

RLC-PSI-41-050-0

Connection Cable

Product Highlights

Highly Integrated, Compact Footprint

- Ready-to-use connection cable for Railway Line Gate Driver families
- Connection from DC-DC converter ISO6125R to main driver or
- Connection from main to peripheral driver or
- Connection from one peripheral to another peripheral driver
- Mechanical locked
- Mechanical polarity inversion protection
- Supports multiple mating cycles
- -40 °C to +100 °C operating ambient temperature

Applications

- Traction inverter
- Industrial drives
- Other industrial applications

Description

This data sheet describes the connection cables between the DC-DC converter ISO6125R to customer interface of the Railway Line gate driver families. This cable is available in a 4-pin-configuration.

Railway line gate drivers enable easy paralleling of up to three power modules providing high flexibility and system scalability with minimum development effort.

It is important to note that the paralleling cables as well as the supply cables carry high potential. The user is fully responsible to apply sufficient isolation to the delivered cables.

Connectors

Erni 504898 (Female, 4pole, MicroBridge, 1.27 mm pitch, side locking, polarity protection)

Crimps

0.35 mm², AWG 22

Pinning of Cable

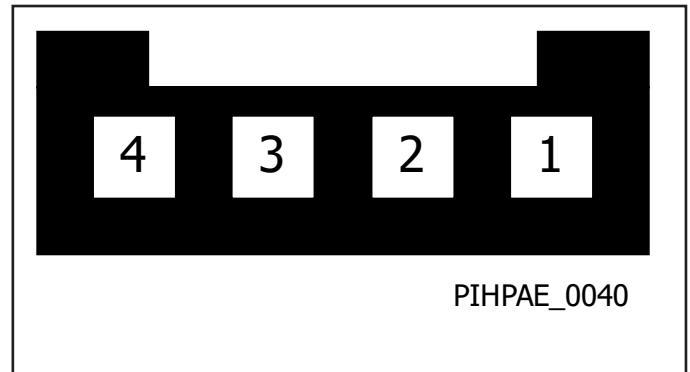


Figure 1. Pinning of 4-pin-Connector, top view, cable side.

Product Dimensions

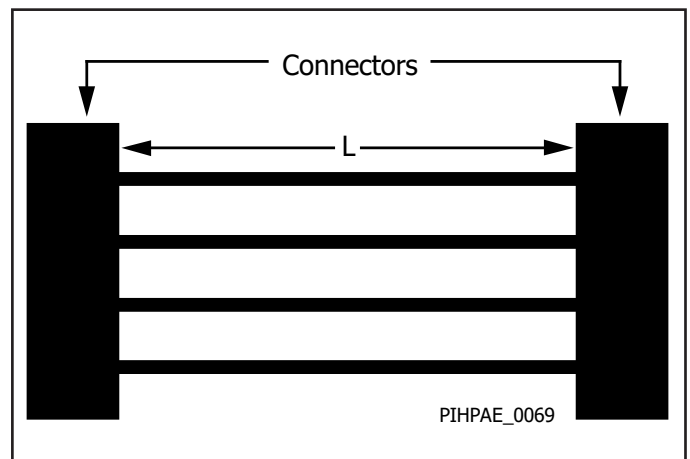


Figure 2. Definition of cable length.

Absolute Maximum Ratings

Parameter	Symbol	Conditions $T_A = -40\text{ °C to }85\text{ °C}$	Min	Max	Units
Absolute Maximum Ratings¹					
Storage temperature ²	T_{st}		-40	85	°C
Operating ambient temperature	T_A		-40	100 ³	°C
Relative humidity	H_r	No condensation		93	%
Peak voltages between wires in cable	V_{max}		-200	200	m

Characteristics

Wire					
Wire Cross Section	D_{Cable}			22	AWG
Working voltage	V_{Work}		30		V
Cable					
Length ⁴	L	see Figure 2		500	mm

NOTES:

- Stresses beyond those listed under absolute maximum ratings may cause permanent damage to the device.
- The storage temperature inside the original package or in case the coating material of coated products may touch external parts must be limited to the given value. Otherwise, it is limited to 85°C.
- The maximum ambient temperature of the final product is 85°C. Part of the cable may however be exposed to higher temperatures due to self-heating of the product.
- The tolerance of the cable length is ± 5 mm.

Standard

RLC-PSI-41-050-0 fulfills the following standards in combination with 1SP0630x2x1R and 1SP0635x2x1R products:

- IEC 61373:2010, Railway applications - Rolling stock equipment - Shock and vibration tests, class 1B
- IEC 60721-3-5, Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities, 5M2
- Plastic materials compliant to EN45545-2, HL3 (Hazard Level 3)

Routine Test

The following tests are performed before delivery:

- Continuity test
- Minimum impedance test to neighbor wires
- IPC/sWHMA-A-620, class 2

Transportation and Storage Conditions

For transportation and storage conditions refer to Power Integrations' Application Note AN-1501.

RoHS Statement

We hereby confirm that the product supplied does not contain any of the restricted substances according Article 4 of the RoHS Directive 2011/65/EU in excess of the maximum concentration values tolerated by weight in any of their homogeneous materials.

Additionally, the product complies with RoHS Directive 2015/863/EU (known as RoHS 3) from 31 March 2015, which amends Annex II of Directive 2011/65/EU.

Notes

Revision	Notes	Date
A	Final Datasheet	05/21

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Power Integrations Worldwide Sales Support Locations

World Headquarters

5245 Hellyer Avenue
San Jose, CA 95138, USA
Main: +1-408-414-9200
Customer Service:
Worldwide: +1-65-635-64480
Americas: +1-408-414-9621
e-mail: usasales@power.com

China (Shanghai)

Rm 2410, Charity Plaza, No. 88
North Caoxi Road
Shanghai, PRC 200030
Phone: +86-21-6354-6323
e-mail: chinasales@power.com

China (Shenzhen)

17/F, Hivac Building, No. 2, Keji Nan
8th Road, Nanshan District,
Shenzhen, China, 518057
Phone: +86-755-8672-8689
e-mail: chinasales@power.com

Germany (AC-DC/LED Sales)

Einsteinring 24
85609 Dornach/Aschheim
Germany
Tel: +49-89-5527-39100
e-mail: eurosales@power.com

Germany (Gate Driver Sales)

HellwegForum 3
59469 Ense
Germany
Tel: +49-2938-64-39990
e-mail: igbt-driver.sales@power.com

India

#1, 14th Main Road
Vasanthanagar
Bangalore-560052 India
Phone: +91-80-4113-8020
e-mail: indiasales@power.com

Italy

Via Milanese 20, 3rd. Fl.
20099 Sesto San Giovanni (MI) Italy
Phone: +39-024-550-8701
e-mail: eurosales@power.com

Japan

Yusen Shin-Yokohama 1-chome Bldg.
1-7-9, Shin-Yokohama, Kohoku-ku
Yokohama-shi,
Kanagawa 222-0033 Japan
Phone: +81-45-471-1021
e-mail: japansales@power.com

Korea

RM 602, 6FL
Korea City Air Terminal B/D, 159-6
Samsung-Dong, Kangnam-Gu,
Seoul, 135-728, Korea
Phone: +82-2-2016-6610
e-mail: koreasales@power.com

Singapore

51 Newton Road
#19-01/05 Goldhill Plaza
Singapore, 308900
Phone: +65-6358-2160
e-mail: singaporesales@power.com

Taiwan

5F, No. 318, Nei Hu Rd., Sec. 1
Nei Hu Dist.
Taipei 11493, Taiwan R.O.C.
Phone: +886-2-2659-4570
e-mail: taiwansales@power.com

UK

Building 5, Suite 21
The Westbrook Centre
Milton Road
Cambridge
CB4 1YG
Phone: +44 (0) 7823-557484
e-mail: eurosales@power.com