	70 typ. 60 min.
		84 – 470	25 min	40 min.	35 min.	40 min.
		470 – 862	25 min.	25 min.	28 min.	30 min.
	DATA/TV/R – SAT	5 – 65	65 typ. 50 min.	65 typ. 50 min.	65 typ. 50 min.	65 typ. 50 min.
		84 – 470	30 min.	30 min.	30 min.	30 min.
		470 – 862	15 min.	15 min.	15 min.	15 min.
		950 – 2.400	10 min.	10 min.	10 min.	10 min.
Return loss [dB]	IN	5 – 15	14 min.	12 min.	14 min.	14 min.
		15 – 65	16 min.	14 min.	16 min.	16 min.
		84 – 862	18*	18*	18*	18*
		950 – 2.400	10, decreasing linearly to 7,2			
	SAT	950 – 2.400	10, decreasing linearly to 7,2			
	DATA	5 – 10	18*	10 min.	18 min.	18 min.
		10 – 65	18*	10 min.	18*	18*
		84 – 120	18*	12 min.	18*	18*
		120 – 160	18*	14 min.	18*	18*
		160 – 862	18*	18*	18*	18*
	TV, R	84 – 862	14**, but > 10	14**, but > 10	14**, but > 10	14**, but > 10
DC pass	SAT ➔ IN, OUT ➔➔ IN		24 VDC, 500 mA max. + 22 KHz + DiSEqC			
Order No.			**21940700**	**21940711**	**21940715**	**21940720**

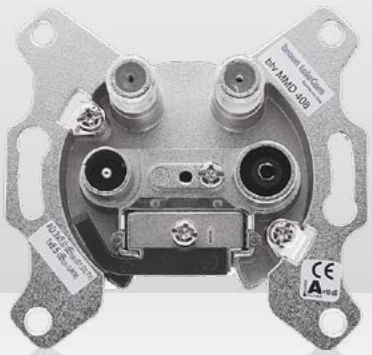
* f = 40 MHz -1,5 dB/oct.

** f = 109 MHz -1,5 dB/oct.

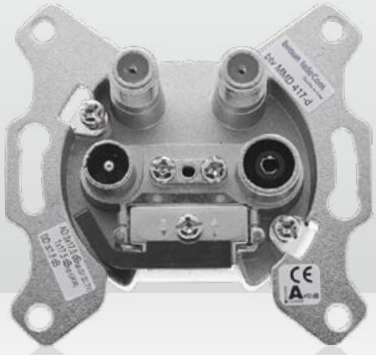
Subject to technical changes!

4-port multimedia antenna outlets

with 2 separate DATA-ports and 5 – 65 MHz reverse path



21933408
btv-MMD-408



21933417
btv-MMD-417-d

KLASSE A CLASS + 10 dB

Parameter		Frequency [MHz]	Termination/end outlet		Loop-through outlets				
			btv-MMD-408	btv-MMD-412T	btv-MMD-412-d	btv-MMD-415-d	btv-MMD-415-HPF	btv-MMD-417-d	btv-MMD-420-d
Insertion loss [dB]	IN – OUT	5 – 65	–	–	3 ± 1	1,7 ± 0,8	45 min.	1,1 ± 0,5	0,9 ± 0,5
		65 – 470	–	–	3 ± 1	1,7 ± 0,8	2 ± 1	1,1 ± 0,5	0,9 ± 0,5
		470 – 862	–	–	3 ± 1	1,7 ± 0,8	2 ± 1	1,1 ± 0,5	0,9 ± 0,5
		862 – 1.006	–	–	3,5 ± 1	1,8 ± 1	2,2 ± 1	1,1 ± 0,7	0,9 ± 0,7
		1.006 – 1.218	–	–	4 ± 1	2,5 ± 1	2,6 ± 1	1,4 ± 1	1,1 ± 1
Tap loss [dB]	DATA	5 – 470	8 ± 1	12 ± 1	12 ± 1	15 ± 1	15 ± 1	17 ± 1	20 ± 1
		470 – 862	8 ± 1	12 ± 1	12 ± 1	15 ± 1	15 ± 1	17 ± 1	20 ± 1
		862 – 1.006	8 ± 1	12 ± 1	12 ± 1	15 ± 1	15 ± 1	17 ± 1	20 ± 1
		1.006 – 1.218	8,5 ± 1	12 ± 1	12 ± 1	15 ± 1	15,5 ± 1	17 ± 1	20 ± 1
	TV	5 – 65	52 min.	52 min.	52 min.	52 min.	52 min.	52 min.	52 min.
		109– 470	8 ± 1	12 ± 1	12 ± 1	15 ± 1	15 ± 1	17 ± 1	20 ± 1
		470 – 862	8 ± 1	12 ± 1	12 ± 1	15 ± 1	15 ± 1	17 ± 1	20 ± 1
		862 – 1.006	8 ± 1	12 ± 1	12 ± 1	15 ± 1	15 ± 1	17 ± 1	20 ± 1
		1.006 – 1.218	9 ± 1	12,5 ± 1	12,5 ± 1	15,5 ± 1	15 ± 1	17 ± 1	20 ± 1
	Radio	5 – 65	52 min.	52 min.	52 min.	52 min.	52 min.	52 min.	52 min.
		87,5 – 108	8,5 ± 1	12,5 ± 1	12,5 ± 1	15,5 ± 1	15,5 ± 1	17,5 ± 1	20,5 ± 1
		126 – 140	24 min	24 min	24 min.	24 min.	24 min	28 min.	30 min.
		140 – 862	35 min.	35 min.	35 min	35 min	35 min	35 min	35 min
		1.006 – 1.218	35 min.	35 min.	35 min.	35 min.	35 min	35 min	35 min
Isolation [dB]	TV – DATA, Radio – DATA	5 – 65	60 min.	60 min.	60 min.	60 min.	60 min.	60 min.	60 min.
		65 – 1.218	30 min.	30 min.	30 min.	30 min.	30 min.	30 min.	30 min.
	OUT – DATA	5 – 65	–	–	30 min.	32 min.	35 min.	32 min.	32 min.
		87,5 – 862	–	–	26 min.	26 min.	26 min.	26 min.	26 min.
		862 – 1.006	–	–	24 min.	24 min.	26 min.	26 min.	26 min.
		1.006 – 1.218	–	–	22 min.	22 min.	26 min.	24 min.	24 min.
	OUT – TV, OUT – RADIO	5 – 65	–	–	55 min.	55 min.	55 min.	55 min.	55 min.
		87,5 – 470	–	–	24 min.	26 min.	30 min.	26 min.	26 min.
		470 – 862	–	–	24 min.	26 min.	24 min.	26 min.	26 min.
		862 – 1.006	–	–	22 min.	24 min.	22 min.	24 min.	24 min.
		1.006 – 1.218	–	–	20 min.	20 min.	20 min.	22 min.	22 min.
	DATA – DATA	5 – 15	35 min.	35 min.	35 min.	35 min.	32 min	35 min.	35 min.
		15 – 80	35 min.	35 min.	35 min.	35 min.	35 min	35 min.	35 min.
		80 – 160	33,5 min.	33,5 min.	33,5 min.	33,5 min.	33 min	33,5 min.	33,5 min.
		160 – 320	32 min.	32 min.	32 min.	32 min.	32 min	32 min.	32 min.
		320 – 640	30,5 min.	30,5 min.	30,5 min.	30,5 min.	30 min.	30,5 min.	30,5 min.
		640 – 862	28 min.	28 min.	28 min.	28 min.	28 min	28 min.	28 min.
		862 – 1.006	28 min.	28 min.	28 min.	28 min.	28 min	28 min.	28 min.
		1.006 – 1.218	20 min	20 min.	20 min.	20 min.	20 min.	20 min.	20 min.
Return loss [dB]	IN	5 – 60	≥ 14*	≥ 14*	≥ 18*	≥ 18*	≥ 18*	≥ 18*	≥ 18*
		60 – 65	≥ 14*	≥ 14*	≥ 18*	≥ 18*	16,5	≥ 18*	≥ 18*
		87,5 – 1.218	≥ 14*	≥ 14*	≥ 18*	≥ 18*	≥ 18*	≥ 18*	≥ 18*
	OUT	87,5 – 1.218	–	–	≥ 18*	≥ 18*	16,5**	≥ 18*	≥ 18*
	DATA	5 – 1.218	≥ 18*	≥ 18*	≥ 18*	≥ 18*	≥ 18*	≥ 18*	≥ 18*
	TV	109 – 1.218	≥ 14**	≥ 14**	≥ 14**	≥ 14**	≥ 14**	≥ 14**	≥14 **
	Radio	87,5 – 108	≥ 10	≥ 10	≥ 10	≥ 10	≥ 10	≥ 10	≥ 10
Order No.			**21933408**	**21933411**	**21933412**	**21933415**	**21933414**	**21933417**	**21933420**

* f = 40 MHz -1,5 dB/Oct.
** f = 80 MHz -1,5 dB/Oct.

- 2 separate DATA-ports (F-females) for the direct connection of an interactive Set-Top-Box respectively PVR and a cable modem
- Very high isolation between TV/RF and the DATA-ports to avoid influences of TV-IF frequency by ingress of reverse signals, very high isolation between the DATA-ports in the reverse path range
- Galvanic isolation protection of TV-, RF- and DATA-ports against hum modulation and leakage currents (inner conductors only)
- Increased intermodulation resistance at 150 VDC/ 115 VAC/50 Hz surge in compliance with EN 60828-4
- Max. IM2 products ≤ 15 dBµV before and after surge hit (two return path signals 60 MHz and 65 MHz with 120 dBµV each)
- Screening according EN 50083-2 Class A +10 dB
- Cover plate SAD-400, 80 x 80 mm, color Pure white RAL 9010, will be delivered together with the multimedia outlets (Order No. 22090400)
- Surface-mount frame SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010, for multimedia outlets not included (Order No. 22080800)

Subject to technical changes!

Accessories

Cover plates, surface-mount frames and terminal resistors

22080600
SAD-155

22090300
SAD-300

22030000
SAW-75

Cover plates 1-piece for antenna wall outlets

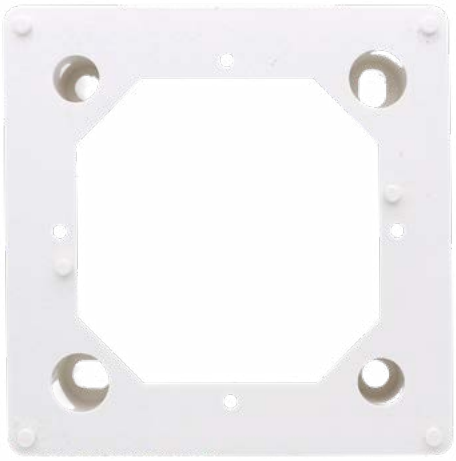
Parameter	SAD-122	SAD-155	SAD-157	SAD-158
Suitable for outlet	2-port multimedia outlets btv-MMD-5xx-y	3-port multimedia outlets btv-xxxx-DATA	4-port multimedia SAT outlets btv-MMD-xx-SAT	4-port multimedia outlets btv-MMD-xxx
Imprint	TV/DATA	TV/R/DATA	TV/R/DATA/SAT	TV/R/DATA/DATA
Suitable for surface-mount frame	SAD-165			
Color	Pure white RAL 9010			
Dimensions [mm]	80 x 80			
Order No.	**22080122**	**22080600**	**22080700**	**22080701**

Cover plates 2-piece for antenna wall outlets

Parameter	SAD-300	SAD-303	SAD-400	SAD-401
Suitable for outlet	3-port multimedia outlets btv-xxxx-DATA	3-port multimedia outlets btv-3xx-y-HQ	4-port multimedia outlets btv-MMD-xxx	4-port multimedia outlets btv-MMD-xx-SAT
Imprint	TV/R/DATA	TV/R/DATA	TV/R/DATA/DATA	TV/R/DATA/SAT
Suitable for surface-mount frame	SAD-165			
Color	Pure white RAL 9010			
Dimensions [mm]	80 x 80			
Faceplate dimensions [mm]	50 x 50			
Order No.	**22090300**	**22090303**	**22090400**	**22090401**

Surface-mount frame

SAD-165, 80 x 80 x 33 mm, color Pure white RAL 9010



Order No. 22080800

Terminal resistors 75 Ω for antenna wall outlets

SAW-75
Diameter approximately 5 mm — **Order No. 22030000**

SAX-75
Diameter approximately 4 mm — **Order No. 22030100**

Subject to technical changes!

Subscriber connection cables

22210131
TAK-2,5-IEC

22010115
FK-2-1.5 H

22210216
MAK-1,5-FM

IEC subscriber cables

Receiver leads for CATV house distribution with IEC male and IEC female connectors. To secure the measured screening in practice the receiver leads must have a bending radius of min. 10 cm to avoid a permanent damage of the screen and a worsening of the screening!

Item	Connectors	Length [m]	Color	Compliant with KDG 1 TS 152	Order No.
FK-2-1.5-H	IEC-male and female	1,5	White	Yes	**22210115**
FK-2-2.0-H	IEC-male and female	2,0	White	Yes	**22210120**
TAK-1,5-IEC	IEC-male and female	1,5	White	No	**22210130**
TAK-2,5-IEC	IEC-male and female	2,5	White	No	**22210131**
TAK-3,5-IEC	IEC-male and female	3,5	White	No	**22210132**
TAK-5,0-IEC	IEC-male and female	5,0	White	No	**22210133**
TAK-7,5-IEC	IEC-male and female	7,0	White	No	**22210134**
TAK-10,0-IEC	IEC-male and female	10,0	White	No	**22210136**

Fm/Fm modem subscriber cables

Modem subscriber cable with F-male connectors to connect a cable modem on the DATA-port of a multimedia antenna outlet. To secure the measured screening in practice the receiver leads must have a bending radius of min. 10 cm to avoid a permanent damage of the screen and a worsening of the screening!

The subscriber connection cables MAK-XXX-90 are composed of two EX 6-49/83 connectors (brand PPC) and an Oren HD-103 coaxial cable.

Item	Connectors	Length [m]	Color	Order No.
MAK-1,5-FM	2 x screwable F-male	1,5	White	**22210216**
MAK-2,5-FM	2 x screwable F-male	2,5	White	**22210226**
MAK-150-90	2 x screwable F-male	1,5	White	**22280704**
MAK-250-90	2 x screwable F-male	2,5	White	**22280705**
MAK-350-90	2 x screwable F-male	3,5	White	**22280706**
MAK-500-90	2 x screwable F-male	5,0	White	**22280707**

We do not have the perfect connection cable in our product portfolio yet?

We are happy to produce connection cables according to your requirements, even in small quantities!

Subject to technical changes!

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Parameter	Frequency [MHz]	HD-063	HD-083	HD-103	HD-113	HD-113-Hydra	HD-163	HD-223
Micro Duct : Diameter (inner/outer) [mm]		–	–	–	–	3,5/5,0	–	–
Structure								
Inner conductor [mm]		0,6 Cu	0,81 Cu	1,02 Cu	1,13 CU	1,13 CU	1,63 Cu	2,2 CU
Isolation [mm]		2,7 FPE	3,6 FPE	4,6 FPE	4,8 FPE	4,8 FPE	7,2 FPE	10,2 FPE
Braid coverage CSnB		65 %	63 %	62 %	60 %	60 %	55 %	60 %
Foil		Trishield	Trishield Foil	Trishield	Trishield Foil	Trishield	Trishield	Trishield
Sheath [mm]		4,3	5,8	6,8	6,8	6,8 x 14	10,0	13,8
Loss at 20°C [dB]	5	2,8	2,1	1,5	1,4	1,4	1,2	0,6
	50	7,8	5,7	4,3	4,1	4,1	2,8	2,1
	100	10,9	8,1	5,9	5,7	5,7	4,1	2,9
	230	16,8	11,9	8,5	8,2	8,2	6,1	4,7
	470	24,2	17,7	13,6	12,3	12,3	8,9	7,1
	860	33,2	23,9	18,6	16,9	16,9	12,6	9,8
	1.006	35,9	25,7	20,1	19,2	19,2	13,9	10,9
	1.750	45,8	35,1	27,1	25,7	25,7	18,6	14,9
	2.150	53,9	38,6	30,5	28,9	28,9	20,7	16,8
	2.400	56,9	41,2	33,1	30,6	30,6	22,1	18,2
Return loss [min. dB]	5 – 470	> 26	> 26	> 26	> 26	> 26	> 26	> 26
	470 – 862	> 23	> 23	> 23	> 23	> 23	> 23	> 23
	862 – 2.150	> 18	> 18	> 18	> 18	> 18	> 18	> 18
Electrical features								
Impedance [Ω]		75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2
Capacity approx. [pF]		53	53	53	53	53	53	53
Shortening factor		0,82	0,82	0,84	0,84	0,84	0,84	0,83
DC resistance at 20°C								
Inner conductor [Ω/100 m max.]		6,19	3,45	2,21	1,78	1,78	0,85	0,47
Screening Class		A+	A+	A+	A+	A+	A+	A+
Transfer impedance [mΩ/m]	5 – 30	< 2,5	< 2,5	< 2,5	< 1,5	< 1,5	< 1,5	< 2,5
Screening [dB]	30 – 1.000	> 100	> 110	> 110	> 110	> 110	> 110	> 95
Mechanical features								
Min. setting radius [mm] once		25	30	35	35	50	75	150
Max. tensile strength [N]		30	50	110	110	110	225	400
Weight [approx. kg/km]		25	39	50	50	105	85	155
Standard package [m]		250	100/300/500	100/250/500	100/250/500	500	100/250/500	100/500
Fire behavior PVC		Eca	Eca	Eca	Eca	Eca	Eca	Eca
Fire behavior PE		Fca	Fca	Fca	Fca	Fca	Fca	Fca
Fire behavior LSNH		Fca	Dca, s2, d1, a1	Dca, s2, d1, a1	Dca, s1a, d2, a1	Dca, s2, d1, a1	Dca, s2, d1, a1	Dca, s2, d1, a1
UV-resistant (all sheaths)		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Order No.								
Type 1) PVC sheath		**6550630x**	**6550830x**	**6551030x**	**6551130x**	**a. A.**	**6551632x**	**a. A.**
Type 2) PE sheath		**a. A.**	**a. A.**	**a. A.**	**a. A.**	**a. A.**	**6551630x**	**6552230x**
Type 3) LSNH/FRNC white		**6550631x**	**6550831x**	**6551031x**	**6551130x**	**65511321**	**a. A.**	**a. A.**
Type 4) LSNH/ FRNC black		**a. A.**	**a. A.**	**a. A.**	**a. A.**	**65511320**	**6551631x**	**6552231x**

Cu = copper; **S CU** = copper cladded steel; **FPE** = physical foam; **PE** = polyethylene; **PVC** = polyvinyl chloride; **Cu FB** = copper foil and copper braid; **Al FF** = double aluminum-laminated polyester foil (Al-Duofoil); **Al B** = aluminum braid with coverage in %; **CSnB** = tin-plated copper braid with coverage in %

Subject to technical changes!

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Parameter	Frequency [MHz]				
Type 1) screening > 95 dB		H121T00	H126T00	PRG11DB+PVC	PRG11DB+PE
Type 2) with FRNC sheath		–	–	PRG11DB+LSNH	–
Structure					
Inner conductor [mm]		0,8 Cu	1,0 Cu	1,55 Cu	1,55 Cu
Isolation [mm]		3,5 FPE	4,57 FPE	7,25 FPE	7,25 FPE
Outer conductor [mm]		4,1 Al PET	5,1 AL PET	8,1 DB II	8,1 DB II
Braid coverage		75 % CSnB	60 % CSnB	70 % CSnB	70 % CSnB
Foil		Trishield Foil	Trishield Foil	DB+	DB+
Cheath [mm]		5,0 PVC	6,9 PVC	10,1 PVC	10,1 PE
Color PVC type/FRNC type		white/white*	white/white*	black/black*	black/–*
Loss at 20°C [dB]	5	2,3	1,8	0,9	0,9
	50	5,9	4,7	2,8	2,8
	100	8,1	6,5	3,9	3,9
	230	12,1	9,8	6,1	6,1
	400	15,9	13,0	8,2	8,2
	860	23,6	19,5	12,5	12,5
	1.000	25,6	21,1	13,6	13,6
	1.750	34,5	28,8	18,7	18,7
	2.150	38,6	32,3	21,1	21,1
	2.400	41,0	34,4	22,5	22,5
Return loss [min. dB]	5 – 470	> 20	> 20	> 23	> 23
	470 – 862	> 18	> 18	> 20	> 20
	862 – 2.150	> 16	> 16	> 18	> 18
Electrical features					
Impedance [Ω]		75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacity approx. [pF]		53	54	55	55
Shortening factor		0,84	0,82	0,81	0,81
DC resistance at 20°C					
Inner conductor [Ω/100 m max.]		3,5	2,3	1,0	0,87
Screening Class		A+	A+	A+	A+
Transfer impedance [mΩ/m]	5 – 30	< 2,5	< 2,5	< 1,9	< 1,9
Screening [dB]	30 – 1.000	> 95	> 95	> 105	> 105
Mechanical features					
Min. setting radius [mm] once		25	35	100	100
Max. tensile strength [N]		44	55	132	132
Weight [approx. kg/km]		29	52	98	85
Standard package [m]		100/300/500	100/250/500	250/500/1.000	250/500/1.000
Order No.					
Type 1) screening > 95 dB		**65110x00**	**65170xx0**	**65191xx1**	**65191xx0**
Type 2) with FRNC sheath		–	–	**65191xx3**	–

Cu = copper; **S CU** = copper cladded steel; **FPE** = physical foam; **PE** = polyethylene; **PVC** = polyvinyl chloride; **Cu FB** = copper foil and copper braid; **Al FF** = double aluminum-laminated polyester foil (Al-Duofoil); **Al B** = aluminum braid with coverage in %; **CSnB** = tin-plated copper braid with coverage in %; **DB II** = double aluminum-laminated polyester foil, bonded on the dielectric; **CG** = Core Guard: protective core under DUOBOND foil made of fireproof gel with moisture protection; **DB+** = Patented DUOBOND PLUS system: Metal to metal plated aluminum foil with insulating layer glued under the outer sheath to achieve a screening of > 100 dB from 10 MHz upwards (the screening for the H 126 DB+ is > 95 dB); **AL PET** = Aluminium film, glued with a PET film (Polyester)

Min. installation temperature: -5°C
Operating & storage temperature: PE/PVC: -40 – +80°C, LSNH: -30 – +70°C

* Further colors are available on request.

Subject to technical changes!

Trunk cables

KLASSE A CLASS

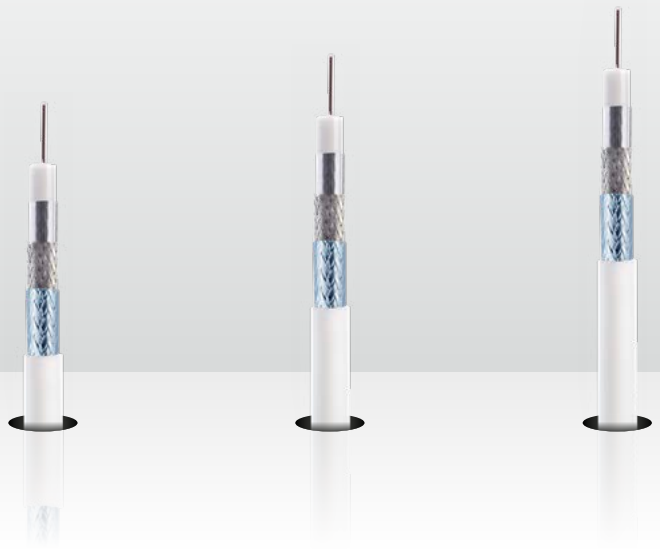
Parameter	Frequency [MHz]						
Type 1) screening > 100 dB		COAX 4 FFB14	COAX 3 FFB20	IKX	NKX	QKX	SKX
Type 2) with FRNC sheath		COAX 4 FFB14 LSNH	COAX 3 FFB20 LSNH	–	–	–	–
Structure							
Inner conductor [mm]		2,2 Cu	3,4 Cu	1,1 Cu	2,2 Cu	3,3 Cu	4,9 Cu
Isolation [mm]		10,2 FPE	14,9 FPE	7,3	8,8	13,4	19,4
Outer conductor [mm]		11,0 CuFB	15,8 CuFB	7,8	9,3	14,0	20,0
Braid coverage		60 %	55 %				
Sheath [mm]		13,8 PE	19,8 PE	11,0 PE	12,5 PE	17,0 PE	24,5 PE
Color PVC-Type/FRNC-Type		black/grey	black/grey	black/–	black/–	black/–	black/–
Loss at 20°C [dB]	10	0,9	0,6				
	50	1,9	1,3	3,7	2,0	1,3	0,9
	100	2,8	1,8	5,4	2,8	1,9	1,3
	230	4,4	2,9	8,6	4,3	2,9	2,0
	300	5,1	3,3	9,8	5,0	3,3	2,3
	470	6,5	4,2	12,3	6,3	4,2	3,0
	860	9,2	5,9	17,7	8,7	5,9	4,2
	1.000	10,0	6,5	19,2	9,5	6,4	4,5
	1.750	13,9	9,0	–	–	–	–
	2.150	15,7	10,2	–	–	–	–
Return loss [min. dB]	5 – 470	> 26	> 26	–	> 23	> 25	> 25
	470 – 862	> 23	> 23	–	> 21	> 23	> 23
	862 – 2.150	> 18	> 18	–	–	–	–
Electrical features							
Impedance [Ω]		75 ± 3	75 ± 3	75 ± 2	75 ± 1,5	75 ± 1,5	75 ± 1,5
Capacity approx. [pF]		54	54	65	51	51	50
Shortening factor		0,82	0,84	0,68	0,88	0,88	0,89
DC resistance at 20°C							
Inner conductor [Ω/100 m max.]		0,45	0,19	2,2	0,56	0,25	0,10
Screening Class		A+	A+	A++	A++	A++	A++
Transfer impedance [mΩ/m]	5 – 30	< 1,9	< 1,1	< 0,1	< 0,1	< 0,1	< 0,1
Screening [dB]	30 – 1.000	> 100	> 100	> 110	> 120	> 120	> 120
Mechanical features							
Min. setting radius [mm] once		150	200	160	200	300	400
Max. tensile strength [N]		400	1.200	140	350	550	3.000
Weight [approx. kg/km]		170	400	300	185	350	560
Standard package [m]		500/1.000	700/1.050	1.000	1.000	1.000	1.000
erder No.							
Type 1) screening > 100 dB		**65440x00**	**65480x00**	**65050000**	**65060000**	**65070000**	**65079000**
Type 2) with FRNC sheath		**65449x00**	**65489x00**	**–**	**–**	**–**	**–**

Cu = copper; **S CU** = copper cladded steel; **FPE** = physical foam; **PE** = polyethylene; **PVC** = polyvinyl chloride; **Cu FB** = copper foil and copper braid; **Al FF** = double aluminum-laminated polyester foil (Al-Duofoil); **Al B** = aluminum braid with coverage in %; **CSnB** = tin-plated copper braid with coverage in %; **DB II** = double aluminum-laminated polyester foil, bonded on the dielectric

Min. installation temperature: -5°C
Operating & storage temperature: PE: -40 – +70°C, LSNH: -30 – +70°C

Subject to technical changes!

Fireproof cables



KLASSE A CLASS

Parameter	Frequency [MHz]	LCD 130A+ 100m	LCD 130A+ 250m	LCD 130A+ 500m
Structure				
Inner conductor [mm]		1,13 Cu	1,13 Cu	1,13 Cu
Isolation [mm]		4,8 PE	4,8 PE	4,8 PE
Outer conductor		2 x Al/pet foil, 1 x CuSn braid	2 x Al/pet foil, 1 x CuSn braid	2 x Al/pet foil, 1 x CuSn braid
Sheath [mm]		6,9 HFFR	6,9 HFFR	6,9 HFFR
Color PVC-Type		white	white	white
Loss at 20°C [dB]	5	1	1	1
	50	4,1	4,1	4,1
	100	5,7	5,7	5,7
	450	12	12	12
	860	17,1	17,1	17,1
	1.000	18,5	18,5	18,5
	2.150	28,4	28,4	28,4
	2.400	29,9	29,9	29,9
Return loss [min. dB]	5 – 470	26	26	26
	470 – 862	25	25	25
	862 – 1.000	23	23	23
	1.000 – 2.150	20	20	20
Electrical features				
Shortening factor typ.		0,85	0,85	0,85
DC resistance at 20°C				
Inner conductor [Ω/100 m max.]		3	3	3
Screening Class		A++	A++	A++
Transfer impedance [mΩ/m]	5 – 30	< 0,9	< 0,9	< 0,9
Screening [dB typ.]	30 – 3.000	130	130	130
Mechanical features				
Min. setting radius [mm] once		35	35	35
Max. tensile strength [N]		120	120	120
Ambient temperature range [°C]		-25 – +70	-25 – +70	-25 – +70
Weight [approx. kg/km]		5,1	5,1	5,1
Standard package [m]		100	250	500
Package type		Non-returnable spool	Roll-off carton packaging	Non-returnable drum
Fire class acc. BauPVO EN 50575		B2ca s1a d0 a1	B2ca s1a d0 a1	B2ca s1a d0 a1
Order No.		**82215139**	**82215142**	**82215141**

Cu = copper; **PE** = polyethylene; **PVC** = polyvinyl chloride; **Al/pet** = metallised PET film, evaporated with aluminium in high vacuum; **CuSn** = tin-plated copper braid with coverage in %; **HFFR** = Halogen Free Flame Retardant

Subject to technical changes!

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Astro and Axing

86401270
BVS-12-69N

81217352
HVB-31

KLASSE A CLASS

Item	Description	Order No.
HVF-V44-G-PG11	Amplifier 40/32 dB, switchable, remote powering, VF-KDG class D4.4	**81217405**
HVD-44	Amplifier 40/32 dB, switchable, local powering, VF-KDG class D4.4, with equalizer and level control	**81217368**
HVF-44-G-Ff	Amplifier 40/32 dB, switchable, remote powering, VF-KDG class D4.4, with equalizer and level control	**81217415**
HVB-21	Amplifier 25 dB, VF-KDG class B2.1, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217351**
HVB-22	Amplifier 25 dB, VF-KDG class B2.2, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217369**
HVB-31	Amplifier 31 dB, VF-KDG class B3.1, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217352**
HVB-32	Amplifier 32 dB, VF-KDG class B3.2, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217353**
HVC-32	Amplifier 30 dB, VF-KDG class C3.2, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217354**
HVC-42	Amplifier 40 dB, VF-KDG class C4.2, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217355**
HVC-43	Amplifier 40 dB, VF-KDG class C4.3, permanently installed adjustable attenuator and equalizer, precorrection of the outgoing cable lines through interstage slope possible	**81217356**
HV-12-V3	Broadband CATV amplifier 20 dB, VF-KDG class D1.1	**81217026**
MÜP-1-F	Remotely powered distribution amplifier, VF-KDG class D1.2	**81217018**
MÜP-1-O	Locally powered distribution amplifier, VF-KDG class D1.2	**81217020**

KLASSE A CLASS

axing Competence in Communication Technologies

Item	Description	Order No.
BVS 12-69N	Amplifier 20 dB, class according to VF-KDG 1TS140 B1.1, B1.2	**86401270**
BVS 13-69N	Amplifier 30 dB, class according to VF-KDG 1TS140 B3.2	**86401370**
BVS 15-68	Amplifier 38 dB, class according to VF-KDG 1TS140 C4.2	**86401568**
BVS-20-69N	Amplifier 38 dB, class according to VF-KDG 1TS140 D4.3	**86402070**
BVS-14-69N	Amplifier 40 dB, class according to VF-KDG 1TS140 D4.4	**86401472**

Subject to technical changes!

Delta Electronics, Kathrein and Teleste

11572409
BKE 33 PS-KDG

82209504
VOS 138/RA 2.0

KLASSE A CLASS

DELTA Electronics

Item	Description	Order No.
BKD 40 SF	House amplifier 41 dB, VF-KDG class B4.3; C4.3 KDG 1TS140, incl. return path amplifier RV65-32F	11572327
BKE 22 PS-KDG	House amplifier 20 dB, VF-KDG class B1.1, B1.2, KDG 1TS140, equipped with equalizer and level control	11572408
BKE 33 PS-KDG	House amplifier 33 dB, VF-KDG class B3.1 KDG 1TS140, equipped with equalizer and level control	11572409
BKE 36 PS-KDG	House amplifier 35 dB, VF-KDG class C3.2 & B3.2 KDG 1TS140, equipped with equalizer and level control	11572410
BKE 36 BPS-KDG	House amplifier 35 dB, VF-KDG class B3.2 KDG 1TS140, equipped with equalizer and level control	11574307
BKE 39 PS-KDG	House amplifier 39 dB, VF-KDG class C4.2 KDG 1TS140, equipped with equalizer and level control	11572411
BKD 40 PS	House amplifier 40 dB, VF-KDG class C4.3 KDG 1TS140, equipped with equalizer and level control, flexible return path amplifier, with Ingress Detection Switch, compatible with FROSTA-F	11574318
LHE-1040-P	House amplifier 40 dB, VF-KDG class D4.4 KDG 1TS140, input equalization as well as input and output attenuation adjustable with PADs 0 dB ... 20 dB, local powering, connections 3.5/12 adapters (further adapters on request)	11573569
LHE-1040-RP-65	House amplifier 40 dB, VF-KDG class D4.4 KDG 1TS140, input equalization as well as input and output attenuation adjustable with PADs 0 dB ... 20 dB, remote powering, connections 3.5/12 adapters (further adapters on request)	11573912

KLASSE A CLASS

KATHREIN Antennen · Electronic

Item	Description	Order No.
VOS 137/RA 2.0	Amplifier 40/34/30 dB local powering, class according to VF-KDG 1TS140 D4.4, variable interstage gain using bridging plugs 40/34/30 dB (delivery status: 34 dB), housing with F-connections	82209503
VOS 138/RA 2.0	Amplifier 40/34/30 dB remote powering RF, class according to VF-KDG 1TS140 D4.4, variable interstage gain using bridging plugs 40/34/30 dB (delivery status: 34 dB), housing with F-connections	82209504
VOS 139/RA 2.0	Amplifier 40/34/30 dB remote powering, class according to VF-KDG 1TS140 D4.4, variable interstage gain using bridging plugs 40/34/30 dB (delivery status: 34 dB), housing with PG 11 connections, the cable fittings are not included	82209129
VOS 43/RA	Amplifier 34/40 dB, local powering, class according to VF-KDG 1TS140 C4.3, variable interstage gain using bridging plugs 34/40 dB, housing with F-connections	82209130
VOS 20/RA-1G	Amplifier 20 dB local powering, class according to VF-KDG 1TS140 B1.1, housing with F-connections	82209131
VOS 29/RA-1G 2.0	Amplifier 30 dB local powering, class according to VF-KDG 1TS140 B3.1, housing with F-connections	82209506
VOS 32/RA-1G	Amplifier 26/32 dB, local powering, class according to VF-KDG 1TS140 C3.2, variable interstage gain using bridging plugs 26/32 dB, housing with F-connections	82209133
VGO 939-1G	Amplifier, class according to VF-KDG 1TS140 D4.4 (local powering)	82244165

KLASSE A CLASS

TELESTE

Item	Description	Order No.
DH-5669	Amplifier 31 dB, local powering, class according to VF-KDG 1TS140 B3.1, 0 ... 18 dB variable attenuator	86380000
DH-1660	Amplifier 31 dB, local powering, class according to VF-KDG 1TS140 B3.2	86380005
DH-6768-VA	Amplifier 36 dB, local powering, class according to VF-KDG 1TS140 C3.2, 0 ... 18 dB variable attenuator	86380010
DH-6868-VA	Amplifier 39 dB, local powering, class according to VF-KDG 1TS140 C4.2, 0 ... 18 dB variable attenuator	86380015
DH-6908-VA	Amplifier 41 dB, local powering, class according to VF-KDG 1TS140 C4.3, configuration with gain control	86380020
DH-4030-R065	Amplifier 40 dB, local powering, class according to VF-KDG 1TS140 D4.4	86380030
DH-4030-R065-AC	Amplifier 40 dB, remote powering, class according to VF-KDG 1TS140 D4.4	86380032

Subject to technical changes!

Triax and fixed-value attenuator pads

81323266
GHV 140 CD

10320600
Amini 6

TRIAX

Item	Description	Order No.
GHV 120 B	Amplifier 20 dB, class according to VF-KDG 1TS140 B1.1	**81323252**
GHV 130 B	Amplifier 30 dB, class according to VF-KDG 1TS140 B3.2	**81323259**
GHV 135 C	Amplifier 35 dB, class according to VF-KDG 1TS140 C3.2	**81323262**
GHV 138 C	Amplifier 38 dB, class according to VF-KDG 1TS140 C4.2	**81323263**
GHV 140 CD	Amplifier 40 dB, class according to VF-KDG 1TS140 D4.3	**81323266**
GPV 150 D	Amplifier 41 dB, class according to VF-KDG 1TS140 D4.4	**81323270**
GPV 150 DL	Amplifier 41 dB, class according to VF-KDG 1TS140 D4.4, remote powering	**81323274**

KLASSE A CLASS

1.218 MHz fixed value attenuator pads ("Aminis")

Highest quality fixed-value attenuator pads with gold-plated pins for adjustment of attenuation, equalization and cable simulation

Item	Value as attenuator	Value as equalizer	Order No.
Amini 0	0 dB	0 dB	**10320000**
Amini 1	1,0 dB	1,0 dB	**10320100**
Amini 2	2,0 dB	2,0 dB	**10320200**
Amini 3	3,0 dB	3,0 dB	**10320300**
Amini 4	4,0 dB	4,0 dB	**10320400**
Amini 5	5,0 dB	5,0 dB	**10320500**
Amini 6	6,0 dB	6,0 dB	**10320600**
Amini 7	7,0 dB	7,0 dB	**10320700**
Amini 8	8,0 dB	8,0 dB	**10320800**
Amini 9	9,0 dB	9,0 dB	**10320900**
Amini 10	10,0 dB	10,0 dB	**10321000**
Amini 11	11,0 dB	11,0 dB	**10321100**
Amini 12	12,0 dB	12,0 dB	**10321200**
Amini 13	13,0 dB	13,0 dB	**10321300**
Amini 14	14,0 dB	14,0 dB	**10321400**
Amini 15	15,0 dB	15,0 dB	**10321500**
Amini 16	16,0 dB	16,0 dB	**10321600**
Amini 17	17,0 dB	17,0 dB	**10321700**
Amini 18	18,0 dB	18,0 dB	**10321800**
Amini 19	19,0 dB	19,0 dB	**10321900**
Amini 20	20,0 dB	20,0 dB	**10322000**

Amini Set in a practical case in 1 dB steps

Small	10 pcs of each 1 – 10 dB	**Order No. 10322300**
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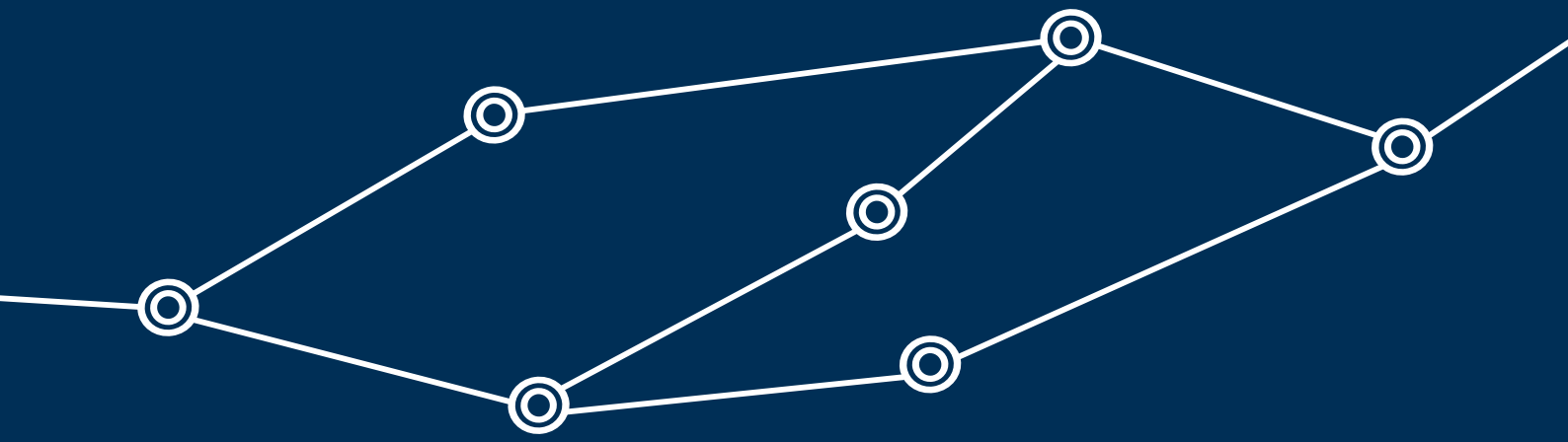

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