

## 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 customer interface
- Mechanical locked
- Mechanical polarity inversion protection
- Supports multiple mating cycles
- -40 °C to +100 °C operating ambient temperature

#### Applications

- Railway 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

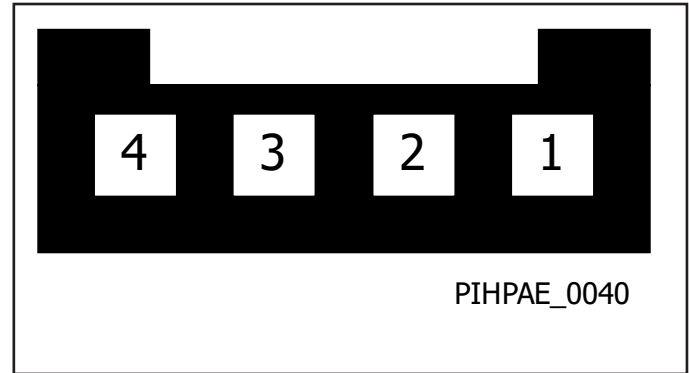


Figure 1. Pinning of 4-pin-Connector, top view, cable side.

### Product Dimensions

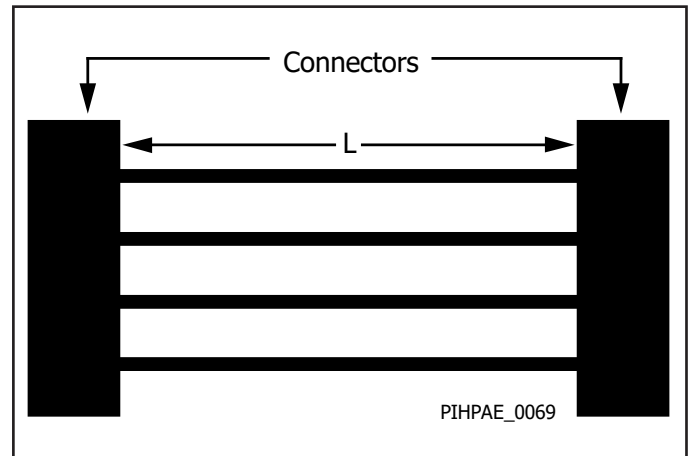


Figure 2. Definition of cable length.

## Absolute Maximum Ratings

Parameter	Symbol	Conditions $T_A = -40\text{ }^{\circ}\text{C to } 85\text{ }^{\circ}\text{C}$	Min	Max	Units
<b>Absolute Maximum Ratings<sup>1</sup></b>					
Storage temperature <sup>2</sup>	$T_{st}$		-40	85	$^{\circ}\text{C}$
Operating ambient temperature	$T_A$		-40	100 <sup>3</sup>	$^{\circ}\text{C}$
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 <sup>4</sup>	L	see Figure 2		500	mm
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### 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  $\pm 5\text{ mm}$ .

## 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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