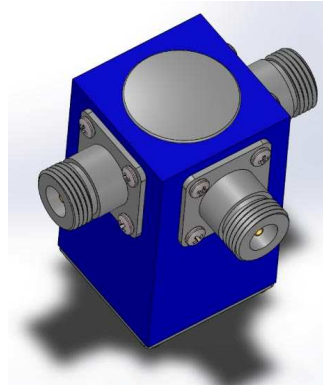


Manitou Systems Inc.



MATRIX X MINI™ RF/DC SWITCH MODULE

Meet the new MATRIX X MINI RF/DC switch module

The new **Matrixx Mini** is designed to simplify RF and DC power switching in plasma processing systems.

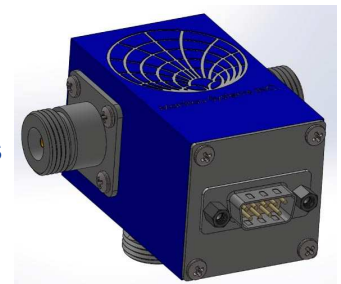
Matrixx Mini switch modules can be mounted directly at a magnetron cathode (sputtering source) to provide an easy method to switch between and RF and DC power generators. The **Mini** can also be located at the output of a power generator to enable switching between two loads.

A 9 pin male D-sub connector + (optional) high quality shielded cable provides an interface between the **Mini** and the control source.

Manitou Systems offers both high current and low current models and well as versions configured with most industry standard connectors such as Types N, UHF, HN & 7-16 DIN.

The **Mini** is compatible with all AC, DC, pulsed DC and RF (radio frequency) applications. Compensated versions are available for use at VHF and UHF frequencies.

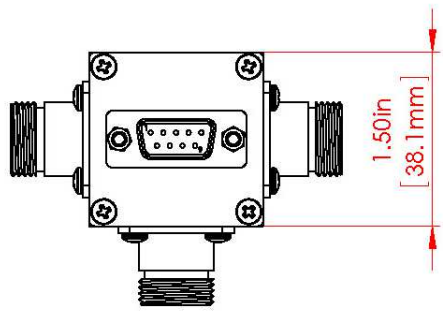
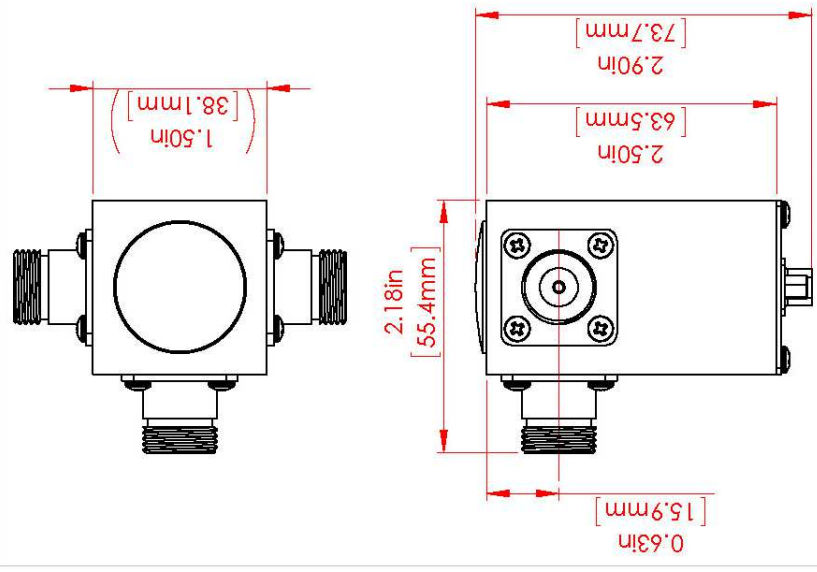
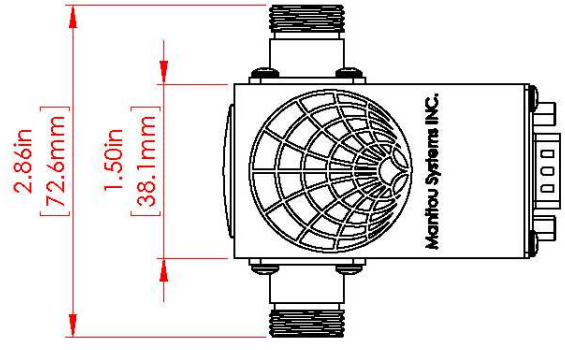
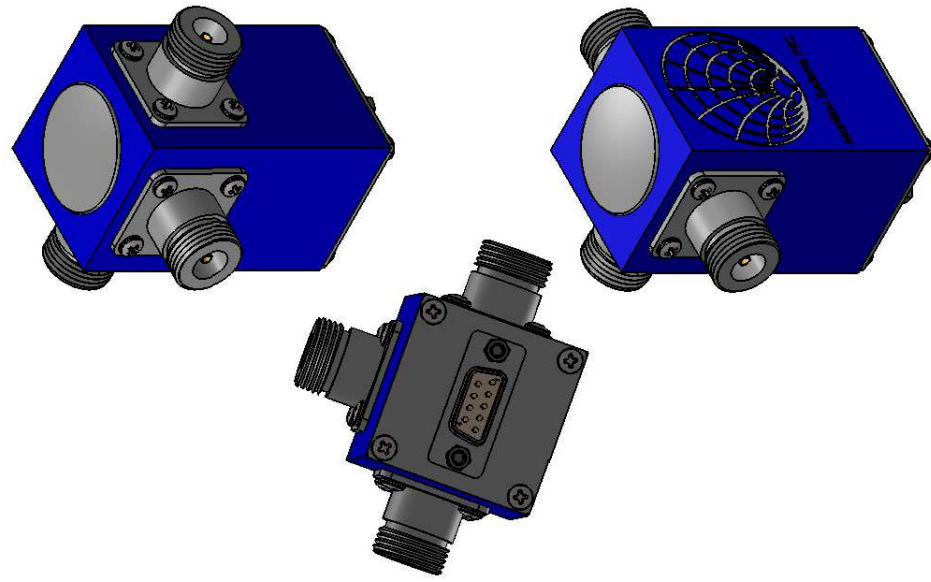
- VR1 Low & VR3 High power versions
- D-Sub connector for connection to the control system
- Vacuum type relay for highest reliability
- OEM and Standard designs using industry standard coaxial connectors
- 24VDC operation (12VDC optional)
- Internal quench diode
- LED active indicator



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REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/29/16	

REVISIONS	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/29/16	



MANITOU SYSTEMS INC.

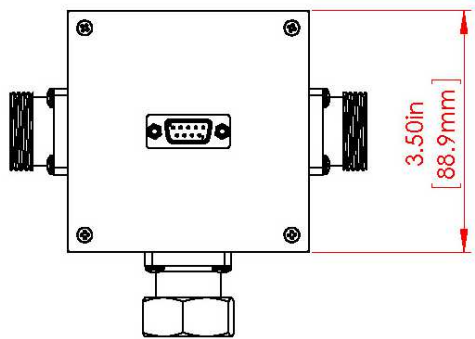
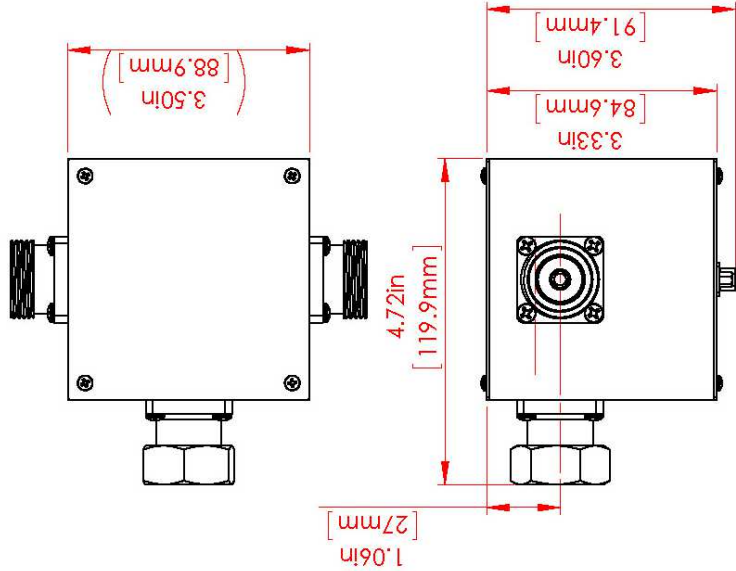
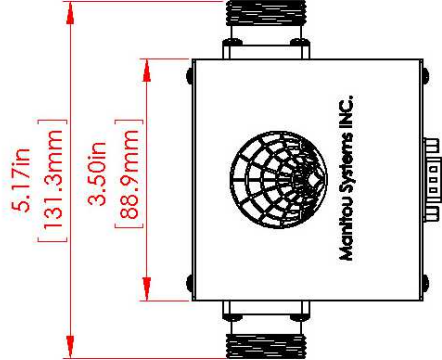
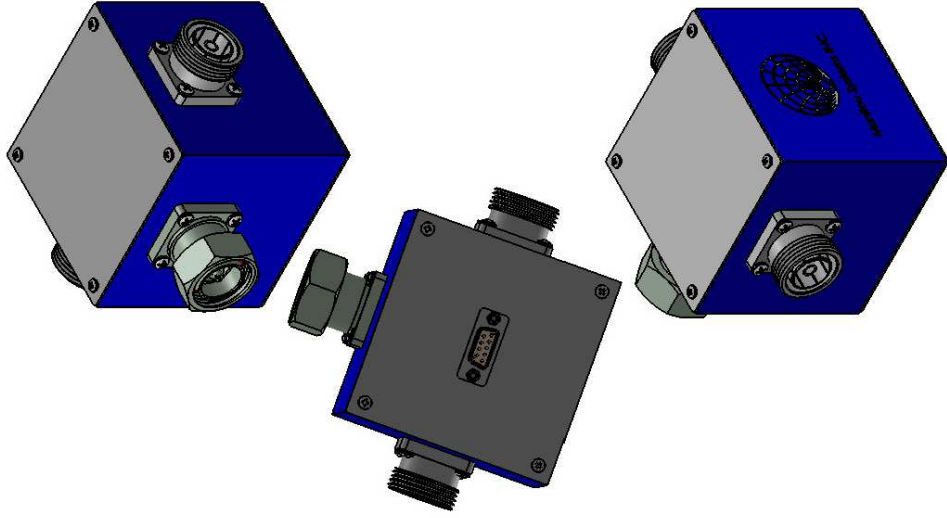
Title: MATRIX MINI RF/DC SWITCH MODULE - LOW CURRENT VERSION

SEE DWG. NO. **A** 00010220 REV. **A**
SCALE:1:2 WEIGHT: SHEET 1 OF 1

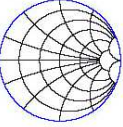
DRAWN	CHECKED	ENG. APPR.	MFG APPR.	Q.A.	COMMENTS:
Mark-Hambir					
NAME	DATE				
Mark-Hambir	11/29/16				
Unless Otherwise Specified					
.XX	.XXX	X"			
±.01	±.005	±1°			
Edges: BREAK .00GR MAX					
Inside Cor Radii: .005R					
Outside Cor Radii: .005R OR CHAMFER					
Dim. in inches () mm					
MATERIAL: SEE B.O.M.					
FINISH: SEE DETAILS					
NEXT ASSY	USED ON	APPLICATION			
		DO NOT SCALE DRAWING			

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REV:	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	12/01/16	



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UNLESS OTHERWISE SPECIFIED: .XX ±.01 .XXX ±.005 X ⁺ ±1° Edges: BREAK .005R MAX Tolerances: FRACTIONAL DECIMALS TYPICAL SURF FINISH: .063R OUTSIDE COR RADI: .063R OR CHAMFER DIM. IN INCHES () MM MATERIAL: SEE B.O.M. FINISH: N/A NEXT ASSY: USED ON APPLICATION: DO NOT SCALE DRAWING	DRAWN: Mark-Hambir CHECKED: ENG APPR: MFG APPR: Q.A. COMMENTS:	NAME: Mark-Hambir DATE: 12/01/16	MANITOU SYSTEMS INC.  Title: MATRIX MINI RT/DC SWITCH MODULE-HIGH CURRENT VERSION SIZE DWG. NO. 00010221 REV. A SCALE: 1:2 WEIGHT:
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MATRIXX *MINI* Specifications

- Operational Frequency 30 MHz Maximum / 450MHz (compensated)
- Current Rating (relay) Model VR1 25A AC/DC & 9A @13 MHz
Model VR3 50A AC/DC & 17A @13 MHz
- Voltage Rating (relay) Model VR1 3.5kV AC/DC & 2kV @13 MHz
Model VR3 9kV AC/DC & 15kV @13 MHz

Note: Application ratings always continuous and limited by specific connector type.

Contact **Manitou Systems** to discuss your application.

- Isolation N.O. > N.C. X dB @ 13MHz
- Coaxial Connectors Available with types UHF, N, HN and 7/16 DIN
- Control Connector Type D-Sub 9 male
- Switching Cold (power off) only (**NO hot switching allowed**)
- Ambient Temperature 40 degrees C
- Maximum Humidity Not to exceed 80% / non-condensing
- Cooling None required
- Mounting Via 2X 8-32 blind threaded holes & user supplied bracket
- Control Connection D-sub 9 male connector
- LED Indicator Via Red LED mounted next to control connector
- Physical Size See interface drawings
- Product Weight x lbs
- Country of Manufacture USA
- Complementary hardware 19 " Rack mount control panel & cables



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Technical specifications are subject to change without prior notice.
See our web site or contact us directly for the latest specifications and pricing.