



# IP Based Vehicle Door Interface Unit 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	Vehicle Door Interface Unit (VDIU). The VDIU is used in each vehicle to inhibit left and/or right door opening when necessary and also provides monitoring of the door position. The VDIU provides forced volt-free contacts to provide reliable and isolated operation
Manufacturer	Petards
Part Number	VDI-ST-397
Form Factor	Flanged enclosure, Connectors on one face only
Dimensions	285 mm W x 65 mm H x 160 mm D Flanges protrude 20 mm each side
Weight	4 kg



### Specifications

#### Electrical

Power Supply	PoE, 802.3af PoE, IEEE802.3af Mixed DC & Data (Mode A)
Power Consumption	4.5 W

#### Controls

ASDO Normal/Isolate Left (via remote switch)
ASDO Normal/Isolate Right (via remote switch)
When Isolate is selected the doors cannot be inhibited by the ASDO system

#### Indicators

PoE (Green) Indicates that VDIU is powered
Link (Green) Indicates Ethernet link present

#### Connectivity

Ethernet (PoE)	M12 Female D-Coded			
	Pin	Signal		
	1	Eth Tx +		
	2	Eth Tx -		
	3	Eth Rx +		
	4	Eth Rx -		
RS-485	9 Way Standard D-Sub Male Pins			
	Pin	Signal	Pin	Signal
	1	Rx +	6	Gnd
	2	Rx -	7	n/c
	3	Tx +	8	n/c
	4	Tx -	9	n/c
	5	Gnd		



### Specifications

#### Connectivity (Cont.)

Service Port	9 Way Standard D-Sub Male Pins No end user wiring, use a standard RS232 cable to connect		
Isolate Right	4 Way Souriau UTG0104SH Female		
	<b>Pin</b>	<b>Signal</b>	<b>Voltage</b>
	A	Door Release Isolate A (Normally Open, Close to Isolate)	110 V DC
	B	Door Release Isolate B (Normally Open. Close to Isolate)	110 V DC
	C	DOSI Isolate A (Normally Closed, Open to Isolate)	24 V DC
	D	DOSI Isolate B (Normally Closed, Open to Isolate)	24 V DC
Doors right	12 Way Souriau UTG01412PH Male		
	<b>Pin</b>	<b>Signal</b>	
	A	Door Release Inhibit A	
	B	Door Release Inhibit B	
	C	24 V Supply In	
	D	0 V Supply In	
	E	DOSI Door A	
	F	DOSI Door B	
	G	24 V Supply Out	
	H	Doors Closed Input +	
	J	Doors Closed Input -	
	K	0 V Supply Output	
Isolate Left	4 Way Souriau UTG0104PH Male		
	<b>Pin</b>	<b>Signal</b>	<b>Voltage</b>
	A	Door Release Isolate A (Normally Open, Close to Isolate)	110 V DC
	B	Door Release Isolate B (Normally Open. Close to Isolate)	110 V DC
	C	DOSI Isolate A (Normally Closed, Open to Isolate)	24 V DC
	D	DOSI Isolate B (Normally Closed, Open to Isolate)	24 V DC



### Specifications

#### Connectivity (Cont.)

Doors Left	19 Way Souriau UTG01619PH Male	
	<b>Pin</b>	<b>Signal</b>
	A	Door Release Inhibit A
	B	Door Release Inhibit B
	C	n/c
	D	24 V Supply In
	E	0 V Supply In
	F	DOSI Door C
	G	DOSI Door D
	H	n/c
	J	24 V Supply Output
	K	Doors Closed Input +
	L	Doors Closed Input -
	M	0 V Supply Output

#### Standards Compliance

Shock & Vibration	EN50155:2007, 12.2.11 EN61373:2010
Ingress Protection	EN60529:1992
Cooling	EN50155:2007, 12.2.3 EN60068-2-1:2007 Test Ad
Dry Heat	EN50155:2007, 12.2.4, EN60068-2-2:2007 Test Bd
Low Temp Storage	EN50155:2007, 12.2.14, EN60068-2-1
Insulation	EN50155:2007, 12.2.9.1
Voltage Withstand	EN50155:2007, 12.2.9.2
Earth Bonding	EN50155:2007
Conducted Emissions	EN50155:2007 12.2.8.2 EN50121-3-2:2015 EN55011:2009 +A1:2010
Radiated Emissions	EN50155:2007 12.2.8.2 EN50121-3-2:2015 EN55011:2009 +A1:2010
Radiated Susceptibility	EN50155:2007, 12.2.8.1 EN50121-3-2:2015 EN61000-4-3:2006 +A1:2010
Conducted Susceptibility	EN50155:2007, 12.2.8.1, EN50121-3-2:2015 EN61000-4-6:2009
Fast Transient Burst Sus.	EN50155:2007, 12.2.7.3, EN 50121-3-2:2015 EN61000-4-4:2004 A1:2010
Electrostatic Discharge	EN50155:2007, 12.2.7.2, EN50121-3-2:2015 EN61000-4-2:2009