

## A reliable test solution that will satisfy your needs in the most stringent test conditions!

When a solution is needed that will be easy to maintain and will provide repeatable high-quality results, you can look to VROL®. In the test industry, the desire for highly consistent yield and a decreased downtime is ever-present, and this is where VROL® will shine.

The performance and self-cleaning wiping technology that Johnstech is known for, is taken to the next level with VROL®. The high frequency performance of VROL® opens the doors for use in any application, & the wiping action of VROL® will clear any debris off the device pad and make sure your testing is successful.

VROL® is compatible with previous Johnstech products so there is no need to change set ups! You can deploy VROL® on your current loadboard with existing hardware and you are ready to test!

In today's test environment it is imperative that your solution brings high performance and consistent results, which are pillars of Johnstech technologies. We are helping our customers save time and money by supplying solutions that are well equipped to deliver successful results.

### FEATURES & BENEFITS

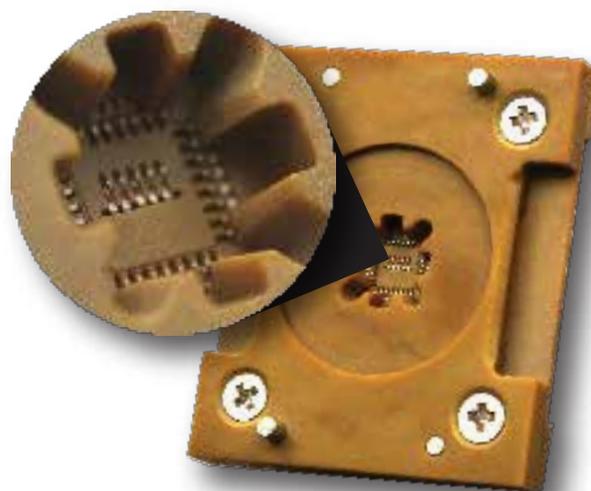
INSERTION LOSS	< -1.0 dB up to 43 GHz
TEMPERATURE	-65°C to 175°C
CRES	30mΩ
CONTACTOR LIFE	Elastomers: 300-500k Contact Probes: 500k Housing: 2M+

#### Electrical Reliability Improves Yields

- Patented one-piece VROL® Contacts
- Delivers lowest contact resistance (CRES)
- High current carrying capability
- Low inductance
- Extremely stable contact resistance (CRES)
- High frequency capability
- Wiping contact clears debris

#### Mechanically Robust

- Long life VROL® contacts
- Patented wiping increases MTBA



Electrical Specifications	Leaded VROL® 200
Insertion Loss	< -1.0 dB up to 43 GHz
Return Loss	> -10 dB up to 43 GHz
Cres	30mΩ
CCC- 20°C Rise <sup>1</sup>	100% up to 4.3A 1% up to 43A (RMS) <sup>2</sup>
Current Leakage	<1pA @ 10V
Inductance	Self: 0.557nH; Mutual: 0.130nH
Capacitance	Ground: 0.226pF; Mutual: 0.113pF
Nearest Decoupling Area	1.80mm

Mechanical Specifications	Leaded VROL® 200
Device Pitch	≥ 0.4mm
Compressed Height	1.34mm
Contact Compliance	0.20mm
Contact Life <sup>3</sup>	Elastomers = 300K - 500K Contact Probes = 500K, Housing 2M+
Contact Force (per contact) <sup>4</sup>	Up to 55gm
Temperature	-65°C to 175°C

NOTE: Specifications for 0.5mm pitch configurations shown here. These specifications are based on Johnstech's internal simulations and testing.

<sup>1</sup> Higher currents allowed for higher temperature rises.

<sup>2</sup> RMS current carrying capacity for pulsed applications. Duty Cycle 1%. Values based on measured steady state current capacity, standardized to 1 Hz test cycle, 20°C temperature rise. Higher currents allowed for higher temperature rises.

<sup>3</sup> Contact, elastomer, and housing life values are TYPICAL based on Johnstech internal testing. Actual production life will vary based on a wide range of variables including: handler, contactor, load board interface, handler plunge depth and velocity, device presentation, alignment plate condition, package plating material and characteristics, test floor conditions, maintenance activities, mounting/fastening techniques, site-to-site coplanarity, docking coplanarity, and temperature extremes.

<sup>4</sup> Configurations for NiPdAu and Matte Tin are available to satisfy force requirements for DUT.

