

**gesis**®NRG Flat cables, 5 pole, 2.5 mm² and 4 mm²



# The flexible busbar Space-saving and safe

## 6 mm<sup>2</sup> feed-in

The feed-in module is suitable for supply with NYM cables with a cross-section of up to 5x6 mm². The robust strain relief is directly integrated.

#### 2.5 and 4 mm<sup>2</sup>

2 cable cross sections, 3 colors, 2 applications combined in one cable geometry.

## Variable phase pre-selection for GST18i3

Before contacting, the phase for the supply of the 3 pole GST18i3 output can be selected with a phase selector.

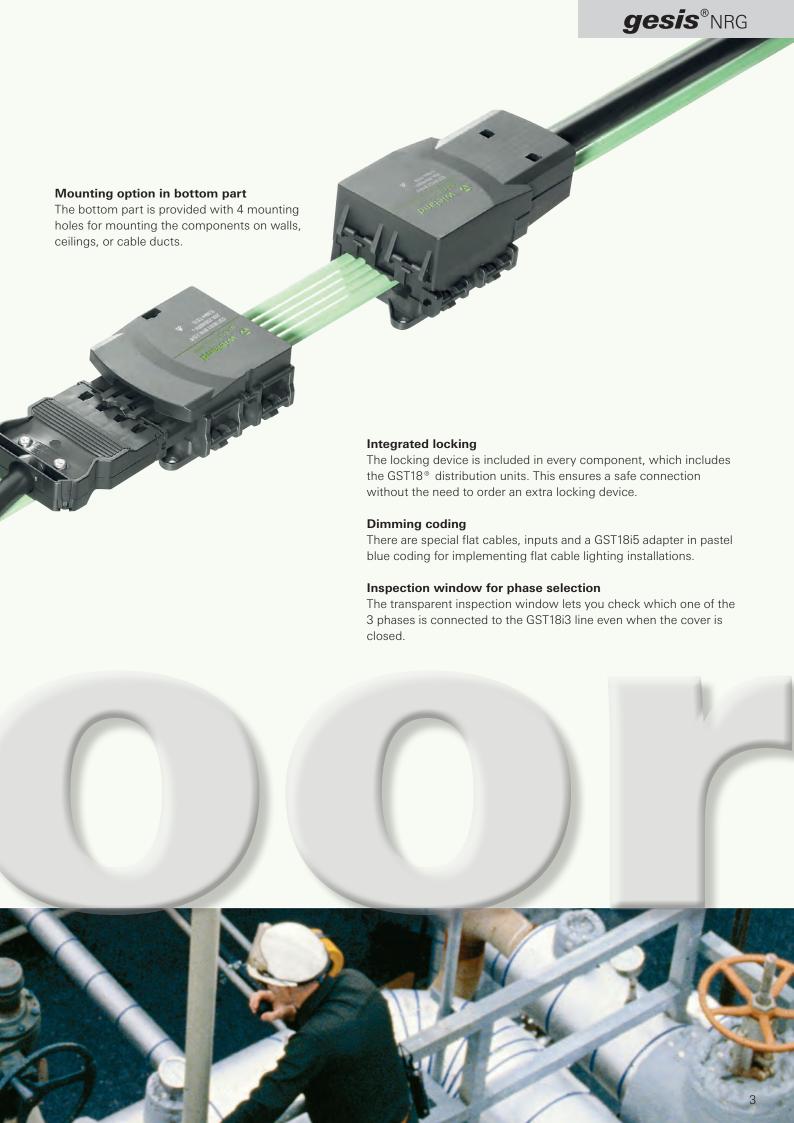
And it is still possible to change the phase subsequently: Just loosen the contact screw, push the slider to the new position and make a new contact. The adapter does not need to be moved – a significant advantage of the system.

#### **Parallel tapping**

The input cables and the GST18 cables at the tapping points are routed parallel to the flat cable. With this, the new *gesis*®NRG generation saves considerable installation space.







# Flat cables, 5 pole, 2.5 mm<sup>2</sup> and 4 mm<sup>2</sup>

250 V/400 V Rated voltage: 20 A Rated current: Protection rating: **IP20** Cable approvals:

Cable bending radius:

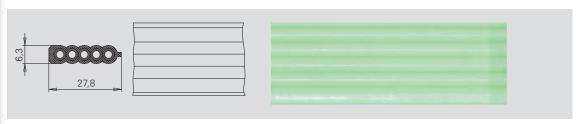
~ requested static, approx. 60 mm Connection technique: insulation piercing Approval: Locking device: integrated

pluggable, parallel to line direction Output:

Adapters are supplied without cable.

Observe the installation instructions in the Technical data!

Flat cable  $(5 \times 2.5 \text{ mm}^2 / 5 \times 4 \text{ mm}^2)$ Indicate cutting length (max. 350 m)



Cable color *)			Part No. PVC	P.U.	Price	Part No. halogen-free	P.U.	Price
green			00.712.0303.7	1		00.710.0303.7	1	
black	2.5 mm <sup>2</sup>	5G2,	00.712.0303.1	1		00.710.0303.1	1	
pastel blue			00.712.0303.6	1		00.710.0303.6	1	
green						00.710.0304.7	1	
black	4 mm <sup>2</sup>	5G4				00.710.0304.1	1	
pastel blue						00.710.0304.6	1	

\*) Other cable colors on request

Functional safety can only be guaranteed, if the original cable is used. For more information see Technical Data. The blue cable must only be installed with blue components, the black/green cable only with black components. black/green Power 250 V / 400 V



⊕ = GN N = BU = GN/YE

 $\begin{array}{rcl}
1 & = BN \\
2 & = BK
\end{array}$ 

= GY

blue

Power 250 V + dimming



⊕ = GN/YE N = BU

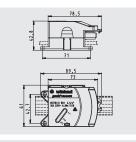
= BN

D2 = BKD1 = GY

3 pole flat cable adapter with phase pre-selection, direct routing to GST18i3

Part No.

Price



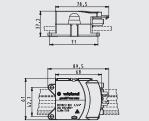
black	Code 1	L, PE, N	92.031.5453.1	20	

Power tapping with phase pre-selection Female connector GST18i3



**5 pole** flat cable adapter, direct routing to GST18i5

Coding Tapping

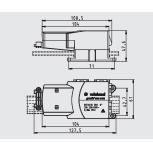


Color		Coding		Part No.	P.U.	Price
black		Code 1	3, N, PE, 2, 1	92.051.5453.1	20	
pastel blue		Code 2	D2, D1, PE, N, L	92.051.5553.0	20	

Power tapping Female connector GST18i5



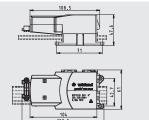
## Power supply for round cables 12-16 mm, screw connection



Color	Connec. cross-section	Part No.	P.U.	Price
black	6 mm <sup>2</sup> (r), 4 mm <sup>2</sup> (f)	92.050.1553.1	5	



## Power+dimming supply for round cables 12-16 mm, screw connection



Color	Connec. cross-section	Part No.	P.U.	Price
pastel blue	6 mm <sup>2</sup> (r), 4 mm <sup>2</sup> (f)	92.050.1653.0	5	

Dimming feed



# Accessories for flat cables, 5 pole, 2.5 mm<sup>2</sup> and 4 mm<sup>2</sup>

Protection rating: Approvals:  Functional safety can only be guaranteed, if the original cable is used.

For more information see Technical Data.

#### Cable cutter for flat cables

Cable cutter

Part No.	P.U.	Price
95.300.0600.0	1	

This tool must be used for correct placement of the cable end cap.



## Cable end cap

Cable end cap

Color	Part No.	P.U.	Price
transparent	06.562.0653.0	20	
паперапен	00.002.0000.0	120	

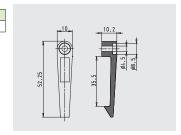


## Cable clip

Cable clip



Color		Part No.	P.U.	Price		
gray				05.562.3000.0	100	



# Technical data Flat cable system 5 pole, 2.5/4 mm<sup>2</sup>

Components: Feed-in adapter for round cable

Flat cable adapter GST 18i3 with phase selection

Flat cable adapter GST 18i5

Connection: Insulation piercing technology with pluggable output

as per Wieland coding GST 18

Contact screws: Tightening torque: 0.5 Nm Strain relief screw: Tightening torque: 0.6 Nm

Rated voltage: 250 V/400 V

(blue cables and components are designed for combination of mains voltage

with Functional Extra Low Voltage (FELV))

Rated current: 20 A
Number of poles: 3/5 pole
Regulations: IEC 61535
Approval: VDE requested

Protection rating: IP 20

Connection cable Ø 12 – 16 mm

for supply:

Materials: Housing: thermoplastic, halogen-free

Contact parts: Brass, surface-plated

Tin bronze, surface-plated

Continuous temperature: 70 °C, insulation 100 °C

Coding: mechanical coding GST 18i, Code 1, black

Code 2, pastel blue

General: The voltage (supply) is fed to the flat cable with a screwable flat cable adapter.

The output boxes can be adapted using insulation piercing screw technology.

The outputs are pluggable with **gesis** connector systems. The connectors have to be locked together with the adapter.

Note: According to VDE 0100, only qualified electricians or electrotechnically instructed persons

shall use installation connector systems.

Do not manipulate cables and components! Observe applicable accident prevention and

safety regulations.

Only open the cover of *gesis* NRG components when they are not energized. Never connect or disconnect GST18 connectors under load. Do not use third-party components. Only combinations of Wieland products are covered by the warranty. Connection and termination points, as well as plug-in connections of cables/conductors, have to be provided with mechanical strain relief as per VDE 0100-520. Never disconnect

gesis connectors using force.

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Detailed information on the use of the corresponding GST18 components can be found in our catalog 0670.1 "Pluggable electrical installation for indoors"

## Flat cable, PVC

Number x cross section: 5 x 2.5 mm<sup>2</sup>

Outer sheath: PVC

Sheath color: black / green / blue Dimensions (WxH): 27.8 x 6.3 mm

Fire behavior: Self-extinguishing as per IEC 60332.1

Bending radius: min. 60 mm (with fixed installation as per DIN VDE 0298-3)

Structure:

Copper wire: uncoated, fine-stranded, Class 6

Insulation: PVC

Wire colors:



Technical data:

Cross section: 2.5 mm<sup>2</sup>
Testing voltage: 4 kV
Rated voltage: 0.6 / 1 kV

## Flat cable, halogen-free

Number x cross section: 5 x 2,5 mm<sup>2</sup> / 5 x 4 mm<sup>2</sup>

Outer sheath: thermoplastic PE compound, halogen-free and no corrosive gases

as per DIN VDE 0472 Part 813

Sheath color: black / green / blue Dimensions (WxH):  $27.8 \times 6.3 \text{ mm}$ 

Fire behavior: Self-extinguishing as per IEC 60332.1. Low smoke development according to IEC 61034-1/2

Bending radius: min. 100 mm (with fixed installation as per DIN VDE 0298-3)

Structure:

Copper wire: uncoated, fine-stranded, Class 6

Insulation: cross-linked, halogen-free and flame-retardant PE

Wire colors:

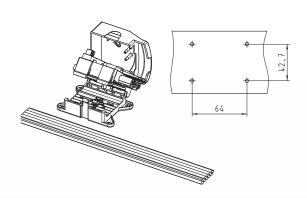


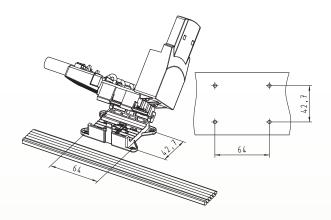
Technical data:

Cross section: 2,5 mm<sup>2</sup> / 4 mm<sup>2</sup>

Testing voltage: 4 kV Rated voltage: 0.6 / 1 kV

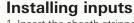
# Installation instructions Flat cable system, 2 pole and 5 pole



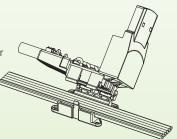


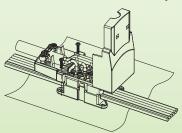
## **Installing outputs**

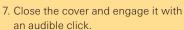
- 1. Lay flat cable in a suitable cable routing system. Observe routing direction for the connector output direction. Flush-mount the flat cable in the coded floor panel (92.051.5453.1 for green/black
  - (92.051.5453.1 for green/black cable, 92.051.5553.0 for blue cable).
- 2. If necessary, fasten floor panel to the ground using the mounting holes.
- Close the connection module and engage it with a clearly audible click.
- 4. Only GST18i3: bring phase selector to the desired position until it engages with an audible click.
- 5. Tighten contact screws (0.5 Nm).
- 6. Change of phase: (only GST18i3)
  Remove phase selector screw until
  the red ring is aligned with the
  white contact slider. Change the
  phase and fasten screw (0.5 Nm).



- 1. Insert the sheath stripped (PE: 100 mm, L1/D1: 82 mm, N: 72 mm, L2/D2: 62 mm, L3: 56 mm, stripping tool in the lid) and insulation stripped (8 mm) conductors into the marked termination points one after the other and fasten the contact screw (0.5 Nm).
- 2. Insert the input cable into the strain relief, fasten strain relief with both screws (0.6 Nm).
- 3. Flush-mount the flat cable in the coded floor panel (92.050.1553.1 for green/black cable, 92.050.1653.0 for blue cable). Observe routing direction for the connector output direction.
- If necessary, fasten floor panel to the ground using the mounting
- 5. Tighten contact screws (0.5 Nm).

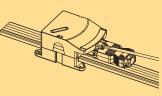






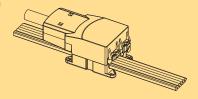
**Notice:** The cover can only be closed, if all screws are tightened properly!

8. Plug the GST18i3 connector in and engage it with an audible click.



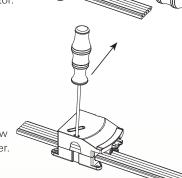
6. Close the cover and engage it with an audible click.

**Notice:** The cover can only be closed, if all screws are tightened properly!



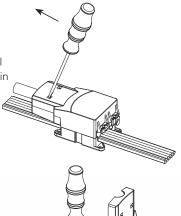
### Removal:

Unlock the connector lock with a tool (screw-driver) and remove connector.



Removal:

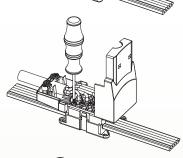
 Unlock the cover lock with a tool (screwdriver). Push locking pins in arrow direction.



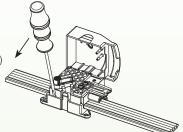
2. Push locking device in arrow direction and open the cover.

3. Remove contact screws.

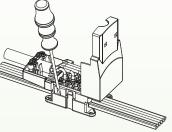
2. Remove contact screws and connection screws.



4. Unlock the floor panel locking device with a tool (screwdriver) and remove the module from the flat cable.



3. Unlock the floor panel locking device with a tool (screwdriver) and remove the module from the flat cable.



5. Close the contact openings in the cable with a cable repair patch.

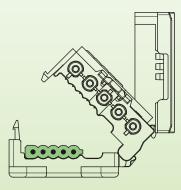
4. Close the contact openings in the cable with a cable repair patch.

#### **Additional information:**

- To remove the cover, insert a screwdriver into the slot provided and raise gently.
- The ends of the flat cable must be cut off with the cable scissors and terminated with the cable end cap.

This guarantees the necessary insulation between the conductors.

- After removing the adapters, the sections of cable that have been terminated with the slotted screws must be sealed with insulating tape.
- Functional capability can only be guaranteed if the original flat cable is used.



Flat cable system 5 pole, open

# Wieland Hotline and consultation



## Hotline - one call is all it takes

Naturally our service employees are available to help you at any time.

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E-Mail AT.TS@wieland-electric.com

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E-Mail safety@wieland-electric.com

## **Building and Installation Technology**

Hotline +49 951 9324-996

E-Mail BIT.TS@wieland-electric.com

# Additional information for pluggable installation:

 gesis®
 Part No. 0670.1

 gesis®RST®
 Part No. 0690.1

 gesis®RST®MINI
 Part No. 0695.1

 gesis®ELECTRONIC
 Part No. 0700.1

 gesis®FLEX
 Part No. 0701.1

# Information about Wieland products in general:

Wieland Product Overview Part No. 0902.1



## General information and news:

www.wieland-electric.com

Visit our e-catalog at

http://eshop.wieland-electric.com



## Our subsidiaries

... and the addresses of our sales partner worldwide are available at:

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Subject to technical modifications! **gesis**\*, **RST**\*, **GST**\*, **GST18**\*, **podis**\* and **samos**\* are registered trademarks of Wieland Electric GmbH



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## Industrial technology

## Solutions for the control cabinet

- DIN rail terminal blocks
- Screw, tension spring or push-in connection technology
- Wire cross sections up to 300 mm<sup>2</sup>
- Numerous special functions
- Software solutions interfacing to CAE systems
- Safety
  - Safe signal acquisition
  - Safety switching devices
  - Modular safety modules
  - Compact safety controllers
- Application consulting and training
- Network engineering and fieldbus systems
  - Remote maintenance via VPN industrial router and VPN service portal
  - Industrial Ethernet switches
  - PLC and I/O systems, standard and increased environmental conditions
- Interface
  - Power supply units
  - Overvoltage protection
  - Coupling relays, semiconductor switches
  - Timer relays, measuring and monitoring relays
  - Analog coupling and converter modules
  - Passive interfaces

#### Solutions for field applications

- Decentralized installation and automation technology
  - Electrical installation for wind tower
- Fieldbus interfaces and motor starters
- Connectors for industrial applications
  - Rectangular and round connectors
  - Aluminium or plastic housings
  - Degree of protection up to IP69K
  - Current-carrying capacity up to 100 A
  - Connectors for hazardous areas
- Modular, application-specific technology

## PC board terminals and connectors

- Screw or spring clamp connection technology
- Spacings: 3.5 mm to 10.16 mm
- Reflow or wave soldering process

## **Building and installation technology**

- Building installation systems
  - Main power supply connectors IP20/IP65... IP69K
  - Bus connectors
  - Low-voltage connectors
  - Power distribution system with flat cables
  - Distribution systems
- Room automation with KNX and wireless technology
- DIN rail terminal blocks for electrical installations
- Overvoltage protection

contacts are green.

0661.1 MC 04/15