

# Technical Data for IS-Pro **ISP/ISPS-Series** Pressure Meters

1 PSI full scale through 3000 PSI full scale in absolute, gauge, or differential pressure applications.

Standard specifications. Consult Alicat for available options



+1 (888) 290-6060  
alicat.com/isp

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CERTIFICATIONS	MARKING	CERTIFICATE
ATEX	 $T_{amb} -20^{\circ}C$ to $+70^{\circ}C$	DEKRA 22ATEX0075X
IECEX	 Ex ia IIC T4 Ga $T_{amb} -20^{\circ}C$ to $+70^{\circ}C$	IECEX DEK 22.0078X

SENSOR PERFORMANCE	
Pressure accuracy <sup>1</sup>	Standard accuracy: $\pm 0.250\%$ of full scale High-accuracy option: $\pm 0.125\%$ of full scale
Repeatability ( $2\sigma$ ) <sup>1</sup>	$\pm 0.08\%$ of full scale
Pressure measurement range	0.01 – 100% of full scale (10,000:1 turndown ratio)
Temperature sensitivity	Zero shift: 0.02% full scale per $^{\circ}C$ from tare temperature <sup>2</sup> Span shift: 0.02% full scale per $^{\circ}C$ from calibration temperature
Operating temperature range	$-20 - 70^{\circ}C$
Sensor response time	< 1 ms
Typical indication response time	< 10 ms
Typical warm-up time	< 1 s

<sup>1</sup> Stated accuracy is after tare under equilibrium conditions; includes repeatability and linearity.

MECHANICAL	
Sensor burst pressure	1 – 100 PSI models: 3 $\times$ full scale range 500 – 3000 PSI models: 1.5 $\times$ full scale range
Maximum common mode pressure for differential pressure models	$\leq 100$ PSID models: 200 PSIG 500 PSID models: 750 PSIG
Relative humidity range	0–95%, non-condensing
Ingress protection	IP66 rating Dust-tight and protected against strong jets of water
Mounting orientation sensitivity	None
Mounting holes	4 $\times$ 6-32 UNC threaded $\nabla$ 0.276" [7.01 mm]
Default process connections <sup>2</sup>	$\frac{1}{8}$ " NPT female

<sup>2</sup> Consult Alicat for available connection options, such as: compression, face seal, push-to-connect, BSPP, SAE, or Swagelok®-compatible (VCO® and VCR®).

POWER AND COMMUNICATION	
Digital output options	RS-232 Serial and Modbus RTU RS-485 Serial and Modbus RTU
Digital data update rate	40 Hz at 19200 baud
Analog output options	4 – 20 mA
Analog data update rate	1 kHz
Analog signal accuracy	$\pm 0.1\%$ of full scale additional uncertainty
Interactive display	Monochrome LCD with integrated touchpad and backlight; displays current pressure
Display update rate	10 Hz
Electrical connection options	DB-15
Power requirements	See DOC-IS-CONTROLDWG

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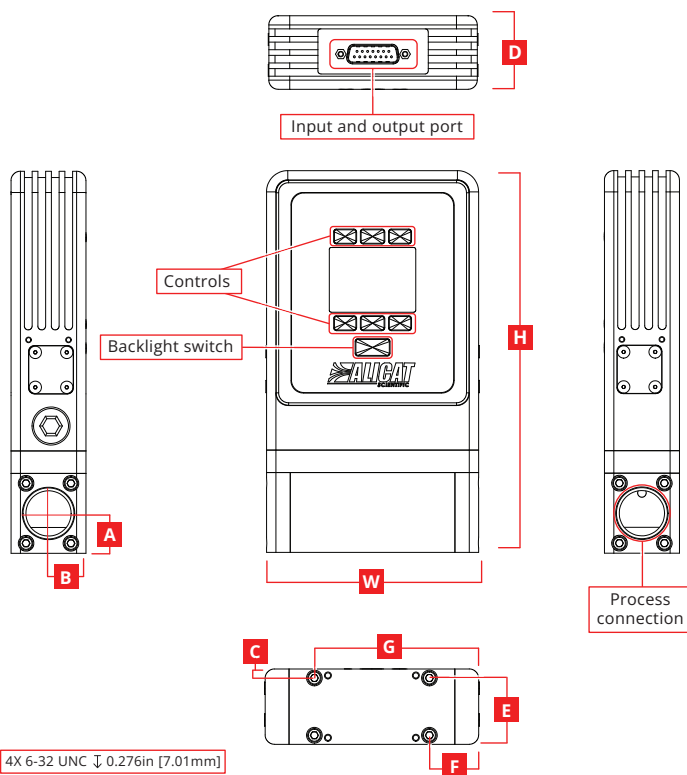
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STANDARD AVAILABLE RANGES <sup>3</sup>									
Model	1 PSI	5 PSI	15 PSI	30 PSI	100 PSI	500 PSI	1000 PSI	2000 PSI	3000 PSI
ISP-Series PSIA			✓	✓	✓				
ISP-Series PSIG	✓	✓	✓	✓	✓				
ISP-Series PSID	✓	✓	✓	✓	✓				
ISPS-Series PSIA			✓	✓	✓	✓	✓	✓	✓
ISPS-Series PSIG		✓	✓	✓	✓	✓	✓	✓	✓
ISPS-Series PSID		✓	✓	✓	✓	✓			

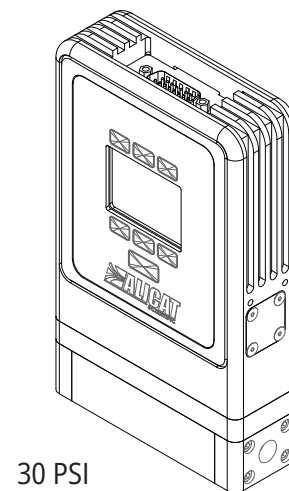
<sup>3</sup> For use with water and other liquids, please contact Alicat.

WETTED MATERIALS: MEASUREMENT HEAD							
Series	Pressure range	Stainless steels	Heat-cured epoxy and silicone rubber, alumina, gold, silicon, glass, nylon	Sealing Materials			
		316L		FKM	FFKM <sup>4</sup>	EPDM	Silicone
ISP	1–100 PSI	✓	✓	Opt.	Opt.	Opt.	Opt.
ISPS	5–3000 PSI	✓					

<sup>4</sup> Low temperature FFKM required for operation below -10°C. Please consult alicat for availability.



Representative Example



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DIMENSIONS										WEIGHT
Range <sup>5</sup>	Width	Depth	Height <sup>6</sup>	A	B	C	E	F	G	
1 – 3000 PSIG	5.75"	1.50"	7.05"	0.50"	0.75"	0.13"	1.35"	1.25"	3.00"	≈ 5.0 lb
	146.1 mm	38.1 mm	179.1 mm	12.7 mm	19.1 mm	3.3 mm	34.2 mm	31.8 mm	76.2 mm	≈ 2.3 kg
1 – 305 PSIG	6.00"	1.50"	7.65"	0.80"	0.75"	0.13"	1.35"	1.25"	3.00"	≈ 6.0 lb
	152.4 mm	38.1 mm	194.3 mm	20.3 mm	19.1 mm	3.3 mm	34.2 mm	31.8 mm	76.2 mm	≈ 2.7 kg

<sup>5</sup> Port sizes may affect maximum available pressure range, please consult Alicat.

<sup>6</sup> ISPS-Series that measure differential pressure are 0.950" taller

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