SDV1 - DOPPLER ULTRASONIC VELOCITY SENSOR

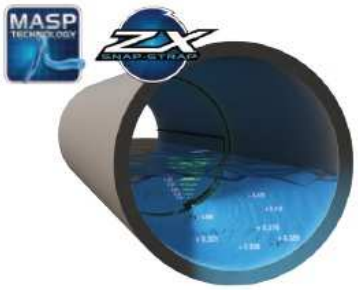
Velocity sensor for use in full pipes or open channels when used in conjunction with a depth sensor. This sensor is used to measure velocity only in full pipes when access to the pipe is available and the pipe can be emptied when installation or maintenance is required. It can also be used in partially full pipes or open channels in situations where the user is measuring depth by a third party or ultrasonic depth sensor.

Material:	PVC and Epoxy
Pipe Size:	150 mm (6") to 2500 mm (100")
Max. channel width *:	3 mt
Dimensions:	125mm (5″) L x 50mm (2″) W x 16mm (0.62″) H
Range:	±0.025 to ± 8.0 m/s (±0.08 to ± 26ft/s)
Resolution:	1mm at 1.0 m/s (0.04" at 3.3ft/s)
Accuracy:	±1% up to 3.0 m/s (±1% up to 10ft/s)
Urethane sensor cable:	9mm (D) up to 50m (L) (0.35" (D) up to 164ft (L))
Cable length standard:	10 mt, 20 mt, 30 mt, 50 mt
Min. operating depth:	40mm (1.57")
Max. operating temp.:	60° C (140° F)
Velocity max:	4 m/s

** Doppler ultrasonic sensors will operate in wider channels, but a reliable stream gauging must be performed for best system accuracy.*

SDVP2 - DOPPLER ULTRASONIC AREA/VELOCITY SENSOR

Combined velocity and depth sensor for use in partially full pipes or open channels. This sensor is used in open channels or pipes that run partially full. This sensor is used to measure depth (using a capacitive pressure diaphragm) and velocity. Access to the monitoring point is required for installation and maintenance.



Material:	PVC and Epoxy
Pipe Size:	150 mm (6") to 2500 mm (100")
Wetted materials:	PVC, Alumina ceramic and epoxy
Pipe intrusion area:	8cm^2 (1.25 sq.")
Urethane sensor cable:	9mm (D) up to 50m (L) (0.35" (D) up to 164ft (L))
Cable length standard:	10 mt, 20 mt, 30 mt, 50 mt

DEPTH

Method:	Ceramic pressure transducer with large flat sensing diaphragm which allows straight, undeflected flow over the sensing area to reduce drawdown effects at high stream velocities and provides for self cleaning with an impervious Alumina ceramic surface.
Full scale range:	4m (13ft) above the transducer face
Accuracy:	0.2% of full scale at constant temperature in a static stream. 1% of full scale over a stream 5 to 55° C (41 to 130° F)
Resolution:	1mm (0.04")
Overrange:	60m (200ft) without damage
Min. operating depth:	17mm (0.67")

VELOCITY

Method:	Submerged Ultrasonic Doppler
Range:	±0.025 to ± 8.0 m/s (±0.08 to ± 26ft/s)
Resolution:	1mm at 1.0 m/s (0.04" at 3.3ft/s)
Accuracy:	±1% up to 3.0 m/s (±1% up to 10ft/s)
Min. operating depth:	40mm (1.57")
Max. operating temp.:	60° C (140° F)

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SDI4 - DOPPLER ULTRASONIC INSERT VELOCITY SENSOR

For use in full pipes or partially full pipes when used in conjunction with an EchoFlo ultrasonic depth sensor. Insertion sensors measure velocity only and require access to the outside wall of the pipe in which the sensor is to be mounted. These sensors can be installed into existing pipework through a 2" ball valve (recommended) or just through a 2" female thread fitting.

Patents:	US No. D544,803 - AUS No. AU 301464 S
Pipe size:	0.1 to 2.54m (4" to 100") diameter
Process fitting:	2" BSP or 2" NPT
Process fitting pressure:	1034 kPa (150psi) Max (1)
Operating pressure:	253kPa (37psi) Max (2)
Shaft dimensions:	33cm (L) x 2cm (D) 13" (L) x 0.8" (D)
Head dimensions:	4.5cm (D) x 2.5cm (H) 1.8" (D) x 1" (H)
Wetted materials:	Nickel plated brass and epoxy
Pipe intrusion area:	11.25cm$_2$ (1.75 sq.")

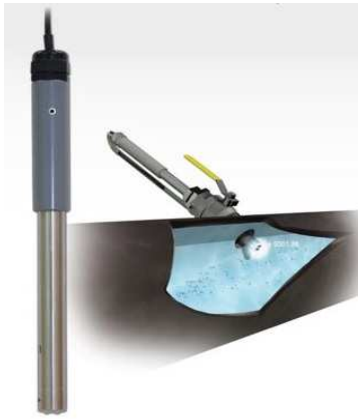
*(1) The pipe **must be de-pressurized** prior to insertion or removal*

*(2) The stream flow may be suitable for Doppler ultrasonic flow measurement in pressures >253kPa (37psi) if it contains **at least** 100 parts per million of suspended solids that are >75 microns in size.*

Method:	Submerged Ultrasonic Doppler
Range:	±0.025 to ± 8.0 m/s (±0.08 to ± 26ft/s)
Resolution:	1mm at 1.0 m/s (0.04" at 3.3ft/s)
Accuracy:	±1% up to 3.0 m/s (±1% up to 10ft/s)
Urethane sensor cable:	9mm (D) up to 50m (L) (0.35" (D) up to 164ft (L))
Cable length standard:	10 mt, 20 mt, 30 mt, 50 mt
Min. operating depth:	40mm (1.57")
Max. operating temp.:	60° C (140° F)

SDE1 - ELECTROMAGNETIC INSERT VELOCITY SENSOR

The SDE1 Electromagnetic Insert Velocity sensor is a heavy duty, high performance sensor in an adjustable insertion configuration. This insertion style flow sensor has no moving parts and is constructed of corrosion-resistant materials to provide long-term reliability with minimal maintenance costs. The SDE1 is versatile and simple-to-install, delivering reliable flow measurement over a wide dynamic range in pipe sizes ranging from DN40 to DN1200.



The empty pipe detection features a zero flow output when the electrodes are not completely wetted.

Material type:	Stainless Steel and PVDF
Pipe Sizes:	DN40 to DN1200
Compatibility:	Pulse I/O Card
Thread Type:	1″ BSP or 1″ NPT

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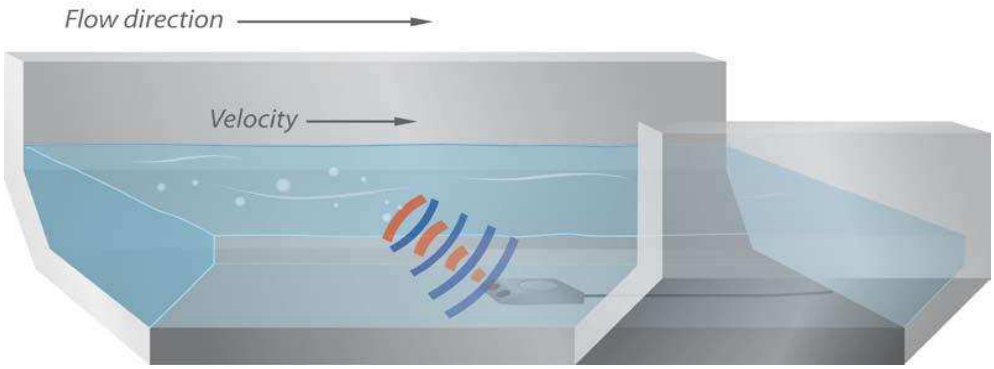
TYPICAL INSTALLATION



ASSEMBLY SENSORS ACCESSORIES

SDSA1	Flat mounting sensors SDV1 - SDVP2
	Poly mounting strap complete accessories
SDSA3	for pipe inner diameter 225…300 mm
SDSA4	for pipe inner diameter 300…450 mm
SDSA5	for pipe inner diameter 450…625 mm
SDSA6	for pipe inner diameter 600…725 mm
SDSA7	for pipe inner diameter 700…810 mm

SDFA1	Solar panel 12 Volt 5Watt
SDFA2	Mounting Kit - Electronic + solar panel - on pole 2 "(not supplied)
SDFA3	Mounting Kit - only electronic - on pole 2 "(not supplied)
SDFA4	Mains battery charger 110-240V (24V 2A)
SDFA5	Communication cable and data PC download

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