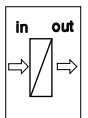
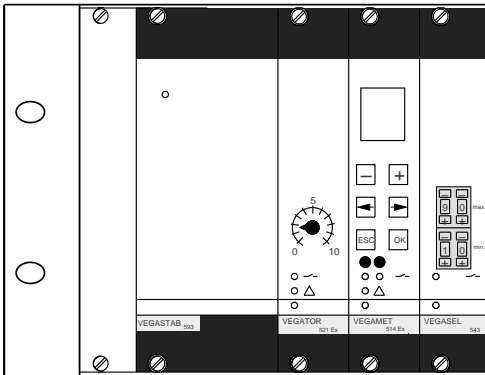


Operating Instruction

Carrier BGT 596, 596 Ex.M



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Safety information

The described module must only be inserted and operated as described in this operating instruction. Please note that other action can cause damage for which VEGA does not take responsibility.

1 Product description

1.1 Function and configuration

The carrier BGT 596 or BGT 596 Ex.M is provided for signal conditioning instruments and electronics units of series 500 which are designed in 19"-technology (European size DIN 41 494).

It is designed for installation into a 19"-rack or into a switching cabinet with 19"-frame.

Configuration

The supporting elements of the carrier are made of eloxated Aluminium. The side walls are closed and consist together with the front flange of a common profile.

The carrier is provided with 84 module positions. Position 1 ... 4 is covered with a blind cover so that 80 module positions or a width of 80 TE are available for the module cards.

Module cards of series 500 have a width of

- 5 TE, i.e. $5 \times 5,08 = 25,4$ mm
- 10 TE, i.e. $10 \times 5,08 = 50,8$ mm.

Hence

- max. 16 module cards with 5 TE or
- max. 8 module cards with 10 TE or
- a mixture of both can be installed up to a total width of 80 TE.

With part load blind covers are available for empty spaces (5 TE = 25,4 mm, article no. 2.9513 or 10 TE = 50,8 mm, article no. 2.9341 each with fixing screws).

Dependent on the type of the signal conditioning instrument (type of module card) to be installed into the carrier different connection technologies can be selected for the respective multipoint connectors (see "1.3 Technical data" on the following pages).

1.2 Types and versions

BGT 596

The carrier BGT 596 is designed for installation of not-Ex-module cards.

BGT 596 Ex.M

The carrier BGT 596 Ex together with Ex-modules is certified for installation of Ex-module cards. It is marked BGT 596 Ex.M (included in the conformity certificate PTB-no. Ex-95.D.2073 X).

This carrier is in addition approved for the use on ships. It has a type approval of German Lloyd (no. 89914-94 HH).

1.3 Technical data

BGT 596

Mechanical data

Dimensions	W x H x D = 482,6 (19") x 132,5 x 254
Module positions	choice out of 84 positions
Connection of protector	tongue 2 x 6,3 x 0,8
Blind cover	4 TE (4 x 5,08 = 20,32 mm)

Protective measures

Wiring side	IP 00
Upper and lower side	IP 00
Front side (completely equipped)	IP 30
	IP 40 (with series 500 new)

Module (consisting of)

Guide rails	2 pcs.		
Instrument coded key	2 pcs.		
Fixing screw	2 pcs. M2,5		
Multipoint connector	1 pce.		
- type	DIN 41 612, series F, 32-/33-pole, d, b, z		
- connection	see following list		
Wire-Wrap 1,0 x 1,0 mm	Article no.	Module-	33 A
Plug 2,8 x 0,8 mm			33 B
Termi-Point 1,6 x 0,8 mm			33 C
Soldering connection			33 D
Screw connection			33 E

Connection for signal conditioning instruments	VEGATOR	521	525 F
		522	
		523	
		527	
		527	
	VEGAMET	513	507 Z
		514, 514 V	
		514 D,	
		514 VD	
		515, 515 V	
	VEGASEL	543, 544	
		545, 546	
		547	
		547	
	VEGACOM	557 ¹⁾	

VEGASTAB 593-60, 593 and 594 power supply units are offered completely, i.e. inclusive module as multipoint connector series H, 15-pole with plug 6,3 mm

¹⁾ (with earth terminal for screened cable)

BGT 596 Ex.M

Mechanical data

Dimensions	W x H x D = 482,6 (19") x 132,5 x 254
Module positions	choice out of 84 positions
Connection for protector	tongue 2-fold, 2 x 6,3 x 0,8
Blind cover	4 TE (4 x 5,08 = 20,32 mm)
Covers (top and bottom)	screwed with the basic carrier

Protective measures

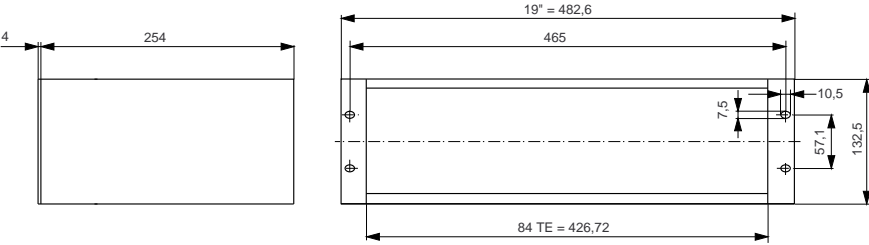
Wiring side	IP 00
Upper and lower side	IP 20
Front side (completely equipped)	IP 30

Ex-module (consisting of)

Guide rails	2 pcs.				
Instrument coded key	2 pcs.				
Fixing screw	2 pcs. M2,5				
Separating chamber	1 pce. with integral nut				
Multipoint connector with Ex-coded key	1 pce.				
- type	DIN 41 612, series F, 32-/33-pole, d, b, z				
- connection	see the following list				
Wire-Wrap 1,0 x 1,0 mm	Article no.	Module-	Ex-33 A	Ex-32 A	Ex-33 SA
Plug 2,8 x 0,8 mm			Ex-33 B	—	Ex-33 SB
Termi-Point 1,6 x 0,8 mm			Ex-33 C	Ex-32 C	Ex-33 SC
Soldering connection			Ex-33 D	Ex-32 D	Ex-33 SD
Screw connection			Ex-33 E	—	—
Connection for signal conditioning instruments	VEGATOR	536 Ex	526 W Ex	534 Ex	
		537 Ex			
	VEGATOR	532 Ex	535 Ex		
	VEGATOR	521 Ex			
		522 Ex			
		523 Ex			
		527 Ex			
	VEGAMET	513 Ex	509 Z Ex		
		514 Ex			
		514 D Ex			
		515 Ex			
	VEGATRENN	544 Ex			
		546			
		547 Ex			
		548 Ex			

VEGASTAB 593-60, 593 and 594 see BGT 596

1.4 Dimensions



2 Mounting

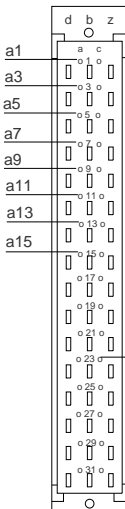
2.1 Coding

A mechanical instrument coding by means of a pin in the multipoint connector and a hole in the multiple plug ensures that by interchanging the module card only the correct card type can be inserted again. The pin (attached) is supplied with the module and must be inserted into the hole of the card specific position when mounting the module.

An Ex-coding with fixed coded key ensures that not-Ex and Ex-module cards are not interchanged.

Instrument coding

see instrument specific operating instruction



Ex-coding

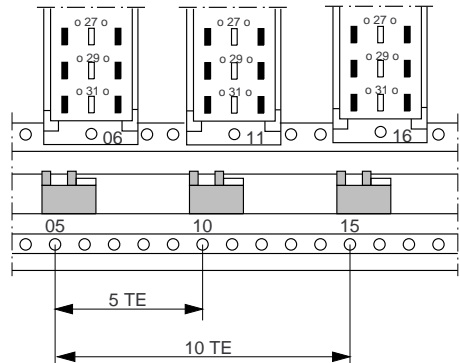
c23 Ex-module cards

2.2 Module position

The guide rails of the first module cards should be mounted to module position 05 (on the right of the blind cover) and the appropriate multipoint connector should be mounted to module position 06.

The module position of the following module card depends on its TE-width, i.e.

- module card with 5 TE
guide rails on module position 10
multipoint connector to module position 11
- module card with 10 TE
guide rails to module position 15
multipoint connector to module position 16
- etc. for all other module cards



2.3 Mounting

BGT 596

Except this operating instruction (BA) the BAs of the installed module cards have to be observed.

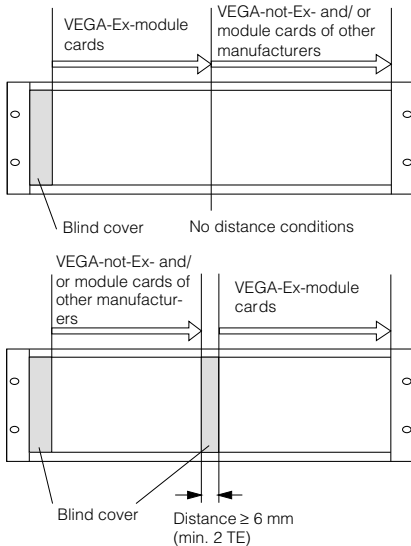
The mounting of the module cards must start directly after the blind cover mounted on the left (4 TE = air gap to the side wall of the carrier of ≥ 10 mm).

BGT 596 Ex.M

The instructions and mounting steps described in the following are part of the explosion protection and must be maintained exactly.

- Ex-module cards must only be operated via Ex-modules in the carrier.
- The intrinsically safe circuits can be separated by means of the supplied separating chambers.
- The protection IP 20 requested for Ex-applications must be ensured by a total equipment (module cards and/or blind covers).
- The following installation regulations must be observed for mixed load.

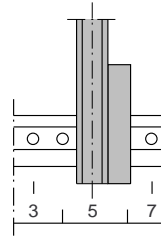
Examples:



The max. voltage on the circuits must not exceed $250 V_{eff}$.

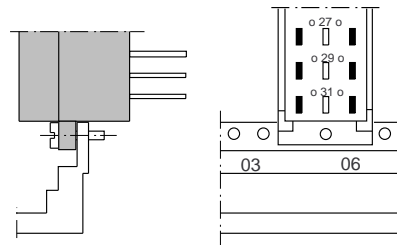
Mounting steps

Step 1



Snap-in the guide rails into the respective module of the carrier (e.g. module position 5).

Step 2



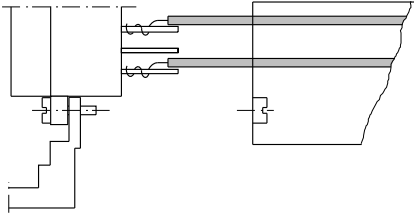
Mount the multipoint connector from the inner side of the carrier to the rear board.

Step 3

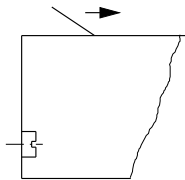
Relating to BGT 596

Connect the lines

Relating to BGT 596 Ex

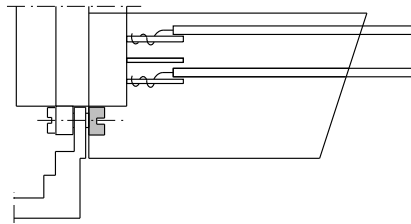


Loop the lines of the intrinsically safe circuit through the separating chamber and connect to the appropriate position of the multipoint connector (for modules used for installation into carrier VEGATRENN 547 and 548 a broad separating chamber must be used).



When using a multipoint connector with screw connection, module Ex-33 E, the above marked section must be removed on the separating chamber.

Step 4



Shift the separating chamber up to the multipoint connector and fasten with the integral nut on the penetrating fixing screw of the multipoint connector.

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