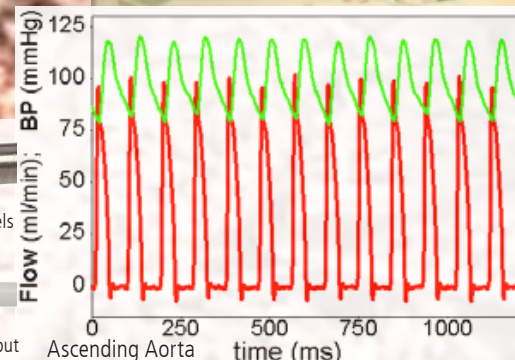
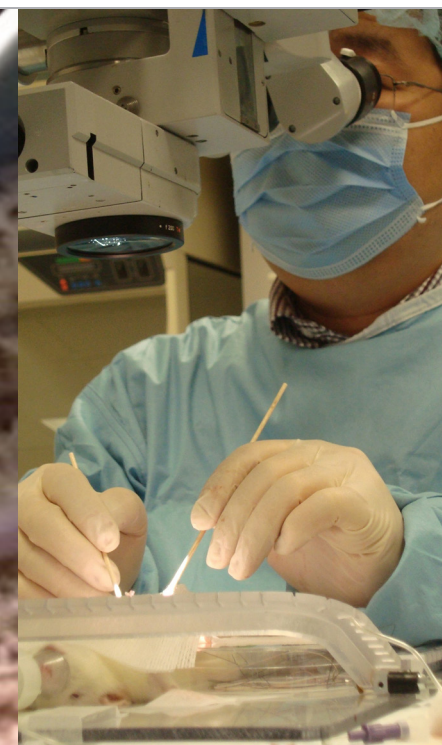


Precision Nanoprobes for Mice

PS-Series, PR-Series & V-Series Flowprobes for use with TS420 Flowmeter Module



- Sized to Fit Mouse Anatomy
- Unprecedented Capability
 - Continuous real-time volume flow measurements for calculating cardiac output, stroke volume and vascular resistance.
 - Applications include: renal blood flow, autoregulation, carotid thrombosis occlusion & femoral hindlimb studies.
 - For acute or chronic applications with a range of customizable features.
- Gold Standard Accuracy
 - Ultrasonic Transit-time Technology
 - Waveforms demonstrate signature zero baseline stability and high resolution even with flows less than 1 mL/min.

MURINE BLOOD FLOW MAPPING	
VESSEL	SUGGESTED PROBE
Ascending Aorta	1.5PSL
Lower Thoracic Aorta	1PR
Pulmonary Artery	1PR
Carotid Artery	0.5PS, 0.5V
Femoral Artery	0.5PS
Mesenteric Artery	0.7PS
Renal Artery	0.5PSL
Portal Vein	1PR



Specifications & Accessories for Mouse Applications

ORDERING PRECISION PROBES

MA- prefix: standard acute configuration; specify size and cable orientation. Acute 0.5PS & 0.7PS and V-Series Probes supplied with 5 cm handle.

MC- prefix: custom or chronic configuration; specify size, cable orientation & length, connector type, & calibration option.

STABILIZATION ACCESSORIES

For precision measurements, Nanoprobes and V-Series should be stabilized with a micromanipulator during acute use.

- Cuffs for CA4: Silicone Flange (AAPC103); Rigid Cuff with set screw (AAPC105)
- Surgical mesilene mesh for implant stabilization

CONNECTORS

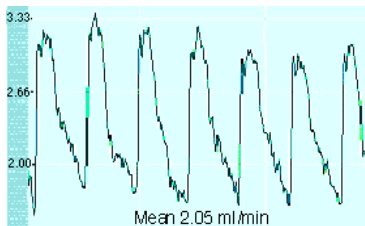
- Standard acute use: CRA10 Redel
- Chronic micro 4-pin connectors come with a calibration key: CA4B (back) & CA4S (side)

EXTENSION CABLES

- CRA10-S-CRA10: 10-pin acute; 1.25 meter standard
- CA4-S-CRA10: 4-pin chronic; 1.8 meter standard

Note: Nanoprobes must be used with the proper length extension cable (probe + cable = approx. 185 cm) to meet performance specifications.

0.5PSL Probe on Mouse Renal Artery with Flowtrace

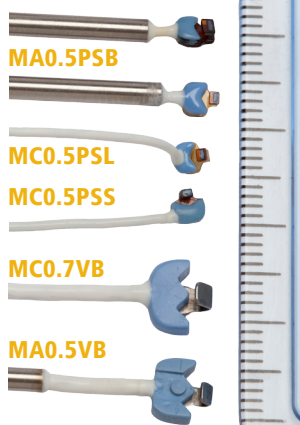


Chronic MC1.5PSL with CA4S Connector for Mouse Ascending Aorta

See Tools & Techniques for Hemodynamic Studies in Rodents (RL-5-wb) for in depth application information and Perivascular Flowprobe Flyer (RL-26-fly) for more information on ordering.

PROBE SIZE & SERIES	VESSEL OD		BIDIRECTIONAL FLOW OUTPUTS				ACCURACY SPECIFICATIONS			ULTRASOUND
	MA-ACUTE APPLICATION mm	MC-CHRONIC APPLICATION mm	RESOLUTION ml/min	LOW FLOW (¼ SCALE) ml/min	STANDARD FLOW ml/min	MAX FLOW (STD FLOW) ml/min	ZERO OFFSET ml/min	ABSOLUTE ACCURACY %	RELATIVE ACCURACY %	FREQUENCY MHz
0.5PS	0.3 - 0.5	0.3 - 0.48	0.03	1.5	6	30	± 0.12	± 15	± 2	14.4
0.7PS	0.5 - 0.7	0.4 - 0.7	0.05	2.5	10	50	± 0.2	± 15	± 2	9.6
1.5PS	1.2 - 1.5	1.2 - 1.5	0.075	10	40	200	± 0.8	± 15	± 2	4.8
1PR	0.7 - 1.2	0.7 - 1.0	0.05	5	20	100	± 0.2	± 10	± 2	7.2
0.5V	0.25 - 0.5	Acute use only	0.05	2.5	10	50	± 0.25	± 15	± 3	7.2
0.7V	0.35 - 0.7		0.075	5.0	20	100	± 0.5	± 15	± 3	4.8

MA0.7PSB



Nanoprobes (PS-Series) are very much smaller than V-Series Flowprobes.

PROBE SIZE & SERIES	CABLE ORIENTATION	PROBE BODY					CABLE		
		WEIGHT	LENGTH	WIDTH	HEIGHT	LUMEN	LENGTH	DIAMETER	
0.5PS	any (B, S or L)	0.09 g	3.2 mm	2.3 mm	1.0 mm	0.47 mm	60 cm	1.0 mm	
0.7PS	back only	0.12 g	3.2 mm	2.7 mm	1.2 mm	0.70 mm	60 cm	1.0 mm	
1.5PS	lateral only	0.23 g	4.25 mm	3.75 mm	2.0 mm	1.65 mm	60 cm	1.25 mm	
1PR	back or side	0.2 g	6.5 mm	4.0 mm	1.1 mm	1.5 mm	60 cm	1.5 mm	
0.5V	back only	0.2 g	6.5 mm	4.0 mm	1.1 mm	1.5 mm	60 cm	1.5 mm	
0.7V	back only	0.25 g	7.6 mm	3.5 mm	1.8 mm	1.7 mm	60 cm	1.5 mm	

