

suRGclear RG5H

Communications Connectivity and Protection 5-Pin Protection Modules with Hybrid technology & Enhanced Balancing

Richard Gray's suRGclear™ 5-pin protection modules utilize the latest protection technologies to protect today's converged high speed communication and data networks from damage caused by lightning, AC induction (sneak currents), ESD, power cross faults and AC transients.

The RG5 H-Series are industry standard modules intended for use in central offices, remote and building entrance terminals.

This series incorporates a hybrid blend of Gas Tube and Solid State technologies that improve let-through performance versus gas tube only module designs. The optional Enhanced Balancing version coordinates, equalizes (T-G, R-G, and T-R) and limits overvoltage surge events.

In applications or environments that require over current (sneak current) protection, self healing resettable PTCs are an available option. Overvoltage breakdown is preprogrammed to 230V or 300V levels. Overcurrent (sneak current) protection ratings are set at 180mA operating current.

All modules incorporate an integrated unibalance failsafe mechanism to assure compliance with NFPA, UL and Telcordia requirements.

Features

- Multistage Hybrid Design with Enhanced Balancing
- Low capacitance and capacitance imbalance
- Optional test access ports
- Integrated unibalance failsafe mechanism
- Compatible with industry standard 5-pin panels
- Optional Self-Healing PTC

Benefits

- Coordinated overvoltage protection in all modes
- Stops damaging transients without signal loss
- Enhances network reliability
- Reduces down time, network troubles and service calls
- UL 497 Listed
- Meets Telcordia GR-974, NEC and CEC requirements
- Enhanced Balancing suitable for high speed networks
- 6 year warranty (Contact factory for details)



RICHARD GRAY'S POWER COMPANY is a US owned and operated manufacturer of AC Power Delivery Systems and Communications Protection/Connectivity products. RGPC's mission is to utilize its focus, experience and expertise in providing an enhanced, secure and safe environment where AC Power, Communications and Data operate in harmony and maximum efficiency in today's converged infrastructure.



Hybrid and Enhanced Balancing Characteristics:

Overvoltage Characteristics	230V Hybrid	300V Hybrid	230V Enhanced	300V Enhanced	Notes
DC Voltage Limiting					
T-G	230 V	300 V	230 V	300 V	Values Typical Up to 2000V/second
R-G	230 V	300 V	230 V	300 V	
T-R	414 V	540 V	230 V	300 V	
Impulse Voltage Limiting					
T-G	< 350 V	< 600 V	< 350 V	< 600 V	At 100V/μsecond
R-G	< 350 V	< 600 V	< 350 V	< 600 V	
T-R	< 900 V	< 1500 V	< 350 V	< 600 V	
Impulse Voltage Limiting					
T-G	< 500 V	< 700 V	< 500 V	< 700 V	At 1000V/ μsecond
R-G	< 500 V	< 700 V	< 500 V	< 700 V	
T-R	<1300 V	< 1800 V	< 500 V	< 700 V	
Capacitance					
T-G or R-G	<50pF	<50pF	<20pF	<20pF	@ 1MHz, 0 Vdc
Capacitive Imbalance (matching)					
T-G and R-G	<1 pF	<1 pF	<1 pF	<1 pF	
Impulse Surge Life		>1500 Operations			10A, 10x1000μs
		>100 Operations			100A, 10x1000μs
		>100 Operations			500A, 10x1000μs
Impulse Reset		Clears < 30 ms			Up to 825mA/140Vdc

Overcurrent Self Healing Characteristics:

Operating Current	180mA	At 20° C
Activation Time @ 350mA	< 210 seconds	Self Healing Resettable PTC
Line Resistance	< 4 Ohms	
Line Imbalance	<0.5 Ohms	
Safety	Fast acting unbalanced fail-short mechanism	
Storage Temperature	-40°C to 85°C	
Operating Temperature	-40°C to 65°C	

* All measured at 20°C

Ordering Information (Part Numbers)

RG5 0 300 G R015 T T

RG5 Series	Applications	Overvoltage Protection	Technology & Balance option	Pin Finish
	0- Standard Service (Black)	000: No Overvoltage Protection	H: Hybrid	T: Tin
	1- High Exposure (Brown)	230: 230 Volts	HE: Enhanced Balancing	G: Gold
	2 -Special Service (Red)	300: 300 Volts	Overcurrent Protection	Test Access
	6 -T1 (Blue)		N000: No Overcurrent Protection	T: Test Ports
	7- Broadband/VDSL (violet)		R015: Resettable self healing PTC	N: No Test Ports