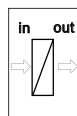
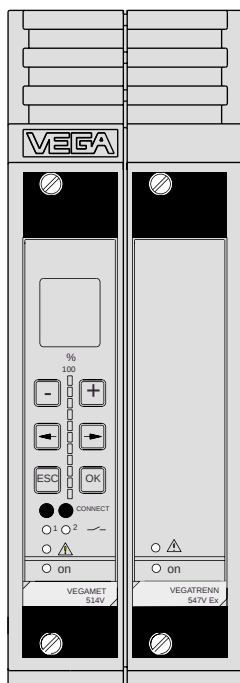


Operating Instructions

Housing type 506



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Safety information

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

Note Ex-area

Please note the approval documents attached (yellow binder), and especially the included safety data sheet.

1 Product description

1.1 Function and configuration

The housing type 506 is used for single mounting of a signal conditioning instrument for VBUS-sensors of series 500 (width 5 TE = 25,4 mm) and, additionally for VEGATRENN 547V Ex or 548V Ex separator also with 5 TE-width.

The housing can be either screwed directly to the mounting plate or mounted to a carrier rail (35 x 15 acc. to EN 50 022).

The housing consists generally of three components:

- Socket with terminals
The connection terminals for the sensors are located at the bottom and the ones for the outputs and the power supply on top of the socket. Therefore, the necessary separation between intrinsically safe and not-intrinsically safe circuits in Ex-applications is ensured. For carrier rail mounting an appropriate adapter is integrated in the socket.
- Upper part of the housing with guide rails and ventilation slots. Sufficient ventilation is also ensured when connecting several housings in series. No external ventilation necessary.
- The attached bag includes blue Ex-labels and coded pins.

The module instruments of the new series 500

- VEGAMET...
- VEGATRENN...

are generally provided for a power supply of 20 ... 53 V AC or 20 ... 72 V DC.

If you already have a power supply of 20 ... 53 V AC or 20 ... 72 V DC available, you can use the housing without power supply unit.

If you only have other supply voltages available, use a housing with integrated power supply unit.

The power supply unit is suitable for a voltage range of 90 ... 250 V AC and DC and can power the module units.

A later retrofitting of the housing with a power supply unit is possible.

Note:

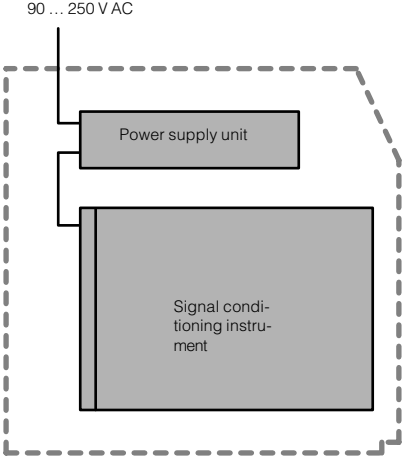
The housing type 506 is only designed for series 500 instruments:

- VEGAMET 514V, 514VD, 515V
- VEGATRENN 547V Ex, 548V Ex

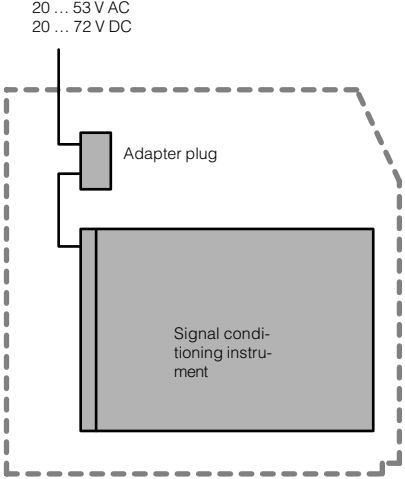
The power supply unit of the housing provides no galvanic isolation from the supply voltage. Series 500 instruments realise the galvanic isolation in the signal conditioning instrument.

1.2 Types and versions

Housing with power supply unit



Housing without power supply unit



1.3 Technical data

Power supply

Supply voltage	20 ... 72 V DC 20 ... 53 V AC
Supply voltage with integral power supply unit	90 ... 250 V AC galvanically not isolated (18 W; 50 VA)

Material

Terminal socket	PPE (Noryl) black, self-extinguishing
Upper part of housing	PPE (Noryl) grey (RAL 7036), self-extinguishing

Multipoint connectors

Number	2
Version	acc. to DIN 41 612, series F, 48-pole, 3 rows, d, b, z (partly equipped)

Strip terminal

Cross-section area of conductor	max. 2,5 mm ²
---------------------------------	--------------------------

Protection classes

Protection	IP 20
Protection class	II
Overvoltage categories	II

Mounting

Carrier rail	35 x 15 acc. to EN 50 022
Mounting plate	3 holes with 4,5 mm $\varnothing$ 3 screws M4 x 12 mm

Mechanical data

Dimensions	W x H x D = 62 x 180 x 198 mm
Weight	approx. 650 g

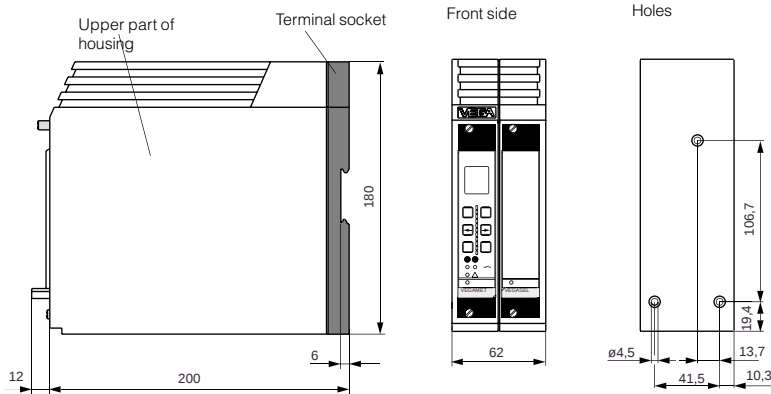
Ambient conditions

Permissible ambient temperature	-20°C ... +60°C
Storage and transport temperature	-40°C ... +80°C

CE-conformity

Housing type 505 is manufactured according to the European standard and meets the protective regulations of EMVG (89/336/EWG) and NSR (73/23/EWG). The conformity has been judged acc. to the following standards:		
EMVG	Emission	EN 50 081 - 1: 1992
	Susceptibility	EN 50 082 - 2: 1995
NSR		EN 61 010 - 1: 1993

1.4 Dimensions

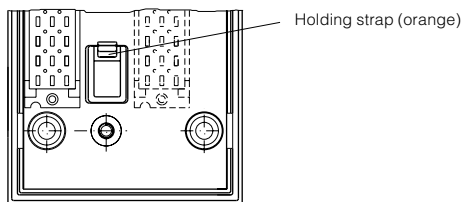


2 Mounting

2.1 General

The housing type 506 can be screwed directly on a mounting plate (see "Dimensions, holes") or placed on a carrier rail (35 x 15 acc. to EN 50 022). To do this, it is necessary to loosen the two screws on the front of the housing and to remove the upper part of the housing from the socket.

For placing on carrier rail or loosening from the carrier rail, unlock the holding strap with a screwdriver in the lower rectangular opening of the socket.



Wire the terminals acc. to the connection plan (see either "3 Electrical connection", or the operating instructions of the signal conditioning instrument to be installed, or the separator).

The designations of the terminals correspond to those on the multipoint connector on the rear of the signal conditioning instrument. The exceptions are the sensor connection terminals, see "3 Electrical connection".

2.2 Coding with Ex-instruments

To avoid a not-Ex-instrument being inserted into the housing instead of the separator, the right multipoint connector of the housing is provided with a coded pin (position c23). A hole is provided in the appropriate position on the multiple plug of the VEGATRENN 547V Ex and 548V Ex separators.

2.3 Transparent cover

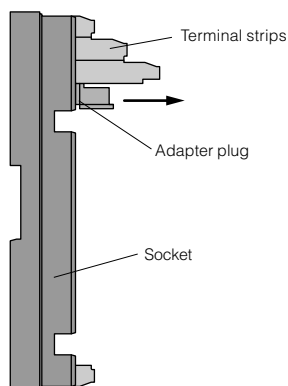
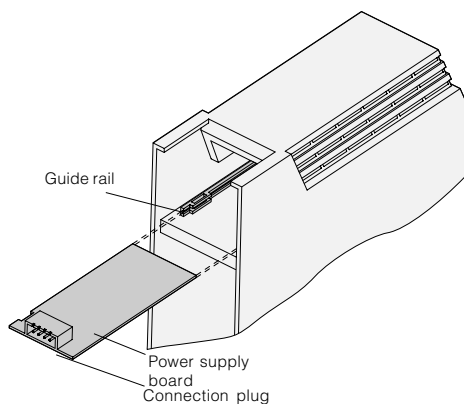
The module units can be provided with a lockable transparent cover to avoid unauthorised adjustment.

The transparent covers are supplied along with the module units.

2.4 Retrofitting of the housing with a power supply unit

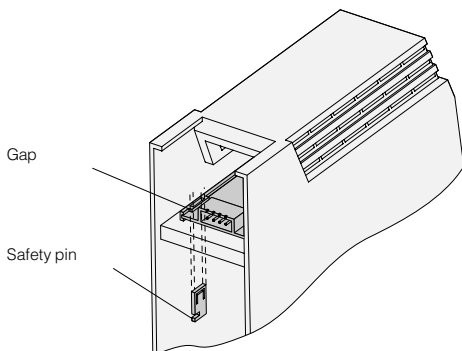
Please proceed as follows to retrofit a power supply unit:

- First of all make sure that the supply voltage is disconnected on the terminal strips of the socket!
- Loosen the two hold screws on the front of the housing and remove the upper part of the housing (the hold screws are only accessible when there is no module card in the housing).
- Shift the power supply board into the guide rails of the upper part of the housing. Note the position of the connection plug.



- Insert the red safety pin through the gaps of the power supply board and the guide rail. This fastens the power supply board.

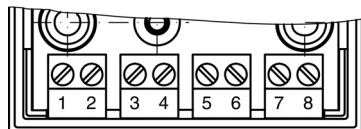
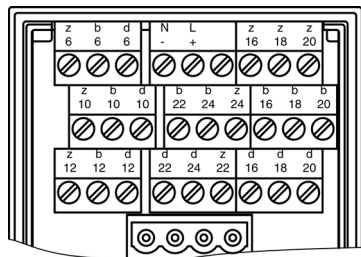
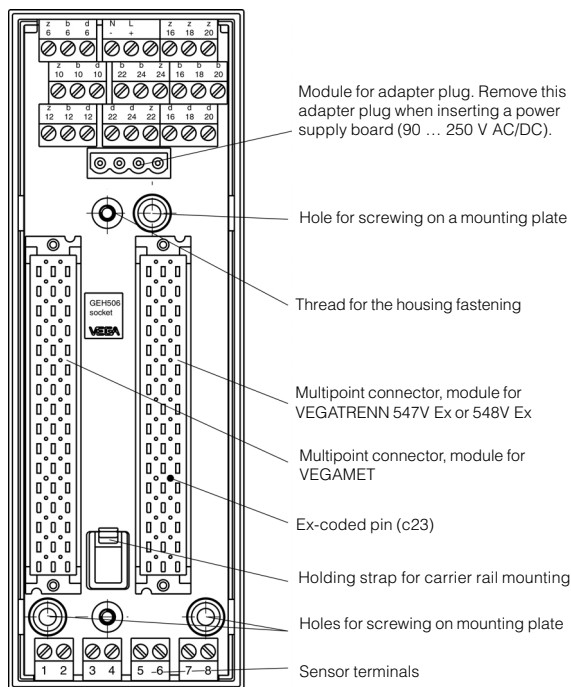
- Insert the upper part of the housing into the socket again, tighten the two screws on the housing front.
- Now you can connect the supply voltage for the power supply unit (90 ... 250 V AC) on the terminal strips of the socket.



- Remove the adapter plug from the housing socket.

3 Electrical connection

The designations of the terminals are identical to those on the multiples plugs of the signal conditioning instruments. Exception: Sensor terminals.



3.1 Terminal coordination on VEGAMET

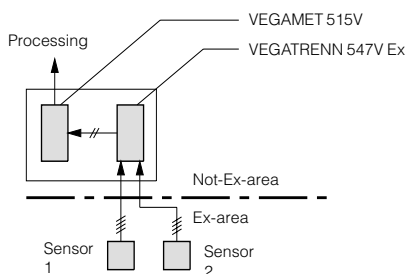
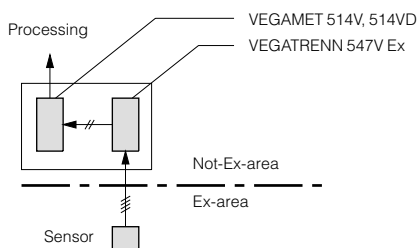
	VEGAMET	514V	514VD	515V
	Fail safe relay	•	•	•
	Level relay 1	•	•	•
	Level relay 2	•	•	•
	Correction signal input 4	•	•	•
	Correction signal input 5			•
	DISBUS-output	•	•	•
	Current output 1	•	•	•
	Current output 2	•	•	•
	Current output 3		•	•
	Voltage output 1	•	•	•
	Voltage output 2	•	•	•
	Voltage output 3		•	•
	with VEGATRENN 547V Ex Sensor 1 Sensor 2 (only with VEGAMET 515V)	•	•	•
	with VEGATRENN 548V Ex Sensor 1 Sensor 2 (only with VEGAMET 515V)	•	•	•

3.2 Connection examples

VEGATRENN 547V Ex

VEGATRENN 547V Ex can power max.

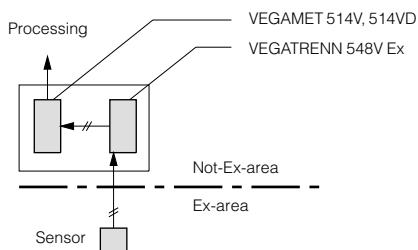
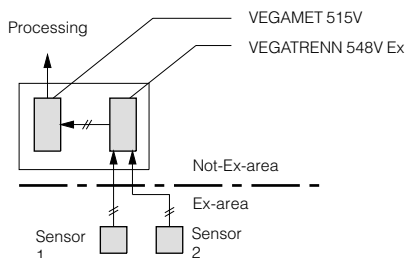
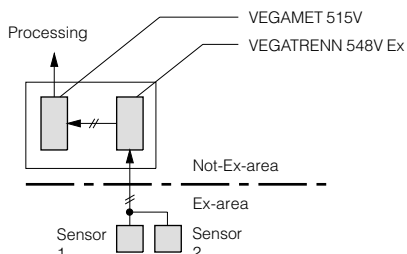
- two Ex-ultrasonic sensors VEGASON series 80
 - two Ex-radar sensors VEGAPULS 81
 - a combination of both
- via intrinsically safe circuits in four-wire technology and transmit their digital measured data.



VEGATRENN 548V Ex

VEGATRENN 548V Ex can power max.

- two hydrostatic pressure transmitters series D84 ... D87
 - two ultrasonic sensors VEGASON 51V ... 53V
 - two radar sensors VEGAPULS 51V ... 56V
- via intrinsically safe circuits in two-wire technology and transmit their digital measured data.





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The statements on types, application, use and operating conditions of the sensors and processing systems correspond to the actual knowledge at the date of printing.

Technical data subject to alteration.