



DESCRIPTION

The 7P Process Atrato® is based on our standard, wide ranging, Atrato® ultrasonic flow meter but packaged to address the more challenging industrial process and control environment.

The body is 316 stainless steel, rated at 20 bar and the electronics are built-in and sealed to IP65.

The only other wetted materials are PEEK and the customer's choice of elastomers.

The Process Atrato® is calibrated with a pre-set 'K' factor so all meters of the same flow range are fully interchangeable simplifying assembly and set-up procedures for OEM manufacturers.

There are two frequency outputs, one PNP and NPN. Two multicolour LEDs indicate signal strength, power malfunctions and pulse outputs.

Electrical connections are through a standard M12, four pin, sensor connector.

Four flow ranges are available from 2 ml/min to 15 l/min, accuracy is $\pm 1\%$ over the whole flow range.

Gases seriously modulate the ultrasound and should be avoided.

Always install the meter in a way that any trapped vapour can escape the flow measurement section. i.e. in a horizontal line with the electrical connection at the bottom or in a vertical line with the flow upwards.

The meters are normally calibrated on water with a velocity of sound of approximately 1488m/s.

The meters velocity of sound operating window is nominally 1488m/s $\pm 30\%$. Should your process parameters exceed this please contact your local sales office as special calibration may be required.

MAIN FEATURES

- Ultrasonic technology
- No moving parts
- 4 flow ranges
- Pulse output: NPN and PNP
- Large turndown ratio
- All stainless steel wetted parts
- IP65 enclosure

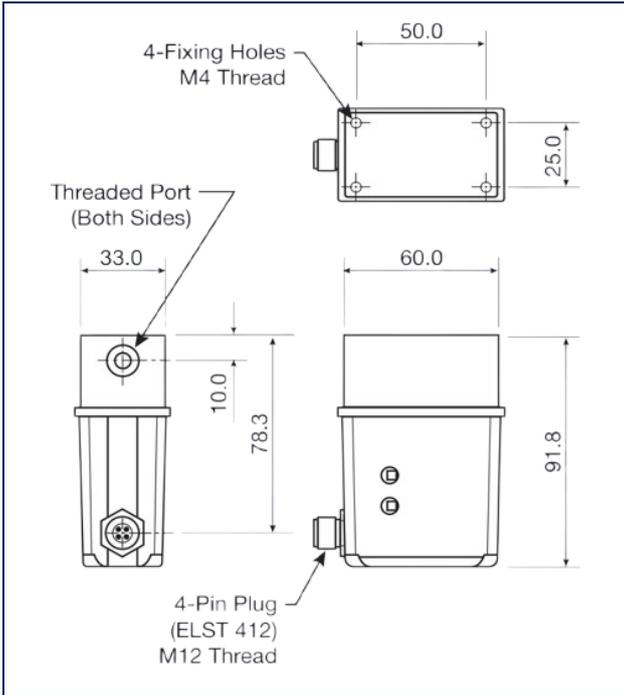
IDEAL FOR

- Cooling equipment
- Pharmaceutical
- Drink dispense
- Chemical dosing
- Industrial Flow monitoring
- Semiconductor plant
- OEM Applications

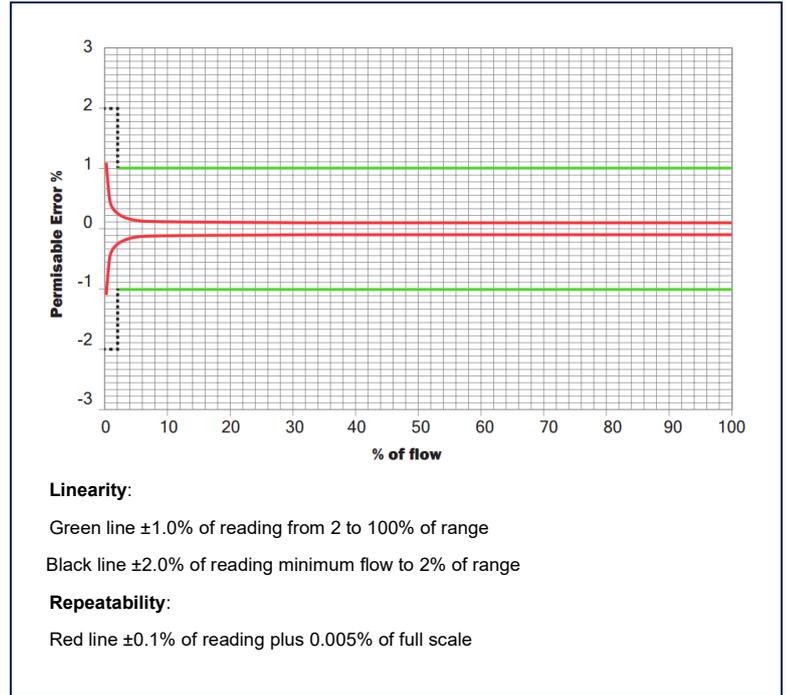
GENERAL SPECIFICATIONS

Accuracy	$\pm 1\%$ of reading from 2 to 100% of range $\pm 2\%$ of reading from 0 to 2% of range
Repeatability	$\pm 0.1\% + 0.005\%$ of full scale
Fluid temperature range	-10°C to 65°C non-condensing
Pressure rating	20 bar
Weight	350g
Body	AISI316 stainless steel
Connections	1/4" BSP or NPT female
Output	NPN pulse. Max 20mA max PNP pulse. Max 20mA max
Electrical connection	M12 connector
Power supply	8...24Vdc
Power consumption	100mA typical
Housing	IP65

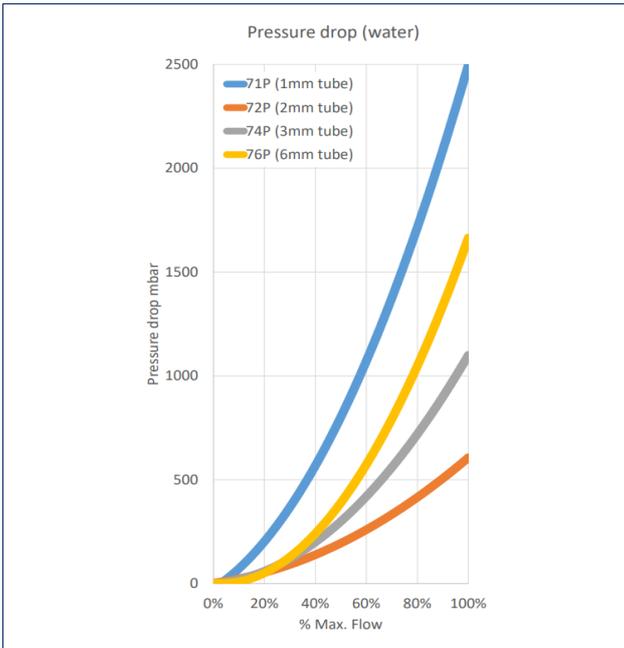
DRAWINGS AND DIMENSIONS



LINEARITY AND REPEATABILITY



PRESSURE DROP CHART



ORDER CODES

71P	0.002 ÷ 0,5 l/min (K factor approx 100000 ppl)
72P	0.01 ÷ 1.5 l/min (K factor approx 20000 ppl)
74P	0.03 ÷ 5.0 l/min (K factor approx 10000 ppl)
76P	0.1 ÷ 15 l/min (K factor approx 2000 ppl)
O.RING MATERIAL	
V	Viton®
N	Nitrile
E	EPDM
S	Silicon
K	Kalrez®
END FITTINGS	
Q	1/4"
THREAD TYPE	
B	BSP female
N	NPT female
INTERNAL TUBE MATERIALS	
O	PEEK+ AISI316 stainless steel

Example: 72P-VQB-O