

Luminaires with Ignition Voltages up to 5 kV

Easy installation with

Components of the *gesis* CON connector system in the GST 18i3 and ST 18 product range

Description:

High profitability and extreme luminous efficiency characterize high-pressure discharge lamps. Special electronic ballast is required to ignite these lamps. It can either be built in into the luminaire or be installed separately.

In order to facilitate wiring between electronic ballast and the corresponding luminaires, which are kept in a distance, we now offer a special connector series.

All connectors and pre-assembled cables carry the special mark "5 kV". The special coding prevent inadvertent mismatching with our GST 18 black-and-white standard coding.



Benefits:

- Extremely high light efficiency
- High profitability
- Lighting concept which can be modified flexibly and quickly
- No confusion with other codings possible
- Pluggability due to pre-assembly or solder parts directly on the PC board
- Quick and easy installation on site

Components:

- Connectors with strain relief for self-assembly. These are available in spring-clamp or screw connection technology.
- Pre-assembled 5kV ignition cable, with special 3G 1.0 mm² silicon cable, with ignition wire double insulated, capacity typically 60 – 70 pF/m, T: 180 °C
- Pre-assembled 5kV ignition cable, with special 3G 1.0 mm² PVC cable, capacity typically 130 150 pF/m, T: 70 °C.
- Suitable for applications with selfdisconnecting electronic ballast.
- Snap-in spring connection technology for latching inside housings
- Solder parts pluggability directly on the PC board

A new generation of pluggable electronic ballast for discharge lamps - directly pluggable on the PC board via solder parts!



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Connector GST 18i, 3 pole Ignition voltage 5 kV

Female connector ³⁾ Specially coded and marked for applications with ignition voltages up to 5 kV. The components meet the requirements according to DIN EN 60,598-1 (VDE 0711, sect. 10.2 ff)		
	A STATE I	A DE CONTRACTOR
Application Coding Color	Part no.	Part no.
	Spring-clamp connection with strain relief	Screw conn. with low-profile strain relief
	rigid 1.5 – 2.5 fine-stranded 1.5 with ferrules ²⁾ Connections per pole 2 Cable strip length 45 mm Insulation strip length with 1.5 mm ² and 2.5 mm ² : 9 mm	Colle & mmsolid/fine-stranded0.75 – 2.5Connections per pole1Cable strip length31 mmInsulation strip length7 mm
	Strain relief for cable diameters of 6.5 –10.5 mm	Strain relief for cable diameters of 6.5 –10.5 mm
Power with ground	G0.000.086.0 GST18i3F B2 Z R1 5KV	G0.000.0502.3 GST18i3S B1 Z R1 5KV
Mala connector ³⁾		
Specially coded and marked for applications with ignition voltages up to 5 kV. The components meet the requirements according to DINEN 60,598-1 (VDE 0711, sect. 10.2 ff)	15.5 75	
	A Barry	and the second sec
Application Coding Cable Ø mm Color	Part no.	Part no.
	Spring-clamp connection with strain relief Cable Ø mm² rigid 1.5 – 2.5 fine-stranded 1.5 with ferrules² Connections per pole 2 Cable strip length 45 mm Insulation strip length with 1.5 mm² and 2.5 mm²: 9 mm 9 mm	Screw conn. with low-profile strain reliefCable Ø mm²solid/fine-stranded0.75 – 2.5Connections per pole1Cable strip length31 mmInsulation strip length7 mm
	Strain relief for cable diameters of 6.5 –10.5 mm	Strain relief for cable diameters of 6.5 –10.5 mm
Power N, (a), L light red	G0.000.086.1	G0.000.0502.4
Туре	GST18i3F S2 Z R1 5KV	GST18i3S S1 Z R1 5KV

Snap-in GST 18i, 3 pole Ignition voltage 5 kV



Housing material, varnish and deburing might influence the connector's fit inside the housing. Detailed mounting instructions available on request.
 See "Accessories" for ferrules and crimp tools
 Approval as per VDE 0628 requires a locking device

Solder parts GST 18i, 3 pole Ignition voltage 5 kV

Female connector Specially coded and marked for applications with ignition voltages up to 5kV. The components meet the requirements according to DINEN 60 598-1 (VDE 0711, sect. 10.2 ff) Pluggability through solder parts directly on the PC board		
Application Coding Co	or Part no.	Part no.
	Horizontal solder part Application for soldering onto a PC board	Horizontal solder part with fastening flanges Installation lateral fastening flanges for mechanical positioning inside the housing Application for soldering onto a PC board
	Notice: Installation instructions must be followed	Notice: Installation instructions must be followed
Power N, G, L liaht re	ed 92.033.0758.0	92.033.0858.0
With ground Code 3 Typ	e GST18i3F L B1 5kV	GST18i3 L B1 5kV

Housing material, varnish and deburing might influence the connector's fit inside the housing. Detailed mounting instructions available on request.
 See "Accessories" for ferrules and orimp tools
 Approval as per VDE 0628 requires a locking device

Snap-in ST 18 UNI, 3 pole Ignition voltage 5 kV

Female connector Specially coded and marked for applications with ignition voltages up to 5 kV. The components meet the requirements according to DIN EN 60 598-1 (VDE 0711, sect. 10.2 ff)	
Application Coding Color	Part no.
	Spring-clamp connection ST 18 UNI Material thickness 0.5 - 1.5 mm Cable Ø mm² rigid 0.5 - 2.5 fine-stranded 0.5 - 1.5 with ferrules² Housing cut-out¹¹ snaps into position Connections per pole 2 Cable strip length 45 mm Insulation strip length 0.5 - 1.5 mm²: 8 mm 2.5 mm²: 9 mm
Power Image: N, ⊕, L Code 3 light red with ground Type	99.403.3704.3 ST 18i3F B2 RV

Solder parts ST 18 UNI, 3 pole



Cable assemblies GST 18i, 3 pole Ignition voltage 5 kV



¹⁾ Please note the maximum length of

²¹ Other lengths available on request ³¹ Only when self-disconnecting electronic ballast is used

Cable assemblies ST 18 UNI, 3 pole Ignition voltage 5 kV



Technical information

All components meet the requirements for igniting voltage resistance according to DIN EN 60598-1 (VDE 0711, sect. 10.2 ff) We recommend operating the pre-assembled ignition cables (PVC; 3G 1.0 mm² and 3G 1.5 mm²) with self-disconnecting electronic ballast only.

A locking device is required as per EN 61535. Please note the maximum length of the ignition cable specified by the manufacturer.

Note the following, if connectors are mounted directly on housing without using strain reliefs (normally only for wiring inside luminaires = integrated electronic ballast):

- 1. Only use screws made from insulating material in order to avoid impermissible tracking.
- 2. If fastened onto accessible conductive materials these will have to be grounded.
- 3. Be certain to avoid any damage to the insulating housing (when self-cutting screws are used).

Always note the following:

- 1. Exposed conductive materials must be grounded when metal screws are used for fastening.
- When fastening connectors to plates with pre-drilled holes, self-cutting screws with a maximum diameter of ≤ 3 mm may be used.
- 3. According to VDE 0606T200 metal screws must not be exposed.
- The distance between the mounting holes may not exceed a tolerance of ±0.1mm.
- 5. To avoid damaging the insulating material, self-cutting screws may not be screwed into the mounting holes of the screw connection.
- 6. Please also note: in case of ignition voltages ranging from 3 to 5 kV, only fixing screws made of insulating material may be used in order to avoid impermissible tracking.

See the BIT catalog section "Technical data" for additional information.

Other lengths available on request
Only when self-disconnecting electronic ballast

is used





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Industrial technology

Solutions for the control cabinet

- DIN rail terminal blocks
- Screw, spring clamp or
- IDC connection technology
- Wire cross sections up to 240 mm²
- Numerous special functions
- Software solutions interfacing to CAE systems
- Safety
- Safety sensors
- Safety relays
- Modular safety systems with fieldbus link
- PLC and fieldbus components
- Standard applications in IP20
- Increased environmental conditions with railroad and ship approvals
- Interface
- Coupling relays, semiconductor switches
- Measuring and monitoring relays - Timer and switching relays
- Analog modules
- Passive interfaces
- Power supply units
- Overvoltage protection
- Solutions for field applications
- Remote automation technology
- Power distribution
- Fieldbus interfaces and motor starters
- Connectors for industrial applications
 - Square and round connectors
 - Aluminum or plastic housings
 - Degree of protection up to IP68
 - Current-carrying capacity up to 100A Connectors for hazardous areas
 - Modular, application specific technology

PC board terminals and connectors

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

Building and installation technology

- Building installation systems Main power supply connectors IP20/IP65 ... IP68
 - Bus connectors
- Combined connectors
- Low-voltage connectors
- Power distribution system with flat cables
- Distribution systems – Bus systems in KNX, LON and
- radio technology
- DIN rail terminal blocks for
- electrical installations
- Overvoltage protection

Installation instructions for ST and GST18 solder parts:

When using ST and GST18 solder parts in electronic ballast for highpressure discharge lamps the following minimum dimensions apply according to the requirements of EN 61535/EN 61437/EN 60598 (locking device required to conform with standard):



Use of the ST18 UNI locking device:

Use the standard locking device for a connection which complies with the standards!

For solder parts: 05.590.4556.1 / 05.590.4556.1 05.587.3156.1 / 05.587.3156.0 For floating cable connections: Snap-in parts always come with locking device.



NOTICE:

NOTE:

These locking devices can only be used together with the new cover. This means that an existing inclined cover (version 1) will have to be replaced. With an existing high-profile cover (version 2) both this cover and the base will have to be replaced.

Version 1: Part No. for cover

When using electronic ballast with connectors directly on the PC board,

the connectors lampside will have

to be rotated by 180° before they are

(Required to guarantee correct pole

07.429.2853.0

Version 2: Part No. for both

inserted to the ballast!

assignment!)

cover and base Z7.429.2853.0

roduct Range

contacts are green