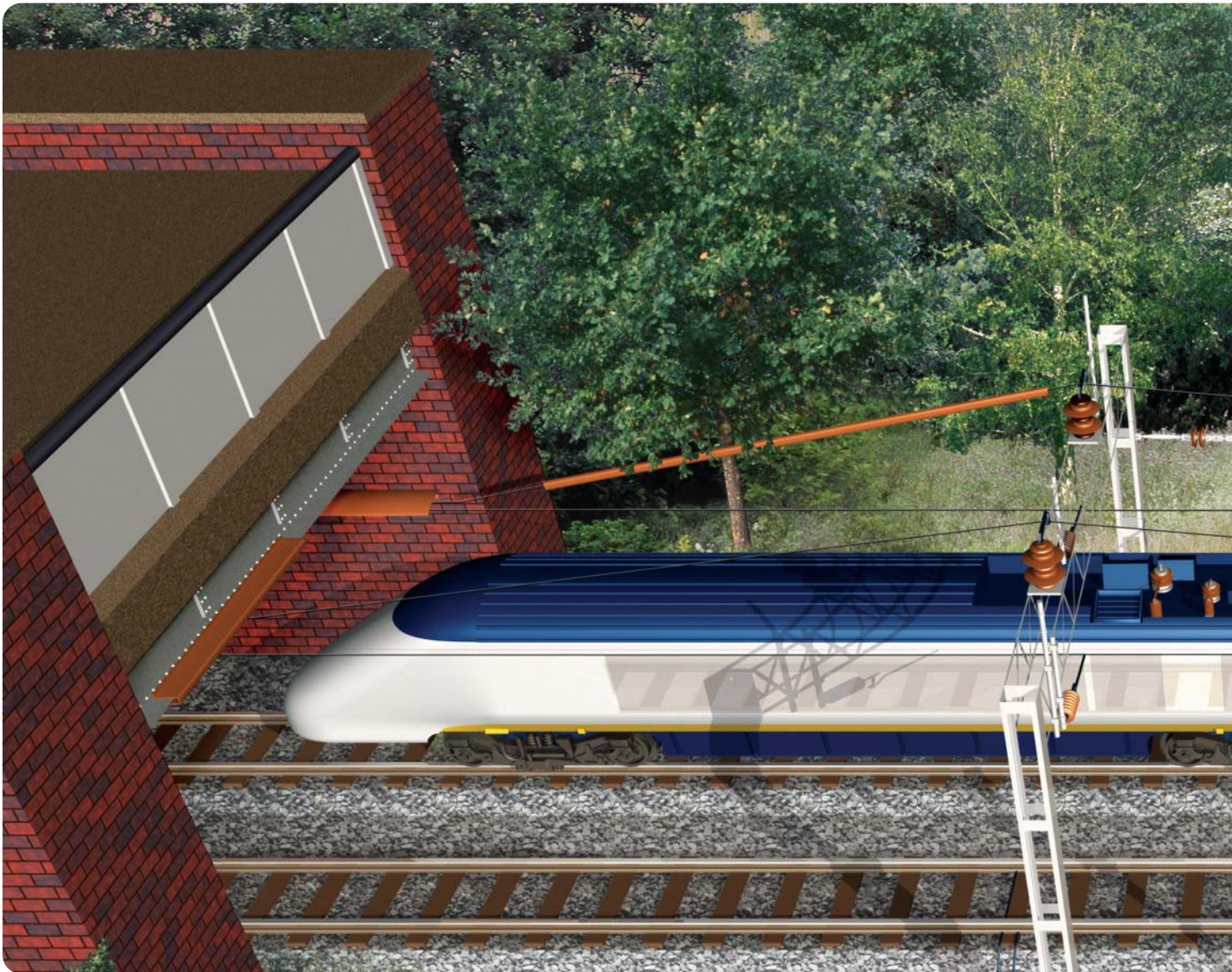


RoHS
Ready 



Industrial Connectors – Solutions for the Railway Industry

Introduction



Tyco Electronics

Tyco Electronics is developing, manufacturing and selling an extreme variety of products and components world wide. In the Rail industry innovative technologies and quality approved products are in many applications. Amongst others the main areas are:

- Connectors and electromechanical components
- Wire, harnessing and protection products
- High voltage products
- Passive components
- Identification and Labeling

HTS Portrait

With the HTS brand Tyco Electronics has more than 50 years of experience in developing and manufacturing of connectors for the highest reliable requirements.

Customers in industrial machinery, electrical power utilities and specially the rail market require extremely high quality standards (IRIS certification 2008) with the greatest product offer. The products portfolio includes standard products, latest innovations as well as customer specific solutions to fulfil the highest customer requirements.

With production lines in strategic countries and regions Tyco Electronics as a local content partner is setting benchmarks in the market and is also offering a great customer service with an individual support from experts.

Introduction



Engineering Competence

For all product developments and modifications Tyco Electronics supports their customers with the highest motivation and most up-to-date technology:

- 2D and 3D CAD systems worldwide
- Calculation procedures according to Finite Element Method
- Mechanical, electrical, thermal and magnetically analyses processes
- Secure communication via IFX and Oddett servers
- Test and qualification laboratories in Europe
- Lean design for Six Sigma
- Customer specific designs

Tyco Electronics Online

For further documentation and latest information please see:

- www.tycoelectronics.com
- www.tooling.tycoelectronics.com/europe
- www.tycoelectronics.com/industrial

Technical Support

Customers trust in the support from the technical experts and a well-developed sales force team from Tyco Electronics.

- Experienced staff
- Competent technical support
- Local Sales Specialists
- For further information please contact your local Tyco Electronics organization

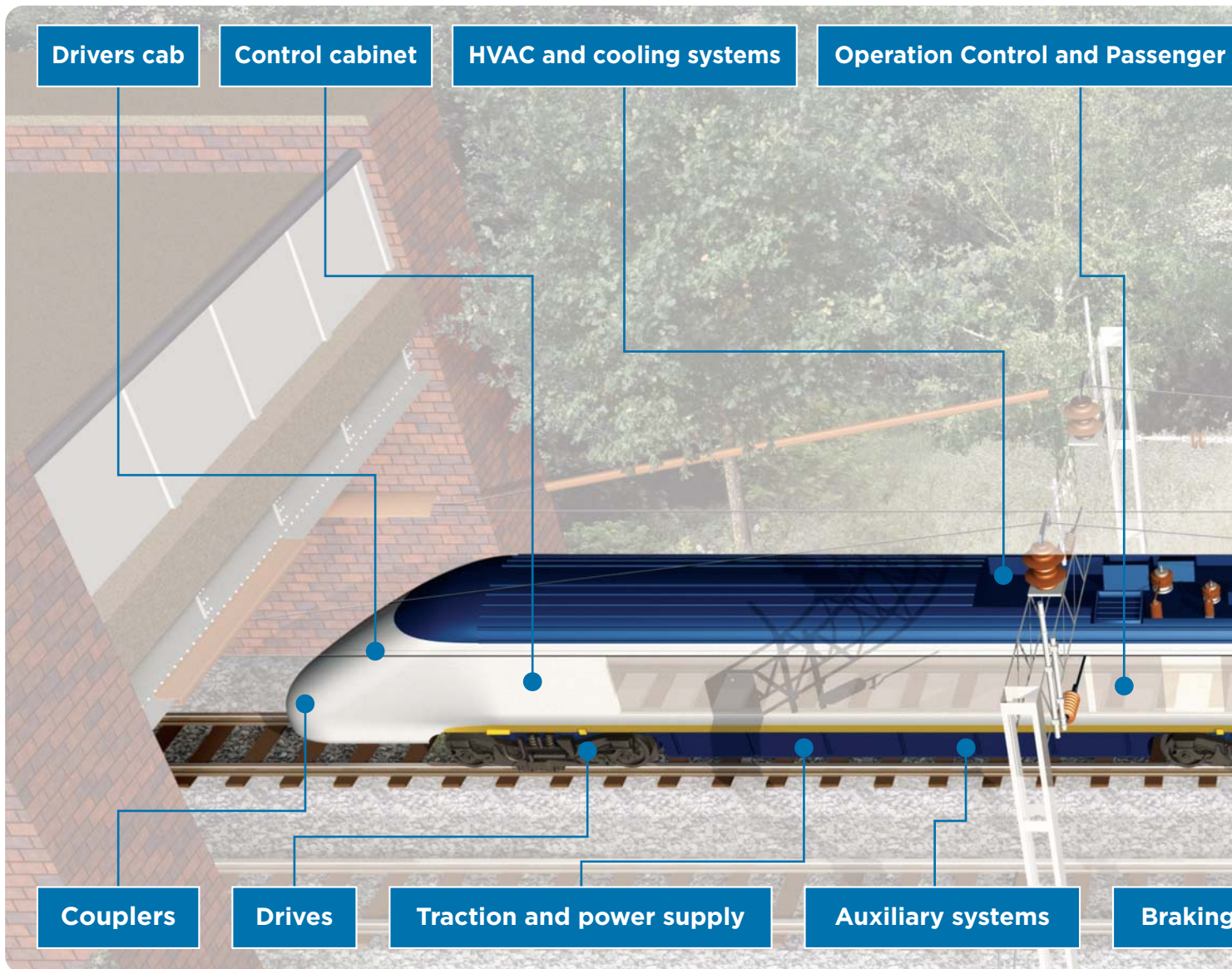
Product Literature

For your further assistance Tyco Electronics is offering specific product catalogs and brochures as well as flyers.

- Innovative Technologies GIC
Lit.-Nr. 1654273-2
- Railway Overview
Lit.-Nr. 7-1773446-9
- Heavy Duty Connectors Catalog
Lit.-Nr. 889745-2
- HTS Heavy Duty Connectors Overview
Lit.-Nr. 1654254-1
- HVS Modular System Overview
Lit.-Nr. 1308159-2
- Power Connectors Overview
Lit.-Nr. 889749



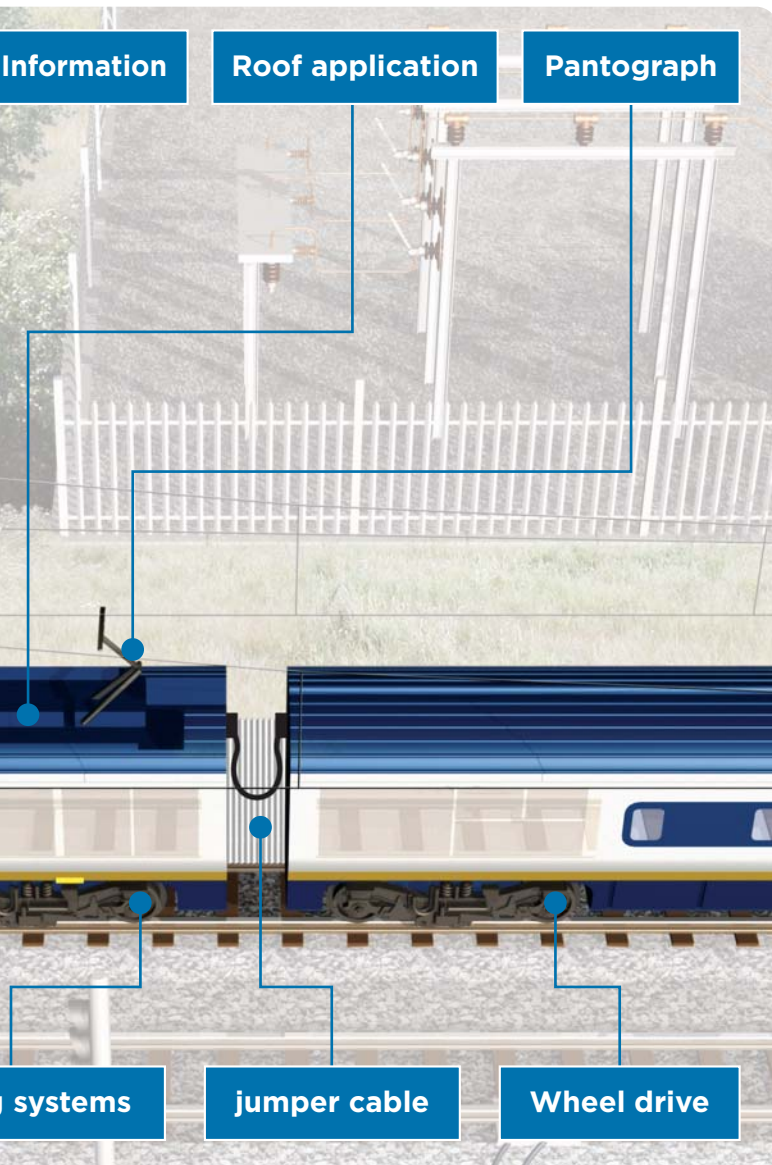
Range of applications



Inserts

- Laser-printed inserts for a permanent and a clear marking
- Certified approval according to VDE and UL as well as CSA
- Flame-retardant materials according to UL94-V0
- Combination inserts for signal and power contacts in one insert
- Inserts for up to 3000 V; 420 A; 216 contacts or up to 150 mm² wire cross section
- Silver-plated or gold-plated contacts with crimp or screw termination as well spring clamp technology
- Machine turned contacts as well as stamped contacts
- Environmental approval according to EN68
- Complete tooling offer – from hand tooling up to fully automated machines

Range of applications


Power Connectors Series HF

- Patented contact system with coil spring technology
- Reduction of the mating force by about 30%
- Increase of the mating cycles by about 50%
- Wire cross sections of up to 150 mm² (ground)
- Nominal voltage up to 3000 V; nominal current up to 420 A
- Weight reducing aluminum die-cast
- Enlarged wiring space and improved performance
- Excellent EMI features and corrosion protection
- IP68 rating for permanent protection against water and foreign substances
- Cable thread up to size M63 for large cable diameters
- Highest vibration and shock as well as access protection due to screw locking system

Modular Systems

- Single piece zinc die-cast frames with in-molded ground contacts
- Laser printing and twist locking on frames and on all inserts
- Up to 6 single module inserts per frame
- Up to 150 contacts; 5000 V; 250 A or 70 mm² wire cross section
- RJ45, USB, Fire Wire, fiber, D-Sub, coax, power, signal and pneumatic
- 4- and 8-way twisted pair modules (4-way full metal insert available)
- Quadrax modules for applications up to 1 GHz
- Tool-less handling of the inserts for more comfort
- Compatible to the most on the market available products



HTS housing performance



Robust

- Extremely impact-resistant and robust surface due to powder coating to enable the usage in rough environment
- EMI protected housing for all EMI critical applications
- Excellent protection against corrosion and environmental influences due to hard anodic oxidation layer (hard coating)



Variable

- Special cable thread for the most reliable fit of the cable gland and the gasket
- Cable thread up to size M63 for large cable diameters and extra stiff cable
- Angled cable entry (wedge shape hoods) for optimized cable management and improved wiring space



Tight

- Multiple rip gasket for uneven surfaces to ensure higher IP ratings and to improve protection
- Protection up to IP68 for a permanent protection against water and foreign substances
- EMI gaskets for EMI critical applications



Reliable

- Stainless steel parts with highest resistance against environmental influences
- Locking systems for more reliable and comfortable handling
- Highest vibration and shock as well as access protection



Approved

- Weight reducing aluminum die-cast
- Environmental approval according to EN68
- Compatible to most of the market available products



Competence in customised solutions



Die-casting

- Industrial die-casting procedures facilitate the production of specific components and constructions
- Aluminum die-casting enables weight optimization and economical customer solutions
- Zinc die-casting for complex solutions with high accuracy
- Chill casting for ambitious products with great dimensions



Molding

- Professional molding processes enable the production of standard and specific products as well as component over molding
- Processing of high-quality thermoplastic and elastomer
- Flame-retardant, self-extinguishing, low toxicity, low smoke emission and high temperature resistance
- MID/MIP inlay molding and over molding of components



Stamping and Bending

- Know-how in manufacturing spring, stamping and bending devices in high accuracy
- Customer-specific solutions to reduce and simplify production and workflow processes
- Quality optimization due to most modern stamping and laser cutting technology



Contacts

- Experience in manufacturing stamped and machine turned contacts
- Tin-plated, silver-plated and gold-plated contacts as well as thermocouple contacts
- All major known termination technologies such as IDC, spring clamp, screw and crimp termination
- Application-specific contact solutions to improve electrical and mechanical performance



Example: MD Connector

- Corrosion protected aluminum die-cast housing for 8 inserts of size 8 (LxWxH 350 mm x 230 mm x 160 mm)
- Central locking screw for improved protection (IP67) and to support mating process
- Safe earth connection via housing as well as many additional performance features



Detailed Product Information is available at the following Tyco Electronics Companies:

Europe/Middle East/Africa

Austria – Vienna

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Fax: +43-1-905-60-1333

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Fax: +43-1-905-60-1251

Belarus – Minsk

Phone: +375 17 237 47 94
Fax: +375 17 237 47 94

Belgium – Kessel-Lo

Phone: +32-16-352-300
Fax: +32-16-352-352

Bulgaria – Sofia

Phone: +359-2-971-2152
Fax: +359-2-971-2153

Czech Republic and Slovakia

Phone: +420-541-162-111
Fax: +420-541-162-223

Product Information Center:

Phone: +420-541-162-113
Fax: +420-541-162-132

Denmark – Glostrup

Phone: +45-43-48-04-00
Fax: +45-43-44-14-14

Egypt – Cairo

Phone: +202-419-2334
Fax: +202-417-7647

Estonia – Tartu

Phone: +372-5138-274
Fax: +372-7400-779

Finland – Helsinki

Phone: +358-95-12-34-20
Fax: +358-95-12-34-250

France – Cergy-Pontoise Cedex

Phone: +33-1-3420-8888
Fax: +33-1-3420-8600

Product Information Center:

Phone: +33-1-3420-8686
Fax: +33-1-3420-8623

France Export Divisions –

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Phone: +33-1-3420-8804
Fax: +33-1-3420-8699

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Fax: +49-6251-133-1988

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Ireland – Dublin

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Fax: +353-1-866-5714

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Phone: +972-3-929-0999
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Italy – Collegno (Torino)

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Fax: +39-011-40-287-428

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Fax: +31-73-6212-365

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Norway – Nesbru

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Poland – Warsaw

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Fax: +7-495-721-1893

Product Information Center:

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Fax: +7-495-790-7902-401

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Fax: +7-812-718-8193

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Fax: +386-1561-3240

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Fax: +27-41-581-0440

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Fax: +34-93-201-7879

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Fax: +380-44-206-2264

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