



# Transonic Precision Flowprobes

## Perivascular Flowprobe Specifications

### PS-Series, PR-Series, PAX-Series, PMP- & V-Series

PRECISION PROBE SERIES	VESSEL OD mm MA-PROBES acute application	VESSEL OD mm MC-PROBES chronic application	BIDIRECTIONAL FLOW				Zero Offset <sup>4</sup> ml/min	ACCURACY		ULTRASOUND FREQUENCY
			Resolution <sup>1</sup> ml/min	Scale Low Flow ml/min	Settings <sup>2</sup> Normal Flow ml/min	Maximum Range <sup>3</sup> ml/min		Absolute Accuracy <sup>5</sup> %	Relative Accuracy %	
<b>PS-SERIES NANOPROBES</b>										
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
<b>V-SERIES</b>										
0.5 V	0.25 - 0.5	NA	0.05	2.5	10	50	± 0.25	± 15	± 3	7.2
0.7 V	0.35 - 0.7	NA	0.075	5.0	20	100	± 0.5	± 15	± 3	4.8
<b>PR-SERIES</b>										
1PR	0.7 - 1.2	0.7 - 1.0	0.05	5	20	100	± 0.2	± 10	± 2	7.2
1.5PR	1.2 - 1.8	1.0 - 1.5	0.075	10	40	200	± 0.4	± 10	± 2	4.8
<b>PS-SERIES</b>										
2PS	1.5 - 2.0	1.3 - 1.8	0.1	25	100	500	± 1	± 10	± 2	3.6
2.5PS	1.8 - 2.5	1.5 - 2.4	0.1	25	100	500	± 1	± 10	± 2	3.6
3PS	2.5 - 3.7	2.4 - 3.4	0.4	50	200	1L	± 2	± 10	± 2	3.6
4PS	3.3 - 4.4	3.0 - 4.0	0.8	100	400	2L	± 4	± 10	± 2	2.4
6PS	4.4 - 6.6	4.0 - 6.0	2.0	250	1L	5L	± 10	± 10	± 2	1.8
8PS	6.6 - 8.8	5.8 - 8.0	4.0	500	2L	10L	± 20	± 10	± 2	1.2
10PS	8.3 - 11.0	7.3 - 10.0	8.0	500	2L	10L	± 20	± 10	± 2	1.2
12PS	9.8 - 13.0	8.6 - 12.0	8.0	1L	4L	20L	± 40	± 10	± 2	0.9
14PS	11.3 - 15.0	10.0 - 14.0	16.0	1L	4L	20L	± 40	± 10	± 2	0.9
16PS	13.3 - 17.7	12.0 - 16.0	20.0	2.5L	10L	50L	± 100	± 10	± 2	0.6
20PS	16.0 - 21.0	14.0 - 19.0	40.0	2.5L	10L	50L	± 100	± 10	± 2	0.6
<b>PAX-SERIES CARDIAC OUTPUT PROBES</b>										
8 PAX	6 - 8	6 - 7	4	500	2L	10L	± 20	± 10	± 2	3.6
10 PAX	8 - 10	8 - 9	4	500	2L	10L	± 20	± 10	± 2	3.6
12 PAX	9 - 12	9 - 11	8	1L	4L	20L	± 40	± 10	± 2	2.4
14 PAX	11 - 14	11 - 13	8	1L	4L	20L	± 40	± 10	± 2	2.4
16 PAX	12 - 16	12 - 15	20	2.5L	10L	50L	± 100	± 10	± 2	1.8
20 PAX	16 - 20	16 - 19	20	2.5L	10L	50L	± 100	± 10	± 2	1.8
24 PAX	19 - 24	19 - 23	40	5L	20L	100L	± 200	± 10	± 2	1.2
28 PAX	22 - 28	22 - 27	40	5L	20L	100L	± 200	± 10	± 2	1.2
32 PAX	25 - 32	25 - 31	80	10L	40L	200L	± 400	± 10	± 2	0.9
36 PAX	28 - 36	28 - 35	80	10L	40L	200L	± 400	± 10	± 2	0.9
<b>PMP-SERIES HANDLE PROBES</b>										
2 PMP	1.5 - 2.5	NA	0.1	25	100	0.5	± 1	± 15	± 2	3.6
3 PMP	2.5 - 3.7	NA	0.4	50	200	1.0	± 2	± 15	± 2	3.6
4 PMP	3.3 - 4.4	NA	0.8	100	400	2.0	± 4	± 15	± 2	2.4
6 PMP	4.4 - 6.6	NA	2.0	250	1L	5.0	± 10	± 15	± 2	1.8
8 PMP	6.6 - 8.8	NA	4.0	500	2L	10.0	± 20	± 15	± 2	1.2
10 PMP	8.3 - 11.0	NA	4.0	500	2L	10.0	± 20	± 15	± 2	1.2
12 PMP	9.8 - 13.0	NA	8.0	1L	4L	20.0	± 40	± 15	± 2	0.9
14 PMP	11.3 - 15.0	NA	16.0	1L	4L	20.0	± 40	± 15	± 2	0.9

<sup>1</sup> Resolution: represents the smallest detectable change in flow, a factor in accuracy.

<sup>2</sup> Transonic flowprobes operate in one of two scales: low flow or normal flow, determined by the range of flow under study. Flowprobes measure bidirectional flow up to 5 times the selected scale setting. The scale settings calibrate the 1 volt reference signal for data collection; the linear range of the flowmeter is equal to ± 5 volts. By using the "low flow button", measurement sensitivity is increased by a factor of four. For example, a 3PS probe set on "lo flo" can process and display up to 5 x 50 ml/min, or 250 ml/min. This linear overrange is important for the proper recording of highly pulsatile peak flows.

<sup>3</sup> Maximum Range for each probe reflects the highest flow rate that can be processed and displayed via the analog connector.

<sup>4</sup> Zero offset on individual probes is often lower than this value and will be specified in the Probe Data Sheet supplied with the probe.

<sup>5</sup> In all cases, the Absolute Accuracy percentage can be raised to relative accuracy levels (± 2%) by *in situ* calibration.



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RL-20a Precision Probe Accuracy Specs, Rev. 8.03