



# IP Based Pantograph Camera For Rolling Stock



## Electrical

Power Consumption  
Power Supply

4 W max (Camera) + 6 W (Demisting Heater)  
PoE to IEEE802.3af Mixed DC & Data (mode A)

## Connectivity

Connector  
Type

Camera—M12 Female D-Coded (Camera)  
Flying Lead

Connections

Pin	Signal
1	Tx Data +
2	Rx Data +
3	Tx Data -
4	Rx Data -

Connector  
Type

Demisting Heater—3 Pin Wago  
Flying Lead

Connections

Pin	Signal
1	+110 V DC
2	n/c
3	0 V

## Standards Compliance

Shock & Vibration  
Ingress Protection  
Cooling  
Dry Heat  
Low Temp Storage  
Damp Heat  
Rapid Temp Cycling

EN50155:2007, 12.2.11 EN61373:2010  
EN60529:1992  
EN50155:2007, 12.2.3 EN60068-2-1:2007 Test Ad  
EN50155:2007, 12.2.4, EN60068-2-2:2007 Test Bd  
EN50155:2007, 12.2.14, EN60068-2-1  
EN50155:2007, 12.2.5 EN60068-2-30:2005 Test Db  
EN60068-2-14:2009 Test Na

Earth Bonding

EN50155:2007

Conducted Emissions  
Radiated Emissions  
Radiated Susceptibility  
Conducted Susceptibility  
Fast Transient Burst Sus.  
Electrostatic Discharge

EN50155:2007 12.2.8.2, EN50121-3-2:2015, EN55011:2009 +A1:2010  
EN50155:2007 12.2.8.2, EN50121-3-2:2015, EN55011:2009 +A1:2010  
EN50155:2007, 12.2.8.1, EN50121-3-2:2015, EN61000-4-3:2006 +A1:2010  
EN50155:2007, 12.2.8.1, EN50121-3-2:2015, EN61000-4-6:2009  
EN50155:2007, 12.2.7.3, EN 50121-3-2:2015, EN61000-4-4:2004 A1:2010  
EN50155:2007, 12.2.7.2, EN50121-3-2:2015, EN61000-4-2:2009

... a level of runtime  
stability and resilience  
not normally associated  
with high technology  
systems...

# Ruggedised Low Profile IR Pantograph Illuminator For Rolling Stock

eyeTrain is designed to rail group standards, and incorporates the very latest in video, storage and communications technology. The eyeTrain range offers digital (IP) technology matched to the harsh environment of rolling stock applications, providing the highest performance and resilience on the market.



## Specifications

### General

Type	Rugged Low Profile Infra Red Pantograph Illuminator
Part Number	PGI-ST-397
Form Factor	Low profile anodised aluminium alloy
Dimensions	69 mm (H) x 160 mm (W) x 124.5 mm (L)
Weight	2.1 kg

### Specification

Input Voltage	38 V max
Input Current	700 mA (via constant current supply)
Colour Temperature	850 nm IR

### Connections

Deutsch DT06-4S-CE05 PLUG	
Pin 1	+38 V DC
Pin 2	0 V

### Environmental

Temperature Range	-25 °C to +70 °C (Operational T3)
Ingress Protection	IP66

# Ruggedised Low Profile IR Pantograph Illuminator For Rolling Stock

## Standards Compliance

Shock & Vibration	EN50155:2007 12.2.11, EN61373:2010
Ingress Protection	EN60529:1992+A1:1998+A2:2000
Damp Heat	EN50155:2007 12.2.3, EN60068-2-30
Dry Heat	EN50155:2007 12.2.4, EN60068-2-2
Low Temperature Storage	EN50155:2007 12.2.14, EN60068-2-1
Low Temperature	EN50155:2007 12.2.14, EN60068-2-1
Rapid Temperature Cycling	EN50155:2007, EN600068-2-14
Insulation	N/A
Insulation resistance	N/A
Voltage Withstand	N/A
Variation of Voltage Supply	N/A
Voltage Over-voltage	N/A
Voltage Interruption	N/A
Earth Bonding	EN50155:2007
Reverse Polarity	N/A
Conducted Emissions	EN50155:2007 12.2.8.2, EN50121-3-2:2016, EN55016-2-1:2014
Radiated Emissions	EN50155:2007 12.2.8.2, EN50121-3-2:2016, EN55016-2-3:2010
Radiated Susceptibility	EN50155:2007 12.2.8.1, EN50121-3-2:2016, EN61000-4-3:2006
Conducted Susceptibility	EN50155:2007 12.2.8.1, EN50121-3-2:2016, EN61000-4-6:2014
Fast Transient Burst Sus	EN50155:2007 12.2.7.3, EN 50121-3-2:2016, EN61000-4-4:2012
Electrostatic Discharge	EN50155:2007 12.2.7.2, EN50121-3-2:2016, EN61000-4-2:2009
Surge Immunity	EN50155:2007 12.2.7.1, EN 50121-3-2:2016, EN 61000-4-5:2006