

 **Click & Go**
modular solutions



Demand-oriented expansion

from coax to fiber outlet

Why Click & Go?

DOCSIS® enables very high data rates on our existing coax cable networks, but what about your wall outlets? Are they ready for extended frequency ranges and splits in up- and downstream? It is a challenge for a network operator to keep the number of truck rolls to the minimum while ensuring that the company remains competitive and business continues to grow. A customer visit is expensive and in many cases not easy to schedule. So when a field technician is on the customer premises for installation and/or upgrade activities, he needs to ensure, that what he or she installs or replaces is future-proof and prepared for DOCSIS® 3.1 and beyond.

By using Click & Go as a migration path from high bandwidth coax towards an FTTH network, the cable operator introduces cost efficiency and flexibility into his network.

The Click & Go product family addresses the continuing and increasing demand for upgradability. By offering a complete family of modular components, braun teleCom is enabling the operator to prepare the network for FTTH services and/or migrating the network from services offered via coax to services offered over fiber – with the lowest loss of previous investments and a minimum in labor cost.

The Click & Go concept can be installed in existing standard in-wall boxes or in surface-mount based installations.

Click & Go wall outlets provide:

- Optical FTTH Network termination with a maximum of 4 optical fibers
- Optical click-in modules with LC/APC connectors, separate internal safety shutters at the front and an integrated fiber management tray with two strain relief clamps for 5 mm and 7 mm micro ducts
- Two single isolated RF click-in modules (90°), either with IEC- or F-type connector
- One 45° angled RF click-in module F-type with a double galvanic isolator, frequency range 5 – 3.000 MHz
- Screening efficiency Class A +15 dB
- An isolation cover cap for contact protection of the RF module back sides
- A metal mounting frame to host 2 click-in modules that can be installed onto standard flush mount boxes with a diameter of 60 mm
- A special surface-mount frame with integrated fiber and splice management as well as a strain relief clamp for a 5 mm micro duct
- A module for including a keystone adapter; this allows terminating CAT cables for example at a CAT6a module with a RJ 45 connector

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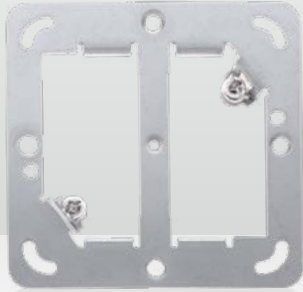
6. AUTHORIZED DISTRIBUTION

Upgrade from HFC to FTTH

using the Click & Go modules

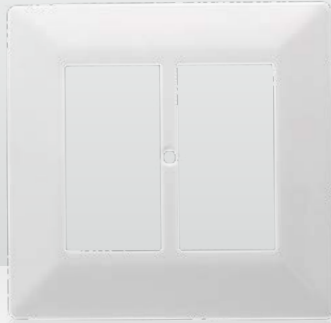
24200120

btv-MMF-1, Metal mounting frame



24200101/-2

btv-TCP-01/btv-TCP-02
Top cover plate



24200001

btv-RFM-1-IEC, RF click-in module IEC-type



24200115

btv-MBP-1, blind plate for click-in module slot



Coax installation

All you need to do in order to perform a simple upgrade from hybrid fiber coaxial (HFC) to pure FTTH is to replace the existing coaxial outlet with the modular Click & Go solution. The products pictured above replace a coaxial outlet (assembled: Fig. right).

Coaxial outlet

- **Metal mounting frame**
btv-MMF-1
Order No. 24200120
- **Top cover plate**
btv-TCP-01/btv-TCP-02
Order No. 24200101/-2
- **RF click-in module IEC-type**
btv-RFM-1-IEC
Order No. 24200001
- **Blind plate (right slot)**
btv-MBP-1
Order No. 24200115



Upgrade to a coax-fiber outlet



Remove the btv-MBP-1 blind plate at the right click-in module slot



Install the btv-OM-1-LC/APC optical click-in module for the right slot



Finished:
Coax-fiber outlet

Possible combinations



- **RF click-in module F-type**
btv-RFM-4-F (left)
Order No. 24200004
- **Optical click-in module**
btv-OM-1-LC/APC (right)
Order No. 24200050
- **Top cover plate**
btv-TCP-01
Order No. 24200101



- **RF click-in module F-type**
btv-RFM-2-F (left)
Order No. 24200002
- **Optical click-in module**
btv-OM-1-LC/APC (right)
Order No. 24200050
- **Top cover plate**
btv-TCP-01
Order No. 24200101



- **Optical click-in module**
btv-OM-3-LC/APC (left)
Order No. 24200055
- **Optical click-in module**
btv-OM-1-LC/APC (right)
Order No. 24200050
- **Top cover plate**
btv-TCP-01
Order No. 24200101



- **RF click-in module IEC-type**
btv-RFM-1-IEC (left)
Order No. 24200001
- **Optical click-in module**
btv-OM-1-LC/APC (right)
Order No. 24200050
- **Top cover plate**
btv-TCP-01
Order No. 24200101
- **2-port POA**
(Push on adapter)



- **RF click-in module IEC-type**
btv-RFM-1-IEC (left)
Order No. 24200001
- **Blind plate (right slot)**
btv-MBP-1
Order No. 24200115
- **Top cover plate**
btv-TCP-01
Order No. 24200101
- **3-port POA**
(Push on adapter)

90° RF modules 5 – 3.000 MHz

IEC-type und F-type



24200002
btv-RFM-2-F



24200001
btv-RFM-1-IEC



24200003
btv-RFM-Mini-IEC

Parameter		Frequency [MHz]	btv-RFM-2-F	btv-RFM-1-IEC	btv-RFM-Mini-IEC
Coax cable to be used	Cable center pin accept range		0,4 – 1,2	0,4 – 1,2	0,4 – 1,2
	Cable outer conductor accept range		4,2 – 5,8	4,2 – 5,8	3,1 – 4,0
	Cable outer jacket accept range		5,7 – 7,2	5,7 – 7,2	4,1 – 5,0
Suitable for			e.g. Ören HD-083, HD-103, HD-113, Belden H126T00, LCD 130 A+	e.g. Ören HD-063, Belden H121T00	
Connectors	IN		Clamp terminal	Clamp terminal	Clamp terminal
	PORT		F-female (9,45 ± 0,05 mm)	IEC-male	IEC-male
Galvanic isolation	(Acc. to IEC-60728-11 2010) (Semi isolated inner to inner conductor)		≤ 8 mA RMS, 230 VAC 50/60 Hz		
Screening	(Acc. to EN50083-2)		Class A +10 dB		
Insertion loss [dB]	IN - PORT	5 – 1.006	0,2 ± 0,2	0,2 ± 0,2	0,2 ± 0,2
		1.006 – 1.700	0,4 ± 0,2	0,4 ± 0,2	0,4 ± 0,2
		1.700 – 2.000	0,5 ± 0,3	0,5 ± 0,3	0,5 ± 0,3
		2.000 – 2.400*	0,8 ± 0,4 typ.	0,8 ± 0,4 typ.	0,8 ± 0,4 typ.
		2.400 – 3.000*	1,5 ± 0,5 typ.	1,5 ± 0,5 typ.	1,5 ± 0,5 typ.
Return loss [dB]	All ports	5 – 12	16 min.	16 min.	16 min.
		12 – 300	20 min.	20 min.	20 min.
		300 – 1.006	18 min.	18 min.	18 min.
		1.006 – 1.700	14 min.	14 min.	14 min.
		1.700 – 2.000	12 min.	12 min.	12 min.
		2.000 – 3.000*	10 min.	10 min.	10 min.
Color			RAL 9010	RAL 9010	RAL 9010
Order No.			24200002	24200001	24200003

* 2.000 – 3.000 MHz typical values

45° angled RF click-in module

5 – 3.000 MHz double galvanic isolated, F-type



24200004
btv-RFM-4-F, RF click-in
module, F-type, RAL 9010

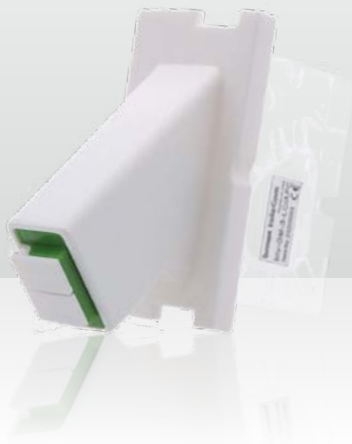
- 45° angled, double galvanic isolated click-in module
- Assembled 20 cm flylead with F-female connector and insulation sleeve, 85 mm length

Parameter		Frequency [MHz]	btv-RFM-4-F	btv-RFM-4-F-W	btv-RFM-4-F-K
Connectors	IN		F-female (EN 61169-24, Ø 9,45 ± 0,05 mm)		
	PORT		F-female (EN 61169-24, Ø 9,45 ± 0,05 mm)		
Galvanic isolation (EN 60728-11 2010)	230 V AC 50/60 Hz		≤ 8 mA Inner (input) – Inner (output)		
	230 V AC 50/60 Hz		≤ 2 mA typ. Outer (input) – Outer (output)		
	2.120 V DC		≤ 0,7 mA Inner (input) – Inner (output)		
	2.120 V DC		≤ 0,7 mA Outer (input) – Outer (output); Outer (input) – Outer (output) during 1 minute		
Screening	(acc. to EN50083-2)		Class A +15 dB		
Insertion loss [dB]	IN - PORT	5 – 1.006	0,5 ± 0,3	0,5 ± 0,3	0,5 ± 0,3
		1.006 – 1.700	0,7 ± 0,7	0,7 ± 0,7	0,7 ± 0,7
		1.700 – 2.000	0,9 ± 0,7	0,9 ± 0,7	0,9 ± 0,7
		2.000 – 2.400	0,9 ± 0,7 typ.	0,9 ± 0,7 typ.	0,9 ± 0,7 typ.
		2.400 – 3.000	1,9 ± 0,7 typ.	1,9 ± 0,7 typ.	1,9 ± 0,7 typ.
Return loss [dB]	All ports	5 – 12	14 min.	14 min.	14 min.
		12 – 300	20 min.	20 min.	20 min.
		300 – 1.006	18 min.	18 min.	18 min.
		1.006 – 1.700	14 min.	14 min.	14 min.
		1.700 – 2.000	12 min.	12 min.	12 min.
		2.000 – 3.000*	12 typ.	12 typ.	12 typ.
Color			RAL 9010	RAL 9003 white	RAL 9017 black
Order No.			24200004	24200005	24200006

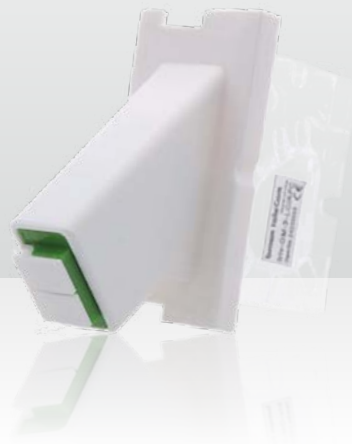
* 2.000 – 3.000 MHz typical values

45° angled optical click-in modules

with LC/APC duplex adapter



24200055
btv-OM-3-LC/APC, optical click-in module, left slot



24200050
btv-OM-1-LC/APC, optical click-in module, right slot

- Separate internal horizontal shutters (dust-proof and additional laser safety)
- Integrated fiber management tray with strain reliefs for 5 mm and 7 mm micro ducts
- Optical FTTH network termination for maximum 4 fibers on a single metal adapter frame

Parameter	btv-OM-1-LC/APC	btv-OM-1-LC/APC-W	btv-OM-1-LC/APC-K	btv-OM-3-LC/APC	btv-OM-3-LC/APC-W	btv-OM-3-LC/APC-K
Fiber ferrule polished angle	8°	8°	8°	8°	8°	8°
Color (connector)	Green	Green	Green	Green	Green	Green
Dust cover	Dual spring loading safety shutter					
Lock mechanism	Latch					
Ferrule sleeve material	Full ceramic zirconia					
Adapter material	PC (UL 94-VO)	PC (UL 94-VO)	PC (UL 94-VO)	PC (UL 94-VO)	PC (UL 94-VO)	PC (UL 94-VO)
Insertion loss with two connectors connected [dB max.]	0,25	0,25	0,25	0,25	0,25	0,25
Return loss with two connectors connected [dB min.]	60	60	60	60	60	60
Operating temperature [°C]	-40 – +75 °C	-40 – +75 °C	-40 – +75 °C	-40 – +75 °C	-40 – +75 °C	-40 – +75 °C
Slot	Right	Right	Right	Left	Left	Left
Color (housing)	RAL 9010	RAL 9003 white	RAL 9017 black	RAL 9010	RAL 9003 white	RAL 9017 black
Order No.	24200050	24200051	24200052	24200055	24200056	24200057

Keystone modules

with suitable, 45° angled adapter



24200090
btv-KSM-1, Keystone
click-in module, 45°



22300410
Module keystone
RJ45 to Cat 6 A

btv-KSM-1

- Keystone click-in module, adapter for inserting a keystone module
- 45° angled
- Fits into the right slot

- Color RAL 9010
- Suitable for every keystone module listed below

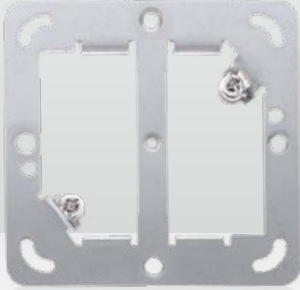
Order No. 24200090

Parameter	Module keystone RJ45 to Cat 5 e	Module keystone RJ45 to Cat 6 +	Module keystone RJ45 to Cat 6 A	Module keystone RJ45 to Cat 6 A	Module keystone RJ45 to Cat 6 A, ICS 500
Dimensions (H x W x D) [mm]	24 x 16,2 x 38,7	24 x 16,2 x 38,7	24 x 16,2 x 40	20 x 16 x 34	21,8 x 14,5 x 38
Module from	RJ 45	RJ 45	RJ 45	RJ 45	RJ 45
Module to	Cat 5 e	Cat 6 +	Cat 6 A	Cat 6 A	Cat 6 A, ICS 500
Connector	REV Connect	REV Connect	REV Connect	Installation without special tool	Installation without special tool
Order No.	22300407	22300408	22300409	22300410	22300412

Accessories

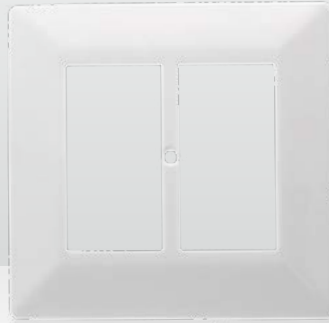
24200120

btv-MMF-1, Metal mounting frame



24200101

btv-TCP-01 Top cover plate



24200105

btv-TCP-05, Top cover plate, European standard



24200110

btv-BC-05, Blind cap for top cover plate



Item	Description	Order No.
btv-MMF-1	Metal mounting frame, 2 slots 25 x 50 mm A metal mounting frame to host 2 click-in modules that can be installed into a standard flush-mounted box with a diameter of 60 mm or into the surface mount frame SAD 163, 2 fixing claws are included	24200120
btv-TCP-01	Top cover plate 80 x 80 x 6,5 mm, color RAL 9010, with 2 slots each 25 x 50 mm	24200101
btv-TCP-02	Top cover plate 88 x 88 x 6,5 mm, color RAL 9010, with 2 slots each 25 x 50 mm	24200102
btv-TCP-05	Top cover plate acc. to the European standard, color RAL 9010 and a blind cap at the right hole, 80 x 80 x 8,5 mm	24200105
btv-BC-05	Blind cap for the top cover plate btv-TCP-05, color RAL 9010, dimensions 15,5 x 3 mm	24200110

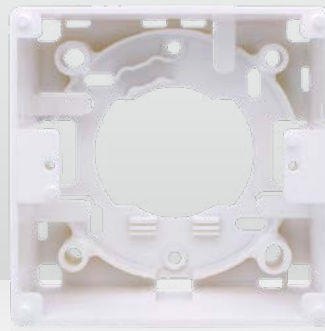
24200115

btv-MBP-1, Blind plate for click-in module slot



22080805

SAD 163, Surface mount frame



24200040

btv-RFM-back-cover, Protection back cover for RF modules (Fig. installed on IEC module)



Item	Description	Order No.
btv-MBP-1	Blind plate for click-in module slot, color RAL 9010	24200115
btv-MBP-1-W	Blind plate for click-in module slot, color RAL 9003 white	24200116
btv-MBP-1-K	Blind plate for click-in module slot, color RAL 9017 black	24200117
SAD 163	Surface mount frame with integrated fiber and splice management as well as a strain relief clamp for 5 mm micro duct. This frame can be easily mounted on a standard 55 mm flush-mounted box, 80 x 80 x 35 mm	22080805
btv-RFM-back-cover	Isolation back cover for the RF click-in modules btv-RFM-1-IEC and btv-RFM-2-F	24200040

Coaxial stub end stripper CSS-5097

for RG59 and RG6 cables



55295004
Coaxial cable stripper
CSS-5097



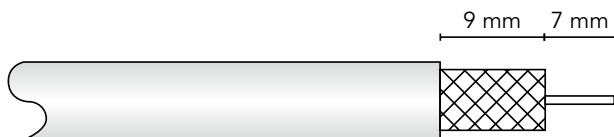
55295006
Replacement blade
cartridge CSS-115

Easy to use:

The CSS-5097 is a coaxial stub end cable stripper specially designed for end-stripping RG6 and RG59 coaxial cables terminating the RF modules within the Click & Go series.

Insert the cable into the stripping tool and make a few turns to cut the sheathing, braiding and dielectricum according to the specification of the Click & Go RF modules. Due its sophisticated design, the tool will not cut the braiding or score the centre conductor. The blade cartridge can easily be changed and replaced when required.

The cable cartridge is equipped with an integrated limit stop for a constant and precise cable stripping length:



The Cable Stripping Knife is suitable for:

- RG6 cables like the HD-103,
- RG59 cables,
- Especially designed for terminating RG59 and RG6 coaxial cables on the RF modules from the Click & Go product line.



24200001
btv-RFM-1-IEC
RF click-in module, IEC-type



24200002
btv-RFM-2-F
RF click-in module, F-type

Parameter	CSS-5097 & CSS-115
Color of the coaxial stub end stripper CSS-5097	Blue
Color of the blade cartridge CSS-115	Light blue
Length outer conductor	9 mm
Length inner conductor	7 mm
Order No. Coaxial stub end stripper CSS-5097	55295004
Order No. Blade cartridge CSS-115	55295006

Preinstalled modules

in practical box, on unwinder



Click & Go Install kit

The Click & Go Install kit offers a practical self-install possibility for the end user or a enormous saving of time for the technician. Splicing within the apartment is obsolete, from now on we are able to take on high-quality installing for you! Besides regular cable lengths like 20 m, 30 m or 50 m, we can also provide individual lengths.

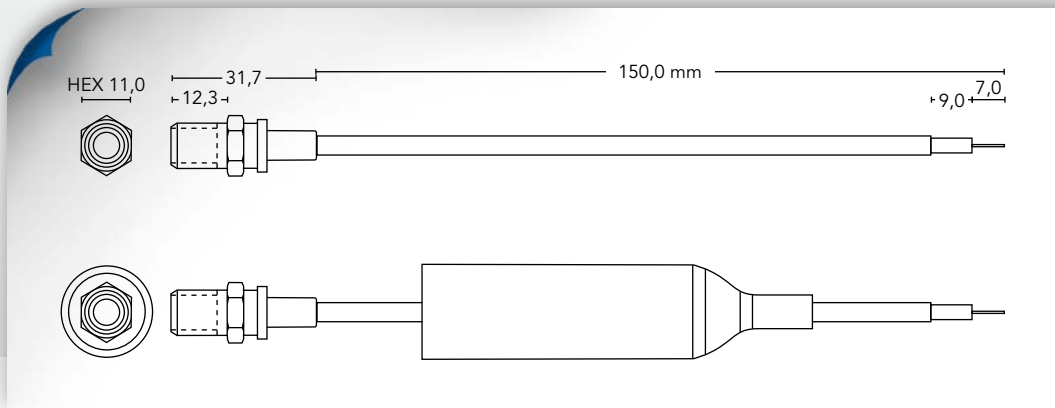
This way the fiber can be directly connected to the termination box, which is the access to your optical network. Generally we use the G657 fiber at a 4 mm cable, but we are happy to provide further cable types as well.

Order No. upon consultation



Flylead extension cable

for RF click-in modules



Technical drawing
of the extension cable



Parameter	Frequency [MHz]	btv-RFM-flylead	
Cable type		Ören HD-063 (0,6/2,7) Class A+ EN 50117	
Connector type		1 end F-female 1 end open	
Connector material		Brass, NiSn 65/35 plated Inner pin: BeCu, tin plated	
Insulation sleeve		Black soft PVC, 85 mm long	
Weight		20,5 g (with rubber boot)	
Tensile strength (F-female connector) [N]		≥ 7	
Length [cm]	Without connector	15	
	Including connector	18	
Insertion loss [dB]	IN – OUT	5 – 12	0,3 max.
		12 – 30	0,3 max.
		30 – 300	0,3 max.
		300 – 470	0,3 max.
		470 – 1.006	0,3 max.
		1.006 – 1.700	0,5 max.
		1.700 – 2.000	0,5 max.
		2.000 – 2.400*	0,5 typ.
2.400 – 3.000*	0,5 typ.		
Return loss [dB]	All ends	5 – 12	30 min.
		12 – 30	30 min.
		30 – 300	30 min.
		300 – 470	30 min.
		470 – 1.006	25 min.
		1.006 – 1.700	23 min.
		1.700 – 2.000	23 min.
		2.000 – 2.400*	18 typ.
2.400 – 3.000*	18 typ.		
Screening (EN 50083-2) [dB]	Class A +10 dB	5 – 30	95 min.
		30 – 300	95 min.
		300 – 470	90 min.
		470 – 1.006	85 min.
		1.006 – 1.700	80 min.
		1.700 – 2.000	70 min.
		2.000 – 2.400*	70 typ.
		2.400 – 3.000*	60 typ.
Impedance [Ω]		75	
Order No.		24200010	

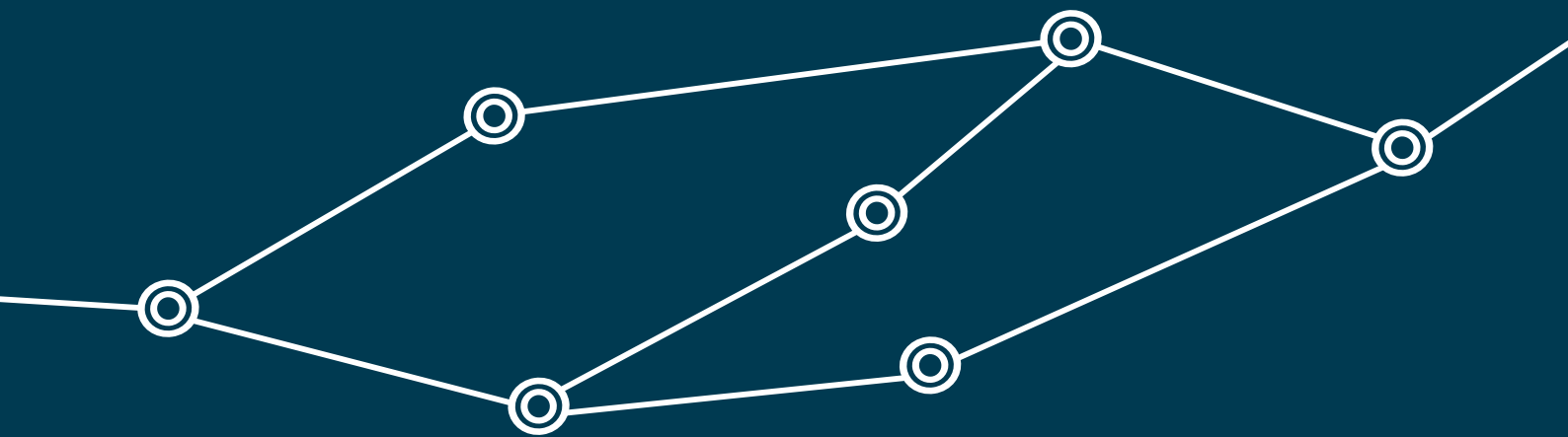
* 2.000 – 3.000 MHz is optional

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

We look forward to your call!
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