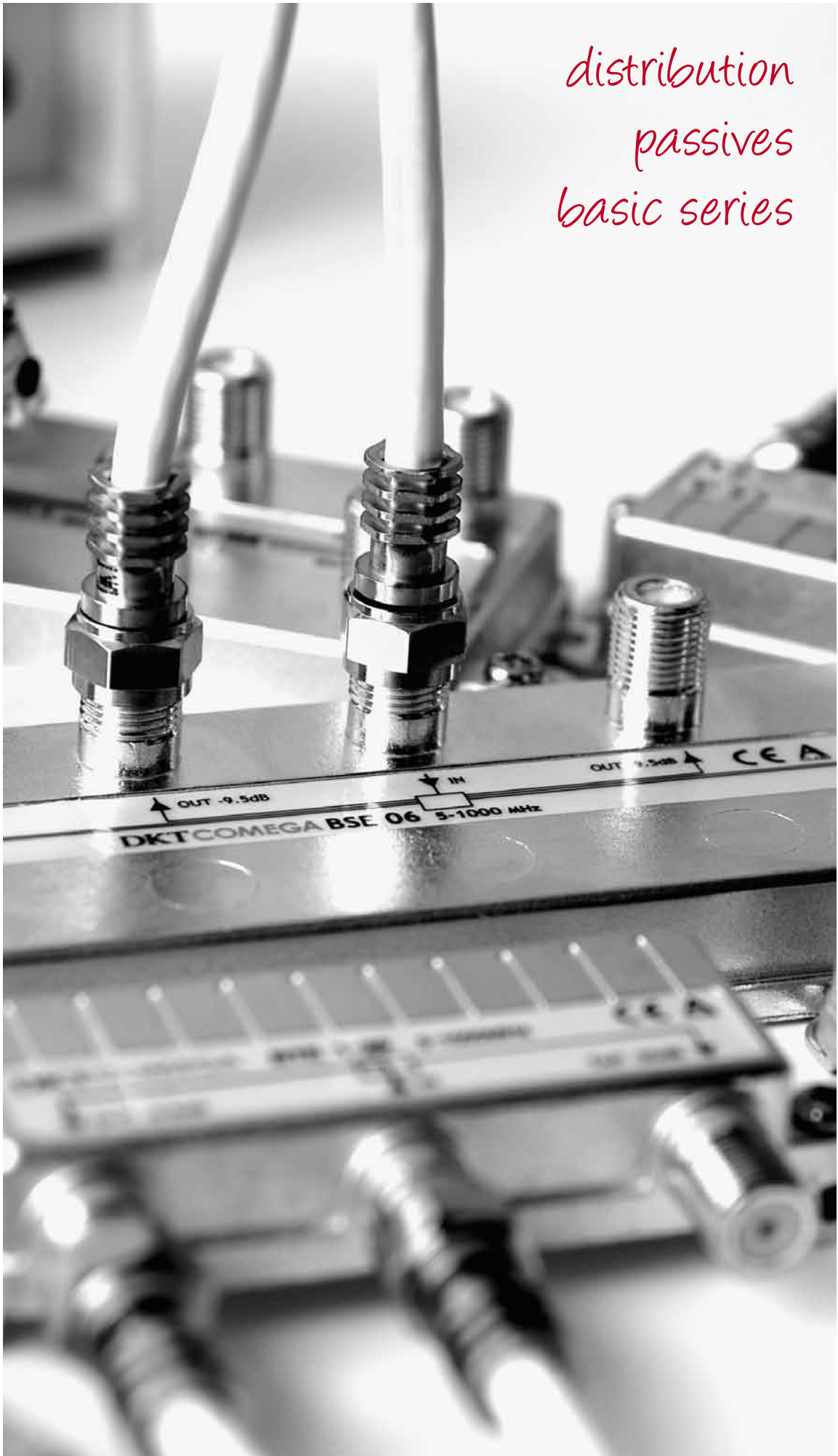


*distribution
passives
basic series*

DKT COMEGA



product introduction

Introduction

The demand for improved signal quality in coaxial networks is increasing, especially as subscribers expect triple play in broadband services. With many years of experience, DKTCOMEGA has a proven track record in the development and distribution of broadband passives. Operators are ensured a wide range of indoor and outdoor products.

Overview

The DKTCOMEGA Basic series consists of high quality cost-attractive passives. It is based upon the renowned and established DKTCOMEGA Master series and includes 1-way through to 8-way CATV digital-ready taps and splitters. Built using environmentally-friendly components and materials, these passives satisfy the demands from professional CATV operators for signal quality and system functionality. The Basic series is fully compatible with DKTCOMEGA's active products and CPEs (Customer Premises Equipment).

Special features

The DKTCOMEGA Basic series incorporates special hardware designs. For example, each F-connector has an innovative 4-finger terminal. These ensure better connections by effectively doubling, and in some cases quadrupling, the number of signal cable contact points when compared with similar products. The DKTCOMEGA Basic series also has optimal frequency tolerances and a solid mechanical construction. Operators and installers benefit from these features as they avoid problems arising from bad return loss, isolation and frequency response, all of which are extremely time consuming to identify and troubleshoot.

Benefits

Product portfolio

- Fully compatible with the DKTCOMEGA Master series
- Protects investment by supporting high frequencies reserved for future use



Product performance

- Stable performance from 5 MHz to 1 GHz satisfying CENELEC EN 50083 Class A
- Optimized for DOCSIS 2.0 and 3.0



Product design

- Built-in AC/DC separators avoiding unwanted current on outputs
- Small, discrete and ergonomic form factor
- Environmentally-friendly zinc alloy and tin-plated enclosure *
- Non-corrosive materials for both indoor and outdoor use
- Fully sealed and screened according to CENELEC Class A for Radio Frequency Interference (RFI) **
- Negligible interference from other services and subscribers †
- Reliable connectivity via four contact points in each F-connector
- Effective grounding lugs †
- Optimal return loss specifications (> 20 dB at 5 - 40 MHz) ‡



WEEE

* Compliant with RoHS (Restriction on the use of Hazardous Substances) and WEEE (Waste in Electrical and Electronic Equipment) directives.

** Tested and approved by p-k-m elektronik GmbH.

EN 50083-2 Class A and EMC screening effectiveness requires:
- minimum 85 dB attenuation for 5-470 MHz
- minimum 75 dB attenuation for 470-860 MHz.

EN 50083-2 Class B and EMC screening effectiveness requires:
- minimum 75 dB attenuation for 5-470 MHz
- minimum 65 dB attenuation for 470-860 MHz.

† Exceeding CENELEC EN 50083-4 Grade 1 for port isolation. Recommended 45 dB isolation (minimum 40 dB for VHF and 36 dB for UHF) including extension leads and other isolation factors.

+ According to CENELEC EN 50083-1 safety standard.

‡ Exceeding CENELEC EN 50083-4 Category B
min. 18 dB @ 5 - 40 MHz 18 dB ÷ 1,5 dB/oct.

1-way taps

Type	Tap loss IN-TAP (dB)				Insertion loss IN-OUT (dB)			Isolation OUT-TAP (dB)	Isolation TAP-TAP (dB)			Item no.
	Frequency range (MHz)				Frequency range (MHz)			Frequency range (MHz)	Frequency range (MHz)			
	5-65	65-470	470-862	862-1000	5-470	470-862	862-1000	5-1000	5-600	600-860	860-1000	
BTE 1-6	6,8	6,5	6,6	6,7	2,2	2,3	2,4	30	-	-	-	41450
BTE 1-9	9,0	8,9	9,0	9,0	1,1	1,3	1,5	31	-	-	-	41451
BTE 1-10	10,4	10,2	10,0	9,8	0,7	1,0	1,3	33	-	-	-	41453
BTE 1-12	12,3	12,2	12,1	12,4	0,5	0,6	0,9	32	-	-	-	41455
BTE 1-16	15,8	15,7	15,9	16,2	0,5	0,6	0,7	39	-	-	-	41458
BTE 1-20	20,0	20,0	19,9	20,1	0,6	0,7	0,9	39	-	-	-	41460
BTE 1-24	23,6	23,5	23,6	24,0	0,5	0,6	0,8	40	-	-	-	41462

Return loss: > 20 dB
 Connectors: F-Female
 Dimensions: 83 x 38 x 18 mm
 Weight: 60 g

Screening effectiveness/RFI:
 Frequency PKM¹ Class A²
 5-30 MHz > 91 dB > 85 dB
 30-300 MHz > 92 dB > 85 dB
 300-470 MHz > 84 dB > 80 dB
 470-950 MHz > 75 dB > 75 dB
 950-1000 MHz > 70 dB > 55 dB



2-way taps

Type	Tap loss IN-TAP (dB)				Insertion loss IN-OUT (dB)			Isolation OUT-TAP (dB)	Isolation TAP-TAP (dB)			Item no.
	Frequency range (MHz)				Frequency range (MHz)			Frequency range (MHz)	Frequency range (MHz)			
	5-65	65-470	470-862	862-1000	5-470	470-862	862-1000	5-1000	5-600	600-860	860-1000	
BTE 2-8	8,5	8,5	8,5	8,5	3,2	3,5	3,7	35	44	46	41	41470
BTE 2-10	10,5	10,5	10,3	10,2	1,6	2,3	2,8	35	43	48	45	41472
BTE 2-12	12,5	12,4	12,3	12,4	1,1	1,4	1,6	35	43	50	47	41474
BTE 2-14	14,5	14,4	14,5	14,7	1,2	1,4	1,5	35	45	50	48	41475
BTE 2-16	16,5	16,4	16,4	16,4	1,0	1,2	1,3	38	54	54	50	41476
BTE 2-18	17,9	17,9	18,1	18,5	0,8	1,1	1,2	38	60	55	51	41477
BTE 2-20	20,0	20,0	19,9	20,0	0,8	1,1	1,3	40	60	62	61	41478
BTE 2-24	23,9	23,9	24,0	24,1	0,8	1,2	1,3	40	63	63	61	41480
BTE 2-26	26,4	26,1	25,8	26,1	0,8	1,2	1,3	40	67	63	61	41479

Return loss: > 20 dB
 Connectors: F-Female
 Dimensions: 133 x 38 x 18 mm
 Weight: 90 g

Screening effectiveness/RFI:
 Frequency PKM¹ Class A²
 5-30 MHz > 91 dB > 85 dB
 30-300 MHz > 92 dB > 85 dB
 300-470 MHz > 84 dB > 80 dB
 470-950 MHz > 75 dB > 75 dB
 950-1000 MHz > 70 dB > 55 dB



¹ Tested and approved by p-k-m electronic GmbH.

² CENELEC EN-50083-2 Class A requirements for the electromagnetic compatibility of equipment.

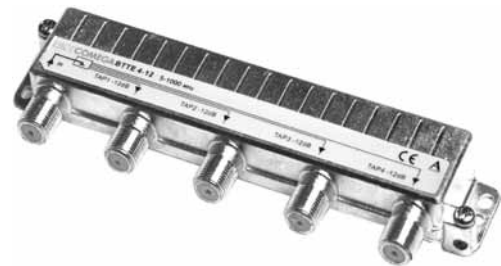
4-way taps

Type	Tap loss IN-TAP (dB)				Insertion loss IN-OUT (dB)			Isolation OUT-TAP (dB)	Isolation TAP-TAP (dB)			Item no.
	Frequency range (MHz)				Frequency range (MHz)			Frequency range (MHz)	Frequency range (MHz)			
	5-65	65-470	470-862	862-1000	5-470	470-862	862-1000	5-1000	5-600	600-860	860-1000	
BTE 4-10	10,7	10,7	10,8	10,8	4,5	5,1	5,9	30	36	33	32	41720
BTE 4-12	12,3	12,2	12,2	12,3	3,8	4,5	5,3	32	39	35	34	41722
BTE 4-14	14,1	14,1	14,4	14,6	2,6	2,7	3,1	32	43	41	41	41724
BTE 4-16	16,2	16,2	16,2	16,4	2,3	2,4	2,7	33	46	46	46	41483
BTE 4-18	18,0	18,0	18,1	18,1	1,8	1,9	2,3	35	48	48	48	41728
BTE 4-20	20,0	20,0	20,1	20,3	1,9	2,1	2,6	37	59	53	53	41484
BTE 4-24	24,2	24,1	24,0	24,2	1,6	1,7	2,1	38	55	55	55	41485
BTTE 4-12*	12,0	12,1	12,2	12,3	-	-	-	-	39	36	35	41482

* Internally terminated, no OUT port

Return loss: > 20 dB
Connectors: F-Female
Dimensions: 133 x 38 x 18 mm
Weight: 100 g

Screening effectiveness/RFI:
Frequency PKM¹ Class A²
5-30 MHz > 91 dB > 85 dB
30-300 MHz > 92 dB > 85 dB
300-470 MHz > 84 dB > 80 dB
470-950 MHz > 75 dB > 75 dB
950-1000 MHz > 70 dB > 55 dB



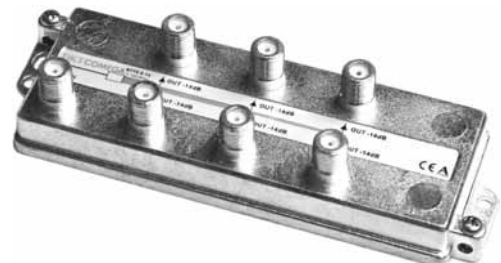
6-way taps

Type	Tap loss IN-TAP (dB)				Insertion loss IN-OUT (dB)			Isolation OUT-TAP (dB)	Isolation TAP-TAP (dB)			Item no.
	Frequency range (MHz)				Frequency range (MHz)			Frequency range (MHz)	Frequency range (MHz)			
	5-65	65-470	470-862	862-1000	5-470	470-862	862-1000	5-1000	5-600	600-860	860-1000	
BTE 6-12	12,4	12,3	12,4	12,8	3,4	3,7	3,9	34	35	35	33	41491
BTTE 6-14*	14,0	14,1	14,2	14,3	-	-	-	-	41	42	40	41493

* Internally terminated, no OUT port

Return loss: > 20 dB
Connectors: F-Female
Dimensions: 137 x 47 x 26 mm
Weight: 150 g

Screening effectiveness/RFI:
Frequency PKM¹ Class A²
5-30 MHz > 91 dB > 85 dB
30-300 MHz > 92 dB > 85 dB
300-470 MHz > 84 dB > 80 dB
470-950 MHz > 75 dB > 75 dB
950-1000 MHz > 70 dB > 55 dB



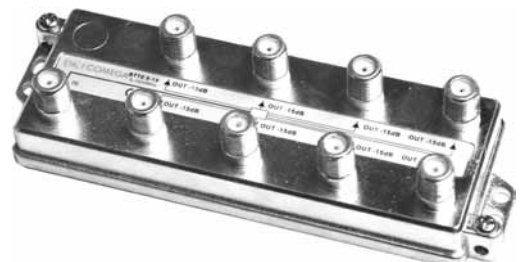
8-way taps

Type	Tap loss IN-TAP (dB)				Insertion loss IN-OUT (dB)			Isolation OUT-TAP (dB)	Isolation TAP-TAP (dB)			Item no.
	Frequency range (MHz)				Frequency range (MHz)			Frequency range (MHz)	Frequency range (MHz)			
	5-65	65-470	470-862	862-1000	5-470	470-862	862-1000	5-1000	5-600	600-860	860-1000	
BTE 8-16	16,3	16,1	16,2	16,3	5,0	5,2	5,7	26	37	36	34	41496
BTE 8-20	20,2	19,9	19,7	20,0	3,8	3,7	4,2	32	40	37	36	41498
BTTE 8-15*	15,0	15,1	15,1	15,2	-	-	-	-	41	39	34	41495

* Internally terminated, no OUT port

Return loss: > 20 dB
Connectors: F-Female
Dimensions: 137 x 47 x 26 mm
Weight: 160 g

Screening effectiveness/RFI:
Frequency PKM¹ Class A²
5-30 MHz > 91 dB > 85 dB
30-300 MHz > 92 dB > 85 dB
300-470 MHz > 84 dB > 80 dB
470-950 MHz > 75 dB > 75 dB
950-1000 MHz > 70 dB > 55 dB



¹ Tested and approved by p-k-m electronic GmbH.

² CENELEC EN-50083-2 Class A requirements for the electromagnetic compatibility of equipment.

basic splitters

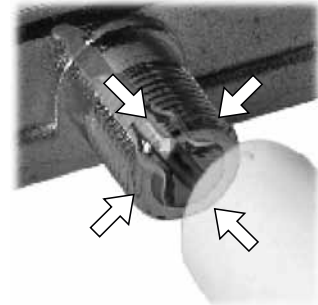
Product information

The Basic splitter series follows the tradition of the Master series. With reliable performance and superb specifications, this cost-attractive and comprehensive series includes 1-way through to 8-way splitters.

Lightweight materials are used to allow easy handling. Mounting wings with oval and round holes provide a choice of vertical or horizontal mounting options. There is easy access to side-mounted F-connectors. On 6-way and 8-way splitters the connectors are mounted on the faceplate.

A unique 4-finger terminal in each female F-connector ensures secure connection to the inner conductor in the mating male connector. This dramatically reduces the likelihood of signal dropout and the subsequent need for network troubleshooting.

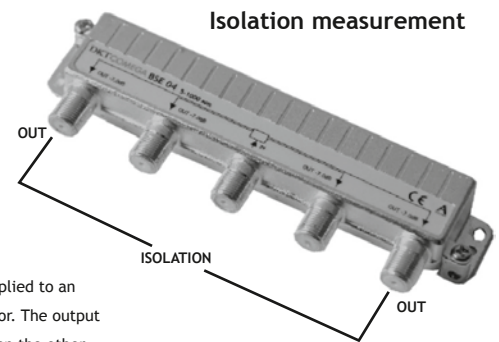
The splitter name, frequency range and all connectors are clearly marked with rugged labels.



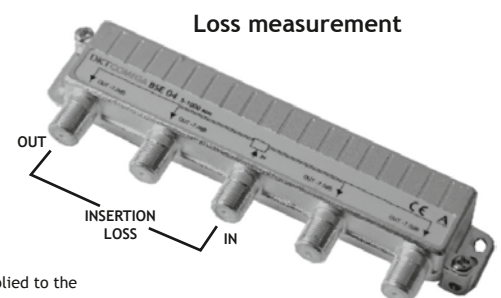
The unique 4-finger terminal ensures a reliable connection to the inner conductor of the coaxial cable.

Basic splitters

Name	Description	Item no.
BSE 02	2-way	40102
BSE 03	3-way	40103
BSE 04	4-way	40104
BSE 06	6-way	40106
BSE 08	8-way	40108



A signal is applied to an OUT connector. The output is measured on the other OUT connectors.



A signal is applied to the IN connector. The output is measured on an OUT connector.

2-way splitters

Type	Insertion loss IN-OUT (dB)			Isolation OUT-OUT (dB)			Item no.
	Frequency range (MHz)			Frequency range (MHz)			
	5-470	470-862	862-1000	5-600	600-860	860-1000	
BSE 02	3,4	3,6	3,8	30	35	30	40102

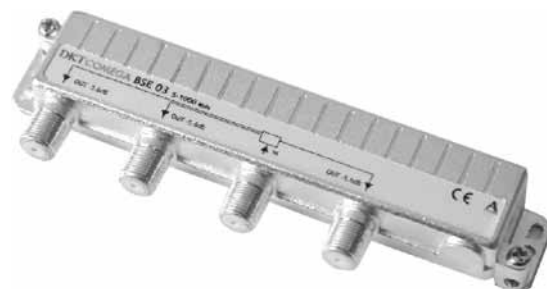
Return loss:	> 20 dB	Screening effectiveness/RFI:	
Connectors:	F-Female	Frequency	PKM ¹ Class A ²
Dimensions:	83 x 38 x 18 mm	5-30 MHz	> 91 dB > 85 dB
Weight:	60 g	30-300 MHz	> 92 dB > 85 dB
		300-470 MHz	> 84 dB > 80 dB
		470-950 MHz	> 75 dB > 75 dB
		950-1000 MHz	> 70 dB > 55 dB



3-way splitters

Type	Insertion loss IN-OUT (dB)			Isolation OUT-OUT (dB)			Item no.
	Frequency range (MHz)			Frequency range (MHz)			
	5-470	470-862	862-1000	5-600	600-860	860-1000	
BSE 03	5,1	5,5	5,8	30	28	25	40103

Return loss:	> 20 dB	Screening effectiveness/RFI:	
Connectors:	F-Female	Frequency	PKM ¹ Class A ²
Dimensions:	133 x 38 x 18 mm	5-30 MHz	> 91 dB > 85 dB
Weight:	90 g	30-300 MHz	> 92 dB > 85 dB
		300-470 MHz	> 84 dB > 80 dB
		470-950 MHz	> 75 dB > 75 dB
		950-1000 MHz	> 70 dB > 55 dB



4-way splitters

Type	Insertion loss IN-OUT (dB)			Isolation OUT-OUT (dB)			Item no.
	Frequency range (MHz)			Frequency range (MHz)			
	5-470	470-862	862-1000	5-600	600-860	860-1000	
BSE 04	6,6	6,9	7,2	35	35	35	40104

Return loss:	> 20 dB	Screening effectiveness/RFI:	
Connectors:	F-Female	Frequency	PKM ¹ Class A ²
Dimensions:	133 x 38 x 18 mm	5-30 MHz	> 91 dB > 85 dB
Weight:	100 g	30-300 MHz	> 92 dB > 85 dB
		300-470 MHz	> 84 dB > 80 dB
		470-950 MHz	> 75 dB > 75 dB
		950-1000 MHz	> 70 dB > 55 dB



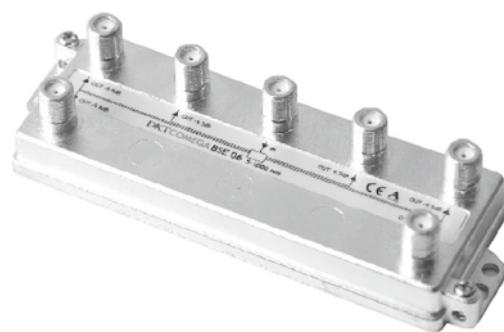
¹ Tested and approved by p-k-m electronic GmbH.

² CENELEC EN-50083-2. Class A requirements for the electromagnetic compatibility of equipment.

6-way splitters

Type	Insertion loss IN-OUT (dB)			Isolation OUT-OUT (dB)			Item no.
	Frequency range (MHz)			Frequency range (MHz)			
	5-470	470-862	862-1000	5-600	600-860	860-1000	
BSE 06	9,0	9,3	9,6	30	28	27	40106

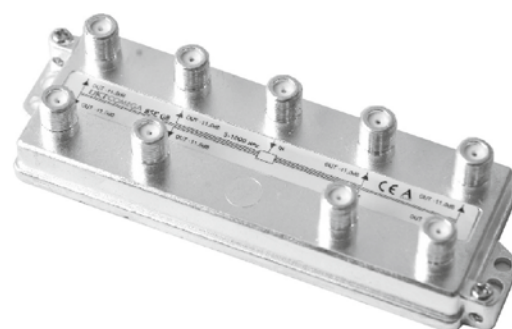
Return loss:	> 20 dB	Screening effectiveness/RFI:	
Connectors:	F-Female	Frequency	PKM ¹ Class A ²
Dimensions:	137 x 47 x 26 mm	5-30 MHz	> 91 dB > 85 dB
Weight:	150 g	30-300 MHz	> 92 dB > 85 dB
		300-470 MHz	> 84 dB > 80 dB
		470-950 MHz	> 75 dB > 75 dB
		950-1000 MHz	> 70 dB > 55 dB



8-way splitters

Type	Insertion loss IN-OUT (dB)			Isolation OUT-OUT (dB)			Item no.
	Frequency range (MHz)			Frequency range (MHz)			
	5-470	470-862	862-1000	5-600	600-860	860-1000	
BSE 08	9,9	10,4	10,8	29	26	23	40108

Return loss:	> 20 dB	Screening effectiveness/RFI:	
Connectors:	F-Female	Frequency	PKM ¹ Class A ²
Dimensions:	137 x 47 x 26 mm	5-30 MHz	> 91 dB > 85 dB
Weight:	150 g	30-300 MHz	> 92 dB > 85 dB
		300-470 MHz	> 84 dB > 80 dB
		470-950 MHz	> 75 dB > 75 dB
		950-1000 MHz	> 70 dB > 55 dB



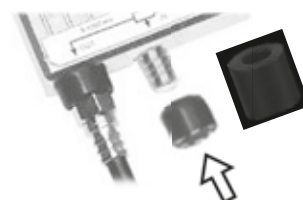
¹ Tested and approved by p-k-m electronic GmbH.

² CENELEC EN-50083-2 Class A requirements for the electromagnetic compatibility of equipment.

accessories for taps and splitters

Type	Description	Item no.
F-TYL	Rubber F-sealing ring	80952

Rubber F-sealing rings maximise the connector's lifetime by inhibiting corrosion and condensation. They also protect the connector's screw thread.



useful terms and standards

DOCSIS

An international standard developed by major companies to define the communication and operation support interface requirements for data over cable systems. DOCSIS 1.0 was issued in March 1997, DOCSIS 2.0 in December 2001 and DOCSIS 3.0 in August 2006.

IEC 169-24

A specification for F-type radio frequency connectors where the male pin or inner coaxial conductor may have a diameter from 0,51 to 1,63 mm.

EN 50083

A standard dealing with cabled distribution systems for television, sound and interactive multimedia signals using all applicable transmission media. Developed by CENELEC the European Committee for Electrotechnical Standardization.

Triple Play

The transfer of voice, video and data over broadband networks.