Light
Solutions for the electrical connection of luminaires
Solutions for lighting technology

How can a pluggable installation benefit luminaire manufacturers?
Across all areas of industrial applications, prefabrication and standardized interfaces reduce the effort involved in the initial installation and offer the flexibility needed for later changes. It is this plug & play philosophy that paved the way for the revolution in entertainment electronics and the introduction of IT into all areas of life. With the gesis® connector system, Wieland has been enabling the realization of customized plug & play concepts for the electrical installation of lighting systems in offices, stores, industry, and the outdoor world for the last 40 years.

Quick and easy
Professional lighting solutions benefit from all the advantages that pluggability has to offer. The huge range of special components has been tailored to the requirements of our partners in the lighting industry. Fitters benefit from a time saving of 70% and 30% lower costs when using Wieland connectors. Luminaire manufacturers benefit from a smaller inventory, quick response time for variants, and simplified assembly.

Safe installation
Colored markings and mechanical codings enable clear assignments and prevent mismating. With gesis system plugs, the electrical connection meets the requirements for a permanent connection in fixed installations in accordance with the newly revised DIN EN 61535.

Cohesive concept
From the flexible distribution of power to the luminaire through to effective DALI control solutions for both indoors and outdoors, Wieland offers a cohesive concept and pluggable solutions that are optimized for the application in question. At the heart of the system lie our plug connectors and device connectors, supplemented by distribution elements, pre-assembled cables, and accessories. Here, unobtrusive cabling as well as safe distribution and separation of power circuits are essential.
gesis® – the cohesive system for efficient, pluggable installation of your lighting solutions both indoors and outdoors.

In gesis you have a comprehensive system of high-performance products and components at your disposal for handling the whole variety of different tasks that you deal with on a daily basis both simply and intelligently. For more than 40 years now, gesis has been presented as one system, which has succeeded in establishing itself in the market and is expanded continuously. The enhancements incorporate the latest trends in electrical installation and lighting technology in the simplest manner.

gesis pluggable electrical installation is used in:
- Street lights
- Downlights & ballasts
- Under-unit luminaires, shelf lighting
- Internal luminaire wiring
- Industrial/moisture-proof luminaires
- Recessed luminaires
- Shop lighting
Ready for the future:
flexible retrofitting, modular extension, resource-efficient reuse – these are the key features of the gesis system.

Costs under control:
easy, quick, error-free, and efficient installation with gesis.

Structured planning:
with gesis PLAN you keep sight of the bigger picture and reduce the effort required for planning. Intelligent, decentralized room automation solutions with gesis FLEX – your interface between light management (e.g. DALI) and building automation.

The experience of the market leader:
40 years of pluggable electrical installation.
**Advantages**

**Quicker luminaire assembly:**
Our well-conceived interfaces, the diversified connection technology, and prefabricated cable sets ensure that luminaire assembly is made much simpler by pluggable modules.

**Easy operation:**
Industrially prefabricated and tested components. Simple on-site assembly. With gesis pluggable luminaires, your customers save 70% of time and up to 30% of installation costs.

**Cohesive system:**
Through the standardized gesis interface we offer a modular system for all the electrical connections of your lighting solutions. Whether for indoor luminaires or outdoor luminaires, DALI applications, LED applications, integrated or external ballasts, 2, 3, 4, 5, or 6-pole connections – with gesis you always have the right product.
**Simplified logistics:**
A positive side-effect of module production is the considerable reduction in logistics. You also improve your response time for variants and special solutions.

**Safe & flexible installation:**
Touch-proof components, secured with a lock against unintentional loosening, color-coded and mechanically coded against mismating, distinguished with international approvals and certified quality and safety.

**Future-proof:**
The long-standing experience and quality of the market leader ensure high contact reliability, a long service life, and high availability. With the simple, pluggable installation your customers are optimally prepared for future modifications and extensions. Compliance with stringent environmental standards in the manufacture and reusability of all components will play a huge part in helping to achieve environmental objectives.
Recessed and lay-in luminaires

Our solution for recessed and lay-in luminaires: pluggable luminaires and components for the structured electrical installation of power and signals.

DALI luminaires use the 5-pole connector system in order to operate the luminaire itself as well as the corresponding control components with a single connection (mains + signal).

Applications:
The electrical connection of recessed luminaires usually calls for the time-consuming method of opening the luminaire, baring and stripping the power supply and control cable, and inserting the illuminants on site. With pluggable pre-assembled luminaires, the effort required for on-site assembly can be reduced quite considerably.

Solutions:
- Industrially pre-assembled components.
- Easy to plug together on site.
- For mains application (3-pole) and DALI application (5-pole).
- Flexibility to the point in time of luminaire assembly: conventional connection or pluggable with gesis TOP.

Advantages:
- Fast, easy, and safe installation.
- Standardized interfaces for fast replacement.
- High functional reliability through prevention of mismating.
- Simple adjustment of the installation to local conditions.
Lay-in luminaire
Pluggable connector integrated into the luminaire: gesis®CON (GST18®) Snap-In and T-distributor for connecting pre-assembled cables.

Lay-in luminaire
Freedom of choice with connection: recessed luminaires with BJB luminaire terminal strip can easily be upgraded to a pluggable luminaire with gesis TOP.

Dimmable recessed luminaire
Freedom of choice for dimmable luminaires: 5-pole connection for mains + dimming signal (e.g. DALI). Coding pastel blue.

Cohesive connector system
For distribution and luminaire connection with gesis CON, gesis MINI, gesis MICRO.
Downlights, spotlights & ballasts

Applications:
For connecting downlights and recessed spotlights, whether with integrated or with separate ballast. Pluggable makes everything quicker – and easier. The distinction between the primary circuit (230 V) and the connection between the ballast or driver and the luminaire (ignition voltage 5kV / constant voltage 12...24V / constant current 350...1,500 mA) and the use of different connector systems or codings prevent any confusion of circuits. Installation is error-free and easy.

Solutions:
- Industrially pre-assembled components.
- gesis® CON (GST18®) for mains voltage.
- gesis MICRO / gesis 5kV / ST16 / LST03 for the secondary circuit.
- Easy to plug together on site.
- Easy replacement of faulty ballasts due to pluggable interface.

Advantages:
- Fast, easy, and safe installation.
- Standardized interfaces for fast replacement.
- High functional reliability through prevention of mismating.
- Easy function test for all components using pluggable test adapter.
Downlight with integrated ballast
Ballast for downlight with integrated pluggable mains connection gesis CON (GST18® solder part).

Downlight with separate ballast
The pluggable interface gesis MICRO (GST08) between electronic ballast and downlight enables quick installation on site and reduces inventory.

Electronic ballast for high-intensity discharge lamps
gesis 5kV (GST18®) is the established standard for the pluggable interface between luminaire and electronic ballast. The advantages are quick installation and a smaller inventory.

Cohesive connector system
For distribution, luminaire connection, and as an interface between electronic ballast and luminaire: gesis CON, gesis MICRO.
Pendant luminaires, strip lighting & under-unit luminaires

Applications:
Pendant luminaires, strip lighting luminaires, and under-unit luminaires for shelves require specific systems for electrical connection and through-wiring. The power and signal supply is usually from one side and is continued internally in the strip light. To achieve maximum prefabrication, smart, pluggable solutions are required both for the assembly and for the electrical connection.

Solutions:
• gesis® CON (GST18®) for three-phase current wiring up to 20 A and with double tap.
• gesis MINI 5-pole (three-phase current) + 5-pole (signals) for optimal space
• gesis MICRO the smallest mains connector for pendant and under-unit luminaires.
• Harmonized snap-in elements and strip lighting connectors.

Advantages:
• Fast, easy, and safe installation.
• For more than 40 years: robust quality for every requirement.
• High functional reliability through prevention of mismating.
• The right product for through-wiring up to 4.0 mm²
Cohesive connector system

For distribution, luminaire connection, and as strip lighting connector:

**gesis MINI, gesis MICRO.**

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Pendant luminaire

**gesis MICRO (GST08)** for connecting pendant luminaires. The free end is connected in the canopy. Connector (integrated at the front) or exterior connecting cable to connect two luminaires to each other flexibly.

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Strip lighting luminaire

**gesis MINI (GST15)** 5-pole for internal three-phase current wiring and as transition to the front of the luminaire, e.g. coding pastel blue.

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Under-unit luminaire for shelves

**gesis MICRO (GST08)** for front-sided connection of luminaire to separate LED driver. Distribution elements can be used to connect several luminaires, e.g. for shelf lighting.

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Industrial luminaires

Applications:

gesis® RST will end your search for the right solution for industrial electrical installation. The connector system, with protection rating IP66/IP68, is also suitable for temporary full immersion. Moisture-proof luminaires can be assembled and connected quickly and easily without being opened.

Solutions:

• *gesis* RST for the electrical connection of hall downlights.
• *gesis* RST 5-pole plugs for dimmable LED luminaires – light where and how it is needed!
• *gesis* RST device connectors, ready-to-use pre-assembled cables, and distribution elements for flexible installations in the IP range.
• *gesis* RST for pluggable moisture-proof luminaires.

Advantages:

• Fully equipped and tested luminaires – prefabrication saves time and money on site!
• Installation without limitation of warranty – the luminaire retains its IP protection through to installation.
• High functional reliability through prevention of mismating.
• Fast, easy, and safe installation.
Hall downlight
Quick connection of hall luminaires without opening the housing with gesis RST MINI. The assembly time is reduced to 20%, the IP protection of the luminaire is preserved.

Moisture-proof luminaire
gesis RST CLASSIC pluggable connector to luminaires with higher protection rating for quick and safe assembly without opening the luminaire.

Parking garage lighting
Quick retrofitting of parking garages with energy-efficient LED lighting using the pluggable luminaire connector gesis RST MINI. Pre-assembled cables are inserted into the cable ducts; pluggable distribution elements are attached to the cable duct.

Cohesive connector system
Distribution elements and pre-assembled cables for outdoor use and for all applications with a higher protection rating (IP66...68).
RST20, CLASSIC: 20A
RST16, MINI: 16A
Street lights & decorative outdoor luminaires

Applications:
With gesis® RST we offer the right solution for all luminaires used outdoors and in industry. The connector system, with protection rating IP66/IP68, is also suitable for brief full immersion. As an interface to moisture-proof luminaires, it offers the advantage that the luminaire no longer has to be opened for the electrical installation.

Solutions:
• gesis® RST for modular street lights.
• gesis® RST 5-pole plug as a service interface for programming DAL dimmable luminaires
• gesis® RST device connectors, ready-to-use pre-assembled cables, and distribution elements for flexible outdoor installations.
• gesis® RST for event lighting and power engineering.

Advantages:
• Fast, easy, and safe installation.
• High functional reliability through prevention of mismating.
• Easy function test without opening the luminaire
• Installation without limitation of warranty – the luminaire retains its IP protection through to installation.
• Broad system – the perfect product for every application in terms of number of poles, coding, dimensions, and design.
Street light
Connector between LED module and ballast for extremely simple assembly: 
\textit{gesis} MINI (GST15).
Connector in luminaire pole for connection and maintenance (programming): 
\textit{gesis} IP+ (RST20).

Road lighting
Safe and durable electrical installation in luminaires for roads: 
\textit{gesis} IP+ (RST20) connector.

Decorative outdoor luminaire
Temporary lighting installations for events and seasonal decoration: pre-assembled and pluggable with 
\textit{gesis} IP+ (RST20).

Façade lighting
Maintenance-friendly and flexible façade lighting is pluggable by design.
The **gesis**® system

Connectors for power supply to the connector system

Distribution blocks for distributing electrical energy or signals within the network

Prefabricated cables for transmission and supply of electrical energy or signals

Device connections are integrated directly into terminals and form the interface to the connector system

**Technical data**

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<th></th>
<th><strong>GST18</strong></th>
<th><strong>GST15</strong></th>
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</thead>
<tbody>
<tr>
<td>Number of poles</td>
<td>3- to 6-pole</td>
<td>2- to 5-pole</td>
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<tr>
<td>Rated current</td>
<td>16 / 20A</td>
<td>16A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>250V / 400V</td>
<td>250V / 400V</td>
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<tr>
<td>Connection cross-section</td>
<td>0.5 ... 2.5mm²</td>
<td>0.5 ... 1.5mm²</td>
</tr>
<tr>
<td>Protection rating</td>
<td>IP 20/40</td>
<td>IP 20/40</td>
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</tbody>
</table>

**Applications**

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<td></td>
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<tr>
<td>Pendant luminaires</td>
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<td>Under-unit luminaires</td>
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<td>Street lights</td>
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<tr>
<td>Industrial hall luminaires</td>
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<td>Moisture-proof luminaires</td>
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<td>Decorative outdoor luminaires</td>
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<tr>
<td>Internal luminaire wiring</td>
<td>++</td>
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<tr>
<td>Connection between electronic ballast/driver and luminaire</td>
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<td>+</td>
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</tbody>
</table>
stromverschraubung

**GST08**
- 2- to 3-pole
- 2.5 / 6A
- 250V / 24V
- 0.75mm²
- IP 20/40

**LST03**
- 2- to 4-pole
- 3.0A
- 32V
- 0.22 ... 0.35mm²

**RST20**
- 2- to 5-pole
- 20 / 32A
- 250V / 400V
- 0.5 ... 6mm²
- IP 65/68

**RST 16**
- 2- to 5-pole
- 16A
- 250V / 400V
- 0.25 ... 1.5mm²
- IP66, IP69K/IP68

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**The experience of the market leader**
**40 years of pluggable electrical installation**
Application fields in which our products and solutions are used.

- Recessed luminaires
- Downlights
- Decorative outdoor luminaires
- Moisture-proof luminaires
- Pendant luminaires
- Under-unit luminaires
- Internal luminaire wiring
- Industrial hall luminaires
- Street lights
- Connection between electronic ballast/driver and luminaire
Excerpt from the reference list containing international companies in the lighting industry:

FIRMEN:

ABEL
ALTO
ANSORG
ANTARES
ARTEMIDE
BEGHELLI
BRILUM
COMATELEC
COOPER
CREE
DEXTRA
DIETAL
DISANO
DURLUM
ENCAPSULITE
ERCO
ETAP

FAGERHULT
GLAMOX
HARVARD
HAVELLS
HELLA
HOFFMEISTER
IGUZZINI
INDALUX
INNOTEK
KREON
LA
LARSEN
LENNEPER
LG
LIVAL
LUMENPULSE
LUX
MARTIN
MASSIVE
NORDEON

OKTALITE
OMS
OSRAM
PHILIP
PRACHT
PHILIPS
POLAM
POULSEN
PROFESSIONAL
REGENT
REGIOLUX
RELCO
REM
RIEGENS
RUUD
RZB
SCHREDER
SITECO
STAKO
SYLVANIA

TARGETTI
TCI
THORN
TRATO
TRAXON
TRIDONIC
TRILUX
WALDMANN
WILA
XAL
ZUMTOBEL
Pluggable installation solutions from Wieland

Additional information

Technical support
Automation technology:
■ Safety technology safety
  Phone: +49 951 9324-999
  e-mail: safety@wieland-electric.com
■ Remote power distribution podis®
  Phone: +49 951 9324-998
■ interface: Power supply, industrial Ethernet
  switches, timer relays, measuring and monitoring
  relays, coupling relays, analog modules, remote
  I/O, surge protection, passive interfaces
  Phone: +49 951 9324-995
■ DIN rail terminal blocks fasis, selos
  Phone: +49 951 9324-991
■ Industrial multipole connectors revos
  Phone: +49 951 9324-992
■ PCB terminals and connectors wiecon
  Appliance terminals, european terminal strips,
  housings for electronic components
  Phone: +49 951 9324-993
Fax: +49 951 9326-991
  e-mail: AT.TS@wieland-electric.com

Technical support
Building services engineering:
■ System connectors for building installation
  gesis CON, gesis RAN, gesis ELECTRONIC
  Phone: +49 951 9324-996
■ DIN rail terminal blocks fasis BIT, selos BIT
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Further information on the topic of pluggable installation:
  gesis INDOOR
  Order No. 0670.1
  gesis OUTDOOR
  Order No. 0690.1
  gesis ELECTRONIC
  Order No. 0700.1
  gesis RAN
  Shop fitting
  Order No. 0409.1
  Order No. 0417.1

Wieland products in general:
Wieland product overview
Order No. 0901.1

General information and news:
www.wieland-electric.com
Visit our e-Shop at
http://eshop.wieland-electric.com

Sales service:
■ To contact our sales department regarding availability,
  delivery schedules, and pricing please call
  Phone: +49 951 9324-990
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... and the addresses of our sales partner worldwide are available at:

www.wieland-electric.com

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Informational material for ordering and for downloading from our websites

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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 240 mm²
  – 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
  – Aluminum or plastic housings
  – Degree of protection up to IP68
  – 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 IP 20/IP 65 ... IP 68
  – Bus connectors
  – Low-voltage connectors
  – Power distribution system with flat cables
  – Distribution systems
  – Bus systems in KNX, LON and wireless technology
  – DIN rail terminal blocks for electrical installations
  – Overvoltage protection