



Ashcroft | Full Product Line | Quick Guide

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- **L** 1.800.328.8258
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ONLINE RESOURCES



ashcroft.com

Explore this Ashcroft Quick Guide to view the extensive pressure, temperature and test instruments we offer to keep your critical equipment and processes running with confidence, safety and reliability.

Full product details, including specifications, data sheets, instruction manuals, drawings, product/technical information and more are available on ashcroft.com. You can also view helpful information and resources in our Resource Center or talk to an expert to answer your questions or plan your next project.



Product Overview



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Ashcroft Inc. Trademarks

Ashcroft maintains a variety of globally Registered Trademarks and Service Marks, many of which are used throughout this guide. The following Trademarks and Service Marks are the property of Ashcroft Inc. and should not be used without its permission on any product or service.

AccuSeal™ Ashcroft[®] Ashcroft[®] (SHIELD design) Duradrive[™] pressure gauge Duragauge[®] **PLUS!**[™] pressure gauge Duragauge® pressure gauge Duralife[®] PLUS![™] pressure gauge Duralife[®] pressure gauge DuraShield[™] instrument assembly Duratemp® thermometer Duratube[™] system DuraViz[™] system Easy Zero[™] adjustment Everyangle[™] connection FlutterGuard[™] option GloBand[™] display Maxivision[®] dial MicroSpan[®] adjustment MicroTube™ MiniGauge® pressure gauge **PLUS!**[™] Performance option PowerFlex[™] movement Quick-Select[™] calibrator Safe Quick Release[™] (SQR[™]) option Si-Glas[™] sensor SpoolCal® actuator TruAccuracy[™] specification True Zero[™] indication Trust the Shield®

Ashcroft Inc. Service Marks

Ashcroft Gold ServiceSM CASE[®] - Critical Application Solution Experts[®] CESSM - Custom Engineered Solutions Gold ServiceSM

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NACE

NACE International publishes standards governing materials selection in corrosive environments. NACE standard MR0175/ISO 15156 (materials for use in H2S-containing environments in oil and gas production) and MR0103/ ISO 17945 (metallic materials resistant to sulfide stress cracking in corrosive petroleum refining environments) are often cited when specifying instrument for sour oil and gas applications. These standards provide guidance on selecting materials that are resistant to stress cracking caused by exposure to hydrogen sulfide. Compliance with the standards may be required by law in certain jurisdictions.

Hydrogen Sulfide

A diaphragm seal should be used for high concentrations of hydrogen sulfide; for over 3% or 30,000 ppm, a seal is essential. Hastelloy[®] C-276 is recommended, and Tantalum[®] may be used, but is not compliant with MR0103. For oil and gas applications, MR0175 or MR0103 should be consulted.

Wastewater Applications

Wastewater applications may also encounter trace amounts of hydrogen sulfide. Instruments specified per the NACE standards are suitable for hydrogen sulfide bearing wastewater applications although the scope of the standards is limited to oil and gas production and refining.

> mA = milliAmp V = Volts

VA = Volt Amps

Vac = Volts alternating current Vdc = Volts direct current

Units of Measurement

psi = pounds per sq. inch psig = pounds per sq. inch gauge psia = pounds per sq. inch absolute psid = pounds per sq. inch differential in. H_2O = inches of water IWC = inches of water column IWD = inches of water differential mm H₂O = millimeters of water $cm H_2O = centimeters of water$ in. Hg = inches of mercury mm = millimeters of mercury IMV = inches of mercury vacuum mPa = millipascal MPa = megapascal pa = pascalkPa = kilopascal mbar = millibar kg/cm² = kilograms per centimeter squared

Logos



PLUSI[™] = **PLUSI**[™] Performance Option – Dampens vibration, shock and pulsation effects



Gold ServiceSM = Expedited Delivery



RoHS = RoHS Compliant



CRN = Canadian Registration Number

Tru[®]ccuracy

TruAccuracy[™] specification = Exclusively based on terminal point methodology instead of statistically derived methods like "best fit straight line"

PRESSURE GAUGES

DIAL/ANALOG PRESSURE GAUGES

1279, 1377, 1379, 2462 Duragauge [®]
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HIGH PURITY/ SEMICONDUCTOR PRESSURE GAUGES

 $28 \; \text{HPX}, 50/63 \; \text{HPX}, 50 \; \text{HPS} \; , 63 \; \text{HPT} \; \; 25$











		1279	1377	1379	2462
	Size	4½″	41⁄2″, 6″, 81⁄2″	41⁄2″, 6″, 81⁄2″	6‴
	Accuracy	±0.5% of span (ASME B40.100 Grade 2A)	±0.5% of span (ASME B40.100 Grade 2A)	±0.5% of span (ASME B40.100 Grade 2A)	±0.5% of span (ASME B40.100 Grade 2A)
Creations	Dampening	Glycerin, Silicone, Halocarbon®, PLUS! ™ Performance	PLUS! [™] Performance	Glycerin, Silicone, Halocarbon [®] , PLUS! [™] Performance	PLUS! [™] Performance
Specifications	Process Connection	1/4 NPT, 1/2 NPT Male (see data sheet for more options)	1/4 NPT, 1/2 NPT Male (see data sheet for more options)	1/4 NPT, 1/2 NPT Male (see data sheet for more options)	1/4 NPT, 1/2 NPT Male (see data sheet for more options)
	Process Connection Location	Lower, back	Lower, back	Lower, back	Lower, back
	Mounting Options	Stem, surface, flush	Stem, flush	Stem, surface, flush	Stem, surface, flush
Wetted	Bourdon Tube	Bronze, 316L Stainless steel, Monel®	Bronze, 316L Stainless steel, Monel®	Bronze, 316L Stainless steel, Monel [®] , Inconel [®]	Bronze, 316L Stainless steel, Monel®
Components	Process Connection	Brass, 316L Stainless steel, Monel®, Steel	Brass, 316L Stainless steel, Monel®, Steel	Brass, 316L Stainless steel, Monel®, Steel	Brass, 316L Stainless steel, Monel®, Steel
	Case	Phenolic	Aluminum	Aluminum	Polypropylene
Non-Wetted	Window	Glass, acrylic, safety glass, non-glare glass	Glass, acrylic, safety glass, non-glare glass	Glass, acrylic, safety glass, non-glare glass	Glass, acrylic, safety glass, non-glare glass
Components	Ring	Polycarbonate (meets UL 94 V-0)	Steel, black enamel	Polycarbonate (meets UL 94 V-0)	Polypropylene
	Pressure Relief Back	Polycarbonate (meets UL 94 V-0)	Stainless steel	Polycarbonate (meets UL 94 V-0)	Polypropylene
	Dry	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)
Process	PLUS!™	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)
Temperature	Glycerin Fill	20 °F to 150 °F (-7 °C to 66 °C)	20 °F to 150 °F (-7 °C to 66 °C)	20 °F to 150 °F (-7 °C to 66 °C)	20 °F to 150 °F (-7 °C to 66 °C)
Limits	Silicone Fill	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)
	Halocarbon [®] Fill	-40° F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)
Ranges	Pressure	Vacuum, compound, 15 to 30,000 psi	Vacuum, compound, 15 to 30,000 psi	Vacuum, compound, 15 to 100,000 psi	Vacuum, compound, 15 to 30,000 psi
Ū	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa
	Dry Case	Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only
Weather	Dry Case (not liquid fillable)	Dry with X1P Option IP65	NA	NA	NA
Protection	Liquid Filled	IP66 or NEMA 4X	NA	IP66 or NEMA 4X	NA
	Sealed Dry Case (liquid fillable)	IP66 or NEMA 4X	NA	IP66	NA
Approvals		CRN	CRN	CRN	CRN

See data sheets at **ashcroft.com** for complete product specifications and ordering codes.

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		1259	1290	1109	1209
	Size	4½″	41⁄2″	41⁄2″	4½″
	Accuracy	±0.5% of span (ASME B40.100 Grade 2A)	±0.5% of span (ASME B40.100 Grade 2A)	±0.5% of span (ASME B40.100 Grade 2A)	±0.5% of span (ASME B40.100 Grade 2A)
Cresifications	Dampening	Glycerin, Silicone, Halocarbon®	NA	Glycerin, Silicone, Halocarbon®, PLUS! ™ Performance	Glycerin, Silicone, Halocarbon®, PLUS! ™ Performance
Specifications	Process Connection	1/4 NPT, 1/2 NPT Male	1/4 NPT, 1/2 NPT Male	1/4 NPT, 1/2 NPT, 1/16-18 UNF-2B High pressure fitting	1⁄4 NPT, 1⁄2 NPT Male
	Process Connection Location	Lower	Lower	Lower	Lower
	Mounting Options	Stem, surface	Stem, surface, flush	Stem	Stem, surface
Wetted	Bourdon Tube	316L Stainless steel, Monel®	Inconel®	316L Stainless steel, Inconel® 718	316L Stainless steel, Monel®
Components	Process Connection	316L Stainless steel, Monel®	316L Stainless steel	316L Stainless steel	316L Stainless steel, Monel®
	Case	PBT Polybutylene Terephtalate (meets UL 94 V-0)	ABS	Stainless steel	316L Stainless steel
Non-Wetted	Window Material	Glass, safety glass, acrylic	Acrylic, glass	Glass, safety glass, acrylic	Glass, safety glass, acrylic
Components	Ring	PBT Polybutylene Terephtalate (meets UL 94 V-0)	302 Stainless steel	300 Stainless steel	316L Stainless steel
	Pressure Relief Back	PBT Polybutylene Terephtalate (meets UL 94 V-0)	Polypropylene	304 Stainless steel	316L Stainless steel
D	Dry	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)
Process Temperature Limits	Glycerin Fill	20 °F to 200 °F (7 °C to 93 °C)	NA	NA	20 °F to 200° F (7 °C to 93 °C)
Linits	Silicone Fill	-40 °F to 200 °F (-40 °C to 93 °C)	NA	NA	-40 °F to 200 °F (-40 °C to 93 °C)
Ranges	Pressure	Vacuum, compound, 15 to 20,000 psi	15 to 2,000 psi	Vacuum, compound 15 to 100,000 psi	Vacuum, compound, 15 to 20,000 psi
·	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, mPa, kg/cm², kPa	psi, bar, mPa, kg/cm², kPa
Weather	Dry Case	Case is not sealed, recommended for weather protected environment only	Case is not sealed, recommended for weather protected environment only	Case is not sealed, recommended for weather protected environment only	IP65
Protection	Liquid Filled	IP65	NA	NA	IP65
	Dry Case (liquid fillable)	IP66	NA	IP65	IP65
Approvals		CRN	NA	CRN	CRN









		T5500	T6500	T5500E	N5500
	Size	100 mm, 160 mm	100 mm, 160 mm	100 mm	100 mm
	A	1% of span (EN 837-1)	±1% of span (EN 837-1)	±0.50% of span (EN 837-1)	1.6% of span (STD.)
	Accuracy	0.5% of span (OPT.)	0.5% of span (OPT.)	NA	1% of span (OPT.)
	Dampening	Glycerin, Silicone, Halocarbon®, PLUS! ™ Performance	Glycerin, Silicone, Halocarbon®, PLUS! ™ Performance	PLUS! [™] Performance	Glycerin, Silicone
Specifications	Process Connection	1⁄4 NPT, 1⁄2 NPT Male G 1⁄4 B, G 1⁄2 B Male	1/4 NPT, 1/2 NPT Male G 1/4 B, G 1/2 B Male 9/16-18 UNF-2B High pressure fitting	1⁄4 NPT, 1⁄2 NPT Male G 1⁄4 B, G 1⁄2 B Male	1/4 NPT, 1/2 NPT Male (see data sheet for more options)
	Process Connection Location	Lower, back	Lower	Lower	Lower, back
	Mounting Options	Stem, surface, flush	Stem, flush	Front flange (available only with M1 connection)	Stem, surface
	Bourdon Tube	316L Stainless steel, Monel®	316L Stainless steel, Monel®	316L Stainless steel tube 17-4 PH [®] Sensor	NA
Wetted Components	Capsule (N550), Diaphragm (P5500/6500)	NA	NA	NA	316Ti Stainless steel
	Process Connection	316 Stainless steel, Monel®	316 Stainless steel, Monel®	304 Stainless steel	NA
	Case	304 Stainless steel, 316 Stainless steel	304 Stainless steel, 316 Stainless steel	304 Stainless steel	304 Stainless steel
Non-Wetted	Window Material	Glass, safety glass, acrylic	Safety glass, acrylic	Safety glass, acrylic	Glass, acrylic, safety glass
Components	Ring	304 Stainless steel	304 Stainless steel	304 Stainless steel	304 Stainless steel
	Pressure Relief Disc	NA	Stainless steel	NA	NA
	Dry	-40 °F to 392 °F (-40 °C to 200 °C)	-40 °F to 392 °F (-40 °C to 200 °C)	-13 °F to 185 °F (-25 °C to 85 °C)	-13 °F to 185 °F (-25 °C to 85 °C)
	PLUS!™	-40 °F to 392 °F (-40 °C to 200 °C)	-40 °F to 392 °F (-40 °C to 200 °C)	-13 °F to 185 °F (-25 °C to 85 °C)	NA
Process	Glycerin Fill	19 °F to 200 °F (-7 °C to 93 °C)	19 °F to 200 °F (-7 °C to 93 °C)	NA	NA
Temperature Limits	Silicone Fill	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C) XQC option: -94 °F to 174 °F (-70 °C to 70 °C)	NA	NA
	Halocarbon [®] Fill	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	NA	NA
	ATEX	-13 °F to 140 °F (-25 °C to 60 °C)	-13 °F to 140 °F (-25 °C to 60 °C)	NA	NA
Dongoo	Pressure	Vacuum, compound to 15,000 psi	Vacuum, compound to 100,000 psi	Vacuum, compound to 15,000 psi	-250 to 250 in. $\mathrm{H_{2}O}$
Ranges	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	in. H₂O, mBar, in. H₂O, mm H₂O, kPa, Kg/Cm2, inHg
Weather Protection	Dry Case	IP66 NEMA 4X, Weatherproof	IP66 NEMA 4X, Weatherproof	IP65	IP54, IP65 if vent valve closed (according to EN 60 529/IEC 529)
Approvals		CRN, ATEX (OPT.)	CRN, ATEX (OPT.)	NA	NA

Dial / Analog Pressure Gauges



Products & Features







		P5500/P6500	1187	1188	1189
	Size	100 mm, 160 mm	4½″	4½″	4½″, 6½″
	Accuracy	±1.6% of span	±2-1-2% of span (ASME B40.100 Grade A)	±2-1-2% of span (ASME B40.100 Grade A)	±2-1-2% of span (ASME B40.100 Grade A)
Specifications	Dampening	Glycerin, Silicone	Throttle screw, dampeners, capillary, diaphragm seals and snubbers	Throttle screw, dampeners, capillary, diaphragm seals and snubbers	Throttle screw, dampeners, capillary, diaphragm seals and snubbers
	Process Connection	1/4 NPT, 1/2 NPT Male (see data sheet for more options)	1/4 NPT, 1/2 NPT Male	1/4 NPT, 1/2 NPT Male	1/4 NPT, 1/2 NPT Male
I	Process Connection Location	Lower	Back	Lower, back	Lower
	Mounting Options	Stem	Flush	Stem, surface, flush	Stem, surface
	Bellows	NA	Brass, 316 Stainless steel, Monel®	Brass, 316 Stainless steel, Monel®	Brass, 316 Stainless steel, Monel®
Wetted Components	Diaphragm	316L Stainless steel, Monel®	NA	NA	NA
1	Process Connection	316 Stainless steel, Hastelloy® C-276	Brass, 316 Stainless steel, Monel®	Brass, 316 Stainless steel, Monel®	Brass, 316 Stainless steel, Monel®
	Case	304 Stainless steel	Aluminum, black epoxy coated	Phenolic	Aluminum, black epoxy coated
	Window Material	Glass, acrylic, safety glass,	Glass, safety glass, acrylic	Glass, safety glass, acrylic	Glass, safety glass, acrylic
Non-Wetted Components	Ring	304 Stainless steel	Steel, black epoxy coated	Polycarbonate	Polypropylene
	Pressure Relief Back	NA	Polypropylene	Polypropylene	Polypropylene
Dreeses	Dry	-4 °F to 185 °F (-20 °C to 85 °C)	-20 °F to 150 °F (-29 °C to 66 °C)	-20 °F to 150 °F (-29 °C to 66 °C)	-20 °F to 150 °F (-29 °C to 66 °C)
Process Temperature Limits	Glycerin Fill	19 °F to 185 °F (-7 °C to 85 °C)	NA	NA	NA
Linita	Silicone Fill	-20 °F to 140 °F (-29 °C to 60 °C)	NA	NA	NA
Pangaa	Pressure	10 in. H_2O to 300 psi including vacuum ranges	10 in. H_2O to 10 psi	10 in. $H_{\rm 2} 0$ to 10 psi	10 in. $H_{\rm 2}0$ to 10 psi
Ranges	Units	in. H_2O , mBar, mm H_2O , kPa, Kg/Cm2, inHg	IWC, psi	IWC, psi	IWC, psi
Weather Protection	Dry Case	IP66 NEMA 4X	Case is not sealed, recommended for weather protected environment only	Case is not sealed, recommended for weather protected environment only	Case is not sealed, recommended for weather protected environment only
					NIA
	Liquid Filled	IP66 or NEMA 4X	NA	NA	NA









		1008S	1008S	1008S - Center Back
	Size	40 mm, 50 mm	63 mm, 100 mm	63 mm, 100 mm
	Accuracy	±3-2-3% of span (ASME B40.100 Grade B)	Dry: $\pm 1.6\%$ of span Liquid filled: $\pm 2\%$ of span	±3-2-3% of span (ASME B40.100 Grade B)
	Dampening	Liquid Filled and FlutterGuard [™] (see data sheet for more options)	Liquid Filled and PLUS! [™] Performance (see data sheet for more options)	Liquid Filled and FlutterGuard [™] (see data sheet for more options)
Specifications	Process Connection	$^{1}\!/_{8}$ NPT, $^{1}\!/_{4}$ NPT Male (see data sheet for more options)	1/8 NPT, 1/4 NPT, 1/2 NPT Male (see data sheet for more options)	1/8 NPT, 1/4 NPT Male (see data sheet for more options)
	Process Connection Location	Lower, center back	Lower, lower back (see data sheet for more options)	Center back
	Mounting Options	Stem, flush	Stem, surface, flush	Stem, flush
Wetted	Bourdon Tube	316L Stainless steel	316L Stainless steel	316 Stainless steel
Components	Process Connection	316 Stainless steel	316 Stainless steel	316 Stainless steel
	Case	304 Stainless steel, 316L Stainless steel	304 Stainless steel, 316L Stainless steel	304 Stainless steel
Non-Wetted	Window Material	Polycarbonate	Polycarbonate	Polycarbonate
Components	Ring	316 Stainless steel, crimped	304 Stainless steel, crimped, 316L Stainless steel	304 Stainless steel, crimped
	Dry	-40 °F to 250 °F (-40 °C to 121 °C)	-40 °F to 250 °F (-40 °C to 121 °C)	-40 °F to 250 °F (-40 °C to 121 °C)
	PLUS!™	NA	-40 °F to 200 °F (-40 °C to 93 °C)	NA
Process Temperature	FlutterGuard™	-40 °F to 250 °F (-40 °C to 121 °C)	NA	-40 °F to 250 °F (-40 °C to 121 °C)
Limits	Glycerin Fill	20 °F to 200 °F (-7 °C to 93 °C)	20 °F to 200 °F (-7 °C to 93 °C)	20 °F to 200 °F (-7 °C to 93 °C)
	Silicone Fill	40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)
	Halocarbon® Fill	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)
Ranges	Pressure	40mm: Vacuum, compound, 15 to 15,000 psi 50mm: Vacuum, compound, 15 to 20,000 psi	Vacuum, compound, 15 to 15,000 psi	Vacuum, compound, 15 to 20,000 psi
	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa
Weather Protection		IP66/NEMA 4	Plug closed: IP65/NEMA 4X Plug vented: IP54	Plug closed: IP65/NEMA 4X Plug vented: IP54/NEMA 3
Approvals		CRN, RoHS, PED	CRN, RoHS, PED	CRN, RoHS, PED

See data sheets at **ashcroft.com** for complete product specifications and ordering codes.

ashcroft.com info@ashcroft.com 1.800.328.8258











		8008S	1009 Duralife [®]	1009	2008
	Size	63 mm, 100 mm	21⁄2″, 31⁄2″	4½″, 6‴	63 mm
	Accuracy	±1%, 1.6%, 2-1-2% of span	Dry: ±1% of span (ASME B40.100 Grade 1A) Liquid filled: ±1.5% of span	±1% of span (ASME B40.100 Grade 1A)	Dry: ±1.6% of span Liquid filled: ±2% of span
Specifications	Dampening	Liquid filled and FlutterGuard™ (see data sheet)	Liquid Filled and PLUS! ™ Performance (see data sheet for more options)	Liquid Filled and PLUS! ™ Performance (see data sheet for more options)	Liquid Filled and PLUSI [™] Performance (see data sheet for more options)
	Process Connection	1/4 NPT, 1/2 NPT Male (see data sheet for more options)	¹ / ₈ NPT, ¹ / ₄ NPT, ¹ / ₂ NPT Male (see data sheet for more options)	1/4 NPT, 1/2 NPT Male (see data sheet for more options)	1/4 NPT, 1/2 NPT Male (see data sheet for more options)
	Process Connection Location	Lower, lower back, center back	Lower, lower back (see data sheet for more options)	Lower, lower back (see data sheet for more options)	Lower back
	Mounting Options	Stem, surface, flush	Stem, surface, flush	Stem, surface, flush	Panel
Wetted	Bourdon Tube	316 Stainless steel	316L Stainless steel	Brass, 316L Stainless steel, Monel®	316L Stainless steel
Components	Process Connection	316 Stainless steel	Aluminum bronze, 316L Stainless steel	Brass, 316L Stainless steel, Monel®	316L Stainless steel
	Case	304 Stainless steel, 316 Stainless steel	304 Stainless steel, 316L Stainless steel	304 Stainless steel	304 Stainless steel, 316L Stainless steel
Non-Wetted Components	Window Material	Polycarbonate, safety glass, glass	Polycarbonate, safety glass	Glass, polycarbonate, safety glass	Polycarbonate
	Ring	304 Stainless steel, 316 Stainless steel	304 Stainless steel, 316L Stainless steel	304 Stainless steel, bayonet	304 Stainless steel, 316L Stainless steel
	Dry	40 °F to 200 °F (-40 °C to 93 °C) with FlutterGuard™	-40 °F to 250 °F (-40 °C to 121 °C)	-40 °F to 250 °F (-40 °C to 121 °C)	-40 °F to 250 °F (-40 °C to 121 °C
Process	PLUS!™	NA	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C
Temperature Limits	Glycerin Fill	-4 °F to 212 °F (-20 °C to 100 °C)	20 °F to 200 °F (-7 °C to 93 °C)	20 °F to 200 °F (-7 °C to 93 °C)	20 °F to 200 °F (-7 °C to 93 °C)
Liiiiitə	Silicone Fill	-4 °F to 212 °F (-20 °C to 100 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C
	Halocarbon® Fill	NA	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C
Ranges	Pressure	Vacuum, compound, 15 to 20,000 psi	Vacuum, compound, 15 to 15,000 psi	Vacuum, compound, 15 to 30,000 psi	Vacuum, compound, 15 to 15,000 psi
-	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa
Weather Protection	Dry Case	Plug closed: IP 66/ Nema 4x Plug vented: IP54	Plug closed: IP65/NEMA 4 Plug vented: IP54	Plug closed: IP65/NEMA 4 Plug vented: IP54	Plug closed: IP65/NEMA 4 Plug vented: IP54
Approvals		CRN, RoHS, CE, PED, R110, CSA/ANSI NGV 3.1:20	CRN, RoHS, PED	CRN, RoHS, PED	CRN, RoHS











		1017	1220	1010	1339A
	Size	4½″, 6″	4½″, 6″, 8½″	4½", 6″, 8½″, 12″	4½″
	Accuracy	±1% of span (ASME B40.100 Grade 1A)	±1% of span (ASME B40.100 Grade 1A)	±1% of span (ASME B40.100 Grade 1A)	±2-1-2% of span (ASME B40.100 Grade A)
Creations	Dampening Options	PLUS! [™] Performance (see data sheet for more options)	PLUS! [™] Performance (see data sheet for more options)	PLUS! [™] Performance (see data sheet for more options)	NA
Specifications	Process Connection	1/4 NPT, 1/2 NPT (see data sheet for more options)	1/4 NPT, 1/2 NPT (see data sheet for more options)	1/4 NPT, 1/2 NPT (see data sheet for more options)	1/4 NPT Male
	Process Connection Location	Back (see data sheet for more options)	Lower, lower back (see data sheet for more options)	Lower, lower back (see data sheet for more options)	Back only
	Mounting Options	Stem, flush	Stem, surface, flush	Stem, surface, flush	Stem, flush
Wetted	Bourdon Tube	Bronze, 316L Stainless steel, Monel®	Bronze, 316L Stainless steel, Monel®	Bronze, 316L Stainless steel, Monel®	Grade A phosphor bronze
Components	Process Connection	Bronze, 316L Stainless steel, Monel®	Bronze, 316L Stainless steel, Monel®	Bronze, 316L Stainless steel, Monel®	Brass
	Case Material	Black epoxy coated aluminum, solid front	4½": Black phenolic, solid front 6": Black polypropylene, solid front 8½": Black aluminum, solid front	Black epoxy coated aluminum, solid front	Black epoxy coated aluminum
Non-Wetted	Window Material	Glass, acrylic, safety glass	Glass, acrylic, safety glass	Glass, acrylic, safety glass	Glass
Components	Ring	4½", 6": Aluminum - black textured enamel, hinged	4½": Threaded polycarbonate 6": Bayonet lock, polypropylene 8½": Hinged steel, black enamel	4½", 6": Reinforced polyproplyene, threaded 8½": Black epoxy coated, hinged 12": Black epoxy coated steel, slip fit	Black epoxy coated aluminum
Process Temperature	Dry	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)
Limits	PLUS!™	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	NA
Ranges	Pressure	Vacuum, compound 15 to 20,000 psi	Vacuum, compound 15 to 30,000 psi	Vacuum, compound 15 to 30,000 psi	Lowest range 30 psi, compound to 1,000 psi
·	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa
Weather Protection		Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only
Approvals		CRN	CRN	CRN	CRN











		SB Subsea	SC Subsea	1490	1495
	Size	63, 100, 140, 160 mm	100 mm	21⁄2″, 31⁄2″	21⁄2″, 31⁄2″
	Accuracy	1% or 1.6% of span	1% of span	±2-1-2% of span (ASME B40.100 Grade A)	±2-1-2% of span (ASME B40.100 Grade A)
	Dampening Options	NA	NA	FlutterGuard™	FlutterGuard™
Specifications	Process Connection	1⁄4, 1⁄2 NPT or BSP	1⁄4, 1⁄2 NPT or BSP	1/2 NPT, 1/2 NPT Male See data sheet for more options	1/8 NPT, 1/4 NPT Male
	Process Connection Location	Lower, back	Lower, back	Lower, center back, top, right, left	Lower, center back, top, right, left
	Mounting Options	Stem, surface, panel	Stem, surface, panel	Stem, flush, U-Clamp	Stem, flush, U-Clamp
Wetted	Bourdon Tube	316L Stainless steel	316L Stainless steel	Beryllium copper diaphragm, brass, polysulfone, RTV Silicone	Beryllium copper diaphragm, brass, polysulfone, RTV Silicone
Components	Process Connection	316L Stainless steel	316L Stainless steel	Brass	Brass
	Case Material	316L Stainless steel	316L Stainless steel	Black, glass filled polysulfone	Black, glass filled polysulfone
Non-Wetted Components	Window Material	Glass	Glass	Polycarbonate - threaded ¼ turn	Polycarbonate - threaded ¼ turn
	Ring	316L Stainless steel	316L Stainless steel	NA	NA
Pressure Relief Back	Disc	NA	Disc	NA	NA
Process	Dry	Dry	NA	-40 °F to 180 °F (-40 °C to 82 °C)	-40 °F to 180 °F (-40 °C to 82 °C
Temperature	Glycerin Fill	Glycerin	Glycerin	NA	NA
Limits	Silicone Fill	Silicone	NA	NA	NA
Depth Limits		6,000 meters (19,685 feet)	2,500 meters (8,202 feet)	NA	NA
	Pressure	15 to 20,000 psi	15 to 20,000 psi	Vacuum, compound, 10 in. H₂O to 15 psi	0/100%, 0/10 sq. rt., 0/100 linear, 3-15 psi
Ranges	Units	psi, bar, kg/cm2, kPa psi, bar, kg/cm2, kPa psi, bar, kg/cm2, kPa psi, bar, kg/cm2, kPa	psi, bar, kg/cm2, kPa psi, bar, kg/cm2, kPa psi, bar, kg/cm2, kPa psi, bar, kg/cm2, kPa	psi, IWC, cmWC, ozWC, kPa	psi
Weather Protection		IP68	IP68	NA	NA
Approvals		CE	CE	NA	NA











		8008A	1008A/AL	1005/1005P/1005S	1005P-XUL
	Size	63 mm 100 mm	63 mm 100 mm	1005: 1½", 2″, 2½", 3½″ 1005P: 1½″, 2″, 2½″, 3½″ 1005S: 1½″, 2″	31⁄2″
	Accuracy	63 mm: ±1.6% of span per (EN837-1) ±1% of span per (EN837-1) ±2-1-2% of span (ASME B40.100 Grade A) 100 mm: ±1% of span per (EN837-1)	±3-2-3% of span (ASME B40.100 Grade B)	±3-2-3% of span (ASME B40.100 Grade B)	±3-2-3% of span (ASME B 40.100 Grade B)
Specifications	Dampening Options	Liquid filled, FlutterGuard [™] , restrictors	Liquid filled, FlutterGuard [™] , restrictors	FlutterGuard [™] , restrictors	NA
	Process Connection	63 mm: ½ NPT, ¼ NPT Male, G ¼ B Male, ¼ BSPT, SAE-4 ¼e-20, M14 x 1.5 100 mm: ¼ NPT, ½ NPT Male, G ¼ B, G ½ B Male, ¼ BSPT, M20 x 1.5	1/4 NPT Male, JIS, DIN, others on application	1∕8 NPT, ¼ NPT Male	1/4 NPT Male
	Process Connection Location	63 mm: Lower, center back 100 mm: Lower, lower back	Lower, center back	Lower, center back, left (9 o'clock), right (3 o'clock), top	Lower
	Bourdon Tube	Bronze, 316 Stainless steel	Bronze, 316 Stainless steel	Bronze	Bronze
Wetted	Process Connection	Brass	Brass, with O-Ring case seal	Brass	Brass
Components	Restrictor	Brass, orifice size from 0.007" to 0.063"	Brass, 0.013" orifice (except for vacuum to 15 psi ranges) Optional: 0.007" to 0.063"	Brass, 013 [°] orifice on ranges >1,000 psi (only 1005/1005P) Optional: 0.007 [°] to 0.063 [°]	NA
Non-Wetted	Case Material	304 Stainless steel	304 Stainless steel	1005: Black painted steel 1005P: Black ABS 1005S: Stainless steel	ABS (Polycarbonate blend)
Components	Window	Polycarbonate, glass, safety glass	Polycarbonate	Polycarbonate	Polycarbonate
	Ring	304 Stainless steel, crimped	304 Stainless steel, crimped		
Process	Dry	-40 °F to 158 °F (-40 °C to 70 °C)	-40 °F to 158 °F (-40 °C to 70 °C)	-40 °F to 150 °F (-40 °C to 66 °C)	-40 °F to 150 °F (-40 °C to 66 °C)
Temperature	Glycerin Fill	-4 °F to 158 °F (-20 °C to 70 °C)	-4 °F to 158 °F (-20 °C to 70 °C)	NA	NA
Limits	Silicone Fill	-40 °F to 158 °F (-40 °C to 70 °C)	-40 °F to 158° F (-40 °C to 70 °C)	NA	NA
	Pressure	Bronze: Vacuum, compound to 8,700 psi 316 SS: 10,000 to 15,000 psi	Bronze: Vacuum, compound to 8,700 psi 316 SS: 10,000 to 15,000 psi	1½": Vacuum to 1,000 psi 2" to 3½": Vacuum, compound to 6,000 psi	0 to 300 psi (water) 0-80 retard to 250 psi (air) 0 to 600 psi
Ranges	Units	psi, bar, kPa, MPa, kg/cm² (available in single or dual scale)	psi Options: bar, kPa, kg/cm² (metric ranges)	psi Options: bar, kPa, kg/cm²	psi, bar, kPa, (single, dual or triple scale)
	Weather Protection	IP66; NEMA 4 for water and dust ingress	Weather resistant	Weather resistant	Weather resistant
Approvals		Rohs, Ped, Reach, CRN	CRN	CRN, Options: 1005/1005P (2'): UL 404 High pressure gas, 1,000-4,000 psi UL 252A Compressed gas regulator accessories, 30-300 psi	UL 393 listed, UL Canada listed, FM approved









		1000/2071A	12DDG/15DDG	23DDG
	Size	4½″	12DDG: 1¼″ 15DDG: 1½″	23 mm
	Accuracy	1000: ±3-2-3% of span (ASME B 40.100 Grade B) 2071A: ±2-1-2% (ASME B40.100 Grade A)	\pm 2% at setpoint (setpoint is normally 50% of span) UL Listed \pm 3.5% of span in middle $\frac{3}{2}$ of scale	±5% of span
Specifications	Dampening Options	FlutterGuard [™] , restrictors	Silicone dampened tube, restrictors	Silicone dampened tube, restrictors
	Process Connection	1/4 NPT Male	1/8 NPT, 1/4 NPT Male	1/8 NPT Male
	Process Connection Location	Lower	Center back	Center back
	Bourdon Tube	Bronze	Beryllium copper coil	Beryllium copper coil
Wetted Components	Process Connection	Brass	Brass	Brass
oomponents	Restrictors	Options: Brass, 0.007" to 0.063"	Safety plug on UL gauges 1,500 to 4,000 psi Options: Brass, 0.007 to 0.063	Options: Brass, 0.007" to 0.063"
	Case Material	1000: Black painted steel 2071A: Black painted aluminum with back flange	Stainless steel	ABS blend
Non-Wetted Components	Window Material	1000: Polycarbonate 2071A: Glass	Polycarbonate	Polycarbonate
	Ring	1000: Black painted steel 2071A: Chrome plated steel	NA	NA
Process Temperature Limits	Dry	-40 °F to 150 °F (-40 °C to 65 °C)	-40 °F to 150 °F (-40 °C to 65 °C)	-40 °F to 150 °F (-40 °C to 65 °C)
	Pressure	1000: Vacuum, compound to 6,000 psi 2071: Vacuum, compound to 600 psi	0/60, 0/100, 0/160, 0/200, 0/300, 0/700, 0/1,200, 0/1,500, 0/2,000, 0/3,000, 0/4,000 psi (Reference data sheet for pressure range dial arc)	0/60, 0/100, 0/160, 0/200, 0/300 psi (Reference data sheet for pressure range dial arc)
Ranges	Units	psi Options: bar, kPa, kg/cm²	psi Options: bar, kPa, kg/cm²	psi Options: bar, kPa, kg/cm²
	Weather Protection	Weather resistant	Weather resistant	Weather resistant
Approvals		CRN	CRN Options: UL 404, High pressure gas (1,500 to 4,000 psi)	CRN









		1001T	1001T-XOR Refrigerant Gauge	1007P-XOR Refrigerant Gauge
	Size	U-Clamp mount: 1½", 2″, 2½″, 3½″ Front flange mount: 2″, 2½″	2½", 3½″	2½″
	Accuracy	±3-2-3% of span (ASME B 40.100 Grade B)	$\pm1\%$ at zero, $\pm2\%$ three fourths of scale, $\pm5\%$ last fourth of scale	$\pm1\%$ at zero, $\pm2\%$ three fourths of scale, $\pm5\%$ last fourth of scale
Specifications	Dampening Options	FlutterGuard [™] , restrictors	FlutterGuard [™] , restrictors	FlutterGuard [™] , restrictors
	Process Connection	1/2 NPT, 1/4 NPT Male	1/2 NPT, 1/4 NPT Male	1/2 NPT Male
	Process Connection Location	Center back	Center back	Lower
	Bourdon Tube	Bronze	Bronze	Bronze
Wetted Components	Process Connection	Brass	Brass	Brass
compendito	Restrictors	Brass, 0.013" orifice in gauges 1,000 psi and above, Options: 0.007" to 0.063"	Brass, 0.013", Options: 0.007" to 0.063"	Brass, 0.020'', Options: 0.007'' to 0.063''
Non-Wetted	Case Material	Steel	Black painted steel	Blue ABS (low pressure) Red ABS (high pressure)
Components	Window Material	Polycarbonate	1/4 turn thread, polycarbonate	Threaded polycarbonate
Process Temperature Limits	Dry	-40 °F to 150 °F (-40 °C to 65 °C)	-40 °F to 150 °F (-40 °C to 65 °C)	-40 °F to 150 °F (-40 °C to 65 °C)
Ranges	Pressure	1½": Vacuum to 1,000 psi 2" to 3½": Vacuum, compound to 6,000 psi	Refrigerants R502/R22/R12/R134A: 30 in. Hg vac./0/120 psi retard to 250 psi; 0 to 500 psi; Refrigerant 410A: 30 inHg vac./0/350 psi retard to 500 psi; 0 to 800 psi	Refrigerants R502/R22/R12/R134A: 30 in. Hg vac./0/120 psi retard to 250 psi; 0 to 500 psi; Refrigerant 410A: 30 inHg vac./0/350 psi retard to 500 psi; 0 to 800 psi
nangoo	Units	psi Options: bar, kPa, kg/cm²	psi	psi
	Weather Protection	Weather resistant	Weather resistant	Weather resistant
Approvals		CRN	CRN	CRN







		DG25	2084, 2086, 2089
	Size	21/2″	3″
	Accuracy	$\pm 0.5\%$ of span (ASME B40.7 Grade 2A) $\pm 0.25\%$ of span (ASME B40.7 Grade 3A) (OPT.)	2089: ±0.05% of span 2086: ±0.10% of span 2084: ±0.25% of span
	Display	5 digit LCD	5 digit LCD
Specifications	Process Connection	1/2 NPT, 1/2 NPT (see data sheet for more options)	1⁄4 NPT
	Process Connection Location	Lower, top	Lower, left, right, top
	Mounting	Stem	Stem, panel (OPT.)
	Battery Life	2,000+ hours	1,000 hours
	Shock	MIL-STD-202G, Method 201A	NA
	Vibration	MIL-STD-202G, Method 213B, Test Condition K	NA
	Diaphragm	17-4 PH [®] Stainless steel	316 Stainless steel
Wetted Components	Process Connection	316L Stainless steel	316 Stainless steel
	Joints	Laser welded	NA
Non-Wetted	Case/Back Cover	Polycarbonate/ABS	304 Stainless steel
Components	Window	Polycarbonate	NA
Process Temperature Limits	Battery Installed	-4 °F to 140 °F (-20 °C to 60 °C)	0 °F to 150 °F (-18 °C to 65 °C) Fully temperature compensated
	Pressure	Vacuum, compound, gauge to 25,000 psi	Vacuum, compound, gauge, absolute to 7,000 psi
Ranges	Units	psi, bar, in. Hg, cm Hg, mm Hg, kPa, MPa, kg/cm², custom	psi, bar, in. Hg, in. H $_2$ 0, cm H $_2$ 0, mm H $_2$ 0, mm Hg, kPa, MPa, mbar, ftSW, kg/cm 2
Overpressure	Proof	15 to ≤2,000 psi: 2X ≥3,000 to ≤5,000 psi: 1.5X ≥7,500 to ≤20,000 psi: 1.2X	Vac to \leq 300 psi: 2X Range \geq 300 to \leq 3,000 psi: 2X Range \geq 5,000 to \leq 7,000 psi: 2X Range
Rating (F.S.)	Burst	15 to ≤2,000 psi: 8X ≥3,000 to ≤5,000 psi: 3X ≥7,500 to ≤20,000 psi: 1.5X	Vac to ≤300 psi: 3X Range ≥300 to ≤3,000 psi: 5X Range ≥5,000 to ≤7,000 psi: 2X Range
Weather Protection	Enclosure Rating	IP67	IP65
Approvals		CRN, CE, UL 61010, cUL, RoHS	CRN, FM/CSA Intrinsically safe (Not valid on vacuum and compound ranges up to 15 psi)





		2074, 2174, 2274			
	Size	3″, 4½″			
	Accuracy	$\pm 0.25\%$ of span, terminal point			
	Display	5 digit LCD			
	Process Connection	1/4 NPT (see data sheet for more options)			
Specifications	Process Connection Location	Lower, left, right, top			
	Battery Life	3":>450 hours, 4½":>2,000 hours			
	Power Requirements	2074: Battery powered 2174: Loop Powered 4-20 mA (12-36 Vdc) 2274: DC line powered (12-36 Vdc)			
Wetted Components	Diaphragm	17-4 PH® Stainless steel			
	Process Connection	316 Stainless steel			
componente	Joints	Laser welded			
Non-Wetted Components	Case	3': 304 Stainless steel, 4½'': Fiberglass reinforced thermoplastic or black epoxy coated aluminum			
Process Temperature Limits	Dry	14 °F to 140 °F (-10 °C to 60 °C)			
	Pressure	Vacuum to 20,000 psi			
Ranges	Units	psi, in. H ₂ O (with three temp. OPT.: 20 °C, 60 °F, 4 °C), ft. H ₂ O, mPa, mbar, kPa, kg/cm², bar, inHg and mm Hg (units available are based on F.S. range of gauge)			
Overpressure Rating	Proof	15 to ≤2,000 psi: 2X ≥3,000 to ≤5,000 psi: 1.5X ≥7,500 to ≤20,000 psi: 1.2X			
(F.S.)	Burst	15 to ≤2,000 psi: 8X ≥3,000 to ≤5,000 psi: 3X ≥7,500 to ≤20,000 psi: 1.5X			
Weather Protection	Enclosure Rating	IP65, Weatherproof			
Approvals		CRN, FM/CSA Intrinsically Safe (OPT.)			

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Products & Features









		1130	1131	1132	1133	1134
	Size	2", 2½", 3½", 4", 4½", 6″	21⁄2″, 31⁄2″, 4″, 41⁄2″, 6″	21⁄2″, 31⁄2″, 4″, 41⁄2″, 6″	31⁄2″, 4″, 41⁄2″, 6″	4½″
	Accuracy	±2% ascending (FSD)	±2% ascending (FSD)	±2% ascending (FSD)	±2% ascending (FSD)	±3% ascending (FSD)
	Process Connection	1/4 NPT Female	1/4 NPT Female	1/4 NPT Female	1/4 NPT Female	1/8 NPT Female
Specifications	Process Connection Location	In-line, lower, back	In-line, lower, back	In-line, lower, back	In-line, lower, back	Dual In-line, back
	Mounting Options	In-line, panel, surface, pipe	In-line, panel, surface, pipe	In-line, panel, surface, pipe	In-line, panel, surface, pipe	In-line, panel, surface, pip
	Migration	Minor	Zero	Zero	Zero	Zero
Wetted Material	Actuator	PTFE piston, ceramic magnet, SS spring	Rolling diaphragm, ceramic magnet, SS spring	Convoluted diphragm, ceramic magnet, SS spring	Convoluted diphragm, ceramic magnet, SS spring	Convoluted diaphragm, ceramic magnet, SS sprin
	0-Ring/ Diaphragm	Buna-N (optional material available)	Buna-N (optional material available)	Buna-N (optional material available)	Buna-N (optional material available)	Buna-N (optional material availabl
	Body Material	Aluminum, Brass, Stainless steel	Aluminum, Brass, Stainless steel	Aluminum, Brass, Stainless steel	Aluminum, Stainless steel	Glass filled nylon
Non-Wetted	Case Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Material	Window	Glass	Glass	Glass	Glass	Glass
Process	Dry	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C)	140 °F (60 °C)
Temperature	Glycerine Fill	150 °F (66 °C)	150 °F (66 °C)	150 °F (66 °C)	150 °F (66 °C)	140 °F (60 °C)
.imits	Silicone Fill	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C)	140 °F (60 °C)
Ranges	Differential Pressure Ranges	0-5 psid to 150 psid	0-5 psid to 100 psid	0-1 psid to 60 psid	0-1 IWD to 25 IWD	0.6-1 IWD to 60 IWD
	Static Pressure	up to 6,000 psi	3,000 psi	1,500 psi	500 psi	35 psi













		1140	1141	1142	1143	1147
	Size	2", 2½", 3½", 4", 4½″, 6″	21⁄2", 31⁄2", 4", 41⁄2″, 6″	21⁄2″, 31⁄2″, 4″, 41⁄2″, 6″	31⁄2″, 4″, 41⁄2″, 6″	4½″, 6″
	Accuracy	±2% ascending (FSD)	±2% ascending (FSD)	±2% ascending (FSD)	±2% ascending (FSD)	±3% ascending (FSD)
	Process Connection	1/4 NPT Female	1/4 NPT Female	1/4 NPT Female	1/4 NPT Female	1/4 NPT Female
Specifications	Process Connection Location	In-line, lower, back	In-line, lower, back	In-line, lower, back	In-line, lower, back	In-line, lower, back
	Mounting Options	In-line, panel, surface, pipe	In-line, panel, surface, pipe	In-line, panel, surface, pipe	In-line, panel, surface, pipe	In-line, panel, surface, pipe
	Migration	Minor	Zero	Zero	Zero	Zero
	Actuator	PTFE piston, ceramic magnet, SS spring	Rolling diaphragm, ceramic magnet, SS spring	Convoluted diphragm, ceramic magnet, SS spring	Convoluted diphragm, ceramic magnet, SS spring	Convoluted diaphragm, ceramic magnet, SS spring
Wetted Material	0-Ring/ Diaphragm	Buna-N (optional material available)	Buna-N (optional material available)	Buna-N (optional material available)	Buna-N (optional material available)	Buna-N (optional material available
	Body Material	Aluminum, Brass, Stainless steel	Aluminum, Brass, Stainless steel	Aluminum, Brass, Stainless steel	Aluminum, Stainless steel	Glass filled nylon
Non-Wetted	Case Material	Thermoplastic, glass filled nylon	Thermoplastic, glass filled nylon	Thermoplastic, glass filled nylon	Thermoplastic, glass filled nylon	Thermoplastic, glass filled nylon
Material	Window	Glass	Glass	Glass	Glass	Glass
Dreeses	Dry	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C)	140 °F (60 °C)
Process Temperature	Glycerine Fill	150 °F (66 °C)	150 °F (66 °C)	150 °F (66 °C)	150 °F (66 °C)	140 °F (60 °C)
Limits	Silicone Fill	175 °F (80 °C)	175 °F (80 °C)	175 °F (80 °C))	175 °F (80 °C)	140 °F (60 °C)
Ranges	Differential Pressure Ranges	0-5 psid to 150 psid	0-5 psid to 100 psid	0-1 psid to 60 psid	0-1 IWD to 25 IWD	30 IWD to 2,000 IWD
	Static Pressure	up to 6,000 psi	3,000 psi	1,500 psi	500 psi	1,000 psi

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		1125 & 1125A	1127 & 1128	5503	F5509 & F6509	
	Size	4½″, 6″	4½″, 6″	4″ (100 mm), 6″ (160 mm)	4″ (100 mm), 6″ (160 mm)	
	Accuracy	±2-1-2% of span (ASME B40.100 Grade A)	±2-1-2% of span (ASME B40.100 Grade A)	±1.6% of span	±1.6% of span	
pecifications	Process Connection	1/4 NPT Male	1⁄4 NPT Male	1/4, 1/2 NPT Male or Female, G1/2B Male	1/4, 1/2 NPT Male or Female, G1/2B Male	
	Process Connection Location	Lower, back	Lower, back	Lower	Lower	
	Mounting Options	Stem, surface	Stem, surface	Stem, wall, pipe	Stem, wall, pipe	
	Bourdon Tube	Grade A Phospor bronze	316 Stainless steel	NA	NA	
	Process Connection	Bronze	316 Stainless steel	316 Stainless steel	316TI Stainless steel	
Vetted Naterial	Diaphragm	NA	NA	316 SS, Duratherm 600 [®] , Inconel [®] , Hastelloy [®] , Monel [®]	316 Stainless steel, Duratherm 600®	
	Housing	NA	NA	316L Stainless steel, Hastelloy® C-276	316L Stainless steel	
lon-Wetted	Case Material	Cast aluminum, black epoxy coated	Cast aluminum, black epoxy coated	304 Stainless steel, 316 Stainless steel (OPT.)	316 Stainless steel	
Naterials	Window	Glass	Glass	Shatterproof glass	Shatterproof glass	
	Ring	Aluminum	Aluminum	Bayonet	Bayonet	
	Dry	-20 °F to 250 °F (-29 °C to 121 °C)	-20 °F to 250 °F (-29 °C to 121 °C)	-4 °F to 185 °F (-20 °C to 85 °C)	-4 °F to 185 °F (-20 °C to 85 °C)	
Process Temperature Limits	Glycerine Fill	NA	NA	-20 °F to 150 °F (-7 °C to 66 °C)	-20 °F to 150 °F (-7 °C to 66 °C)	
	Silicone Fill	NA	NA	-40 °F to 200 °F (-40 °C to 93 °C)	-40 °F to 200 °F (-40 °C to 93 °C)	
	Differential Pressure	1125: 10 to 1,000 psid 1125A: 5 to 500 psid	1127: 10 to 1,000 psid 1128: 5 to 500 psid	1 to 600 psid	1 to 400 psid	
Ranges	Static Pressure	Range dependent (see details on product page or data sheet)	Range dependent (see details on product page or data sheet)	1,450 psi 3,625 psi for ranges <10 psi (OPT.) 5,801 psi for ranges >10 psid (OPT.)	232 psi for ranges from 1 to 4 psi 580 psi for range of 6 psi to 400 psi	
	Units	psid, kg/cm², bar, kPa	psid, kg/cm², bar, kPa	psid, mbar, bar, IW	psid, mbar, bar, IW	
Veather Protection		Case not sealed, recommended for weather protected environment only	Case not sealed, recommended for weather protected environment only	Dry: IP65 Liquid: IP66	IP66	
Approvals		NA	NA	CRN, CE, ATEX (OPT.)	NA	











		1032 Sanitary	1032 Fractional	1036 Gauge/ 1037 Fitting	2030 Series	
	Size	21⁄2″, 31⁄2″, 41⁄2″	2″	3½″	3″	
	Display Type	Analog	Analog	Analog	Digital - Full 5 Digit LCD	
	Accuracy	$\begin{array}{c} 2 \ \ \% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Upscale: $\pm 3\%$ of span Downscale: $\pm 5\%$ of span	All ranges to 100 psi $\pm 2\%$ Pressure over 100 psi $\pm 1.5\%$ (add $\pm 0.5\%$ for liquid fill and XLL)	±0.25% of span, terminal point	
	Power Supply	NA	NA	NA	2032, 2036: Battery 2132, 2136: 4-20 mA Loop 2232, 2236: 12-36 Vdc	
Specifications	Switches	NA	NA	NA	2232, 2236: 1 or 2 SPDT (OPT.)	
	Dampening Options	PLUS! [™] Performance or liquid filled case	FlutterGuard™	PLUS! [™] Performance or liquid filled case	Settings per 100 ms: None, average, 2, 4, 6, 8	
	Process Connection	1½″ & 2″ Tri-Clamp®	¾ Tri-Clamp®	1½″ Tri-Clamp®	2032, 2132, 2232: Tri-Clamp® 2036, 2136, 2236: In-line	
	Process Connection Location	Lower, lower back	Lower	Lower	Lower, top, right, left	
	Mounting Options	Tri-Clamp®	Tri-Clamp®	1036: Tri-Clamp® mates with 1037: ½″ to 2″ in-line sanitary fitting	Tri-Clamp®	
	Diaphragm	316L SS, Electropolished, Hastelloy® C-276	316L Stainless steel, Electropolished	316L Stainless steel, Electropolished	316L Stainless steel, Electropolished	
Wetted Components	Seal Housing	316L SS, Electropolished, Hastelloy® C-276	316L Stainless steel, Electropolished	316L Stainless steel, Electropolished	316L Stainless steel, Electropolished	
	Seal Suface Finish	12-15 RA	12-20 RA	12-15 RA	12-20 RA	
	Case	304 Stainless steel	304 Stainless steel, Electropolished	304 Stainless steel	304 Stainless steel, Tumbled	
Non-Wetted	Window	Polycarbonate, glass, safety glass, polysulfone	Glass, safety glass, polycarbonate	Polycarbonate, polysulfone, safety glass	NA	
Components	Ring	304 Stainless steel, removeable	304 Stainless steel, electropolished, friction fit	304 Stainless steel, removeable	NA	
	Assembly Fill Fluid	Distilled water, USP food grade glycerin, food grade silicone, Neobee [®] M-20, mineral oil	USP food grade glycerin, Neobee® M-20, mineral oil	Distilled water, USP food grade glycerin, food grade silicone, Neobee [®] M-20, mineral oil	USP food grade glycerin, food grade silicone, mineral oil	
Ranges	Pressure	Vacuum, compound, to 1,000 psi	Compound, 30 to 600 psi	Vacuum, compound, to 1,000 psi	Vacuum, compound, gauge to 7,000 psi	
	Units	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	psi, bar, kg/cm², kPa	
Weather Protection		2½" & 3½": IP65, 4½" Dry: IP54 4½" liquid filled: IP65	NA	IP65	IP65	
Approvals		CRN, RoHS, 3-A	CRN, RoHS	CRN, RoHS, 3-A	3-A	











			12			
		28 mm HPX	НРХ	HPS	НРТ	
	Size	28 mm	50 & 63 mm	50 mm	63 mm	
	Accuracy	±3% of span	50 mm: ±2.4-1.6-2.4% of span 63 mm: ±1.5% of span	Gauge: ±1.6% of span Setting Accuracy: ±5.0% of span	±1.5% of span (ranges 90 psi & above) ±2% of span (ranges 90 psi & below)	
Specifications	Process Connection	%16-18 UNF 1/4" VCR Male/Female	%16-18 UNF 1/4" VCR Male/Female 1/4 NPT	%16-18 UNF ¼″ VCR Male/Female, R ¼ Male, ¼ NPT Male	G ¾, R ¾, Tube Stub: ¼, ¾, ½	
	Process Connection Location	Centerback	50 mm: Lower, centerback 63 mm: Lower, lower back	Lower	Lower	
	Mounting Options	Stem	Stem	Stem	Stem	
	Bourdon Tube	316L Stainless steel diaphragm	316L Stainless steel	316L Stainless steel	PFA (Perfluoroalkoxy) bellows	
Wetted Materials	Process Connection Materials	316L Stainless steel	316L Stainless steel	316L Stainless steel	PTFE	
Surface	Tube	<0.5um Ra	<1.6 um Ra	<.38um Ra	NA	
Finish	Socket	<0.38um Ra	<1.6 um Ra	<.38um Ra	NA	
	Case	304 Stainless steel	304 Stainless steel	316L Stainless Steel	Polypropylene	
Non-Wetted Materials	Window	Polycarbonate	Polycarbonate	Threaded polycarbonate	PET	
iviater iais	Ring	304 Stainless steel	304 Stainless steel	NA	NA	
	Max Power	NA	NA	10 W	NA	
Reed Switch	Max Voltage	NA	NA	30 Vac/dc	NA	
Reed Switch	Max Current	NA	NA	0.5 Adc	NA	
	Dead Band	NA	NA	Within 10% of span	NA	
Ranges	Pressure	Compound Vacuum to 150#	Compound Vacuum to 300#, 0 to 3,000	0 to 60 psi, 0 to 3,000 psi	Vacuum to 145#	
-	Units	psi, bar, kPa	psi, bar, kPa	psi, bar, mPa	psi, bar, mPa, kPa	
Approvals		RoHS	RoHS	RoHS	RoHS	

PRESSURE SWITCHES

PRESSURE & DIFFERENTIAL PRESSURE SWITCHES

A, B, G, L Pressure & Differential	
Pressure Switches	.28
P, F, N, DDS Pressure &	
Differential Pressure Switches	29







		A-Series Pressure	B-Series Pressure & Differential Pressure	G-Series & L-Series Pressure & Differential Pressure
	Accuracy	±2% of span for ranges 200 through 15,000 psi ±5% of span for ranges -15/15 through 100 psi	±1% of span	±1% of span
	Enclosure Rating	Watertight: IP67, NEMA 6 Explosion Proof: IP67, NEMA 4X, 7,9	B4 Watertight: IP66, NEMA 4X B7 Explosion Proof: IP66, NEMA 7, 9	Watertight L-Series: IP66, NEMA 4, 4X G-Series: IP65, NEMA 4, 4X
	Switch Elements	SPDT, DPDT	SPDT, DPDT	SPDT, 2 SPDT, DPDT (OPT.)
Specifications	Setpoint	Single - Factory set, or field adjustable	Single - Factory set, or field adjustable	Single or dual (independently adjustable) field adjustable or factory set
	Deadband	Fixed	Fixed, variable	Adjustable (SPDT only) Fixed SPDT or 2 SPDT
	Process Connection Size	NPT Male or Female, SAE, G Style, VCR, VCO, Tri-Clamp®	NPT Male or Female, Tri-Clamp®	NPT Male or Female, Tri-Clamp®
	Mounting	Direct	Direct, surface, pipe	Direct, surface, pipe
Wetted	Process Connection	316L Stainless steel	Pressure: 316 Stainless steel, Monel [®] or epoxy coated carbon steel, Differential: nickel plated brass or 316 SS	Pressure: 316 Stainless steel, Monel® or epoxy coated carbon steel, Differential: nickel plated brass or 316 SS
Material	Actuator Seal	316 SS Welded Diaphragm 316 SS Piston & Buna-N O-Ring 316 SS Piston & Viton™ O-Ring 316 SS Piston & HBNR O-Ring	316L Stainless steel, Monel®, Buna-N, Viton™, Teflon™	316L Stainless steel, Monel®, Buna-N, Viton™, Teflon™
Non-Wetted Materials	Case Material	316L Stainless steel	Epoxy coated aluminum 316L Stainless steel (OPT.)	L-Series: Epoxy coated aluminum G-Series: 316L Stainless steel
	Pressure	Vacuum, compound to 15,000 psi	Vacuum, compound to 3,000 psi	Vacuum, compound to 3,000 psi
Ranges	Differential Pressure	NA	10 IWC to 600 psi	10 IWC to 400 psi
	Units	psi, bar, kPa, kg/cm²	IWC, psi, bar, kPa, kg/cm²	IWC, psi, bar, kPa, kg/cm²
Approvals	Watertight	UL, CSA, CE, CRN, SIL 3 capable, RoHS	UL, CSA, FM, CE, CRN, SIL 3 Capable, RoHS	UL, CSA, CE, RoHS, FM (L-Series only), CRN
	Explosion Proof	UL, CSA, CE, CRN, SIL 3 capable, FM, ATEX, IECEx, Dual Seal	UL, ATEX. IECEX, CSA	NA

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		P-Series Pressure & Differential Pressure	F-Series Pressure	N-Series Pressure	DDS Differential Pressure
	Accuracy	±1% of span	±1% of span	$\pm 0.50\%$ of span	±1% of span
	Enclosure Ratings	Explosion Proof: IP66, NEMA 7, 9	Explosion Proof: IP66, NEMA 3, 4, 7, 9	Watertight: IP65, NEMA 3, 4, 4X, 13	Watertight NEMA 4X, 12 Explosion proof housing
	Switch Elements	SPDT, 2 SPDT with independent setpoints	SPDT, DPDT	SPDT	SPDT, DPDT
Specifications	Setpoint	Single or dual (independently adjustable) field adjustable or factory set	Single - Factory set or field adjustable	Single - Factory set or field adjustable	Single - Factory set or field adjustable
	Deadband	Adjustable (SPDT only) Fixed SPDT, 2 SPDT	Fixed	Adjustable	Fixed
	Process Connection	NPT Male or Female, Tri-Clamp®	14 NPT, 1⁄2 NPT	NPT Male or Female, Tri-Clamp ^{® 9/16-} 18 UNF, 2B Female high pressure	1⁄4 NPT
	Mounting	Direct, surface or pipe	Direct	Direct, surface	Direct
	Indicating Display	NA	NA	Yes	NA
Wetted Material	Process Connection	Pressure: 316L SS, Monel® or epoxy coated carbon steel Differential: nickel plated brass, 316L Stainless steel	316 Stainless steel	316 Stainless steel	Aluminum, 316 Stainless steel
	Actuator Seal	316L SS, Monel®, Buna-N, Viton™, Teflon™	316L SS, Buna-N, Viton™ Teflon™, SS with Viton™ 0-Ring	17-4 PH [®] Stainless steel	Buna-N, Viton [™] , Teflon [™]
Non-Wetted Materials	Case Material	Epoxy coated aluminum	Anodized aluminum	Anodized aluminum	Cast aluminum
Ranges	Pressure	Vacuum, compound to 3,000 psi	Vacuum to 4,000 psi	60 to 20,000 psi	NA
	Differential Pressure	30 IWC to 400 psi	NA	NA	1.5 to 150 IWC (Static pressure capability from 50 to 1,500 psi)
	Units	IWC, psi, bar, kPa, kg/cm²	psi, bar, kPa, kg/cm²	psi, bar, kPa, kg/cm²	IWC, mm H ₂ O, mBar, kPa
Approvals		Explosion Proof, UL, CSA, CRN	Explosion Proof, UL, CSA	CRN	Explosion Proof, UL

PRESSURE SENSORS

PRESSURE TRANSDUCERS/ TRANSMITTERS

E2G, E2S, E2X/F, E2 with sanitary seal	.32
G2, G3, T2	33
A2, A4, A2X	34
KM41/KM45, KM15, KM46, KD41	35
K1, K2, KX, KS, K8	36

DIFFERENTIAL PRESSURE TRANSDUCERS/ TRANSMITTERS

SL17, GC31 GC35, GC51	37
GC30, GC52, GXLdp, GC55	38
CXLdp, DXLp, IXLdp, RXLdp, XLdp	39

HIGH PURITY/ SEMICONDUCTOR PRESSURE TRANSDUCERS/ TRANSMITTERS 7111 7111 7116 7191 7192

ZT11, ZX11, ZT16, ZL91, ZL92 40

Pressure Transducers/Transmitters



Products & Features



				sat.	ALC: N
		E2G	E2S	E2X/F	E2 Sanitary
Refere	nce Temperature	70 °F (21 °C)	70 °F (21 °C)	70 °F (21 °C)	70 °F ±3 °F (21 °C ±2 °C)
Performance	Accuracy	$\pm 0.25\%, \pm 0.5\%, \pm 1.0\%$ of span	±0.25%, ±0.5%, ±1.0% of span	±0.25%, ±0.5%, ±1.0% of span	±0.25%, ±0.50%, ±1.0% of span
	Accuracy Statement	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, linearity, repeatability offset and span
	Stability	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions
	Compound	Vac to 500 psig	Vac to 500 psig	Vac to 500 psig	Vac to 1,000 psig
Ranges	Gauge	1.5 to 20,000 psig	1.5 to 20,000 psig	1.5 to 20,000 psig	Vac to 1,000 psig
	Absolute	15 to 500 psia	15 to 500 psia	15 to 500 psia	0 to 500 psia
Overpressure (F.S.)	Proof	1.5 psi: 3.3X 5 psi: 3X 10 - 3,000 psi: 2X 5,000 - 20,000 psi: 1.2X	1.5 psi: 3.3X 5 psi: 3X 10 - 3,000 psi: 2X 5,000 - 20,000 psi: 1.2X	1.5 psi: 3.3X 5 psi: 3X 10 - 3,000 psi: 2X 5,000 - 20,000 psi: 1.2X	1.2X - 2X
	Burst	1.5 - 30 psi: 5X 45 - 2,000 psi: 8X 3,000 - 5,000 psi: 5X 7,500 - 20,000 psi: 3X	1.5 - 30 psi: 5X 45 - 2,000 psi: 8X 3,000 - 5,000 psi: 5X 7,500 - 20,000 psi: 3X	1.5 - 30 psi: 5X 45 - 2,000 psi: 8X 3,000 - 5,000 psi: 5X 7,500 - 20,000 psi: 3X	3X - 8X
Output	Electrical	0-5 Vdc, 0-10 Vdc, 1-11 Vdc, 0.1-10 Vdc, 0.1-5 Vdc, 1-5 Vdc, 1-6 Vdc, 4-20 mA, 20-4 mA, 0.5-4.5 Vdc (non-ratiometric)	0-5 Vdc, 0-10 Vdc, 1-11 Vdc, 0.1-10 Vdc, 0.1-5 Vdc, 1-5 Vdc, 1-6 Vdc, 4-20 mA, 20-4 mA, 0.5-4.5 Vdc (non-ratiometric)	0-5 Vdc, 0-10 Vdc, 1-11 Vdc, 0.1-10 Vdc, 0.1-5 Vdc, 1-5 Vdc, 1-6 Vdc, 4-20 mA, 20-4 mA, 0.5 - 4.5 Vdc (non-ratiometric)	0-5 Vdc, 1-5 Vdc, 1-6 Vdc, 0-10 Vdc, 1-11 Vdc, 0.1-5 Vdc, 0.1-10 Vdc, 0.5-4.5 Vdc (non-ratiometric 4-20 mA, 20-4 mA
Wetted Material	Diaphragm or Sensor	316L Stainless steel, 17-4 PH [®] Stainless steel, A286	316L Stainless steel, 17-4 PH® Stainless steel, A286	316L Stainless steel, 17-4 PH [®] Stainless steel, A286	316L Stainless steel (12-20 Ra Surface finish)
	Connection	316L Stainless steel	316L Stainless steel	316L Stainless steel,	316L Stainless steel (Electro-polished)
Enclosure Rating	Ingress Protection	IP66 (NEMA 4X) (STD.) IP67 (IP69K Consult factory)	IP66 (NEMA 4X) (STD.) IP67 (IP69K Consult factory)	IP66 (NEMA 4X) (STD.) IP67 (IP69K Consult factory)	IP66 (NEMA 4X) (STD.) IP67 (IP69K Consult factory)
Approvals		UL/cUL, CE, RoHS	UL/cUL, CE, RoHS	UL/cUL, CE, RoHS	UL/cUL, CE, RoHS
Hazardous Location Rating		NA	Intrinsically Safe - FM, ATEX, IECEx Non-Incendive - FM	Explosion-Proof - FM, ATEX, IECEx Intrinsically Safe - FM, ATEX, IECEx Non-Incendive - FM	NA

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		G2	G3	Т2
Refer	ence Temperature	72 °F ±2 °F (22 °C ±1 °C)	72 °F ±2 °F (22 °C ±1 °C)	72 °F ±2 °F (22 °C ±1 °C)
Performance	Accuracy	±1% of span: -4 °F to 185 °F (-20 °C to 85 °C) ±1.5% of span: 185 °F to 257 °F (85 °C to 125 °C) -40 °F to -4 °F (-40 °C to -20 °C)	±1.5% of span: -4 °F to 185 °F (-20 °C to 85 °C) ±2.0% of span: 185 °F to 257 °F (85 °C to 125 °C) -40 °F to -4 °F (-40 °C to -20 °C)	±1% of span: -4 °F to 185 °F (-20 °C to 85 °C) ±1.5% of span: 185 °F to 257 °F (85 °C to 125 °C) -40 °F to -4 °F (-40 °C to -20 °C)
	Accuracy Statement	Total Error Band Method Includes: combined effects of temperature, non-linearity, hysteresis, non-repeatability, zero offset and span setting errors	Total Error Band Method Includes: combined effects of temperature, non-linearity, hysteresis, non-repeatability, zero offset and span setting errors	Total Error Band Method Includes: combined effects of temperature, non-linearity, hysteresis, non-repeatability, zero offset and span setting errors
	BSFL	$\pm 0.25\%$ of span	±0.50% of span	$\pm 0.25\%$ of span
	Stability	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions
	Compound	Vac to 300 psig	Vac to 300 psig	Vac to 300 psig
Ranges	Gauge	30 to 20,000 psig	5 to 5,000 psig	30 to 20,000 psig
	Absolute	NA	15 to 300 psia	NA
Overpressure (F.S.)	Proof	Up to 2X depending on full scale pressure ranges	Up to 2X depending on full scale pressure ranges	Up to 2X depending on full scale pressure ranges
	Burst	Up to 10X depending on full scale pressure ranges	Up to 5X depending on full scale pressure ranges	Up to 10X depending on full scale pressure ranges
Output	Electrical	0-5 Vdc, 0-10 Vdc, 1-5 Vdc, 1-6 Vdc, 0.5-4.5 Vdc, 0.5-4.5 Vdc (Ratiometric), 4-20 mA	0-5 Vdc, 0-10 Vdc, 1-5 Vdc, 1-6 Vdc, 0.5-4.5 Vdc, 0.5-4.5 Vdc (Ratiometric), 4-20 mA	0-5 Vdc, 0-10 Vdc, 1-5 Vdc, 1-6 Vdc, 0.5-4.5 Vdc, 0.5-4.5 Vdc (Ratiometric), 4-20 mA
Wetted	Diaphragm or Sensor	17-4 PH® Stainless steel	316L Stainless steel	17-4 PH® Stainless steel
Material	Connection	304L Stainless steel	316L Stainless steel	304L Stainless steel
Enclosure Rating	Ingress Protection	IP65, IP67	IP65, IP67	IP65, IP67
Approvals		CE, UL, RoHS	CE, UL, RoHS	CE, UL, RoHS
			1	









		A2	A4	A2X
Reference Temperature		70 °F (21 °C)	70 °F (21 °C)	70 °F (21 °C)
Performance	Accuracy	$\pm 0.25\%, \pm 0.5\%, \pm 1.00\%$ of span	$\pm 0.25\%, \pm 0.5\%, \pm 1.00\%$ of span	$\pm 0.25\%, \pm 0.5\%, \pm 1.00\%$ of span
	Accuracy Statement	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors
	BSFL	$\pm 0.20\%, \pm 0.40\%, \pm 0.5\%$ of span (add $\pm 0.5\%$ ranges>5,000 psi)	$\pm 0.20\%, \pm 0.40\%, \pm 0.5\%$ of span (add $\pm 0.5\%$ ranges>5,000 psi)	$\pm 0.20\%, \pm 0.40\%, \pm 0.5\%$ of span (add $\pm 0.5\%$ ranges>5,000 psi)
	Stability	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions
	Compound	Vac to 60 psig	Vac to 60 psig	Vac to 60 psig
Ranges	Gauge	1.5 to 10,000 psig	1.5 to 10,000 psig	1.5 to 10,000 psig
	Absolute	15 to 7,500 psia	15 to 7,500 psia	15 to 7,500 psia
Overpressure	Proof	Vac to 300 psi: 1.5X 500 to 10,000 psi: 1.2X	Vac to 300 psi: 1.5X 500 to 10,000 psi: 1.2X	Vac to 300 psi: 1.5X 500 to 10,000 psi: 1.2X
(F.S.)	Burst	Vac to 300 psi: 2X 500 to 10,000 psi: 1.5X	Vac to 300 psi: 2X 500 to 10,000 psi: 1.5X	Vac to 300 psi: 2X 500 to 10,000 psi: 1.5X
Output	Electrical	4-20 mA, 0-5 Vdc, 0-10 Vdc, 1-5 Vdc, 1-6 Vdc	4-20 mA	4-20 mA, 0-5 Vdc, 0-10 Vdc, 1-5 Vdc, 1-6 Vdc
Wetted	Diaphragm or Sensor	316L Stainless steel	316L Stainless steel	316L Stainless steel
Material	Connection	316L Stainless steel	316L Stainless steel	316L Stainless steel
Enclosure Rating	Ingress Protection	IP65, IP67 (selected electrical connections) NEMA 4X, 6	IP65, IP67 (selected electrical connections) NEMA 4X, 6	IP65, NEMA 7, 9
Approvals		CE, RoHS	CE, RoHS	CE, RoHS
Hazardous Location Rating		NA	Intrinsically Safe - FM/CSA	Explosion Proof - UL & ATEX

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		KM41/KM45	KM15	KM46	KD41	
Refere	nce Temperature	72 °F ±2 °F (22 °C ±1 °C)	73 °F ±2 °F (23 °C ±1 °C)	72 °F ±2° F (22 °C ±1 °C)	72 °F ±2 °F (22 °C ±2 °C)	
	Accuracy	±1.5% of span: -4 °F to 185 °F (-20 °C to 85 °C) ±2.0% of span: 185 °F to 257 °F (85 °C to 125 °C)	±3.0% of span: -22 °F to 250 °F (-30 °C to 120 °C)	±2.0% of span: -4° F to 185 °F (-20 °C to 85 °C)	±1.5% of span: -4 °F to 185 °F (-20 °C to 85 °C) ±2.0% of span: 185 °F to 257 °F (85 °C to 125 °C)	
Performance	Accuracy Statement	Total Error Band Method Includes: combined effects of temperature, non-linearity, hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Total Error Band Method Includes: combined effects of temperature, non-linearity, hysteresis, non- repeatability, zero offset and span setting errors	Total Error Band Method Includes: combined effects of temperature, non-linearity, hysteresis, non- repeatability, zero offset and span setting errors	
	BSFL	$\pm 0.50\%$ of span	±1.0% of span ≤75 psi ±0.5% of span ≥100 psi	$\pm 0.30\%$ of span	$\pm 0.50\%$ of span	
Stability r		≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions reference condit		≤±0.25% of span/year at reference conditions	
	Compound	Vac to 300 psig	Vac to 300 psig	NA	Vac to 300 psig	
Ranges	Gauge	5 to 20,000 psig	15 to 10,000 psig	30,000 to 72,000 psig	5 to 20,000 psig	
Absolute		15 to 500 psia (KM45)	NA	NA	NA	
Overpressure	Proof	Up to 2X depending on full scale pressure ranges	Up to 2X depending on full scale pressure ranges	Up to 1.5X depending on full scale pressure ranges	Up to 2X depending on full scale pressure ranges	
(F.S.)	Burst	Up to 5X depending on full scale pressure ranges	Up to 10X depending on full scale pressure ranges	Up to 1.8X depending on full scale pressure ranges	Up to 5X depending on full scale pressure ranges	
Output	Electrical	4-20 mA, 0-5 Vdc, 1-5 Vdc, 1-6 Vdc, 0-10 Vdc, 0.5-4.5 Vdc (Ratiometric), 4-20 mA	1-5 Vdc, 0.5-4.5 Vdc (Ratiometric)	0-10 Vdc, 1-5 Vdc, 4-20 mA	CANopen, SAE J1939	
Wetted	Diaphragm or Sensor	KM41: 17-4 PH [®] Stainless steel KM45: 316L Stainless steel	17-4 PH [®] Stainless steel	Stainless steel or Titanium depend- ing on full scale pressure ranges	17-4 PH [®] Stainless steel	
Material	Connection	KM41: 304L Stainless steel KM45: 316L Stainless steel	304L Stainless steel	Stainless Steel or Titanium depend- ing on full scale pressure ranges	304L Stainless steel	
Enclosure Rating	Ingress Protection	IP65, IP67	IP67	IP65, IP67	IP65, IP67	
Approvals		CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	





See data sheets at ashcroft.com for complete product specifications and ordering codes.









		SL17	GC31	GC35	GC51	
Refer	ence Temperature	70 °F (21 °C)	73 °F (23 °C)	73 °F (23 °C)	73 °F (23 °C)	
	Accuracy	±0.25%, ±0.50% of span	±1.0% of span	±1.0% of span	±0.25% of span	
Performance	Accuracy Statement	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Accuracy Includes: hysteresis, linearity, non-repeatability, zero offset and span setting errors	Accuracy Includes: hysteresis, linearity, non-repeatability, zero offset and span setting errors	Accuracy Includes: hysteresis, linearity, non-repeatability, zero offset and span setting errors	
	Stability	≤±0.25% of span/year	NA	≤±0.25% of span/year	≤±0.25% of span/year	
	Compound	NA	Vac to 300 psig	Vac to 300 psig	Vac to 50 psig	
Ranges	Gauge	1.5 to 300 psig	0 to 1,500 psig	0 to 7,500 psig	5 psi to 20 ksi (20,000 psi)	
	Proof	<10 psi: 3X 15-30 psi: 2X 75 psi: 1.87X >150 psi: 2X	<500 psi: 2X >1,000 psi: 1.5X	<1,500 psi: 4X >3,000 psi: 2.5X	<1,500 psi: 2X 3,000 to 5,000 psi: 1.5X 7,500 psi: 1.2X	
Overpressure (F.S.)	Burst	<5 psi: 5X 10 psi: 7.5X 15-30 psi: 5X 75 psi: 4.7X 150 psi: 4X 300 psi: 3X	8X	<1,500 psi: 10X 3,000 psi to 5,000 psi: 5X >5,000 psi: 3X	<1,500 psi: 5X 3,000 to 5,000 psi: 3X 7,500 psi: 1.5X	
	Electrical	4-20 mA	1-5 Vdc	4-20 mA	4-20 mA	
Output	Switch Output	NA	NPN: 30 Vdc/80 mA (max.) PNP: 1 Vdc/80 mA (max.)	NPN: 30 Vdc/80 mA (max.) PNP: 1 Vdc/80 mA (max.)	NA	
	Diaphragm or Sensor	316L Stainless steel	17-4 PH [®] Stainless steel	17-4 PH® Stainless steel	17-4 PH® Stainless steel	
Wetted	Connection	Housing 316L Stainless steel, cable polyurethane	304 Stainless steel	316L Stainless steel	316L Stainless steel	
Wetted Material	Media Compatibility	NA	Fluids and gases compatbile with 304 SS (sensor housing) and 17-4 PH® Stainless steel (sensor diaphragm)	Fluids and gases compatible with 316 SS pressure connection and 17-4 PH® Stainless steel (sensor diaphragm)	Fluids and gases compatible with 316 Stainless steel and 17-4 PH [®] Stainless steel	
Enclosure Rating	Ingress Protection	NEMA 6P, IP 68	IP40	IIP65: <150 psi IP67: >300 psi	IP66, NEMA 4	
Approvals		CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	
	1	1	1	1	1	











		GC30	GC52	GXLdp	GC55	
Refe	rence Temperature	73 °F, 23 °C	73 °F, 23 °C	70 °F ± 2 °F (21 °C ±1 °C)	75 °F, 24 °C	
	Accuracy	±1.5% of span	$\pm 0.5\%$ of span (URL)	±0.25%, ±0.5% of span	±0.5% of span	
Performance	Accuracy Statement	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: hysteresis, non-repeatability, zero offset and span setting errors	Terminal Point Method Includes: non-linearity, hysteresis, non- repeatability, zero offset and span setting errors	Terminal Point Method Includes: non-linearity, hysteresis, non- repeatability, zero offset and span setting errors	
	Stability	≤±0.25% of span/year at reference conditions	≤±0.25% of span (URL)/year	≤±0.25% of span/year at reference conditions	±0.5% of span/year at reference conditions	
Derree	Differential	0.25 to 25 in. $\mathrm{H_2O}$	4 to ± 400 in. H ₂ 0	0.10 to 25 in. $\mathrm{H_2O}$	75 to 300 psi	
Ranges	Bidirectional	± 0.25 to ± 25 in. H_20	± 4 to ± 200 in. H ₂ O	± 0.05 to ± 25 in. H_20	NA	
	Proof (static)	7.5 psi	300 psi	NA	NA	
	Proof (differential)	7.5 psid	\leq 8 IWC, ±4 IWC 30 psid \geq 20 IWC, ±8 IWC 100 psid	15 psid	2 X Range (URL)	
Overpressure	Burst (differential)	25 psid	\leq 8 IWC, ±4 IWC 130 psid \geq 20 IWC, ±8 IWC 130 psid	25 psid	10X Range (URL)	
	Max Line Pressure	7.5 psi	300 psi	25 psi	Same as pressure range	
	Electrical	Analog output 1-5 Vdc Supply 11-27 Vdc, 30 mA (max.)	Analog output 4-20 mA (2 Wire)	0-5 Vdc, 1-5 Vdc, 1-6 Vdc, 0-10 Vdc, 4-20 mA	4-20 mA (3 Wire): 15-27 Vdc 80 mA 1-5 Vdc (3 wire): 11-27 Vdc 60 mA	
Output	Switch Output	(2) NPN or PNP open collector outputs NPN: 30 Vdc / 80 mA (max.) PNP: Voltage drop 1 Vdc (max.) / 80 mA (max.)	NA	npn or pnp (optional)	(2) Photo MOS relay outputs; Load 200 mA (max.), 40 Vdc; Hysteresis (variable)	
Display		31/2 digit, 10mm LED	Backlit 4-digit LCD display	Backlit LCD, 3-5 digits	3½ digits, 10mm LED	
Wetted Material	Media Clean, dry and noncorrosive gas Compatibility NOT FOR USE ON LIQUIDS		316 Stainless steel, Viton™, Alumina Caramic	Clean, dry and noncorrosive gas NOT FOR USE ON LIQUIDS	17-4 PH® Stainless steel and 304 Stainless steel	
Enclosure Rating	Ingress Protection	NEMA 1	IP66/NEMA 4X	IP67/NEMA 4	IP66	
Approvals		CE, RoHS	CE, RoHS	CE, RoHS	CRN	





		CXLdp	DXLdp	IXLdp	RXLdp	XLdp
	Reference Temperature	70 °F ± 2 °F (21 °C ± 1° C)	70 °F ± 2 °F (21 °C ±1 °C)	70 °F ± 2 °F (21 °C ±1 °C)	70 °F ± 2° F (21 °C ±1 °C)	70 °F ± 2 °F (21 °C ±1 °C)
	Accuracy	±0.25%, ±0.4%, ±0.8% of span	±0.25%, ±0.5%, ±1.0% of span	±0.25%, ±0.5% of span	±1.0% of span	±0.25%, ±0.5% of span
Performance	Accuracy Statement	Terminal Point Method includes: non-linearity, hysteresis, non-repeat- ability, zero offset and span setting errors	Terminal Point Method includes: non-linearity, hysteresis, non-repeat- ability, zero offset and span setting errors	Terminal Point Method includes: non-linearity, hysteresis, non-repeat- ability, zero offset and span setting errors	Terminal Point Method includes: non-linearity, hysteresis, non-repeat- ability, zero offset and span setting errors	Terminal Point Methoc includes: non-linearity hysteresis, non-repeat ability, zero offset and span setting errors
	Stability	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.50% of span/year at reference conditions	≤±0.25% of span/year at reference conditions
D	Unidirectional	0.10 to 100 in. H_2O	0.10 to 50 in. H_2O	0.10 to 200 in. $\mathrm{H_2O}$	0.10 to 50 in. H ₂ 0	0.10 to 50 in. H ₂ 0
Ranges	Bidirectional	± 0.05 to ± 50 in. H_20	± 0.05 to ± 25 in. H ₂ 0	± 0.05 to ± 100 in. H ₂ O	± 0.50 to ± 50 in. H_20	± 0.05 to ± 50 in. H ₂ O
	Proof (differential)	15 psid	15 psid	20 psid	15 psid	15 psid
Overpressure	Burst (differential)	25 psid	25 psid	50 psid	25 psid	25 psid
	Max Line Pressure	25 psi	25 psi	100 psi	25 psi	25 psi
Output	Electrical	0-10 Vdc (user select- able 0-5 Vdc), 4-20 mA	0-5 Vdc, 1-5 Vdc, 1-6 Vdc, 0-10 Vdc, 4-20 mA	0-5 Vdc, 1-5 Vdc, 1-6 Vdc, ± 2.5 Vdc, ±5.0 Vdc, 4-20 mA	0-5 Vdc, 1-5 Vdc, 1-6 Vdc, 0-10 Vdc, 4-20 mA	1-5 Vdc, 1-6 Vdc, 4-20 mA
Wetted Material	Media Compatibility	Clean, dry and noncorrosive gas NOT FOR USE ON LIQUIDS	Clean, dry and noncorrosive gas NOT FOR USE ON LIQUIDS			
Enclosure Rating	Ingress Protection	NEMA 1	NEMA 1	NEMA 4X	NEMA 1	NEMA 2
Approvals		CE, RoHS	CE, RoHS	FM	CE, RoHS	CE, RoHS

High Purity/Semiconductor Pressure Transducers/Transmitters



Products & Features







		ZT11	ZX11	ZT16	ZL91	ZL 92
	Reference Temperature	73 °F (23 °C)	73 °F (23 °C)	73 °F (23 °C)	73 °F (23 °C)	73 °F (23 °C)
	Accuracy	$\pm 0.25\%$ of span	$\pm 0.25\%$ of span	±0.50%, ±1.00% of span	±1.00% of span	±1.00% of span
Performance	Accuracy Statement	Accuracy includes the effects of linearity, hys- teresis and repeatability ≤±0.25% of span/year at reference conditions	Accuracy includes the effects of linearity, hys- teresis and repeatability ≤±0.25% of span/year at reference conditions	Accuracy includes the effects of linearity, hys- teresis and repeatability ≤±0.25% of span/year at reference conditions	Accuracy includes the effects of linearity, hysteresis and repeatability	Accuracy includes the effects of linearity, hysteresis and repeatabili
	Stability	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	≤±0.25% of span/year at reference conditions	NA	NA
.	Compound	Vac/45 to Vac/3,000 psi	Vac/45 to Vac/3,000 psi	Vac/45 to Vac/150 psi	Vac/15 to Vac/75 psi	Vac/15 to Vac/75 psi
Ranges	Gauge	45 to 3,000 psig	45 to 3,000 psig	45 to 150 psig	15 to 75 psig	15 to 75 psig
Overpressure	Proof	150% of full scale	150% of full scale	200% of full scale	100 psi (max.)	100 psi (max.)
Output	Electrical	4-20 mA	4-20 mA	4-20 mA, 1-5 Vdc	4-20 mA, 1-5 Vdc	4-20 mA, 1-5 Vdc
Wetted	Diaphragm or Sensor	316L Stainless steel	316L Stainless steel	316L Stainless steel or CoNi Alloy (OPT.)	PTFE/PFA Laminated	PFA
Material	Connection	316L Stainless steel	316L Stainless steel	316L Stainless steel	PTFE/PFA	PTFE/PFA
Enclosure Rating	Ingress Protection	IP65	IP65	Indoor Use	IP65	IP54
Approvals		CE, RoHS	CE, RoHS, IECEX, ATE	CE, RoHS	CE, RoHS	CE, RoHS
Hazardous Location Rating		NA	Ex nA non sparking	NA	NA	NA
Packaging		Class 100 Cleanroom packaged and double bagged	Class 100 Cleanroom packaged and double bagged	Class 100 Cleanroom packaged and double bagged	Class 100 Cleanroom packaged and double bagged	Class 100 Cleanroom packaged and double bagged

DIAPHRAGM SEAL/ISOLATORS

THREADED SEALS

100/200/300, 101/201/301, 400/401,
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DIAPHRAGM SEAL/ ISOLATION RING

Fill Fluids Char	t47
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	10	0/200/3	200/300 101/201/301		400	/401	500/501	510/511	510HP	/511HP		
Description \rightarrow	Thread	ed modu	ılar seal	Threaded modular seal w/flushing connection			elded ed seal	All-welded seal	Compact all-welded seal	High pressu all-weld	ire compact led seal	
NPT Process Connection \downarrow				1								
1/4	Fe	emale/Ma	ale	Fe	male/Ma	ale	Femal	e/Male	Female/Male			
1/2	Fe	emale/Ma	ale	Fe	male/Ma	ale	Femal	e/Male	Female/Male	Male	Ma	ale
3⁄4	Fe	emale/Ma	ale		Female		400: F/N	<i>I</i> , 401: F	500: F/M, 501: F			
1	Fe	emale/Ma	ale		Female			<i>I</i> , 401: F	500: F/M, 501: F			
Diaphragm Material	100	200	300	101	201	301						
316L Stainless steel	•	•		•	•			•	•	•		•
304L Stainless steel	•	•		•	•							
Monel [®] 400	•	•		•	•			•	•	•		•
Nickel	•	•		•	•							
Alloy 20	•	•		•	•							
Tantalum	•	•		•	•			•	•			
Hastelloy® B	•	•		•	•			•	•			
Hastelloy® C-22	•	•		•	•			•	•			
Hastelloy® C-276	•	•		•	•			•	•	•		•
PTFE		•	•		•	•						
Viton™		•	•		•	•						
Kalrez®		•	•		•	•						
Titanium		•			•			•	•			
Gold Plated/316L	•			•								
Halar Coated Monel®	•			•								
Bottom Housing Material										1		
Steel		•			•							
304L Stainless steel		•		•								
316L Stainless steel		•		•			•	•	•		•	
Hastelloy® B		•		•			•	•				
Hastelloy® C-22		•			•		•		•			
Hastelloy® C-276		•		•		•		•	•		•	
Alloy 20		•			•							
Monel [®] 400		•			•		•		•	•		•
Inconel®		•			•							
Nickel		•			•							
PVC	1/4 or	1/2 NPT F	emale									
Kynar®		1⁄2 NPT F										
Titanium	,	•			•			•	•			
Pressure Ratings							400	401			510HP	511HP
500 psi	Viton™ o	r Kalrez® D	liaphragm	Viton™ o	r Kalrez® D	iaphragm			•			
1,500 psi										•		
2,500 psi	Metal 8	PTFE Dia	ohraom	Metal 8	PTFE Dia	phragm	•	•				
5,000 psi		essure opti				High pressure option (XHP)	High pressure option (XHP)				•	
9,000 psi							· · · · · · · · · · · · · · · · · · ·					
10,000 psi											•	
Instrument Connection Size				1			1			I		
1/4		•			•			•	•			
1/2		•			•		1	•	•	•		•
Approvals		CRN			CRN			RN	CRN	CRN		RN
	1			1	0.01					5111		

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	310/315	311	312	330	740/741
Description \rightarrow	Mini seal	Midi seal	Midi seal with flushing connection	Flush mini seal	High-displacement threaded seal
PT Process Connection \downarrow					
1/8	310: Male				
1⁄4	310: F/M, 315: F	Female/Male	Female		Female
1/2	310: F/M, 315: F	Female/Male	Female		Female
3⁄4	Male	Female/Male			Female
1	Male	Female/Male		Male	Female
Diaphragm Material					
316L Stainless steel	•	•	•	•	•
Monel [®] 400	•				•
Tantalum	•	•	•		•
Hastelloy® B	•				•
Hastelloy® C-276	•	•	•		•
Titanium					•
Bottom Housing Material					
Steel					•
316L Stainless steel	•	•	•	•	•
Hastelloy [®] B	•				•
Hastelloy® C-276	•	•	•		•
Alloy 20					•
Monel [®] 400	•				•
Titanium					•
Pressure Ratings					
750 psi					•
1,000 psi		•	•		
2,500 psi	•				
3,000 psi				•	
Instrument Connection Size					
1/4	•	•	•	•	
1/2	•	•	•	•	•
Approvals	CRN	CRN	CRN	CRN	CRN













	102	2/202/	302	103/203/303		303	402/403 702/703		DF	106/206		
Description \rightarrow	Flanged modular seal		Flanged modular seal with flushing connection		ar seal nnection	All-welded flanged seal	High-displacement flanged seal	Flanged flush seal	In-line flanged se			
Process Connection Size \downarrow												
1/2		•			•		•	•			•	
3⁄4		•			•		•	•			•	
1		•			•		•	•	•		•	
1½		•			•		•	•	•		•	
2		•			•		•	•	•		•	
3		•			•		•	•	•		•	
4									•		•	
6											•	
8											•	
Diaphragm Material	102	202	302	103	203	303				106	206	
316L Stainless steel	•	•		•	•		•	•	•	•	•	
304L Stainless steel	•	•		•	•					•	•	
Monel [®] 400	•	•		•	•		•	•	•	•	•	
Nickel	•	•		•	•					•	•	
Alloy 20	•	•		•	•					•	•	
Tantalum	•	•		•	•		•	•	•	•	•	
Hastelloy® B	•	•		•	•		•	•		•	•	
Hastelloy® C-22	•	•		•	•		•			•	•	
Hastelloy® C-276	•	•		•	•		•	•	•	•	•	
PTFE	-	•	•	-	•	•	-	-		-	•	
Viton™		•	•		•	•					•	
Kalrez®		•	•		•	•					•	
Titanium		•	-		•	•					•	
Halar Coated 316L SS		•			•				•		-	
Halar Coated Monel®	•			•						•		
Teflon [™] -Coated 316L SS	•			-					•	-		
Gold-Plated 316L SS	•			•					•			
Bottom Housing Material	-			-								
Steel		•			•						•	
304L Stainless steel		•			•						•	
316L Stainless steel		•		•			•	•			•	
Hastelloy® B		•		•			•	•			•	
Hastelloy® C-22		•			•		•	•			•	
Hastelloy® C-276		•			•		•	•			•	
Alloy 20		•			•		-	•			•	
Monel [®] 400		•			•		•	•			•	
Inconel®		•			•		-	-			-	
Nickel		•			•							
PVC		1, 1½, 2)									
Kynar®		1, 1½, 2										
Titanium		•	-		•		•	•				
Flange Class		-										
150		•			•		•	•	•		•	
300		•			•		•	•	•		•	
600		•		•			•	•	•			
900		•			•		•		•			
1,500		•			•		•		•			
Instrument Connection Size		-		1	-					I		
1/4		•			•		•	•	•		•	
1/2		•			•		•	•	•		_	
Approvals		CRN			CRN		CRN	CRN	CRN	• CRN		

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	104/	/204	105/	205	107/	/207	108/	/208	320
Description \rightarrow	In-line thre	eaded seal	Saddle we	ld-in seal	In-line socke	et-weld seal	In-line but	-weld seal	Tri-Clamp® seal
NPT Process Connection ↓							<u> </u>		
NPT									
1⁄4	Ferr	nale			•	•	•	•	
1/2	Ferr	nale			•	•	•	•	
3⁄4					•	•	•	•	
1					•		•		
1½					•	•	•		•
2					•	•	•		•
3			•						
4			4″ & la	arger					
Diaphragm Material	104	204	105	205	107	207	108	208	
316L Stainless steel	•	•	•	•	•	•	•	•	•
304L Stainless steel	•	•	•	•	•	•	•	•	
Monel [®] 400	•	•	•	•	•	•	•	•	
Nickel	•	•	•	•	•	•	•	•	
Alloy 20	•	•	•	•	•	•	•	•	
Tantalum	•	•	•	•	•	•	•	•	
Hastelloy® B	•	•	•	•	•	•	•	•	
Hastelloy [®] C-22	•	•	•	•	•	•	•	•	
Hastelloy® C-276	•	•		•	•	•	•	•	
PTFE		•		•		•		•	
Viton™		•		•		•		•	
Kalrez®		•		•		•		•	
Titanium		•		•		•		•	
Halar Coated Monel®	•		•		•		•		
Bottom Housing Material									
Steel	•	•	•		•	•		•	
304L Stainless steel	•	•	•		•	•	•	•	
316L Stainless steel		•	•		•	•	•	•	
Hastelloy® B	•	•	•		•	•			
Hastelloy® C-276	•	•	•		•	•	•	•	
Alloy 20	•	•	•		•	•			
Monel [®] 400	•	•	•		•	•			
Inconel®			•						
Nickel	•	•	•		•	•			
Titanium	•	•	•						
Pressure Ratings									Per clamp mfr.
500 psi	Viton [™] or Kalre	z® Diaphragm	N Viton [™] or Kalrez [®] Diaphragm		Viton [™] or Kalrez [®] Diaphragm Viton [™] or Kalrez [®] Diaphragm				
2,500 psi	Metal & PTF		Metal & PTFE		Metal & PTF		Metal & PTFI		
nstrument Connection Size		pugin				pugiii			
1/4			•						•
1/2			•						•
Approvals	CF	{N	CR	N	CF	{N	CF	{N	NA









	80	81	82
Description \rightarrow	Wafer isolation ring	Flanged isolation ring	Threaded isolation ring
Process Connection Size ↓			
1/2			•
1		•	•
1½		•	•
2	•	•	•
3	•	•	
4	•	•	
6	•	•	
8	•	•	
10	•	•	
12	•		
14	•		
16	•		
18	•		
20*	•		
Inner Flexible Wall			
Buna-N	•	•	•
PTFE	•	•	•
Viton™	•	•	•
EPDM	•	•	•
Natural Rubber	•	•	•
End Plate Material			
Carbon Steel	•	•	•
316L Stainless steel	•	•	•
		•	-
CPVC PVDF	•	•	•
	•	•	•
Aceta x • I	•	•	
Body Material	-		•
Carbon Steel	•	•	•
316L Stainless steel	•	•	•
Instrument Removal Option			1
Direct Connection	•	•	•
Valve/Needle	•	•	•
SQR [™] (Safe Quick Release [™])	•	•	•
eedle/Valve with SQR™ (Safe Quick Release™)	•	•	•
Pressure Class			
150	•	•	150 psi
300	•	•	
Instrument Connection Size			
1/4	•	•	•
1/2	•	•	•
Approvals	CRN	CRN	NA

* Larger sizes available on request

See data sheets at **ashcroft.com** for complete product specifications and ordering codes.



Fill Fluids	Temperature	Viscosity Variation (cSt at RT) Code		Notes
Syltherm [®] XLT	-150 °F to 500 °F (-100 °C to 260 °C)	1.4	CC	Low temperature applications
Glycerin (food grade)	0 °F to 400 °F (-18 °C to 204 °C)	1,300	CG	Direct-mounting only; not for use with vacuum service
50cSt Silicone	-40 °F to 500 °F (-40 °C to 260 °C)	50	СК	
Halocarbon® 4.2	-80 °F to 390 °F (60 °C to 200 °C)	4.2	CF	For use with oxygen/ oxidizing process media
50/50 Ethylene Glycol/Water	-25 °F to 190 °F (-32 °C to 88 °C)	2.9	СТ	
Polypropylene Glycol	-50 °F to 325 °F (-46 °C to 163 °C)	54	CV	
Silicone (food grade)	-40 °F to 500 °F (-40 °C to 260 °C)	350	CZ	
10cSt Silicone	-40 °F to 500 °F (-40 °C to 260 °C)	10	DJ	
Distilled Water	40 °F to 185 °F (4 °C to 85 °C)	0.9	FJ	
Ethylene Glycol	20 °F to 325 °F (-7 °C to 163 °C)	14	FK	
50/50 Glycerin/Water	15 °F to 200 °F (-9 °C to 93 °C)	30	GH	
80/20 Glycerin/Water	15 °F to 225 °F (-9 °C to 107 °C)	270	GR	
Syltherm [®] 800	-40 °F to 750 °F (-40 °C to 400 °C)	10	НА	High temperature applications
Calflo® AF	-20 °F to 600 °F (-29 °C to 316 °C)	60	KF	
Mineral Oil	10 °F to 400 °F (-12 °C to 204 °C)	75	MY	
Neobee [®] M-20	5 °F to 400 °F (-15 °C to 204 °C)	9.5	NM	Food grade
95/5 Water/Propylene Glycol	40 °F to 185 °F (4 °C to 85 °C)	1.0	РҮ	

ACCESSORIES

VALVES/MANIFOLDS

Gauge Valve V01 & V02,	
2, 3, 5 Valve Manifold V01, V02 & V03	50
Low, High Pressure Ball Valves VO2,	
Pressure Limiting Valve PL02	50
7001L & 7004L Steel Needle Valves	51

SIPHONS/TEMPERATURE DISSIPATION DEVICES

1198, 2198, 1098 & 1100 Siphons 51

PULSATION DAMPENER/ PRESSURE SNUBBER & SWIVEL ADAPTER

CAPILLARY LINES

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2265 Electric Warning	Contact51
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ASSEMBLIES

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Acid Leak Detection	(ALD)	Assemblies	53











		Gauge Valve V01 & V02	2 Valve Manifold V01 & V02	3 Valve Manifold V01, V02 & V03	5 Valve Manifold V01, V02 & V03
	Process Connection	1⁄2 NPT	½ NPT	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT
	Instrument Connection	1⁄2 NPT	1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT
Specifications	Construction	316 Stainless steel	316 Stainless steel	316 Stainless steel	316 Stainless steel
	Max. Allowable Working Pressure	6,092 psi at 100 °F (38 °C)			
Wetted Components	Material	316 Stainless steel with PTFE packing			
Non-Wetted Components	Material	304 Stainless steel, 316 Stainless steel			



		Low Pressure Ball Valve V02	High Pressure Ball Valve V02	Pressure Limiting Valve PL02
	Process Connection	1⁄2 NPT	1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT
	Instrument Connection	1⁄2 NPT	1/2 NPT	1⁄4 NPT, 1⁄2 NPT
Specifications	Construction	316 Stainless steel	316 Stainless steel	316Ti Stainless steel
	Max. Allowable Working Pressure	1,000 psi at 104 °F (40 °C)	6,092 psi at 347 °F (175 °C)	14,500 psi at 175 °F (80 °C)
Wetted Components	Material	316 Stainless steel, PTFE	316 Stainless steel, PTFE	304 SS, 316L SS, 316Ti SS, FKM
Non-Wetted Components	Material	304 Stainless steel, Vinyl	316 Stainless steel, Vinyl, A4	NA







		1198 Siphon	2198 Siphon	1098 & 1100 Siphons	1106 Pulsation Dampener	1112 Pressure Snubber	PD02 Pressure Snubber
	Process Connection	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT G 1⁄4 B, G 1⁄2 B	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT
Cassifications	Instrument Connection	¹⁄₄ NPT, ½ NPT	1⁄4 NPT, 1⁄2 NPT G 1⁄4 B, G 1⁄2 B	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT, 1⁄2 NPT
Specifications	Material	316L Stainless steel, Monel®	316L Stainless steel	Stainless steel, Brass, Steel	Stainless steel, Brass	Bold housing/Filter disc Brass, SS, Monel®	316L Stainless steel, Monel®, Hastelloy®-C
	Max. Allowable Working Pressure	3,000 psi at 700 °F (371 °C)	5,000 psi at 800 °F (427 °C)	1098: 9,550 psi at 400 °F (204 °C)	5,000 psi	15,000 psi	6,000 psi



700	7001L & 7004L Steel Needle Valves				
	Process Connection	1⁄4 NPT, 1⁄2 NPT			
Cracifications	Instrument Connection	1⁄4 NPT, 1⁄2 NPT			
Specifications	Material	Carbon steel, 316 Stainless steel			
	Max. Pressure/ Temperature Rating	10,000 psi at 100 °F (37.8 °C)			



1115A & 1115P Capillary Lines				
	Process Connection	1⁄4 NPT, 1⁄2 NPT		
Specifications	Instrument Connection	1⁄4 NPT, 1⁄2 NPT		
	Diameter	Outer: 0.125", Inner: 0.062"		
	Max. Allowable Working Pressure	10,000 psi at -300 °F to 750 °F (-184 °C to 399 °C)		
Wetted	Process/Instrument Connection	316L Stainless steel		
Components	Capillary	304 Stainless steel		



220	2265 Electric Warning Contact					
	Dial Sizes	4½″, 6″				
	Contact Arrangement	High and Low				
Specifications	Switch Capacity	30 W DC Max. switch power 50 VA AC Max. switching power 1 A Max. current				
	Electrical Contact	250 V Max. voltage				

See data sheets at ashcroft.com for complete product specifications and ordering codes.

1/4 NPT, 1/2 NPT

1/4 NPT, 1/2 NPT

316L Stainless steel,

Monel®, Hastelloy®-C

6,000 psi

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 1

MDV Swivel Adapter
Process Connection 1/4 N

Instrument

Connection

Material

Max. Allowable

Working Pressure

Specifications



Ashcroft offers the assembly of SMART transmitters to our diaphragm seals and isolation rings, ensuring that your pressure assemblies are tested for accuracy and leak integrity prior to shipment. Our transmitter assembly service helps to take the guesswork out of specifying the correct pressure instrumentation and assembly orientation, while our Ashcroft instrumentation experts ensure that the instruments are compatible and properly calibrated to suit your application.

Selection is easy: choose the transmitter you want us to attach and configure the appropriate assembly code according to the instructions in the ordering guide. We'll build the assembly with our custom-made low volume fittings for minimal temperature error, fill the assembly with our state-ofthe-art vacuum filling system, and ensure that every instrument in the assembly is checked for calibration prior to shipment.



See data sheets at ashcroft.com for complete product specifications and ordering codes.





		ALD Assemblies
	Size	1259, 1279: 4½″ T6500: 100 mm
	Accuracy	1259, 1279: ±1.0% of span T6500: ±1.5% of span
	Process Connection	½ NPT
	Case Style	Solid front with pressure relief back
0	Weather Protection	IP66
Specifications	Diaphragm Seal Type	510 Threaded or DF Flanged
	Window Material	1259: Safety glass (STD.), acrylic (OPT.) 1279: Safety glass (STD.), acrylic (OPT.) T6500: Safety glass (STD.), polycarbonate (OPT.)
	Tamper Proof Design	Diaphragm seal welded to gauge socket
	Pressure Rating	Vac. to 1,500 psi @ 100 °F 1,500 to 10,000 psi @ 100 °F (0PT.)
Wetted	Diaphragm	510: 316L Stainless steel, Hastelloy® C-276, Monel®, Tantalum DF Flanged: 316L Stainless steel, Hastelloy® C-276, Tantalum
Components	Lower Housing	510: 316L Stainless steel, Hastelloy® C-276, Monel®, Tantalum DF Flanged: NA
Non-Wetted	Top Housing	510: 316L Stainless steel, Monel® DF Flanged:316L Stainless steel, Monel®
Components	Flange	510: NA DF Flanged:316L Stainless steel, Monel®
	Case Style	1259: PBT 1279: Phenolic T6500: 304 Stainless steel
Non-Wetted Components	Ring	1259: PBT 1279: Polycarbonate T6500: 304 Stainless steel
	Back Cover	1259: PBT 1279: Polycarbonate T6500: 304 Stainless steel

TEMPERATURE INSTRUMENTS

BIMETAL THERMOMETERS

CI, EI, EL Bimetal	56
K Dual Sensor	56

GAS ACTUATED THERMOMETERS

C-600A, C-600H, C-	600B5	7
5500	5	7

THERMOWELLS

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580, S81, S40, S41	61

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OEM TEMPERATURE SENSORS

ITS1, ITS2, ITS3, ITS4, ITS5, KTS1 62







		CI, EI & EL	K Dual Sensor	
	Dial Size	2″, 3″, 5″	80 mm, 100 mm,130 mm, 150 mm	
	Accuracy	±1% of span (ASME B40.200)	Bimetal-EN 13190 Class 1 K thermocouple Class 1 Ansi MC 96.1 & IEC 60584-2/EN 60584-2	
	Weather Protection	IP66 / NEMA 4X	NA	
	Process Connection	1⁄4 NPT Male Fixed, 1⁄2 NPT Male Fixed, Union, Adjustable Union	1⁄4 NPT	
Specifications	Process Connection Location	Everyangle [™] , rear, lower (2 [″] dial rear only)	Center	
	Stem Length	Cl: 2" to 24" / El: 2" to 60" / EL: 2" to 36"	2.5" to 24"	
	Stem Diameter	0.250″ 0.385″ (OPT.)	6 mm, 6.35 mm (¼′́) 8 mm, 9 mm	
	Line Length NA		1 m TC wire leads	
	Bulb Diameter NA		NA	
	Mounting	Everyangle [™] , rear or lower	Center back	
	Stem	304 Stainless steel, 316 Stainless steel (OPT.)	304 Stainless steel, 316 Stainless steel	
Netted	Bulb	NA	NA	
Material	Capillary/Armor	NA	NA	
	Process Connection	304 Stainless steel 316 Stainless steel	304 Stainless steel, 316 Stainless steel	
	Case Material	304 Stainless steel 316 Stainless steel (EL)	304 Stainless steel	
Non-Wetted Materials	Window Material	Glass, safety glass, plastic, polycarbonate (OPT.)	Glass, acrylic, safety glass	
	Ring	304 Stainless steel, 316 Stainless steel (OPT.)	304 Stainless steel	
Process	Dry	Range dependent	Range dependent	
Temperature	Silicone Fill	EL version up to 550 °F	NA	
Ranges	Temperature	-80/120 °F to 200/1000 °F (-60/50 °C to 100/550 °C)	-80/120 °F to 50/400 °F (-50/50 °C to 10/150 °C)	

See data sheets at **ashcroft.com** for complete product specifications and ordering codes.

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		C-600A, C-600H	C-600B	S5500
	Dial Size	4½″, 6″, 8½″	41⁄2″	100 mm, 160 mm
	Accuracy	±1% of span (ASME B40.3 Grade A)	$\pm 1\%$ of span (ASME B40.3 Grade A)	$\pm 1\%$ or 0.5% of span
	Weather Protection	NA	NA	IP65
	Process Connection	1/2 NPT Union with rigid or bendable extension	1/2 NPT Union	½ NPT
Specifications	Process Connection Location	Lower, rear	Everyangle™	Lower, rear
	Stem Length	NA	6″ to 36″	55 mm to 1,000 mm
	Stem Diameter	0.385″	0.385″	6 mm, 9 mm
	Line Length	5' to 80'	NA	100 meters (max.)
	Bulb Diameter	0.385″	0.385″	6 mm, 9 mm
	Mounting	Surface or flush	Direct mount - Everyangle™	Direct, remote
	Stem	NA	316 Stainless steel	Direct, remote
	Bulb	316 Stainless steel	316 Stainless steel	321 Stainless steel
Wetted Material	Capillary/Armor	Capillary: 316 Stainless steel Armor: 302 Stainless steel	NA	Capillary: 316 Stainless steel Armor: 302 Stainless steel
	Process Connection	316 Stainless steel	316 Stainless steel	304 Stainless steel
	Case Material	Multiple options available (see data sheet)	Stainless steel	304 Stainless steel, 316 Stainless steel
Non-Wetted Materials	Window Material	Glass, safety glass, non-glare glass, plastic	Glass, safety glass, non-glare glass, plastic	Glass, acrylic, safety glass
	Ring	Multiple options available (see data sheet)	Stainless steel, bayonet	304 Stainless steel, 316 Stainless steel
Process	Dry	Range dependent	Range dependent	Range dependent
Femperature	Silicone Fill	NA	NA	NA
Ranges	Temperature	-320 °F to 1200 °F (-200 °C up to 650 °C)	-320 °F to 1200 °F (-200 °C up to 650 °C)	-320 °F to 1,500 °F, (-200 °C to 800 °C)







		Threaded	Flanged	Van Stone	Socket Weld	Weld-In	Sanitary	Vortex
	Process Connection	½″, ¾″, 1″ NPT	1″, 1½″, 2″	1″, 1½″	3⁄4″, 1″	1½″	1″, 1½″, 2″	1½", 2″
	U-Process Insertion Length	15%″ to 22½″	4″ to 22″	2″ to 22″	2½″ to 22½″	2½″ to 22½″	2½″ to 22½″	4″ to 22″
	Lagging	Yes	Optional	Optional	Optional	Optional	Optional	Optional
Specifications	Instrument Connection	1/2 NPSM, 1/2 NPT Female (OPT.)	1/2 NPSM, 1/2 NPT Female (OPT.)	½ NPSM, ½ NPT Female (OPT.)	1/2 NPSM, 1/2 NPT Female (OPT.)			
Specifications	Shank Style	Stepped, straight, tapered	Stepped, straight, tapered	Stepped, straight, tapered	Stepped, straight, tapered	Tapered	Stepped, straight, tapered	Stepped, straight, tapered
	Bore Size	0.260″, 0.385″	0.260″, 0.385″	0.260″, 0.385″	0.260″, 0.385″	0.260″, 0.385″	0.260″, 0.385″	0.260″, 0.385″
	Flange Facing	NA	Flat, raised, ring joint	Lap joint	NA	NA	Tri-Clamp®	Raised, ring joint
	Flange Rating / Class	NA	150, 300, 600, 900, 1,500, 2,500	Optional	NA	NA	NA	50, 300, 600, 900, 1,500
	Standard Materials				304 Stainless steel 316 Stainless steel			
	Monel® (OPT.)	•	•	•	•	•	•	•
	Hastelloy®	•	•	•	•	•	•	•
	Alloy 20 (OPT.)	•	•	•	•	•	•	•
Wetted	Chrome Molly	•	•	•	•	•		•
Material	Duplex 2205 SS (OPT.)	•	•	•	•	•	•	•
	Super Duplex S32750, Inconel® (OPT.)	•	•	•	•	•	•	•
	Titanium (OPT.)	•	•	•	•	•	•	•
	Brass (OPT.)	•						•
	Carbon Steel (OPT.)	•	•	•	•	•		•
	Wake Frequency Calculator	•	•	•	•	•	•	•
Optional	Hydrostatic Test (Int./Ext.)	•	•	•	•	•	•	•
Testing	Liquid Dye Penetrant Test		•					•
	Cleaned for Oxygen Service	•	•	•	•	•	•	•
Cortificator	Actual Physical & Chemical Material Test Report (MTRs)	•	•	•	•	•	•	•
Certificates	Positive Material Identification (PMI)	•	•	•	•	•	•	•







		T4 & T7	GT & LT	PT
	Accuracy	±1% of span	±1% of span	±1% of span
	Enclosure Ratings	Watertight: IP66, NEMA 3, 4, 4X & 13 Explosion Proof: IP66, NEMA 7 & 9	Watertight L-Series: IP66, NEMA 4, 4X G-Series: IP65, NEMA 4, 4X	Explosion Proof: IP66, NEMA 7 & 9
	Switch Elements	SPDT, DPDT	SPDT, 2 SPDT, DPDT (OPT.)	SPDT, 2 SPDT
Specifications	Setpoint	Single factory set or field adjustable	Single or dual (independently adjustable), field adjustable or factory set	Single or dual (independently adjustable) field adjustable or factory set
	Deadband	Fixed	Adjustable (SPDT only) Fixed SPDT or 2 SPDT	Adjustable (SPDT only) Fixed SPDT or 2 SPDT
	Process Connection	Direct Mount: ½ NPT Male Remote Mount: ½ NPT Union (XBX)	Direct Mount: ½ NPT Male Remote Mount: ½ NPT Union (XBX)	Direct Mount: ½ NPT Male Remote Mount: ½ NPT Union (XBX)
	Bulb Diameter	0.385″	0.385″	0.385″
	Direct Mount	Stem Length: 2¾" to 12"	Stem Length: 2¾" to 12"	Stem Length: 234" to 12"
	Direct Mount	Stem Diameter: 0.385"	Stem Diameter: 0.385"	Stem Diameter: 0.385"
Mounting	Remote	Line Length: 5' to 25'	Line Length: 5' to 25'	Line Length: 5' to 25'
	Mount	Bulb Length: 3"	Bulb Length: 3"	Bulb Length: 3"
	Stem	316 Stainless steel	316 Stainless steel	316 Stainless steel
Wetted	Bulb	316 Stainless steel	316 Stainless steel	316 Stainless steel
Material	Capillary	302 Stainless steel	302 Stainless steel	302 Stainless steel
	Process Connection	316 Stainless steel	316 Stainless steel	316 Stainless steel
Non-Wetted Materials	Case Material	Epoxy coated aluminum 316 Stainless steel (OPT.)	L-Series: Epoxy coated aluminum G-Series: 316 Stainless steel	Epoxy coated aluminum
Ranges	Temperature	-40 °F to 750 °F (-40 °C to 400 °C)	-40 °F to 750 °F (-40 °C to 400 °C)	-40 °F to 750 °F (-40 °C to 400 °C)
<u>J</u>	Units	Fahrenheit or Celsius	Fahrenheit or Celsius	Fahrenheit or Celsius
Annroyala	Watertight	UL, CSA, CE, ROHS	UL, CSA, CE, RoHS	NA
Approvals	Explosion Proof	UL, CSA, ATEX, IECEx, CE, CRN, RoHS	NA	UL, CSA





	S01 RTD & Thermocouple Inserts	S10 RTD & Thermocouple Probes with Metric Connections	S50 RTD & Thermocouple Probes with NPT Connections	S70 Probes with Tube Skin Connections
Insert Stem Diameter	¹ /s, ³ /16, 1/4, 3 mm, 4.5 mm, 6 mm, 8 mm	3 mm, 4.5 mm, 6 mm, 8 mm	1⁄‰, ³⁄₁6, 1⁄4, 3 mm, 4.5 mm, 6 mm, 8 mm	¼″, ⅔″, ½″, 3 mm, 4.5 mm, 6 mm, 8 mm
Stem Length	Minimum: 50 mm/2″ Maximum: 3 m/120″	Minimum: 50 mm/2″ Maximum: 3 m/120″	Minimum: 50 mm/2″ Maximum: 3 m/120″	Minimum: 200 mm/8″ Maximum: 45 m/150″
Sensor Type & Measuring Range	RTDs: Pt 100 -200 °C to 600 °C Pt 1000 -40 °C to 600 °C Thermocouples: Type J -40 °C to 750 °C Type E -200 °C to 800 °C Type K -200 °C to 1000 °C Type N -200 °C to 1000 °C	RTDs: Pt 100 -200 °C to 600 °C Pt 1000 -40 °C to 600 °C Thermocouples: Type J -40 °C to 750 °C Type E -200 °C to 800 °C Type K -200 °C to 1000 °C Type N -200 °C to 1000 °C	RTDs: Pt 100 -200 °C to 600 °C Pt 1000 -40 °C to 600 °C Thermocouples: Type J -40 °C to 750 °C Type E -200 °C to 800 °C Type K -200 °C to 1000 °C Type N -200 °C to 1000 °C	Thermocouples: Type J -40 °C to 750 °C Type K -200 °C to 1000 °C Type N -200 °C to 1000 °C
Wiring Configuration	RTDs single or dual: 2 Wire, 3 Wire, 4 Wire Thermocouples: 2 Wire single or dual	RTDs single or dual: 2 Wire, 3 Wire, 4 Wire Thermocouples: 2 Wire single or dual	RTDs single or dual: 2 Wire, 3 Wire, 4 Wire Thermocouples: 2 Wire single or dual	Thermocouples: 2 Wire
Accuracy Class	RTD (IEC 60751) Class A Class B 1/2 Class B 1/3 Class B ANSI MC 96 1 Standard Special (IEC 60751) Class 1 Class 2 Class 3	RTD (IEC 60751) Class A Class B 1/2 Class B 1/3 Class B ANSI MC 96 1 Standard Special (IEC 60751) Class 1 Class 2 Class 3	RTD (IEC 60751) Class A Class B 1/2 Class B 1/3 Class B ANSI MC 96 1 Standard Special (IEC 60751) Class 1 Class 2 Class 3	ANSI MC 96 1 Standard Special (IEC 60751) Class 1 Class 2 Class 3
Approvals	FM, ATEX, IECEx, Intrinsically safe	FM, ATEX, IECEx, Intrinsically safe	FM, ATEX, IECEx, Intrinsically safe, explosion proof/flame proof	FM, ATEX, IECEx, Intrinsically safe, explosion proof/flame proof



Products & Features	0		
	S80 & S81 Probes with Extension Cable	S40 & S41 Thermocouple Probes for High Temperature Applications	S96 Multipoint Temperature Assemblies
Insert Stem Diameter	1⁄8″, 3⁄16″, 1⁄4″, 3 mm, 4.5 mm, 6 mm, 8 mm		
Stem Length	Minimum: 50 mm/2" Maximum: 3 m/120"		
Sensor Type & Measuring Range	RTDs: Pt 100 -200 °C to 600 °C Pt 1000 -40 °C to 600 °C Thermocouples: Type J -40 °C to 750 °C Type E -200 °C to 800 °C Type K -200 °C to 1000 °C Type N -200 °C to 1000 °C		
Wiring Configuration	RTDs single or dual: 2 Wire, 3 Wire, 4 Wire Thermocouples: 2 Wire single or dual	Custom designed for your applications. Contact us for more information.	Custom designed for your applications. Contact us for more information.
Accuracy Class	RTD (IEC 60751) Class A Class B 1/2 Class B 1/3 Class B ANSI MC 96 1 Standard Special (IEC 60751) Class 1 Class 2 Class 3		
Approvals	FM, ATEX, IECEx, Intrinsically safe		





	ITS1	ITS2	ITS3
Description	Metal probe sheath with extension cable	Plastic overmolded temperature sensor	Threaded temperature sensor with extension cable
Sensor	RTD, NTC, KTY, Thermocouples, custom	RTD, NTC, KTY, Thermocouples, custom	RTD, NTC, KTY, Thermocouples, custom
Output	RTD, Thermistor, Thermocouple, 4-20 mA, custom	RTD, Thermistor, Thermocouple, 4-20 mA, custom	RTD, Thermistor, Thermocouple, 4-20 mA, custom





	ITS4	ITS5	KTS1	
Description	Threaded temperature sensor with connector	Clamp on temperature sensor with extension cable	Custom output temperature sensor	
Sensor	RTD, NTC, KTY, Thermocouples, custom	RTD, NTC, KTY, Thermocouples, custom	RTD (PT100/PT1000)	
Output	RTD, Thermistor, Thermocouple, 4-20 mA, custom	RTD, Thermistor, Thermocouple, 4-20 mA, custom	Ratiometric, 0-10 V, 4-20 mA, CAN, 12C, custom	



CALIBRATORS

ATE-2 Handheld Calibrator	64
ST-2A Digital Tester	64
PT-1 Pressure Tester	65

HYDRAULIC TESTERS

1305D, 1305DH Deadweight Tester	66
1327CM, 1327D Gauge Comparator	66
AVC Volume Controller	66

TEST GAUGES

A4A Precision Gauge	67
1082 Test Gauge	67
1084 Pocket Test Gauge	67





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		ATE-2 Handheld Calibrator
	Sensor Input	Two interchangeable pressure and temperature module bays, banana jack inputs for DC voltage or current monitoring
	Pressure Modules	Pressure ranges from 0.25 in. H_20 up to 10,000 psi Accuracy from $\pm 0.025\%$ to $\pm 0.1\%$ of span
	LCD Diplay	2.5" (W) x 1.5" (H) displays 3 simultaneous measurements, bar graph
	Update Rate	100 ms with one module installed
Specifications	Resolution	±0.001% span; 99,999 counts
	Programmable Filtering (Damping)	Levels 1 through 16
	Digital Interface	USB Micro-B connector type
	Field Calibration	Base unit and pressure modules may be field- calibrated via keypad commands
	Data Logging	For up to 16,000 records
	Battery Life	Up to 40 hours
Electrical	Electrical Connection	4mm Banana Jacks – 1 set of test leads included
	Loop Power Supply	24 Vdc-35 mA (max.) (non I.S. only)
	Electrical Measurements	0-20 mA or 0-30 Vdc
	Temperature Effect /Electrical Measurement	±0.001% of span per °F over compensated range from reference temperature of 70 °F ±3 °F
	Power Requirements	(4) AA Batteries or via USB power supply
Temperature	Operating	-4 °F to 120 °F (-20 °C to 49 °C)
	Certification	Traceable calibration certificate provided for base unit and Quick-Select [™] sensor modules
Annevelo	Agency	CE, FCC (CFR47), UL 61010-1
Approvals	Optional	FM Intrinsic Safety CL 1, Div 1, Gr A, B, C, D CSA Intrinsic Safety CL 1, Div 1, Gr A, B, C, D ATEX Ex ia IIC T4 Ga –20 °C <ta<+50 td="" °c<=""></ta<+50>

		ST-2A Digtial Indicator	
	Sensor Input	Two interchangeable pressure and temperature module bays, banana jack connections for 0-30 Vdc or 0-50 mA	
	Pressure Modules	Pressure ranges from 0.25 in. H₂O up to 10,000 psi Accuracy from ±0.025% to ±0.1% of span	
	Enclosure	High impact ABS	
	LCD Diplay	Alphanumeric LCD, 0.37" height, 2 lines, 16 characters per line	
	Update Rate	130 ms with one module installed	
Specifications	Resolution	±0.002% span; 60,000 counts	
	Programmable Filtering (Damping)	Average from 1-16 consecutive readings	
	Serial Interface	RS232 with 9-pin D type at 300, 1,200, 2,400, 9,600 baud.	
	Field Calibration	Base unit and pressure modules may be field calibrated via keypad commands	
	Data Logging	Optional up to 714 records	
	Battery Life	Up to 20 hours	
	Electrical Connection	4 mm Banana Jacks	
	Electrical Measurements	0-50 mA or 0-30 Vdc	
Electrical	Temperature Effect/Electrical Measurement	±0.004% of span per °F over compensated range from reference temperature of 70 °F ±3 °F	
	Power Requirements	9 Vdc	
Temperature	Operating	32 °F to 120 °F (0 °C to 49 °C)	
Certifications		Traceable calibration certificate provided for base unit and Quick-Select [™] sensor modules	

See data sheets at ashcroft.com for complete product specifications and ordering codes.

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		PT-1 Pressure Tester
	Pressure Sensor	One or two fixed pressure sensors or temperature device interface modules installed
	Process Connection	1/8 NPT Female
	Sensor Input	1 or 2 fixed pressure sensors or temperature device interfaces
	Pressure Sensors	Pressure ranges from 0.25 in. H ₂ 0 up to 10,000 psi Accuracy from ±0.025% to ±0.1% of span
	Enclosure	High impact ABS (black)
	Display	2 Line, 0.38 [°] height per line 16 alpha or numeric characters per line (Max)
	Update rate	100 ms
Specifications	Resolution	$\pm 0.002\%$ of span, 60,000 counts (max)
	Programmable filtering (damping)	User programmable four levels
	Serial Interface	RS232 with 9-pin D type at 300, 1,200, 2,400, 9,600 baud.
	Field Calibration	Base unit and pressure modules may be field calibrated via keypad commands or by remote function
	Battery Life	Optional rechargeable up to 25 hours
	Power Requirements	Standard: ac adapter provided for operation off standard 110 Vac, 60 Hz supply Optional: 220 Vac, 50Hz, 100 Vac, Nicad or alkaline battery pack
	Operating	32 °F to 120 °F (0 °C to 49 °C)
Townseture	Storage	-4 °F to 158 °F (-20 °C to 70 °C)
Temperature	Temperature Effect	±0.004% of span per °F over compensated range from reference temperature of 70 °F (±3 °F)
Approvals	Certifications	Traceable calibration certificate provided for the base display unit and each pressure sensor or temperature interface
Wetted Material	Media Compatibility	PPM1: Clean, dry, nonpconductive, non-corrosive gas PPM2: Any medium compatible with 316 Stainless steel







		1305D &1305DH	1327CM & 1327D
	Type/Description	Deadweight Tester	Gauge Comparator
	Accuracy	$\pm 0.1\%$ of reading	1327CM: ±0.1% of gauge span 1327D: ±0.25% of gauge span
	Operating Pressure	15 to 10,000 psi	0 to 10,000 psi
	Pump Body Materials	Aluminum alloy	Aluminum alloy
Specifications	Piston & Cylinder Materials	Piston: 440C Stainless steel Cylinder: 416 Stainless steel	NA
	Operating Fluid	1305D: SAE 20 automotive or machine oil 1305DH: Phosphate or glycol base hydraulic fluids	1327CMS: SAE 20 automotive or machine oil 1327CMH: Phosphate or glycol base hydraulic fluids 1327CMO: Distilled water 1327D: SAE 20 automotive or machine oil 1327DH: Phosphate ester or Glycol based hydraulic fluids 1327DO: Distilled water
	Weight Material	Non-magnetic die cast zinc alloy, ASTM AC41A	NA
	0-Ring Seals	1305D: Buna-N 1305DH: Ethylene Propylene	1327CMS, 1327CMO, 1327D & 1327DO: Buna-N 1327CMH & 1327DH: Ethylene Propylene



		AVC Volume Controller
Specifications	Pressure Connection:	1/2 NPT Female
	Resolution:	AVC-1000: 0.00025 AVC-3000: 0.0005
	Operating Temperature:	20 °F to 120 °F
	Mechanical Rotation (Total Turns):	AVC-1000: (31) AVC-3000: (61)
	Pressure Ranges:	AVC-1000: Vacuum to 1,000 psi AVC-3000: Vacuum to 3,000 psi
	Construction Material	Aluminum body, Stainless steel, Brass, PTFE, Delrin®, and Buna-N

See data sheets at **ashcroft.com** for complete product specifications and ordering codes.

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		A4A	1082	1084
Specifications	Size	6", 8½", 12″, 16″	4½", 6", 8½"	3″
	Accuracy	$\pm 0.1\%$ of span (ASME B40.100 Grade 4A)	$\pm 0.25\%$ of span (ASME B40.100 Grade 3A)	$\pm 0.5\%$ of span (ASME B40.100 Grade 2A)
	Process Connection	1⁄4 NPT, ½ NPT, (see data sheet for more options)	1⁄4 NPT, 1⁄2 NPT	1⁄4 NPT
	Process Connection Location	Back, bottom	Lower, back	Lower
	Mounting Options	Stem, flush, panel	Stem, flush	Stem
	Pointer	Black painted aluminum pointer	Aluminum with red-painted knife edge tip	Aluminum with red-painted knife edge tip
	Pointer Travel	350°: up to 30,000 psi 300°: 40,000 to 50,000 psi 270°: 60,000 to 100,000 psi	270°	270°
	Movement	Hardened clock brass	400 Series stainless steel	Stainless steel
	Window	6", 8½", 12": Plexiglass 16": Plate glass	Glass	Polycarbonate
Ranges	Pressure Range	Vacuum, Compound, Gauge, Absolute to 100,000 psi	Vacuum, Compound to 10,000 psi	Vacuum, Compound to 1,000 psi
	Units	psi, bar, kg/cm², kPa, in. H₂O, in. Hg, mm Hg, mPa, kPa	psi, bar, kg/cm², kPa, in. H₂O, in. Hg, mm Hg, mPa, kPa	psi, bar, kg/cm², kPa, in. H₂O, in. Hg, mm Hg, mPa, kPa
Wetted Materials	Bourdon Tube	Berylium copper, 403 Stainless steel	Bronze, Monel®	316 Stainless steel
	Process Connection Materials	303 Stainless steel	Brass, Monel®	316 Stainless steel
Non-Wetted Materials	Case Material	Aluminum	Aluminum	316 Stainless steel
	Enclosure Rating	Case is not sealed, recommended for weather protected environment only	Case is not sealed, recommended for weather protected environment only	NA



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