

CMA module adapters and CLP line protection modules

CMA0x5 module adapters are intended for stand-alone installations of CFO series units.

CLP line protection modules providing a common mode interference rejection for video inputs and a surge/transient voltage protection for all audio and data lines.



Contents

- CMA015, 025 & CMA035 - Module adapters 1**
 - General 1
 - Installation 1
 - Mounting CLP line series modules 4
 - Supply voltage..... 5
- Technical Specifications 6**
- CLP - Video and Line Protection Series Introduction 7**
 - General 7
 - Features 7
- CLP - Front and top panel 8**
 - Front panel - interfaces towards CFO 8
 - Top panel - interfaces towards external devices 9
 - Stand-alone installation..... 10
 - Dismounting 13
 - Configurations 14
- Technical Specifications 16**
- Legal declarations 17**

CMA015, 025 & CMA035 - Module adapters

The CMA015, 025 & CMA035 module adapters are intended for stand-alone installations of CFO series units.

Welcome, and thank you for purchasing Teleste's CFO Products.

General

The **CMA015** is intended for stand-alone installations of 5HP wide CFO series units.

The **CMA025** is intended for stand-alone installations of 10HP wide CFO series units. It can be used also for installation of two 5HP wide CFO units.

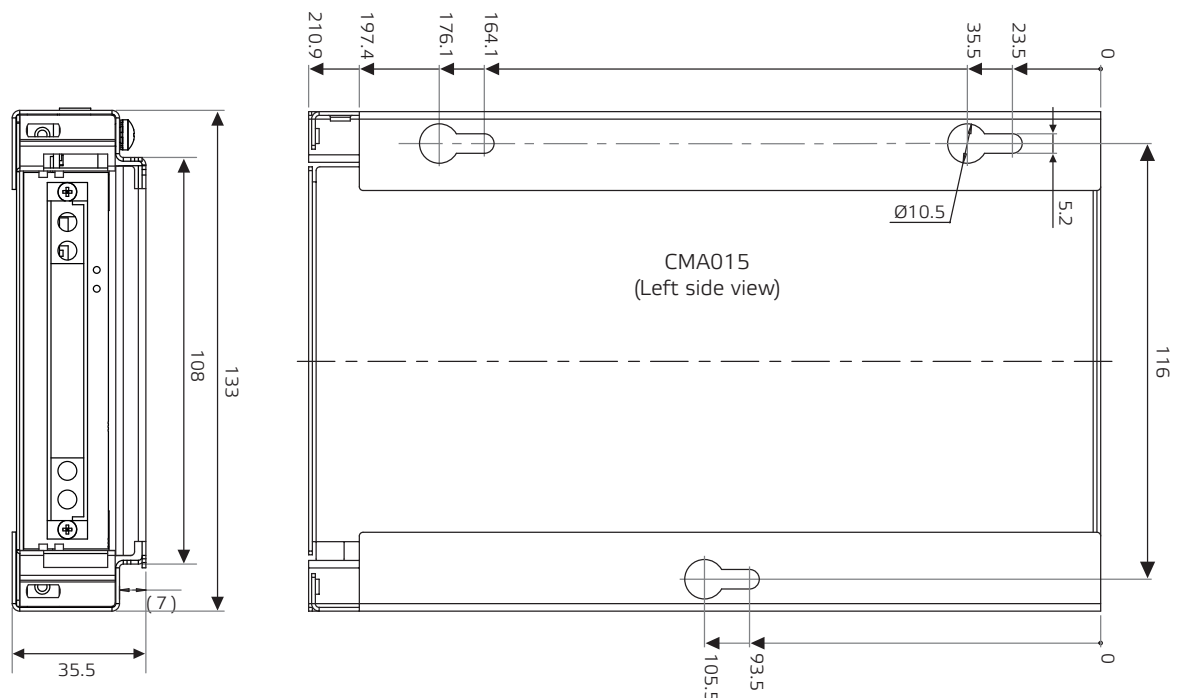
The **CMA035** is intended for stand-alone installations of 15HP wide CFO series units. It can be used also for installation combinations of either 3 x 5HP units or 1 x 5HP and 1 x 10HP units.

Installation

The module adapter is to be mounted to a vertical installation surface by the means of three screws. The slot for the CFO card unit should point to the left. Installation location must be a dry indoor environment*.

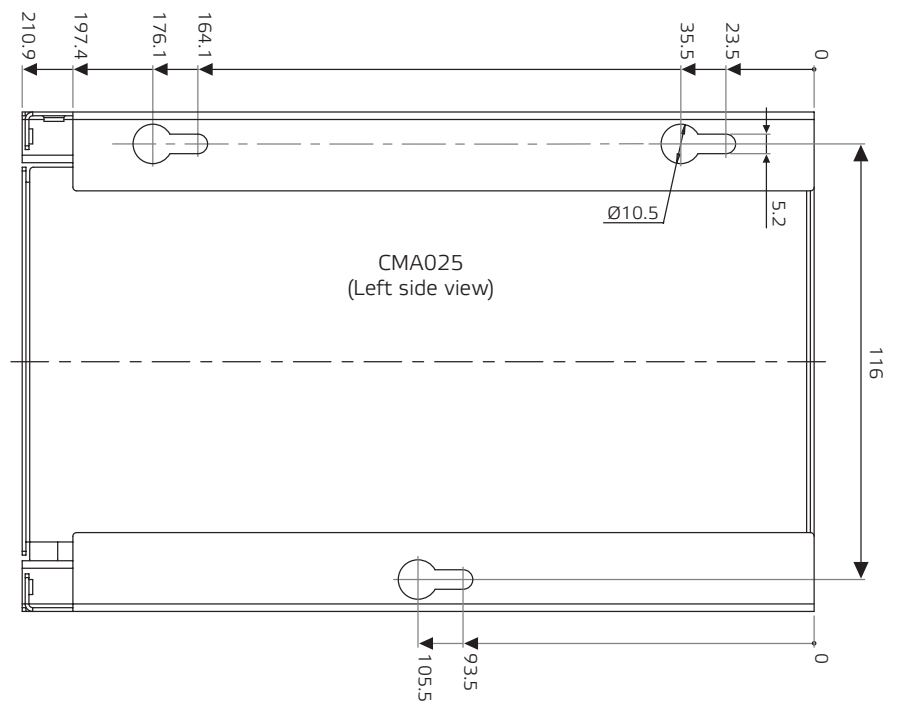
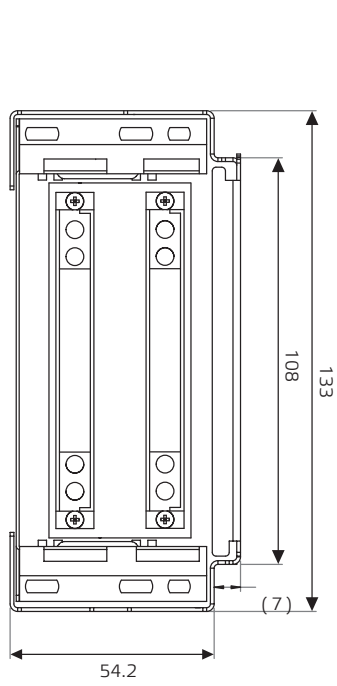
To insert a CFO card unit into the module adapter, push the unit along the guide rails into module until the unit is firmly attached.

Secure the plug-in unit with the upper and lower locking screws.

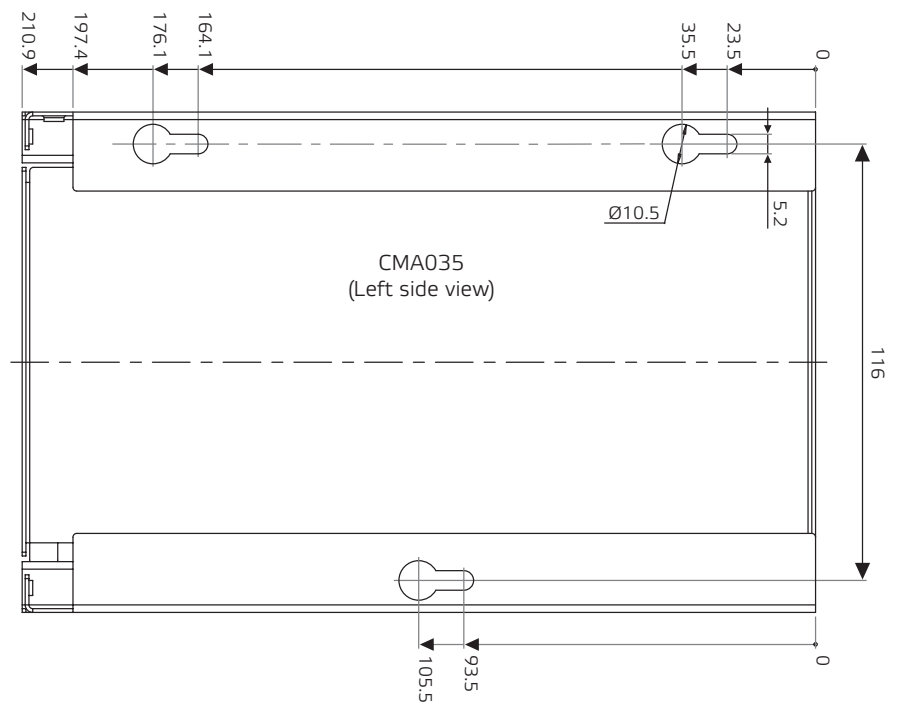
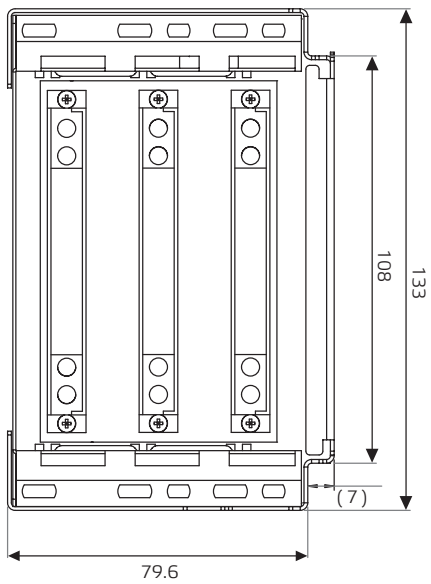


CMA015 Dimensions

* IP housing classification is IP20.

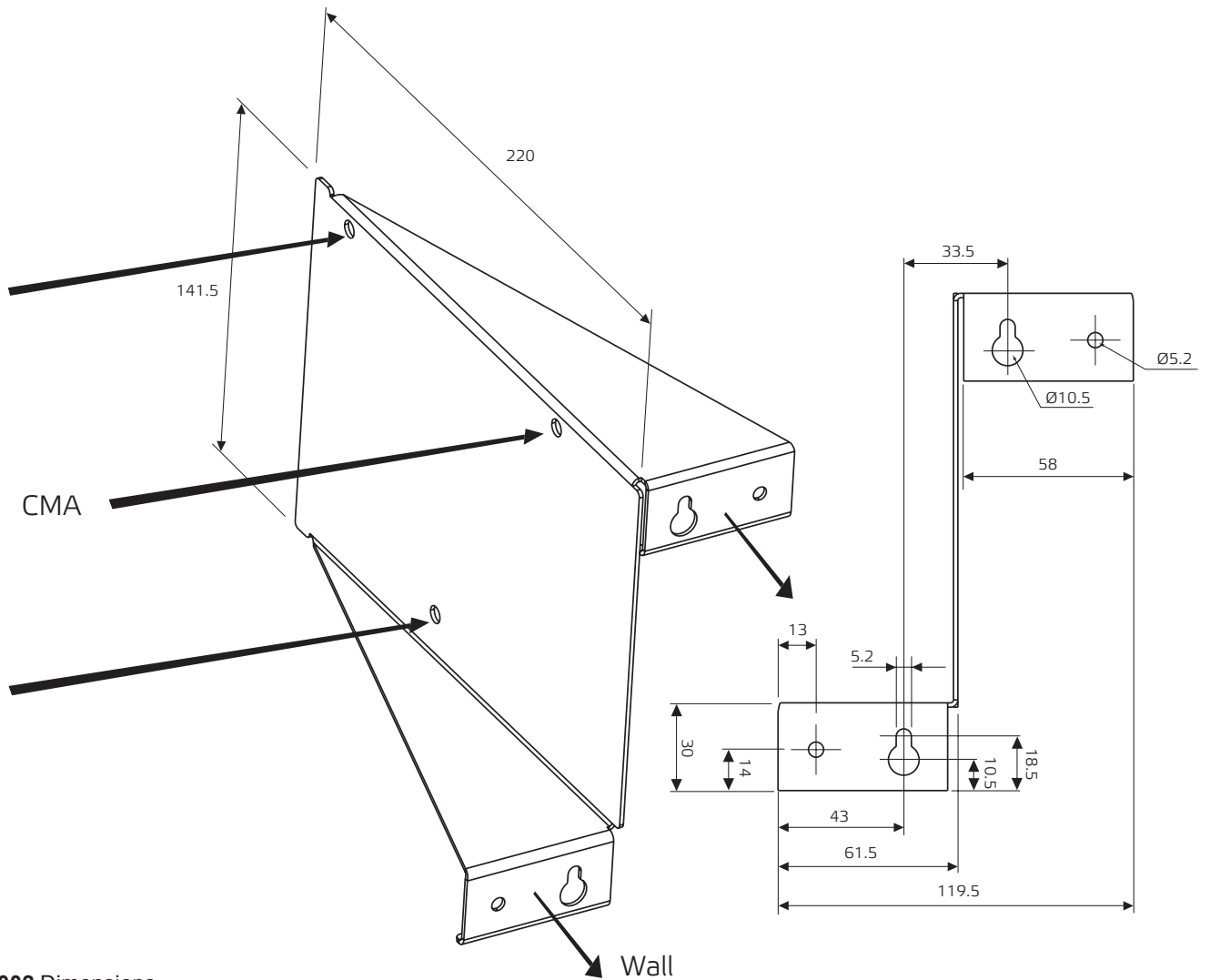


CMA025 Dimensions



CMA025 Dimensions

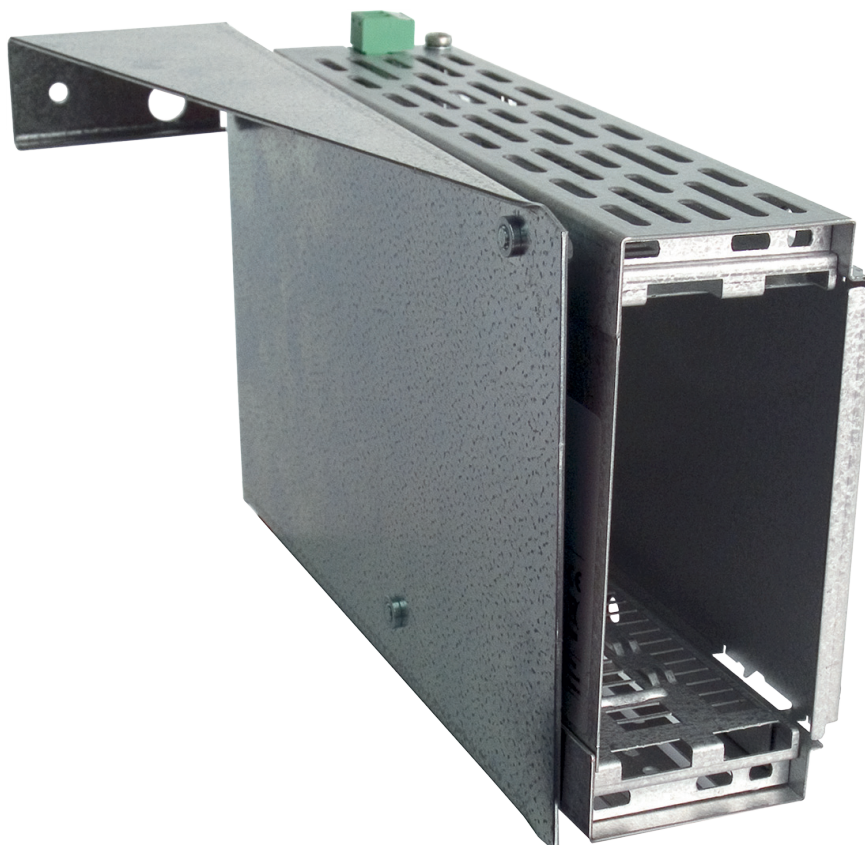
By using an optional mounting kit (item code CIK002) a rear side mounting is enabled (see also picture on next page)..



CIK002 Dimensions

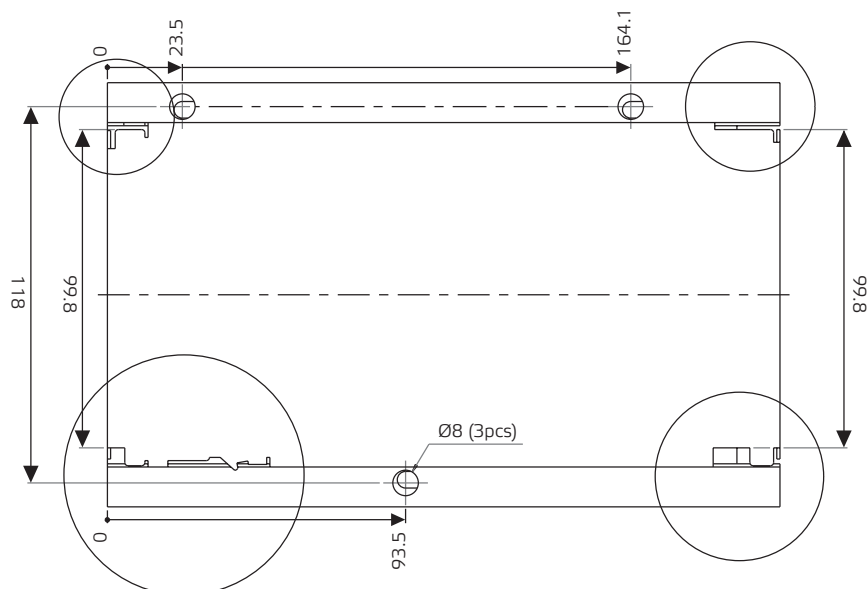
CMA025 module adapter with CIK002 rear mounting kit.

For limited space installation the CMA module adapters can be rear-mounted by means of an optional installation kit CIK002.



Mounting CLP line series modules

The CMA015, 025 and 035 has a direct mounting interface for CLP line series modules. Please see section CLP line protection modules, page 7.

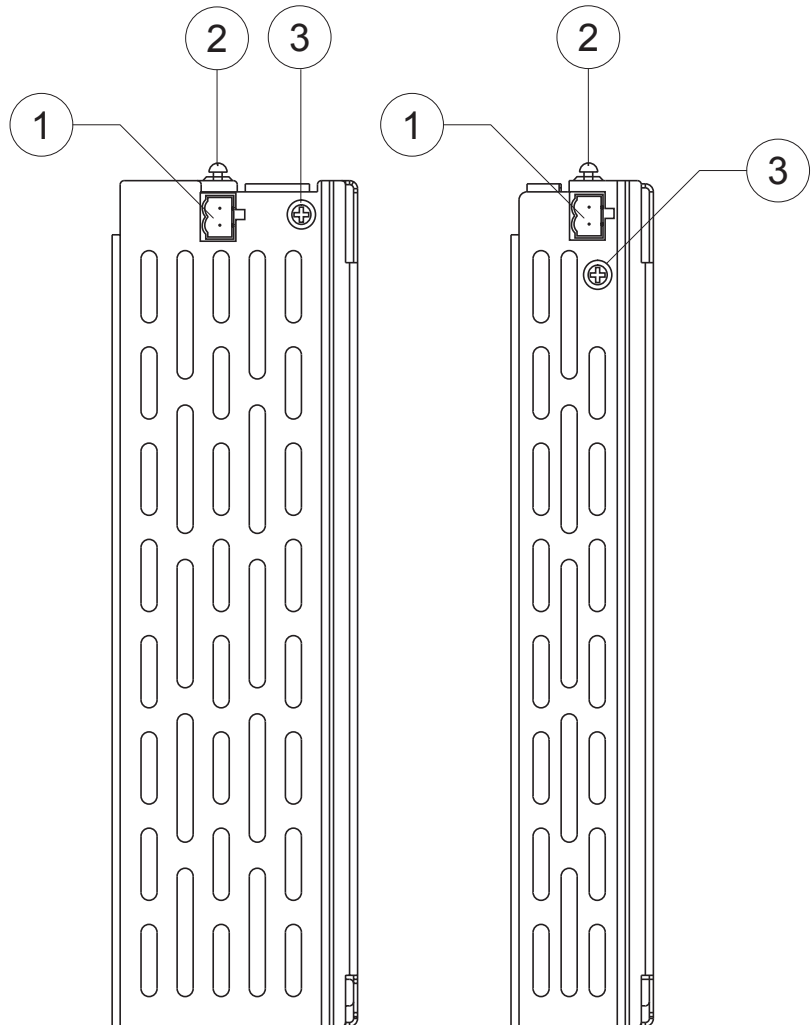
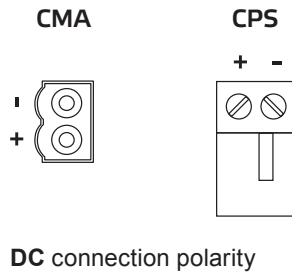


CMA0x5 module adapter (right side view, compatible for CLP mounting)

Supply voltage

+12 V DC Supply voltage is provided by a CPS25x series mains adapter (12 V DC, 3.3 A). The DC socket (2-pin removable screw, located on top) is supplied with the CMA module adapter. See instructions provided with CPS25x to connect the DC wires with correct polarity.

Supply voltage (+ 12 V DC) is feeded trough separe power connector.



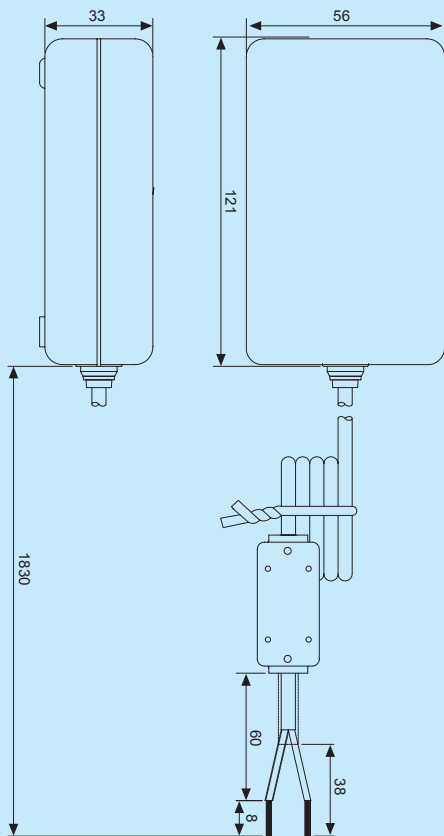
CMA025 and CMA015 module adapters (top view)

1. Supply voltage connector
2. Grounding connector
3. Grounding connector for CLP line protection units

Technical Specifications

CMA015/025/035 module adapters& CIK002 Optional mounting kit		
Dimensions (H x W x D) mm	133 • 35.5 • 210.9	CMA015
	133 • 61.2 • 210.9	CMA025
	133 • 86.6 • 210.9	CMA035
	171.5 • 119.5 • 220	CIK002
Weight	0.60 kg	CMA015
	0.70 kg	CMA025
	0.85 kg	CMA035
	0.55 kg	CIK002

CPS251/252/253 12VDC Mains Adapters		
CPS251	230 VAC - 12 VCD / 3.3 A	EU mains cable
CPS252	230 VAC - 12 VCD / 3.3 A	UK mains cable
CPS253	115 VAC - 12 VCD / 3.3 A	US mains cable
Dimensions (H x W x D) mm	33 • 56 • 121 mm (1.3 • 2.2 • 4.8")	
Weight	0.250 kg (0.551 lbs)	
Output current	3.3 A	at +40°C
	2.1 A	at +74°C
Operating temperature	-34...+74°C (-29...165°F)	



Typical values unless otherwise stated

CLP - Video and Line Protection Series Introduction

CLP001:	Single channel video coil and line protection
CLP002:	Line protection only
CLP003:	Four channel video coil (ch1...4)
CLP004:	Four channel video coil (ch5...8)

Welcome, and thank you for purchasing Teleste's CFO Products.

General

CLP line protection modules are meant for standalone CFO installations on sites where is a clear need either for overvoltage protection (lightning) or mains hum (50 Hz and harmonics) suppression, or even for both. CLP series units are designed to be attached over a CMA series standalone adapter and several units can be bundled over each other. Therefore alternative module combinations can be provided for either single channel, 4-channel or even 8- channel video modem operation. (Supported video modems are CFO4x0 / 8x0 / x61 / x91 and 4-ch / 8-ch CEV models).

The design for video protection is based on inductor coils that reduce the effect of common mode type interference easily induced into coaxial cable carrying video signal on areas where strong or rapidly changing electrical fields do exist. A minimum attenuation or any other effect is exposed to the video signal itself.

In addition to above all signal lines used are provided with gas discharge tubes as efficient surge voltage arrestors as well as with protective diodes for transient overvoltages.

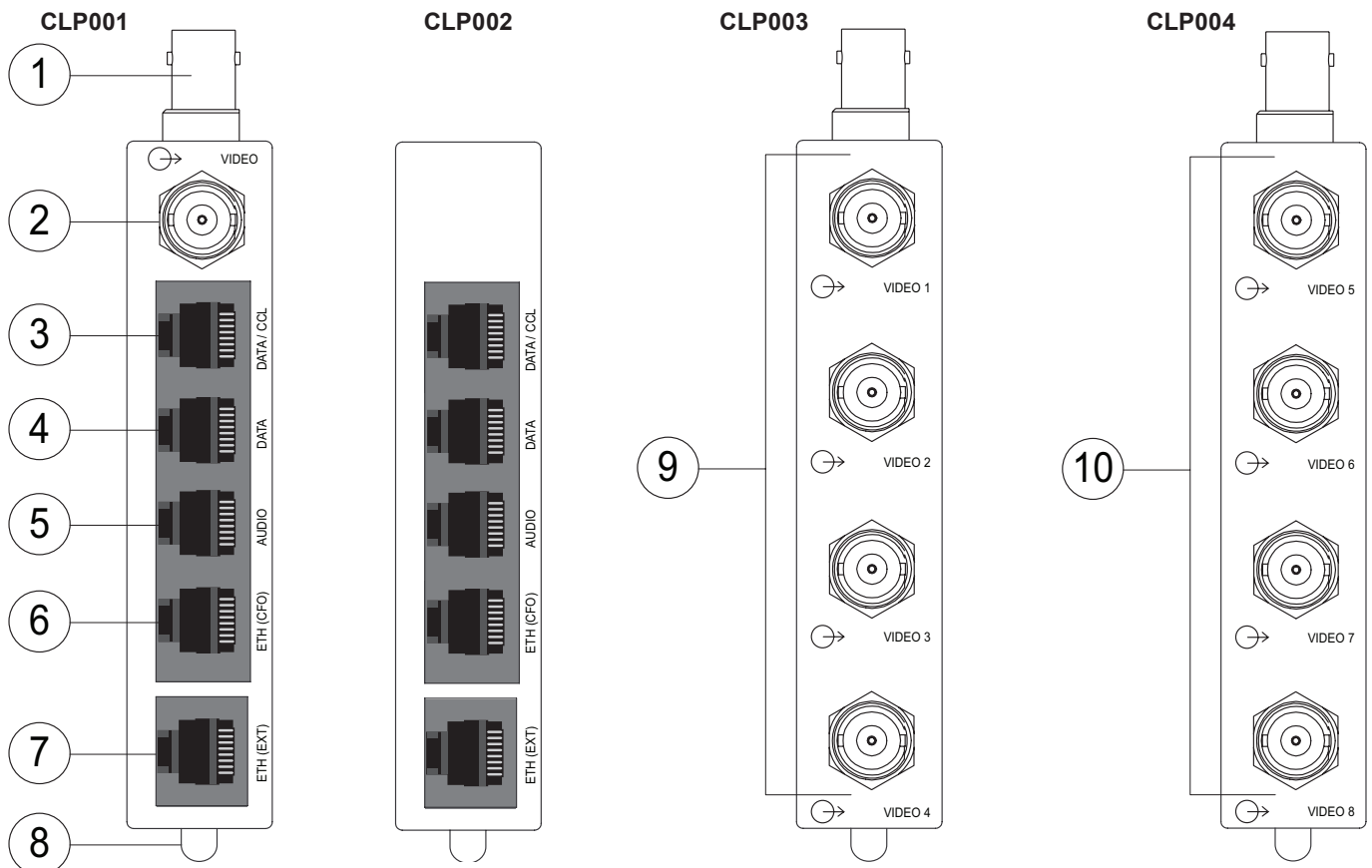
All connection cables needed between video modem and CLP unit(s) are included in the package. All the wires/cables needed between external devices and CLP units can be easily connected to blocks of screw terminal connectors at the top of the unit. For camera/video connections units are provided with isolated BNC connectors.

The permitted operational temperature range for stand-alone devices is -34...+74 °C.

Features

- Unique design.
- Line protection for all video/data/audio/cc channels.
- Provides failsafe operation for standalone installations exposed to lightning etc.
- Mechanically compact and ruggedised.
- Environmental conformance.
- Compatible with CMA installation systems.

CLP - Front and top panel

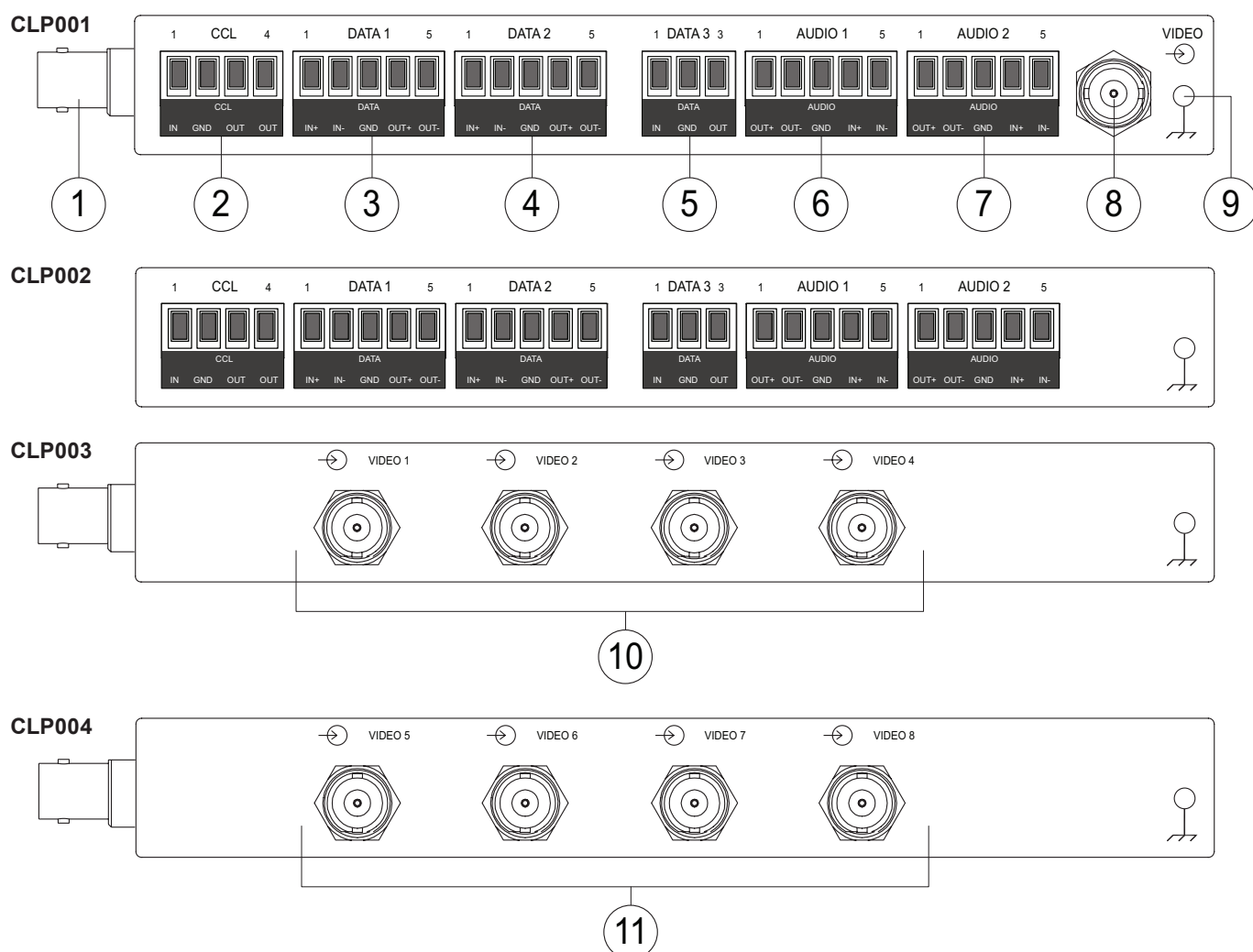


CLP001, CLP002, CLP003 and CLP004 front panel mechanical connections.

Front panel - interfaces towards CFO

1. Video input(s) (BNC female).
2. Video output (BNC female).
3. DATA 1 & CCL connector (RJ-45 female).
4. DATA 2 & 3 connector (RJ-45 female).
5. AUDIO 1 & 2 connector (RJ-45 female).
6. ETH (CFO), Ethernet bridge port, connector (RJ-45).
7. ETH (EXT) connector (RJ-45).
8. Locking mechanism.
9. Video outputs, channels 1...4 (BNC female).
10. Video outputs, channels 5...8 (BNC female).

These interfaces are connected with the respective interfaces on the video modem (required cables are included in the package).

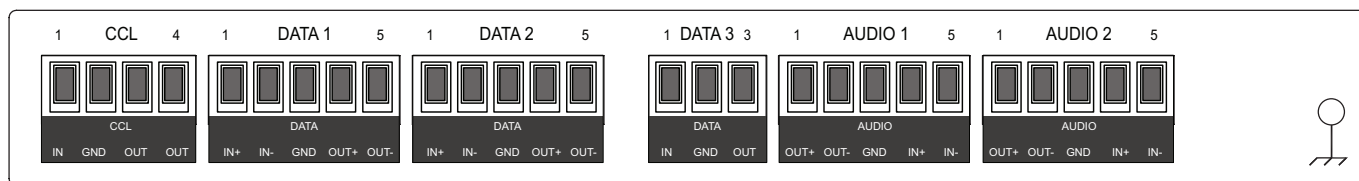


CLP001, CLP002, CLP003 and CLP004 top panel mechanical connections.

Top panel - interfaces towards external devices

1. Video output (BNC female).
2. CLL connector (Screw terminal, 4-pin).
3. DATA 1 connector (Screw terminal, 5-pin).
4. DATA 2 connector (Screw terminal, 5-pin).
5. DATA 3 connector (Screw terminal, 3-pin).
6. AUDIO 1 connector (Screw terminal, 5-pin).
7. AUDIO 2 connector (Screw terminal, 5-pin).
8. Video input (BNC female).
9. Grounding cable.
10. Video inputs, channels 1...4 (BNC female).
11. Video inputs, channels 5...8 (BNC female).

These interfaces are connected with the external devices (cables are not included).



Connector	Pin	Signal
CCL	1	in
	2	GND
	3	out
	4	out
Data 1	1	in +
	2	in -
	3	GND
	4	out +
	5	out -
Data 2	1	in +
	2	in -
	3	GND
	4	out +
	5	out -
Data 3	1	in
	2	GND
	3	out
Audio 1	1	out +
	2	out -
	3	GND
	4	in +
	5	in -
Audio 2	1	out +
	2	out -
	3	GND
	4	in +
	5	in -

CLP001 and **CLP002** internal connectors pinout (pin numbering is labelled to the CLP unit).

Stand-alone installation

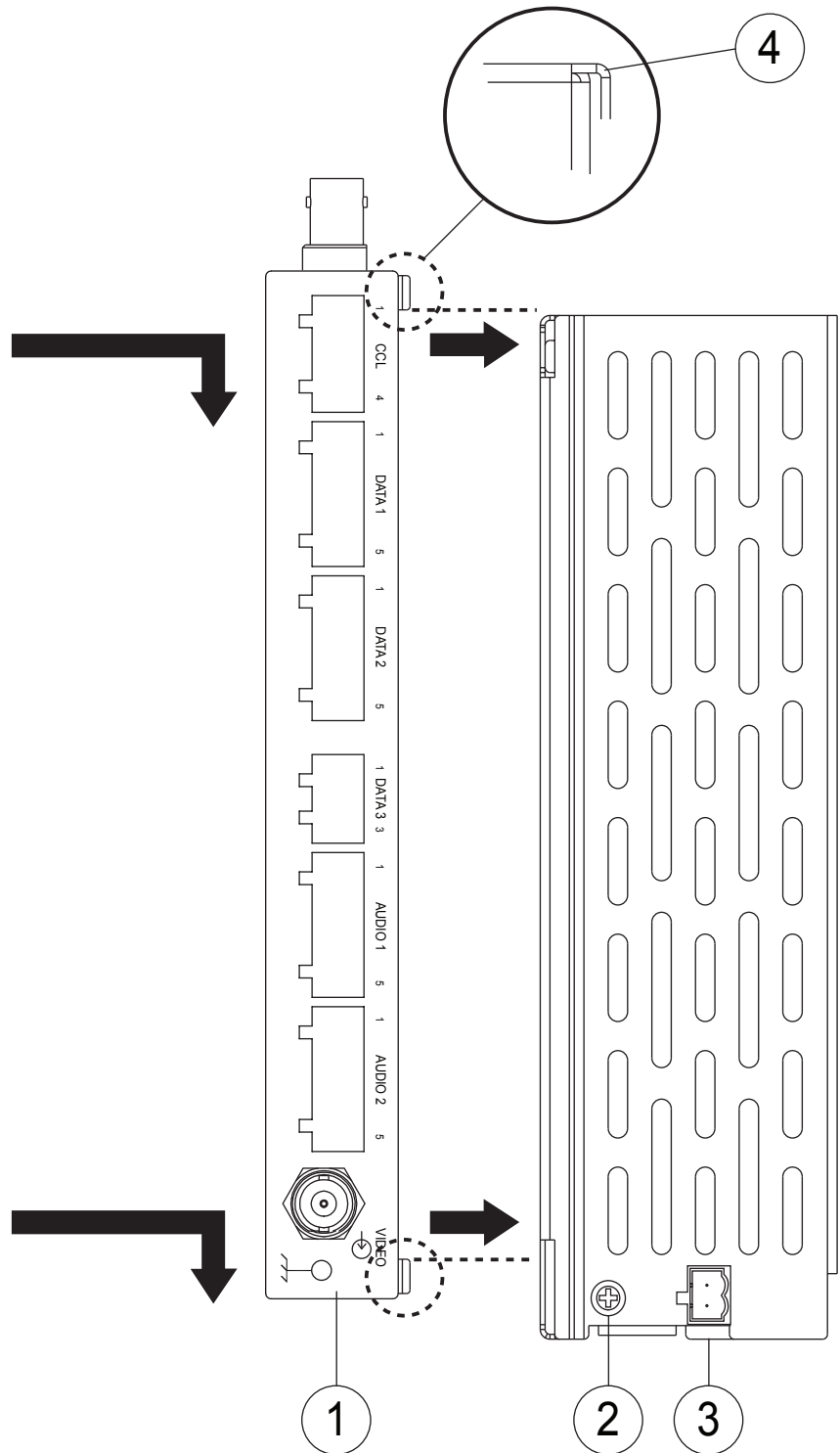
CLP series units are designed to be attached over a CMA series standalone adapter and several units can be bundled over each other. The following illustrations show assembly phases, follow the installation steps accordingly.

Mount the CLP module over the module adapter by pressing the sides together and line up them so that the brackets on the CPL module fit into grooves in the CMA025 module adapter. (as you can see on the

picture below). Then slide the CPL module backwards until you hear the latch catching the locked position (at the bottom of the module).

Repeat this procedure for all modules, that are needed in the installation.

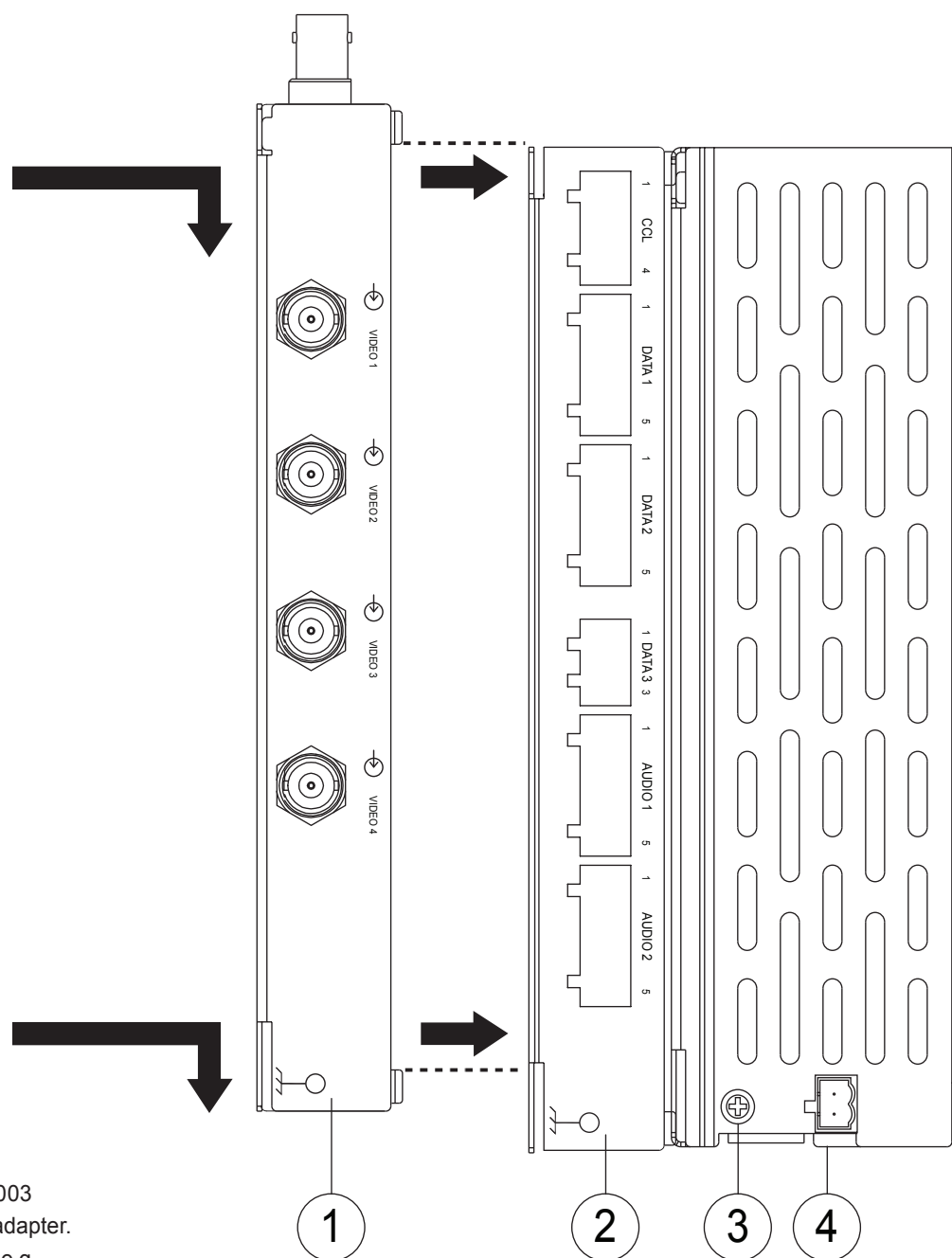
Note! If units are aligned correctly they will find their position with a minimum use of force.



Assembly figure 1.

An example of CPL001 mounting over CMA025 module adapter. This setup provides protection to e.g. CRT161 (1-ch video transmitter).

1. **CLP001** 1-ch Video coil & Line protection
2. Grounding connector for CLP
3. **CMA025** Module adapter
4. Bracket



Assembly figure 2.

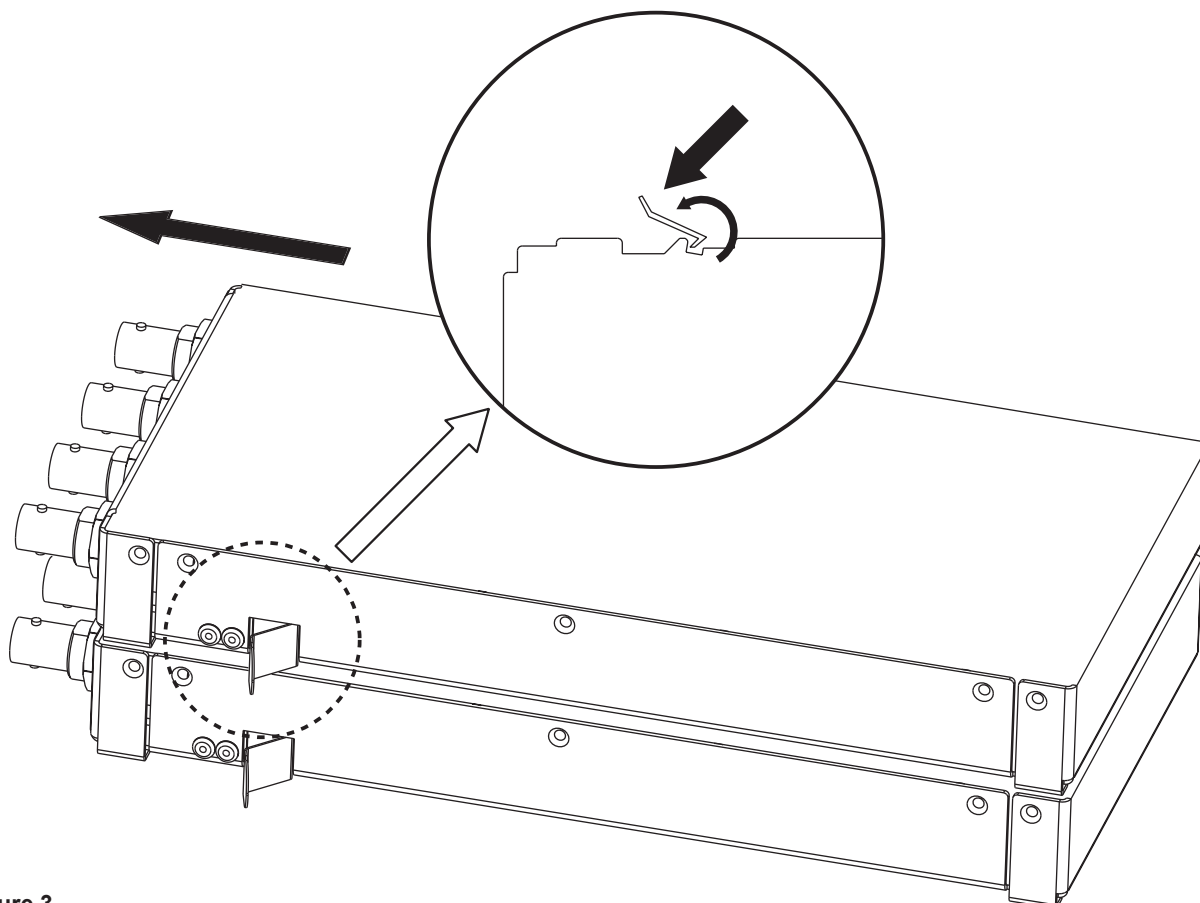
An example of CPL002 and CLP003 mounting over CMA025 module adapter. This setup provides protection to e.g. CRT461 (4-ch video transmitter).

1. **CLP003** 4-ch Video coil (ch 1...4)
2. **CLP002** Line protection
3. Grounding connector for CLP
4. **CMA025** Module adapter

Once all CLP modules are firmly attached to their positions connect all grounding cables from CLP modules to the common grounding point next to DC input.

Dismounting

Detach first the grounding wire. To remove the CLP module, push the latch at bottom of the unit to release the locking, and pull the module forward.



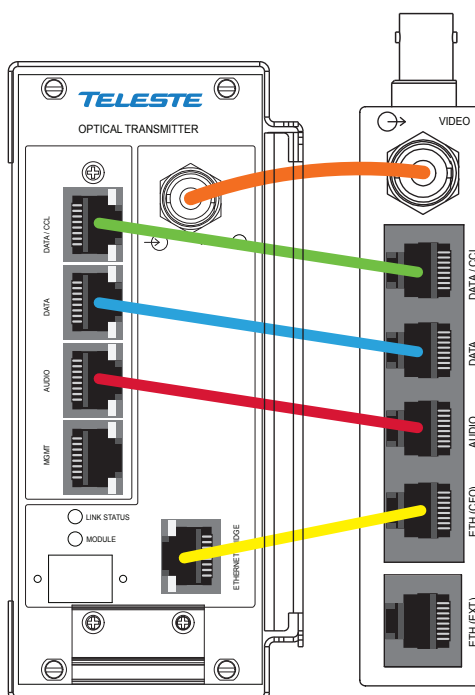
Assembly figure 3.

Configurations

Alternative module combinations can be provided for either single channel, 4-channel or even 8- channel video modem operation. (Supported video modems are CFO4x0 / 8x0 / x61 / x91 and 4-ch / 8-ch CEV models).

Required interconnection cables are included with the units.

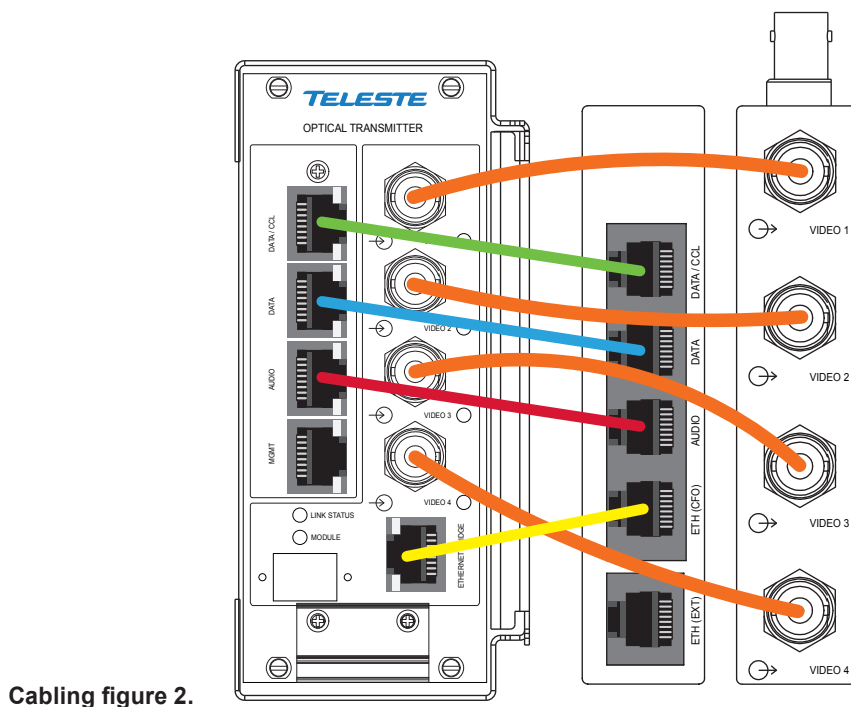
1-ch TX: CMA025 Module adapter
CLP001 1-ch Video coil & Line protection



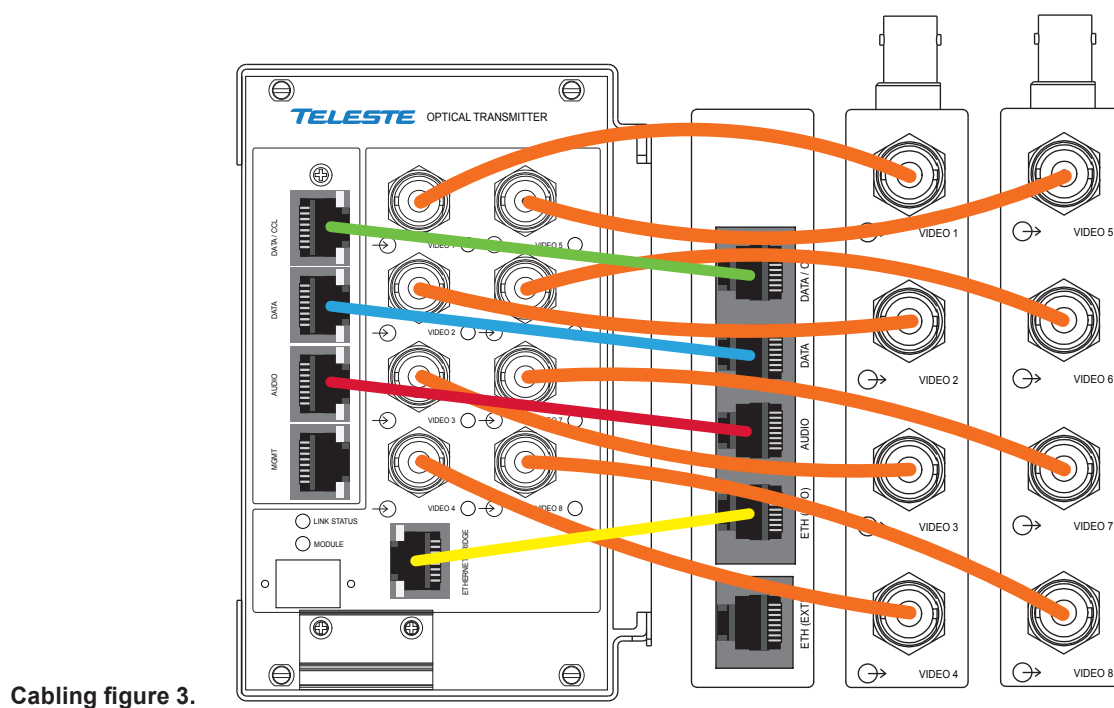
Cabling figure 1.

Note! The cables included in the package are standard BNC - BNC 75 ohm coaxial cables for video and direct-connected CAT5 cables for audio/data/CCL/Ethernet signals.

4-ch TX: CMA025 Module adapter
 CLP002 Line protection
 CLP003 4-ch Video coil (ch 1...4)

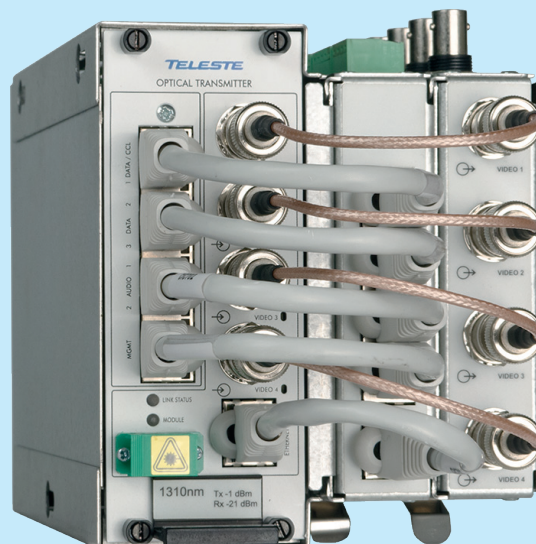


8-ch TX: CMA035 Module adapter
 CLP002 Line protection
 CLP003 4-ch Video coil (ch 1...4)
 CLP004 4-ch Video coil (ch 5...8)



Technical Specifications

Video protection			Data		
Common mode suppression	23 dB @50Hz 24 dB @100Hz		Number of channels	3 bi-directional	CLP001, CLP002
Common mode current	300 mA max @ 1kHz		Data 1 & 2 format	RS232/422/485	
Insertion loss	0.12 dB	(DC...5,5 MHz)	Data 3 format	RS232	
Sync to Bar Top 1V	990,4 mV		Data 1 & 2 connectors	RJ-45 female/ 2 x 5-pin removable screw terminal	
Pulse/Bar Ratio Err	-0,50 %		Data 3 connectors	RJ-45 female/ 3-pin removable screw terminal	
Chr/Lum Delay Ineq	-2,8 ns		Contact Closure		
Lum. Nonlin. Dist	0,2 %		Number of channels	1 bi-directional	CLP001, CLP002
Peak Diff Gain	0,3 %		Connectors	RJ-45 female/ 4-pin removable screw terminal	
Multiburst Packet 97,5% Flag	99,1%	(ref 3.58 MHz)	Ethernet Interface		
Multiburst Packet 97,0% Flag	97,1%	(ref 4.10 MHz)	Number of ports	1	CLP001, CLP002
S/N Lum-wgtd (567)	86,5 dB		Port standard	10/100Base-TX FE Bridge	
Surge voltage protection	GDT 150 V	Failsafe	Compliance	IEEE802.3, IEEE802.3U	
Line Protection			Connectors	RJ-45 female	
Transient voltage protection	TVS Diodes		General		
Audio lines	15 V	differential	Supply voltage	-	passive unit
	15 V	single ended	Current consumption	-	passive unit
Data Line 1	48 V	differential	Dimensions (with connectors) (H x W x D)	117 • 27 • 230 mm	CLP001
	24 V	single ended		117 • 27 • 230 mm	CLP002
Data Lines 2 & 3	15 V	differential		129 • 27 • 230 mm	CLP003, CLP004
	15 V	single ended	Weight	0.8 kg	CLP001
CCL out	15 V	differential		0.7 kg	CLP002
	15 V	single ended		1.0 kg	CLP003, CLP004
CCL in	15 V	single ended	Operating temperature	-34...+74 °C	
Surge voltage protection	GDT 200 V	Failsafe, all lines	Storage temperature	-40...+85 °C	
Vibration tests	IEC 60068-2-6 Fc, BS 2011-2.1 Fbd, ref. IEC 60068-2-64 Fh, IEC 60068-2-27 Ea		Humidity	0...95 %	non condensing
Video			Notes		
Channels	1 CVBS	CLP001	<i>Typical values unless otherwise stated</i>		
	4 CVBS	CLP003 (ch1...4)			
	4 CVBS	CLP004 (ch 5...8)			
Connectors	BNC female				
Audio					
Number of channels	2 bi-directional	CLP001, CLP002			
Connectors	RJ-45 female/ 2 x 5-pin removable screw terminal				



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