

- **1.8 GHz fully isolated system outlet**
- **KS male to KS female connectors**
- **Excellent RF performance**
- **Great mechanical strength across the isolator**
- **Superb EMC ingress protection**



Overview

Isolators (frequently referred to as system outlets) are used to separate an in-home installation or subscriber equipment from the CATV network. They prevent hazardous voltages from being transferred to in-home installations. Technetix supplies two main types of isolator; fully and semi-isolated system outlets. The TRISZ-DG18-KS comprises fully isolated system outlets developed to meet the needs of the European market. It incorporates high voltage capacitors that provide isolation to both the inner and the outer conductors of the coaxial connectors. Operating up to 1.8 GHz, the TRISZ-DG18-KS offers an isolation solution for full DOCSIS 4.0 deployments while maintaining high levels of performance and protection.

Electrical specifications

Parameter		Frequency	Min	Typ	Max	Units	Notes
Frequency			5		1800	MHz	
Impedance		5 - 1800		75		Ohm	
Insertion loss		10 - 1800		0.3	0.9	dB	
Return loss		10 - 15	16	20		dB	
		15 - 47	20	25		dB	
		47 - 1800	20	20		dB	1
Screening efficiency	Class A+	5 - 15		10		mΩ/m	2
		15 - 30	2.5			mΩ/m	2
		30 - 300	95	110		dB	2
		300 - 1000	95	105		dB	2
		1000 - 1800	85	95		dB	2
Galvanic isolation	Inner conductor I/P to inner conductor O/P	2120 VDC			0.7	mA	3
	Outer conductor I/P to outer conductor O/P	2120 VDC			0.7	mA	3
AC leakage current	Inner conductor I/P to inner conductor O/P	230VAC			8.0	mA RMS	3
	Outer conductor I/P to outer conductor O/P	230VAC			8.0	mA RMS	3
Impulse withstand	All ports				1	kV	
Intermodulation p+q	No surge		115			dBc	
	25V surge		115			dBc	4
	1kV surge		115			dBc	5

Environmental specifications

Parameter		Details
Temperature	Operating	-35 to +45 °C
	Storage	-40 to +75 °C

Mechanical specifications

Parameter		Details
Connectors	KS-type male to female	EN 61169-24
Connector material	Body	Die cast Zinc, Nickel plated
	Contact	BeCu, Tin-Nickel
Housing material	Body	Die cast Zinc and Brass components, White Bronze plated, with ABS insulator

Notes

- | | |
|---|---|
| 1 | -1.5 dB/oct always >14 dB |
| 2 | According to IEC 62153-7 § 5.5 (tested with 1.5m Class A++ cable attached) |
| 3 | IEC-60728-11 § 9 safety requirement: 2120 VDC T \geq 1 minute, \leq 0.7 mA. 230 VAC \leq 8.0 mA RMS |
| 4 | Two carriers (60 & 65 MHz), out to in @ 120 dBuV, after 10 pulses (25V), at all ports |
| 5 | Two carriers (60 & 65 MHz), out to in @ 120 dBuV, after 1 pulse (1kV), at all ports |
| 6 | Measurements taken at room temperature |

Ordering information

Item name	Article number
TRISZ-DG18-KS	19012970

Measurements

