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PRESSURE & TEMPERATURE INSTRUMENT QUICK GUIDE



Over 150 years ago, Edward Ashcroft saw the need for safer, more sophisticated pressure and temperature instruments for use in the emerging steam industry. In response, he introduced a then-revolutionary new Bourdon tube pressure gauge.

The rest is history.

Times continue to change and so do the needs of industry. Products manufactured by Ashcroft Inc. have become the benchmark in pressure and temperature measurement and include gauges, thermometers, switches, transducers, transmitters, instrument isolators and diaphragm seals and control and calibration equipment.

Specified around the world for the most demanding requirements, these instruments are widely recognized under the brand names Ashcroft,[®] Heise,[®] Willy,[®] and Weksler.[®] And you can find them in wastewater treatment facilities, biotech and pharmaceutical labs, medical applications, semiconductor facilities, refineries, power generation plants, food processing plants, pulp and paper mills, chemical manufacturing plants and the host of support companies that serve these industries.

Our team consists of experts ready to help resolve even the most difficult applications and technical issues. If you require

broader specifications than our standard product line offers, our engineers, technical staff and product marketing specialists can work with you to custom fit the right product to the job. Our customer service representatives are highly trained to answer product application questions, offer competitive product cross references and work closely with you to help meet your goals.

We maintain an extensive network of field and in-house sales personnel, local representatives and distributors to ensure you receive quick product delivery and service. Along with our "partner" representatives we offer product training and education, facility surveys, calibration services, seal assembly and answers to your application questions.

Safety is a critical issue, and our instrument audit can improve the safety or your plant. Industry surveys indicate that 20% to 30% of customers' instruments are misapplied and fail prematurely due to pulsation and vibration, allowing the process media or liquid fill to escape and cause environmental damage or even harm those nearby. Experts from Ashcroft Inc. can help identify areas of concern before they become problems. This important service will help prevent accidents, avoid misapplications and save money and time.

As the leader in technology and innovation we design new products based on current and emerging market requirements as well as individual customer's requirements. As the industry leader our "firsts" lead the way with breakthrough new product features and value added benefits for the customer.



ASHCROFT[®]

Ashcroft[®] Product Quick Guide Page Index

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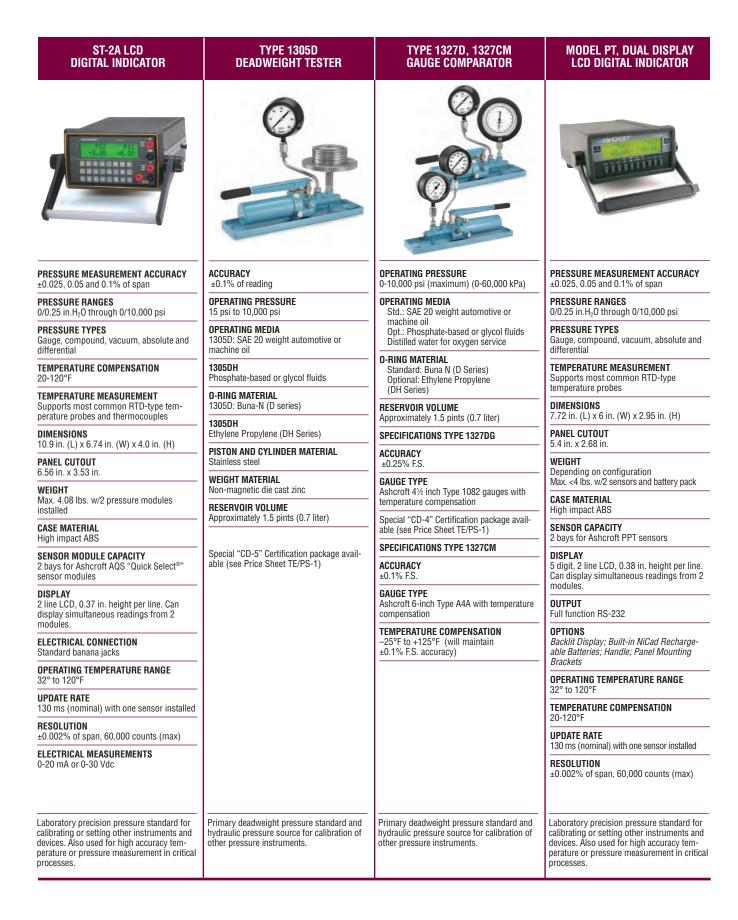
Quick Guide Digital Gauges

TYPES 2089, 2086, 2084 PRECISION DIGITAL TEST GAUGE	TYPES 2074, 2174, 2274 INDUSTRIAL DIGITAL GAUGE	TYPE DG25 GENERAL PURPOSE DIGITAL GAUGE	TYPE 2030 SERIES DIGITAL Sanitary Gauge
		Protective Boot Optional	Direct Mount Certification Cer
ACCURACY ±0.05%, 0.10% or 0.25% of span	ACCURACY: ±0.25% of span	ACCURACY ±0.5% of span or ±0.25% span	ACCURACY ±0.25% of span terminal point accuracy
CASE SIZE	CASE SIZE 3, "4 ¹ /2"	CASE SIZE 21/2 [‴]	DIAL SIZE
CASE MATERIAL 300 Series stainless steel	CASE MATERIAL (3´´) 300 series stainless steel	CASE MATERIAL Polycarbonate/ABS	CASE MATERIAL/FINISH (3^) 300 series SS, electropolished
WETTED MATERIALS 316 stainless steel	$(4^{1/2})$ fiberglass reinforced thermoplastic $(4^{1/2})$ black painted aluminum	WETTED MATERIALS 17-4 PH stainless steel sensor;	WETTED MATERIALS 316L stainless steel
SOCKET SIZE 1/4 NPT, 1/8 NPT (others on application)	WETTED MATERIALS 17-4 PH stainless steel sensor; 316 stainless steel socket	316 stainless steel socket SOCKET SIZE 1/4 NPT. 1/a NPT. G ¹ /4A. G ¹ /4B. ⁹ /16-18 UNF	TRI-CLAMP CONNECTION Direct, in-line 1.5", 2.0"; remote in-line (XRE)
CONNECTION Lower (6 o'clock), top, side	SOCKET SIZE ^{1/4} NPT, ^{1/2} NPT (4 ¹ / ₂ ["] case only) Others on application	Others on application CONNECTION	RANGES 15 psi thru 1000 psi including metric,
RANGES Vac., 5 psi thru 7000 psi including compound	CONNECTION Lower (6 o'clock), top, side	Lower RANGES Voc. thru 25 000 pci including compound	compound and vacuum POWER SOURCE 2003 Pattore
and absolute POWER SOURCE Three AAA alkaline batteries	RANGES Vac. and 15 psi thru 20,000 psi including compound	Vac. thru 25,000 psi, including compound POWER SOURCE Two AA alkaline batteries	2032 Battery 2132 4-20mA loop powered 2232 12-36 Vdc
BATTERY LIFE 1000 hrs.	POWER SOURCE Battery	BATTERY LIFE 2000 hrs.	BATTERY LIFE 500 hrs.
OPERATING TEMPERATURE Temperature corrected from 0/150°F	 (3') Two AA alkaline batteries (4'/2') Two C alkaline batteries Loop powered 4-20mA 	OPERATING TEMPERATURE (Media) -4/176°F (-20/80°C)	OPERATING TEMPERATURE 14°F/140°F (-10°C/60°C)
(-18/63°C) STORAGE TEMPERATURE -40/180°F (-40/82°C)	Line powered, (12-36 Vdc, 1 amp) BATTERY LIFE	STORAGE TEMPERATURE (Batteries Removed) -4/140°F (-20/00°C)	STORAGE TEMPERATURE -4°F/158°F (-20°C/70°C)
AGENCY APPROVALS CE, EN 50082-1 (1997), FM, CSA	(3 [°]) <1500 hrs. (4 ¹ / ₂ [°]) <2500 hrs. OPERATING TEMPERATURE	AGENCY APPROVALS CE, EN 61326 (1998)	
LOOK FOR THESE MARKS ON OUR PRODUCTS	14/140°F (-10/60°C) STORAGE TEMPERATURE	CE, EN 61326 Ànnex A (heavy industrial) UL-61010-1	
	-4/158°F (-20/70°C) Agency Approvals		
	CE, EN 50082-1 (1997) optional, FM, CSA,		
With total error band accuracy including tem- perature from 0/150°F (–18 to 63°C) applica- tions include metrology labs, gas distribution and transmission and analog test gauge users.	Available with optional (1) or (2) SPDT switch- es and 4-20mA output, this gauge is ideal for many industrial applications. This product eliminates the need for unnecessary piping, switches and transducers.	This product is an excellent choice for a wide variety of pressure measurement applications. When compared to mechanical gauges the DG25 offers overall enhanced value.	Sanitary pharmaceutical, biotech or food appli- cations requiring Tri-Clover type fittings and highly polished stainless steel surfaces.

Quick Guide Test Instruments

1084, 3″ TEST GAUGE	1082, 4 ¹ /2,‴6,″8 ¹ /2″ TEST GAUGE	TYPES 2089, 2086, 2084 PRECISION DIGITAL TEST GAUGES	TYPE ATE-2 LCD Digital calibrator
40 50 60 30 TET CALCE 70 80 10 90 100 10	eou noon foot		
ACCURACY ASME B 40.100 Grade 2A (±0.5% of span)	ACCURACY ASME B 40.100 Grade 3A (±0.25% of span)	ACCURACY ±0.05%, 0.10% or 0.25% of span	PRESSURE MEASUREMENT ACCURACY ±0.025, 0.05 and 0.1% of span
DIAL SIZE 3″	DIAL SIZE 4 ¹ / ₂ , ~ 6, ~ 8 ¹ / ₂ ~	CASE SIZE 3″	PRESSURE RANGES 0/0.25 in.H ₂ 0 through 0/10,000 psi
CASE MATERIAL 300 series polished stainless steel	CASE MATERIAL Aluminum, phenolic, polypropylene	CASE MATERIAL 300 Series stainless steel	PRESSURE TYPES Gauge, compound, vacuum, absolute and differential
MATERIAL 316 stainless steel	WETTED MATERIAL Bronze/brass, Monel	WETTED MATERIALS 316 stainless steel	TEMPERATURE COMPENSATION
SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube	SOCKET SIZE 1/4 NPT, 1/6 NPT (others on application)	20-120°F TEMPERATURE MEASUREMENT Supports most common RTD-type tem-
CONNECTION 1/4 NPT lower only	CONNECTION ¹ / ₄ NPT (standard) and ¹ / ₂ NPT lower or back (optional)	CONNECTION Lower (6 o'clock), top, side	perature probes and thermocouples DIMENSIONS
RANGES Vac. to 1000 psi	RANGES Vac. to 10,000 psi	RANGES Vac., 5 psi thru 7000 psi including compound	8.7 in. (L) x 5.1 in. (W) x 3.8 in. (H) WEIGHT
	TEMPERATURE ERROR <.005% per degree F above or below refer-	and absolute POWER SOURCE	Max. 2.4 lbs. w/2 pressure modules installed
	ence temperature of 68°F (20°C)	Three AAA alkaline batteries BATTERY LIFE	CASE MATERIAL High impact PC-ABS
		1000 hrs. OPERATING TEMPERATURE	SENSOR MODULE CAPACITY 2 bays for Ashcroft AM2 sensor modules
		Temperature corrected from 0/150°F (-18/63°C) STORAGE TEMPERATURE	DISPLAY 1.5" x 2.5" graphic LCD display with backlight. Can display readings from 2 simultaneous modules
		-40/180°F (-40/82°C) AGENCY APPROVALS CE, EN 50082-1 (1997), FM, CSA	ELECTRICAL CONNECTION 4mm banana jacks (one set of test leads provided with each ATE-2)
		LOOK FOR THESE MARKS ON OUR PRODUCTS	UPDATE RATE 100 ms (nominal) with one module installed
			RESOLUTION ±0.0015% of span, 66,000 counts (max)
			DAMPING Programmable filtering levels one through 16
			SERIAL INTERFACE Type: USB
			AGENCY APPROVALS Standard: CE, UL, FCC Optional: FM, CSA, ATEX
Ideal for use when a quality analog pocket test gauge is required.	¹ /4% full scale accuracy for test and laboratory applications.	Superior accuracy for test and laboratory applications.	Field or laboratory precision pressure standard for calibrating or setting other instruments and devices. Also used for high accuracy tempera- ture or pressure measurement in critical pro- cesses.

Quick Guide Test Instruments



Quick Guide Test Instruments

TYPE AVC-1000 & 3000 Volume controller





TYPE AVC-1000 / AVC-3000	ACCURACY ±0.10% of span – A
RANGE (psi) vacuum-1000 / vacuum-3000	CASE Cast aluminum soli
RESOLUTION (psi) 0.00025 / 0.0005	DIAL SIZE 6″, 8½″, 12″ & 16″
VOLUME CHANGE (cubic inches) 3.5 / 2.5	POINTER TRAVEL 350° (15-30,000 ps 300° (40,000-50,00
MECHANICAL ROTATION (turns) 31/61	270° (60,000-100,0
PROOF PRESSURE (psi) 3000 / 6000	BOURDON TUBE Bleeder tipped
BURST PRESSURE (psi) 6000 min / 12,000 min	RANGES Gauge, compound, 0-15-0/100,000 ps
OPERATING TEMPERATURE RANGE 20-120°F / 20-120°F	
OPERATING MEDIA Clean, dry noncorrosive gas such as com- pressed air or nitrogen	
CONSTRUCTION Aluminum body, stainless steel, brass Teflon, Delrin and Buna N	
Added to any pneumatic calibration system, the VC works as a "fine tune" device to achieve specific test points not easily attained with the use of a regulator alone. Used in the calibration	0.1% full scale accu laboratory application



ASME B40.1, Grade 4A

lid front

-osi) 000 psi) 1,000 psi)

l, vacuum & absolute si

curacy is ideal for test and tions.

Quick Guide Process Gauges

1279 DURAGAUGE®	1377 DURAGAUGE®	1379 DURAGAUGE [®]	2462 DURAGAUGE [®]
PRESSURE GAUGE	PRESSURE GAUGE	PRESSURE GAUGE	PRESSURE GAUGE
40 50 60 30 20 90 10 90 10 90 10 90 10 90 10 90 10 90 10 10 10 10 10 10 10 10 10 1	50 200 200 00 300 00 300 00 300 00 00 00 00 00 00 00 00 00 00 00 00 0	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	80 100 120 60 + 40 -40 + 160 -20 200 -40 + 100 -20 - 200
ACCURACY	ACCURACY	ACCURACY	ACCURACY
ASME B 40.100 Grade 2A (±0.5% of span)	ASME B 40.100 Grade 2A (±0.5% of span)	ASME B 40.100 Grade 2A (±0.5% of span)	ASME B 40.100 Grade 2A (±0.5% of span)
DIAL SIZE	DIAL SIZE	DIAL SIZE	DIAL SIZE
4 ¹ /2 ["]	4 ¹ / ₂ , 6, 8 ¹ / ₂ "	4 ¹ / ₂ , [~] 6, [~] 8 ¹ / ₂ [~]	
CASE MATERIAL	CASE MATERIAL	CASE MATERIAL	CASE MATERIAL
Phenolic	Aluminum	Aluminum	Polypropylene
WETTED MATERIAL	WETTED MATERIAL	WETTED MATERIAL	WETTED MATERIAL
316 stainless steel, bronze/brass, Monel	316 stainless steel, bronze/brass, Monel	316 stainless steel, bronze/brass, Monel,	316 stainless steel, bronze/brass, steel, Monel
SENSING ELEMENT	SENSING ELEMENT	Inconel	SENSING ELEMENT
Bourdon tube	Bourdon tube	SENSING ELEMENT	Bourdon tube
CONNECTION	CONNECTION	Bourdon tube CONNECTION 1/2 NPT (standard) lower or back	CONNECTION
1/2 NPT (standard) lower or back	¹ / ₂ NPT (standard) lower or back		¹ / ₂ NPT (standard) lower or back
1/4 NPT (optional)	¹ / ₄ NPT (optional)		¹ / ₄ NPT (optional)
RANGES Vacuum, 15 to 30,000 psi, compound	RANGES Vacuum, 15 to 30,000 psi, compound	1/4 NPT (optional) 1/4" HP connection over 30,000 psi RANGES	RANGES Vacuum, 15 to 30,000 psi, compound
		Vacuum, 15 to 100,000 psi, compound	
Usage requiring 1/2% full scale accuracy in chemical, petrochemical, refinery, oil prodution, other process, power and general industry.	Usage requiring 1/2% full scale accuracy in chemical, petrochemical, refinery, oil prodution, other process, power and general industry.	Usage requiring 1/2% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.	Usage requiring ½% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.

Quick Guide Process Gauges

1259 PROCESS PRESSURE GAUGE	1279, 1379, 1377, 2462 Receiver Gauges	1290 DIRECT DRIVE Pressure Gauge	
	Type 1279	60 80 100 40 120 20 160 160 160 160 160 160	
ACCURACY ASME B 40.100 Grade 2A (±0.5% of span)	ACCURACY ASME B 40.100 Grade 2A (±0.5% of span)	ACCURACY ASME	
DIAL SIZE 4 ¹ /2″	DIAL SIZES 1279AS-XPR – 4 ¹ / ₂ ″	DIAL SIZES 1290 – 4 ¹ /2″	
CASE MATERIAL Polypropylene	1377AS-XPR – 41/2″, 6″, 81/2″ 1379AS-XPR – 41/2″, 6″, 81/2″ 2462AS-XPR – 6″	CASE MATERIAL 1290	
WETTED MATERIAL 316 stainless steel, Monel	CASE MATERIAL 1279AS-XPR – Phenolic	SENSING ELEMENT B	
SENSING ELEMENT Bourdon tube	1377AS-XPR – Aluminum 1379AS-XPR – Aluminum 2462AS-XPR – Polypropylene	CONNECTION 1/2 NPT (standard)	
CONNECTION 1/2 NPT (standard) lower 1/4 NPT (optional)	SENSING ELEMENT Bourdon tube	1/4 NPT (optional) CONNCTION LOCATION 1290 – Lower/Back	
RANGES Vacuum, 15 to 20,000 psi, compound	CONNECTION 1/2 NPT (standard) 1/4 NPT (optional)	RANGES	
	CONNCTION LOCATION 1279AS-XPR – Lower/Back, Back 1377AS-XPR – Back, Lower/Back, Back 2462AS-XPR – Lower/Back, Back RANGES 3-15 psi & 3-27 psi		
Usage requiring 1/2% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.	For use with pneumatic transmitters.	Unique movmentless system for harsh appli- cations exhibiting severe vibration or pulsation effects.	

T5500 & T6500	1008S 40 & 50mm	1008S/SL 63 & 100mm	1008S/SL 63 & 100mm CENTER
PRESSURE GAUGE	PRESSURE GAUGE	PRESSURE GAUGE	BACK CONNECT GAUGES
ACCURACY	ACCURACY	ACCURACY	ACCURACY
Std. Class 1, 1% full scale	ASME B 40.100 Grade B (±3-2-3% of span)	1.6% F. S.	ASME B 40.100 Grade B (±3-2-3% of span)
DIAL SIZE	DIAL SIZE	DIAL SIZE	DIAL SIZE
100mm, 160mm	40mm, 50mm	63mm, 100mm	63mm, 100mm
CASE MATERIAL	CASE MATERIAL	CASE MATERIAL	CASE MATERIAL
304 stainless steel, 316 stainless steel	Stainless steel	Stainless steel	Stainless steel
MOVEMENT	WETTED MATERIAL	WETTED MATERIAL	WETTED MATERIAL
304/303 stainless steel	316 stainless steel	316L stainless steel	316L stainless steel
SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT
Bourdon tube	Bourdon tube	Bourdon tube	Bourdon tube
CONNECTION T5500 – lower or back, open front T6500 – lower only, solid front	CONNECTION 1/8 NPT lower or back 1/4 NPT lower or back	CONNECTION ¹ / ₈ NPT lower or lower back ¹ / ₄ NPT lower or lower back ¹ / ₂ NPT lower (100mm)	CONNECTION 1/4 NPT center back RANGES
RANGES Vacuum, compound, pressure psi: -30in. Hg-0, 0-36,000 psi	RANGES Vac. to 15,000 psi	JIS, DIN, BSP sockets available RANGES	Vac. to 20,000 psi
bar: –1-0, 0-2500 bar	Available dry and glycerin filled	Vac. to 15,000 psi Available dry and glycerin filled	
The Ashcroft® T5500 and T6500 all stainless steel process pressure gauge is one of the finest production gauges on the market for industrial use where precise indications are required	Applications include industrial compressors, valve indicators, firefighting equipment, mea- surement/control, metal working and hydraulic equipment. Especially suited for pneumatic controllers and transmitters located in corrosive environments.	Applications include industrial compressors, firefighting equipment, measurement/control, metal working, hydraulic equipment and panel builders. Can be supplied EN837 compliant.	Applications include industrial compressors, firefighting equipment, measurement/control, metal working, hydraulic equipment and panel builders requiring center back connections.

Quick Guide Stainless Steel Case & Industrial Gauges

1009 2½" & 3½" DURALIFE®	2008S/SL 63mm	1009 4½″ & 6″	1109 4½″
PRESSURE GAUGE	PANEL GAUGE	Stainless steel case	Stainless steel case
		60 80 100 40 120- 20 140- 160 160 160 160 160 160 160 160 160 160	20000 50000 10000 0000 10000 0000 10000 0000 10000 0000 10000 0000 100000 100000 100000 100000 1000000
ACCURACY	ACCURACY	ACCURACY	ACCURACY
ASME B 40.100 Grade 1A (±1% of span)	1.6% F. S.	ASME B 40.100 Grade 1A (±1% of span)	ASME B 40.100 Grade 1A (±1% of span)
DIAL SIZE	DIAL SIZE	DIAL SIZE	DIAL SIZE
2 ¹ /2, " 3 ¹ /2"	63mm	4 ¹ / ₂ , "6"	4 ¹ / ₂ ‴
CASE MATERIAL	CASE MATERIAL	CASE MATERIAL	CASE MATERIAL
Stainless steel	Stainless steel	Stainless Steel	Stainless Steel
WETTED MATERIAL	WETTED MATERIAL	TUBE MATERIAL	TUBE MATERIAL
316L stainless steel, Bourdon tube	316L stainless steel	Bronze, 316 stainless steel, Monel	316 stainless steel
SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT	Inconel SENSING ELEMENT
Bourdon tube	Bourdon tube	Bourdon tube	
CONNECTION ½ ½ ½ NPT lower or lower back ½ ½ NPT lower (3½') JIS, DIN, BSP, tube stub RANGES Vac. to 15,000 psi Stainless steel and aluminum bronze sockets	CONNECTION ½ NPT only lower back RANGES Vac., Compound 0-15,000 psi Available dry and glycerin filled, with PLUS! Performance	CONNECTION ¹ / ₂ NPT lower or back ¹ / ₂ NPT lower or back RANGES Vac. to 30,000 psi	Sensing ELEMENT Bourdon tube CONNECTION ½ NPT lower, ¼ NPT lower (optional) ¼ NPT lower high pressure RANGES Vac. to 1500 psi / 2000-20,000 psi 50,000-100,000 psi
For use on fluid power equipment in oil and gas production, construction, min- ing, machine tools, logging, pulp and paper, general industrial applications and panel builders.	The Ashcroft 2008S/SL was designed spe- cifically for the rugged requirements of panel installation. Oil, gas, offshore, environmen- tally and process challenged applications are the target for these gauge markets.	Stainless steel case Type 1009 applications include boilers, compressors, water blasting equipment, pharmaceutical and food process- ing equipment.	Stainless steel case Type 1109 applications include water jet or water blasting equipment, offshore platform, etc.

1009, 1010, 1017, 1220 Hydraulic Gauges	1009, 1010, 1017, 1220 Receiver Gauges	1009, 1010, 1017, 1220 Refrigeration gauge	1010 4½, ~ 6, ~ 8½, ~ 12″ General Service Gauge
TO DAUCE SHOWN	AUDICAL STATE	THE OFFICIENCE STORES	10 10 10 10 10 10 10 10 10 10
ACCURACY ASME B 40.100 Grade 1A (±1% of span)	ACCURACY ASME B 40.100 Grade 1A (±1% of span)	ACCURACY ASME B 40.100 Grade 1A (±1% of span)	ACCURACY ASME B 40.100 Grade 1A (±1% of span)
DIAL SIZE 1009 – 4 ¹ / ₂ ",6" 1010 – 4 ¹ / ₂ ",6",8 ¹ / ₂ ",12" 1017 – 4 ¹ / ₂ ",6" 1220 – 4 ¹ / ₂ ",6",8 ¹ / ₂ "	DIAL SIZE 1009 – 4 ¹ / ₂ ", 6", 8 ¹ / ₂ ", 12" 1010 – 4 ¹ / ₂ ", 6", 8 ¹ / ₂ ", 12" 1017 – 4 ¹ / ₂ ", 6", 8 ¹ / ₂ "	DIAL SIZE 1009 – 4 ¹ / ₂ ", 6" 1010 – 4 ¹ / ₂ ", 6", 8 ¹ / ₂ ", 12" 1017 – 4 ¹ / ₂ ", 6" 1220 – 4 ¹ / ₂ ", 6", 8 ¹ / ₂ "	DIAL SIZE 4 ¹ / ₂ , [°] , [°] , [°] / ₂ , [°] 12" CASE MATERIAL Stainless steel, aluminum, phenolic
CASE MATERIAL Stainless steel, aluminum, phenolic	CASE MATERIAL Stainless steel, aluminum, phenolic	CASE MATERIAL Stainless steel, aluminum, phenolic	TUBE MATERIAL Bronze, stainless steel, Monel
TUBE MATERIAL Bronze, 316 stainless steel, Monel	TUBE MATERIAL Bronze, 316 stainless steel, Monel	TUBE MATERIAL Bronze, stainless steel	SENSING ELEMENT Bourdon tube
SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube	CONNECTION ¹ /4 NPT lower or back ¹ /2 NPT lower or back
CONNECTION 1/4 NPT lower or back 1/2 NPT lower or back	CONNECTION 1/4 NPT lower or back 1/2 NPT lower or back	CONNECTION ⁽¹⁾ ¹ /4 NPT lower or back ¹ / ₂ NPT lower or back	RANGES Vac. to 30,000 psi
RANGES Vac. to 30,000 psi	RANGES 3/15 and 3/27 psi	RANGES 30 in.Hg Vac/150 psi, 30 in.Hg Vac/300 psi	
		⁽¹⁾ 1017 back connect only	
Uniquely designed for rigorous hydraulic services.	For monitoring pneumatic systems requiring percentage and/or square root readings.	For use on refrigeration equipment utilizing ammonia, freon or other refrigerants.	General industrial applications requiring larger dials. Applications include oil monitoring, repair and compressors, etc.

Quick Guide Stainless Steel Case & Industrial Gauges

1017 4½,‴6″ General Service Gauge	1220 4½,~6,~8½~ GENERAL SERVICE GAUGE	1020S 4½″ XMAS TREE GAUGE	1038, 1339 3½,″ 4½,″ DUPLEX GAUGE
40 50 60 20 80 10 90 10 90 90 10 90 90 90 90 90 90 90 90 90 90 90 90 90	40 50 60 20 00 80 20 00 90 90 80 80 90 80 80 90 80 80 80 80 80 80 80 80 80 80 80 80 80	400 500 600 300 martine 800 200 is 500 100 is 100 100 100 100	TORE CALUESS SHOWN
ACCURACY	ACCURACY		ACCURACY
ASME B 40.100 Grade 1A (±1% of span)	ASME B 40.100 Grade 1A (±1% of span)	ASME B 40.100 Grade 1A (±1% of span)	ASME B 40.100 Grade A (±2-1-2% of span)
4 ¹ / ₂ , 6 ^r CASE MATERIAL	4 ¹ / ₂ , 6, 8 ¹ / ₂ " CASE MATERIAL	4 ^{1/2} CASE MATERIAL	31/2," 41/2" CASE MATERIAL
Stainless steel, aluminum, phenolic TUBE MATERIAL	Stainless steel, aluminum, phenolic TUBE MATERIAL	Stainless steel TUBE MATERIAL	Aluminum, cast iron TUBE MATERIAL
Bronze, stainless steel, Monel SENSING ELEMENT	Bronze, stainless steel, Monel SENSING ELEMENT	316 stainless steel SENSING ELEMENT	SENSING ELEMENT
Bourdon tube CONNECTION	Bourdon tube CONNECTION	Bourdon tube CONNECTION	Bourdon tube CONNECTION
¹ / ₄ NPT back ¹ / ₂ NPT back	¹ / ₄ NPT lower or back ¹ / ₂ NPT lower or back	1/4 NPT lower 1/2 NPT lower	1/4 NPT lower or back RANGES
RANGES Vac. to 30,000 psi	RANGES Vac. to 30,000 psi	RANGES Up to 20,000 psi – ¹ / ₂ NPT, ¹ / ₄ NPT	1038A – 3 ¹ / ₂ ," 4 ¹ / ₂ " – ¹ / ₄ NPT 30/1000 psi 1339A – 4 ¹ / ₂ " – ¹ / ₄ NPT 30/1000 psi Back conn. only
General industrial applications, large dials for easier readings. used on pumps, air or oil monitoring, etc. for panel mount applications.	General industrial applications, large dials for easier readings. used on pumps, air or oil monitoring, etc.	Uniquely designed to meet rugged oil field applications.	Uniquely designed to indicate two related pressures on the same dial.

1125, 1125A 4½″	1127, 1128 4½, ~6~	1130 2, 2%, 3½, 4, 4%, 6	1131 2½, 3½, 4, 4½, 6
DIFFERENTIAL GAUGE	DIFFERENTIAL GAUGE	DIFFERENTIAL GAUGE	DIFFERENTIAL GAUGE
to 50 00 20		PSID BSID BSID BSID BSID BSID BSID BSID B	PSID B CONCEPTION
ACCURACY	ACCURACY	ACCURACY	ACCURACY
ASME B 40.100 Grade A (±2-1-2% of span)	ASME B 40.100 Grade A (±2-1-2% of span)	±2% ascending	±2% ascending
DIAL SIZE	DIAL SIZE	DIAL SIZE	DIAL SIZE
4 ¹ / ₂ , 6″	4 ¹ /2," 6″	2, ~ 2'/2, ~ 3'/2, ~ 4, ~ 4'/2, ~ 6 ~	2 ¹ /2, [°] 3 ¹ /2, [°] 4, [°] 4 ¹ /2, [°] 6 [°]
CASE MATERIAL	CASE MATERIAL	CASE MATERIAL	CASE MATERIAL
Aluminum	Aluminum	Stainless steel	Stainless steel
TUBE MATERIAL	TUBE MATERIAL	BODY MATERIAL	BODY MATERIAL
Bronze	316 stainless steel	Aluminum, brass, stainless steel	Aluminum, brass, stainless steel
SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT
Bourdon tube	Bourdon tube	Piston	Rolling diaphragm
CONNECTION	CONNECTION	CONNECTION	CONNECTION
¹ /4 NPT lower or back	¹ /4 NPT lower	In-line, lower, back	In-line, lower, back
RANGES 1125 - 4 ¹ / ₂ , "6"(1) - 1/4 NPT 20/1000 psi 1125A - 4 ¹ / ₂ ," 6"(1) - 1/4 NPT 10/0/10 psi- 500/0/500 psi ⁽¹⁾ Lower connect only	RANGES 1127 – 4 ¹ / ₂ ," 6" – ¹ / ₄ NPT 10/1000 psi 1128 – 4 ¹ / ₂ ," 6" – ¹ / ₄ NPT 10/0/00 psi 400/0/400 psi	RANGES 0-5 psid to 150 psid	RANGES 0-5 psid to 100 psid
Applications include filter monitoring, flow, leak and level measurements.	Applications include filter monitoring, flow, leak and level measurements.	Applications include filter monitoring, flow, leak and level measurement. High pressure, high differential with migration.	Applications include filter monitoring, flow, leak and level measurement. High pressure, high differential, no migration.

1132 2½, 3½, 4, 4½, 6	1133 3½, 4, 4½, 6	1134 4½″	5503 100mm &160mm
DIFFERENTIAL GAUGE	DIFFERENTIAL GAUGE	DIFFERENTIAL GAUGE	DIFFERENTIAL GAUGE
A PIN HO SCHOOPT	APIN H2Q Ment Frontam Q Ment Frontam Q	2 Barrier Contractions	D4 0,6 D2 0,8 bar 10
ACCURACY	ACCURACY	ACCURACY	ACCURACY
±2% ascending	±2% ascending	±3% ascending	±1.6% of span
DIAL SIZE	DIAL SIZE	DIAL SIZE	DIAL SIZE
2 ¹ / ₂ , [*] 3 ¹ / ₂ , [*] 4, [*] 4 ¹ / ₂ , [*] 6 ["]	3 ¹ /2, [°] 4, [°] 4 ¹ /2, [°] 6 [°]		100mm, 160mm
CASE MATERIAL	CASE MATERIAL	CASE MATERIAL	CASE MATERIAL
Stainless steel	Stainless steel	Stainless steel	Stainless steel
BODY MATERIAL	BODY MATERIAL	BODY MATERIAL	SENSING MATERIAL
Aluminum, brass, stainless steel	Aluminum, stainless steel	Glass filled nylon	316 stainless steel
SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT
Convoluted diaphragm	Convoluted diaphragm	Convoluted diaphragm	Diaphragm
CONNECTION	CONNECTION	CONNECTION	CONNECTION
In-line, lower, back	In-line, lower, back	Dual (In-line or back)	1/4 NPT lower
RANGES 0-1 psid to 60 psid (including inches of water ranges)	RANGES 0-1 IWD to 25 IWD	RANGES 0-0.6 IWD to 60 IWD	1/2 NPT lower RANGES 0-16 IWD to 400 psid
Applications include filter monitoring, flow,	Applications include filter monitoring, flow,	Applications include fume hoods, air handlers,	Applications include filter monitoring, flow,
leak and level measurement. High pressure,	leak and level measurement. High pressure,	filter monitoring, flow and level. Inches of	leak and level measurement requiring high
high differential, no migration.	high differential, no migration.	water with no migration.	recovery, all stainless steel.

5509 100mm &160mm	1150H 4½″	1122, 2½″ GAUGE	1187, 1188, 1189 LOW
DIFFERENTIAL GAUGE	REID VAPOR GAUGE		PRESSURE BELLOWS GAUGES
	AGHCROFT	20 25 30 35 40 15 50 50 00000000000000000000000000000	I18 GAUGE SHOWN
ACCURACY	ACCURACY	ACCURACY	ACCURACY
±2.5% of span	ASME B 40.100 Grade 2A (±0.5% of span)	ASME B 40.100 Grade A (±2-1-2% of span)	ASME B 40.100 Grade A (±2-1-2% of span)
DIAL SIZE	DIAL SIZE	DIAL SIZE	Available with optional ASME B40.100
100mm, 160mm	4 ¹ /2"	21/2"	Grade 1A (1% of span)
CASE MATERIAL Stainless steel	CASE MATERIAL Aluminum	CASE MATERIAL Stainless steel	DIAL SIZE $1187^{(1)} - 4^{1}/{2^{''}}$ $1188 - 4^{1}/{2^{''}}$
SENSING MATERIAL	TUBE MATERIAL	TUBE MATERIAL	1189 ⁽²⁾ – 4 ¹ / ₂ ," 6"
316 stainless steel	316 stainless steel	Stainless steel	CASE MATERIAL
SENSING ELEMENT	SENSING ELEMENT	SENSING ELEMENT	Aluminum, phenolic TUBE MATERIAL
Diaphragm	Bourdon tube	Bourdon tube	
CONNECTION	CONNECTION	CONNECTION	Brass, 316 stainless steel, Monel SENSING ELEMENT
1/4 NPT lower	1/4 NPT lower	1/4 NPT lower	
Y2 NPT lower RANGES 0-10 IWD to 400 psid	PANGES 15/600 psi	RANGES 15/1000 psi	Bellows CONNECTION 1187 – 1/4, 1/2 NPT back 1188 – 1/4, 1/2 NPT lower or back 1189 – 1/4, 1/2 NPT lower RANGES 10 in.H ₂ O to 10 psi including vacuum and compound (1) Back connect only (2) Lower connect only
Applications include filter monitoring, flow, leak and level measurement requiring high recovery, all stainless steel.	Uniquely designed for testing petroleum prod- ucts with the Reid vapor process.	Applications include compressors, pumps and turbines.	Low pressure monitoring for general industri- al applications on air, liquids or gases.

Quick Guide Stainless Steel Case & Industrial Gauges

TYPE DG25 1490, 2½, ~ 3½ ~ LOW PRESSURE DIAPHRAGM GAUGE 1495, 21/2, "31/2" LOW TYPES 2074, 2174, 2274 **GENERAL PURPOSE** PRESSURE RECEIVER GAUGE INDUSTRIAL DIGITAL GAUGE DIGITAL GAUGE . (Inc Ū *Protective Boot Optional ACCURACY: ACCURACY ACCURACY ACCURACY ASME B 40.100 Grade A (±2-1-2% of span) Available with optional ASME B40.100 ASME B 40.100 Grade A (±2-1-2% of span) ±0.25% of span ±0.5% of span or ±0.25% span Available with optional ASME B40.100 CASE SIZE CASE SIZE Grade 1A (1% of span) Grade 1A (1% of span) 3. 41/2 21/2 DIAL SIZE DIAL SIZE CASE MATERIAL 21/2, "31/2" CASE MATERIAL 21/2, "31/2" $(3^{"})$ 300 series stainless steel $(4^{1/2})$ fiberglass reinforced thermoplastic Polycarbonate/ABS CASE MATERIAL CASE MATERIAL WETTED MATERIALS (41/2") black painted aluminum Polysulfone Polysulfone 17-4 PH stainless steel sensor: WETTED MATERIAL WETTED MATERIAL WETTED MATERIALS 316 stainless steel socket Copper, Brass, Polysulfone, RTV, Silicone Copper, Brass, Polysulfone, RTV, Silicone 17-4 PH stainless steel sensor: SOCKET SIZE 316 stainless steel socket 1/4 NPT, 1/8 NPT, G1/4A, G1/4B, 9/16-18 UNF SENSING ELEMENT SENSING ELEMENT SOCKET SIZE Diaphragm Diaphragm CONNECTION 1/4 NPT, 1/2 NPT (41/2" case only) CONNECTION Lower (6 o'clock) (others on application) CONNECTION Others on application 1/8 NPT lower or center back 1/4 NPT lower or center back 1/8 NPT lower or center back 1/4 NPT lower or center back CONNECTION RANGES Hose barb Hose barb Lower (6 o'clock), top, side Vac. thru 25,000 psi, including compound RANGES RANGES RANGES 0-100%, 0-10 sq rt POWER SOURCE 0/10 in.H₂O to 0/15 psi including vacuum and Vac. and 15 psi thru 20,000 psi including Two AA alkaline batteries 0/10 sq rt /0-100 linear compound compound BATTERY LIFE **POWER SOURCE** Battery (3[°]) Two AA alkaline batteries 2000 hrs. **OPERATING TEMPERATURE (Media)** (41/2) Two C alkaline batteries -4/176°F (-20/80°C) Loop powered 4-20mA Line powered, (12-36 Vdc, 1 amp) STORAGE TEMPERATURE (Batteries Removed) **BATTERY LIFE** -4/140°F (-20/00°C) (3") 500 hrs. (41/2") 2500 hrs. AGENCY APPROVALS **OPERATING TEMPERATURE** CE, EN 61326 (1998) CE, EN 61326 Annex A (heavy industrial) 14/140°F (-10/60°C) UL-61010-1A STORAGE TEMPERATURE LOOK FOR THIS MARK ON OUR PRODUCT -4/158°F (-20/70°C) AGENCY APPROVALS CE, EN 50082-1 (1997) optional, FM, CSA LOOK FOR THESE MARKS ON OUR PRODUCTS GŔ **F F** Available with optional (1) or (2) SPDT switch-Low pressure monitoring of gases including Low pressure monitoring of pneumatic or air This product is an excellent choice for a wide es and 4-20mA output, this gauge is ideal for ovens, burners or medical applications. handling systems requiring linear or square variety of pressure measurement applications. many industrial applications. This product When compared to mechanical gauges the root readings. eliminates the need for unnecessary instrument DG25 offers overall enhanced value. T's, when switches and/or 40-20mA output is a requirement.

Quick Guide Sanitary Gauges

ACURACY 4.25% of span terminal point accuracy Y 4.25% of span terminal point accuracy Y ACURACY 4.25% of span terminal point accuracy Y ACURACY 4.25% of span terminal point accuracy Y ACURACY 2.25% of span terminal point accuracy Y ACURACY 2.36% Statistics statistics Y ACURACY 2.36% Statistics statistics Y Y ACURACY 2.37% ACURACY 2.38% Statistics statistics Y 2.36% Statistics ACURACY 2.37% ACURACY 2.38% Statistics 3.41% Statistics 3.51% Intermetatics 3.51% Intermetatics 3.51% Intermetatics 3.61% Intermetatics<	TYPE 2030 SERIES DIGITAL Sanitary Gauge	TYPE 1032 FRACTIONAL Sanitary Gauge	TYPE 1032 Sanitary Gauge	TYPE 1036 SANITARY GAUGE with TYPE 1037 SANITARY INSTRUMENT FITTING
ACCURACT ACCURACT AC25% of span terminal point accuracy PARCENT 325% of span terminal point accuracy DiAL SIZE 33 DiAL SIZE 34 DiAL SIZE 35 DIAL SIZE 36 DIAL SIZE 20 only CASE MATERIAL/FINISH 316L stainless steel DIAL SIZE 326 stainless steel DIAL SIZE 327, 327, 472 DIAL SIZE 328 CASE & RING MATERIAL 316L stainless steel DIAL SIZE 328 DIAL SIZE 329 CASE & RING MATERIAL 316L stainless steel DIAL SIZE 328 DIAL SIZE 328 DIAL SIZE 328 DIAL SIZE <td< td=""><td>DIRECT MOUNT</td><td>30 50 60 780 90 90 90 90 90 90 90 90 90 90 90 90 90</td><td>NI RUSH?</td><td>1036 GAUGE SHOWN I and the second se</td></td<>	DIRECT MOUNT	30 50 60 780 90 90 90 90 90 90 90 90 90 90 90 90 90	NI RUSH?	1036 GAUGE SHOWN I and the second se
Dial size accuracy 3" accuracy Dial size accuracy accuracy accuracy Dial size accuracy accuracy				TYPE 1036 SANITARY GAUGE
3* Duel: Size 2* only Duel: Size Due: Size			ranges 100 psi and above. ±2.0% F.S. for	±1.5% F.S. for pressure ranges 100 psi and
(3) 300 series SS, electropolished XSE & RING MATERIAL 300 series stainless steel CASE & RING MATERIAL 300 series stainless steel SVE <	3″			
WETTED MATERIALS 316L stainless steel Sold Series Stainless steel CASE & RING MATERIAL 300 series stainless steel TH-CLAMP CONNECTION Direct, in-line 1.5°, 2.0°; remote in-line (XRE) TUBE & SOCKET MATERIAL 316 stainless steel TUBE & SOCKET MATERIAL 316 stainless steel CASE & RING MATERIAL 300 series stainless steel TB-CLAMP CONNECTION Direct, in-line 1.5°, 2.0°; remote in-line (XRE) WETTED PARTS Electropolished 12 to 20 RA surface finish 316 stainless steel WETTED PARTS Electropolished 12 to 20 RA surface finish 316 stainless steel TUBE & SOCKET MATERIAL 300 series stainless steel WOUNTING CONNECTION 2032 Battery 2132 4-20m4 loop powered 2232 12-36 Vdc MOUNTING CONNECTION Lower (%' Tri-Clamp®) only MOUNTING CONNECTION Lower and back (1½° or 2"Tri-Clamp®) MOUNTING CONNECTION Lower, back (1½° Tri-Clamp®) BATTERY LIFE 500 hrs. 30 # thru 600#, including compound atrial traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as THE 100#, including compound and vacuum VETTED PARTS Electropolished 12 to 20RA surface finish 316 stainless steel THE 100#, including compound and vacuum VETTED PARTS Stainless Steel Thrue 100#, including compound and vacuum MOUNTING CONNECTION Notes EN 10204 : 2004 A surface finish 316 L stainless steel VETTED PARTS Electropolished 12 to 20RA surface finish 316 L stainless steel THE 200 # Stainless steel MOUNTING CONNECTION Notes EN 10204 : 2004 A surface finish 316 L stainle				
TH-CLAMP CONNECTION Direct, in-line 1.5°, 2.0°; remote in-line (XRE) PANGES WETTED PARTS 15 psi thru 1000 psi including metric, compound and vacuum WETTED CONNECTION 2032 Battery 2132 4-200 A loop powered 2132 4-200 A loop powered 2034 thru 6000#, including compound 2323 12-36 Vdc RANGES BATTERY LIFE 306 trainless steel 500 hrs. Detect SUCAR surface finish stanks 0PRATING TEMPERATURE -4*F158*F (-20°C/70°C) I 4*F140°F (-10°C/60°C) STORAGE TEMPERATURE -4*F158*F (-20°C/70°C) -2002 RA surface finish stanks STORAGE TEMPERATURE -4*F158*F (-20°C/70°C) I 4*F140°F (-10°C/60°C) STORAGE TEMPERATURE -4*F158*F (-20°C/70°C) -4*F158*F (-20°C/70°C)			300 series stainless steel	CASE & RING MATERIAL
RANGES 15 psi thru 1000 psi including metric, compound and vacuum POWER SOURCE 2032 Battery 2132 4-20mA loop powered 2232 12-36 Vdc BATTERY LIFE 300 hrs. OPERATING TEMPERATURE -4*F/158*F (-20°C/70°C) STORAGE TEMPERATURE -4*F/158*F (-20°C/70°C) DOWER NOUNTING CONNECTION (//2* Thri-Clamp®) and vacuum Mounting Connection Mounting Connection Construction Mounting Connection Dower and back (11/2* or 2*Tri-Clamp®) RANGES 300 hrs. OPERATING TEMPERATURE -4*F/158*F (-20°C/70°C) STORAGE TEMPERATURE -4*F/158*F (-20°C/70°C) MOUNTING CONNECTION Construction MOUNTING CONNECTION Mounting Connection Mounting Connection Mounting Connection Mounting Connection Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as tandard				
15 psi thru 1000 psi including metric, compound and vacuum MOUNTING CONNECTION Lower (%/~Tri-Clamp®) only 316 stainless steel MOUNTING CONNECTION Lower (%/~Tri-Clamp®) 2032 Battery 2132 4-20mA loop powered 2232 12-36 Vdc BATERY LIFE 306 #thru 600#, including compound Lower (%/~Tri-Clamp®) BATTERY LIFE 300 #thru 600#, including compound Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard MOUNTING CONNECTION Lower, back (11/z ⁺ Tri-Clamp®) MOUNTING CONNECTION Lower, back (11/z ⁺ Tri-Clamp®) STORAGE TEMPERATURE -4°F/158°F (-20°C/70°C) C C C 0°C/70°C C C 0°C/70°C Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard MOUNTING CONNECTION CONNECTION RATE MOUNTING CONNECTION RATE V/F E 103°C C C LOOK FOR THIS MARK on OW FOR	RANGES	Electropolished 12 to 20RA surface finish	WETTED PARTS Electropolished 12 to 20 RA surface finish	
POWER SOURCE 2032 Battery 2132 4-20m A loop powered 2232 12-36 Vdc BATTERY LIFE 30# thru 600#, including compound Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as 14°F/140°F (-10°C/60°C) STORAGE TEMPERATURE -4°F/158°F (-20°C/70°C) Cover rule material traceability; documents provided as Cover rule material traceability; documents provided as MOUNTING CONNECTION Cover, back (11/2" Tri-Clamp®) RANGES 15# thru 1000#, including compound and vacuum Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as TYPE 1037 INSTRUMENT FITTING -4°F/158°F (-20°C/70°C) Cover rule material traceability; documents provided as MOUNTING CONNECTION 316 L stainless steel WETTED PARTS Electropolished 12 to 20RA surface fin MOUNTING CONNECTION (1/2" thrue 2" Tri-Clamp®) HEAT NUMBER Stamped on fitting Meets EN 10204 : 2004 3.1 requirements provide			316 stainless steel	Electropolished 12 to 20 RA surface finish
21212-36 Vdc Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard If ##tru 1000#, including compound and vacuum Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard If #tru 1000#, including compound and vacuum Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard If #tru 1000#, including compound and vacuum Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard If #tru 1000#, including compound and vacuum Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard If #tru 2007 INSTRUMENT FITTING CONSTRUCTION If #tru 2007 INSTRUMENT FITTING If #tru 2007 INSTRUMENT FITTING Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard If #tru 2007 INSTRUMENT FITTING	2032 Battery	RANGES	Lower and back (11/2" or 2"Tri-Clamp®)	
BATTERY LIFE 500 hrs. material traceability; documents provided as standard material traceability; documents provided as standard Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard 15# thru 1000#, including compound and vacuum OPERATING TEMPERATURE 14°F/140°F (-10°C/60°C) Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as TYPE 1037 INSTRUMENT FITTING STORAGE TEMPERATURE -4°F/158°F (-20°C/70°C) Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as MOUNTING CONNECTION (½" thru 2"Tri-Clamp®) Meets EN 10204 : 2004 3.1 requirement material traceability; documents provided			15# thru 1000#, including compound and	RANGES
OPERATING TEMPERATURE 14°F/140°F (-10°C/60°C) STORAGE TEMPERATURE -4°F/158°F (-20°C/70°C) WETTED PARTS Electropolished 12 to 20RA surface fin MOUNTING CONNECTION (½"Thru 2"Tri-Clamp®) HEAT NUMBER Stamped on fitting Meets EN 10204 : 2004 3.1 requirement material traceability; documents provid		material traceability; documents provided as	Meets EN 10204 : 2004 3.1 requirement for	
STORAGE TEMPERATURE 316 L stainless steel 4°F/158°F (-20°C/70°C) WETTED PARTS Electropolished 12 to 20RA surface fin MOUNTING CONNECTION (1/2 "Thru 2" Tri-Clamp®) HEAT NUMBER Stamped on fitting Meets EN 10204 : 2004 3.1 requirement material traceability; documents provid				
Image: Section of the section of th	STORAGE TEMPERATURE			
Image: State of Our PRODUCT (1/2"thru 2"Tri-Clamp®) HEAT NUMBER Stamped on fitting Neets EN 10204 : 2004 3.1 requirement material traceability; documents provid	_4°F/158°F (-20°C/70°C)			WETTED PARTS Electropolished 12 to 20RA surface finish
HEAT NUMBER Stamped on fitting Meets EN 10204 : 2004 3.1 requiremen material traceability; documents provid	LOOK FOR THIS MARK			
Meets EN 10204 : 2004 3.1 requirement material traceability; documents provid				
				Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as
cations requiring Tri-Clamp [®] type fittings and cations requiring Tri-Clamp [®] type fittings and cations requiring Tri-Clamp [®] type fittings and cations requiring Tri-Clamp [®] type fittings	cations requiring Tri-Clamp® type fittings and	cations requiring Tri-Clamp [®] type fittings and highly polished stainless steel surfaces. Can be	cations requiring Tri-Clamp® type fittings and highly polished stainless steel surfaces. Can be	Sanitary pharmaceutical, biotech or food appli- cations requiring Tri-Clamp® type fittings with zero deadleg and highly polished stainless steel surfaces.

Quick Guide Commercial Gauges

TYPE 1005P/1005/1005S	TYPE 1001T Panel Gauge	TYPE 1008A/AL General Service Gauge	TYPE 1005M, XRG Agricultural Ammonia
120 150 180 90 240 50 270 30 270 30 270 30 270 30 50 80 000 40 (20) 20 (40) 80 (60) 80 (00) 40 (20) 20 (40) 80 (60) 80 (60)	00 80 100 10 120 140 0 160 945HCROFT	400 1200 200 1200 1200 1200 1200 1200 120	25 30 35 40 100 100 100 100 100 100 100
ACCURACY ASME B 40.100 Grade B (±3-2-3% of span)	ACCURACY ASME B 40.100 Grade B (±3-2-3% of span)	ACCURACY ASME B 40.100 Grade B (±3-2-3% of span)	ACCURACY ASME B 40.100 Grade B (±3-2-3% of span)
DIAL SIZE 1 ¹ /2," 2", 2 ¹ /2," 3 ¹ /2" (4 ¹ /2" available with steel	DIAL SIZE 11/2, 2, 21/2, 31/2"	DIAL SIZE 63mm (2 ¹ / ₂ ^{''}), 100mm (4 ^{''})	DIAL SIZE
case/ring and plastic window, Type 1000) CASE MATERIAL	CASE MATERIAL Black painted steel	CASE & RING MATERIAL 304 stainless steel, dry, liquid filled or field	CASE MATERIAL Black painted steel
1005P – ABS, black 1005 – Black painted steel 1005S – Stainless steel (1½″ & 2″ only)	WETTED MATERIAL Bronze/brass.	fillable WETTED MATERIAL	WETTED MATERIAL 316 stainless steel/steel
Optional, color other than black, vent hole, panel mount sleeve for 1005P back connect	SENSING ELEMENT Bourdon tube; Ashcroft patented Power <i>Flex</i> [™]	Bronze/brass SENSING ELEMENT	SENSING ELEMENT Bourdon tube; Ashcroft patented Power <i>Flex</i> [™]
WETTED MATERIAL Bronze/brass. Optional sockets, nickel plated, Teflon taped, top or side	CONNECTION	Bourdon tube; Ashcroft patented Power <i>Flex™</i> movement	CONNECTION
connections, throttle plugs SENSING ELEMENT	¹ / ₈ NPT back, ¹ / ₄ NPT back (1 ¹ / ₂ " not available in ¹ / ₄ NPT)	CONNECTION ¹ /4 NPT lower and back Optional, metric and SAE connection	¹ / ₄ NPT lower Optional, 0.020"orifice stainless steel throttle plug
Bourdon tube; Ashcroft patented Power <i>Flex™</i> movement	RANGES Vac6000 psi and compound*	RANGES Vac15,000 psi and compound	RANGES 0/60 psi, 0/150 psi, 0/400 psi
CONNECTION 1/8 and 1/4 NPT back and lower (11/2" 10055 available in 1/6 NPT back only; 11/2" 1005/1005P available in 1/6 NPT lower and back; 41/2" Type 1000 available in 1/4 NPT only)	Note: For panel mount refrigeration gauge (recovery, recycling) specify 1001T, XRR gauge *All ranges may not be available in all ranges/connections. Please consult individual spec sheets.		
RANGES Vac6000 psi and compound*			
*All ranges listed may not be available in all sizes/ connections. Please consult individual spec sheets.			
Applications include compressors, filter regulators, medical equipment, automotive diagnostic, beverage dispensing, industrial machinery and a variety of other applications.	Applications include instrument panels, air-conditioning equipment, air and gas compressors, machine tools and a variety of other applications.	Applications include hydraulic systems, machine tools, pressure washers/sprayers and a variety of other applications.	This product was designed to withstand rugged agricultural applications. Features include stainless tube and socket, in addition to glass window, necessary for anhydrous ammonia applications.

Quick Guide Commercial Gauges

TYPE 1005P, XUL Sprinkler Service Gauge	TYPE 1007P, XOR Refrigeration Manifold	TYPE 2071 Contractor Gauge	TYPE 23DDG MINIGAUGE® Pressure gauge
120 150 180 90 200 60 200 60 200 740 700 800 800 800 800 800 800 800 800 80	Futurestand of this products	40 50 60 70 20 80 10 0 ASHCROPT	80 120 40 0 0 ph cashCROFTs
ACCURACY ASME B 40.100 Grade B (±3-2-3% of span)	ACCURACY ±1% at zero, ±2% three fourths	ACCURACY ASME B 40.100 Grade A (±2-1-2% of span)	ACCURACY ±5% of span
DIAL SIZE	of scale, ±5% last fourth of scale DIAL SIZE	DIAL SIZE 4½″	 DIAL SIZE 23mm (0.906″)
CASE MATERIAL ABS/polycarbonate blend	2 ¹ / ₂ " CASE MATERIAL	CASE & RING MATERIAL Aluminum with back-flange case, painted	CASE MATERIAL ABS blend, black
WETTED MATERIAL Bronze/brass	ABS, red (high pressure) ABS, blue (low pressure) Optional, black, ABS	black; chrome plated ring WETTED MATERIAL Bronze/brass soldered.	WETTED MATERIAL Beryllium copper tube/brass socket
SENSING ELEMENT Bourdon tube; Ashcroft patented Power <i>Flex™</i>	WETTED MATERIAL Bronze/brass	siphon required for steam service SENSING ELEMENT	Sensing ELEMENT Spiral wound Bourdon tube CONNECTION ½ NPT back with 15mm (%16") wrench flats. Optional, throttle plugs, PT ½" (JIS) and R ½" (BSPT) threads RANGES
CONNECTION	SENSING ELEMENT Bourdon tube; Ashcroft patented Power <i>Flex</i> [™]	Bourdon tube; Ashcroft patented Power <i>Flex™</i> movement	
14 NPT lower RANGES 2000 ppi (uptor) 0.000 ppi potenti	movement with FlutterGuard™ CONNECTION ⅓ NPT lower RANGES	CONNECTION ¼ NPT lower Optional, throttle plugs RANGES Vac-600 psi and compound	
0-300 psi (water), 0-80 psi retard to 250 psi (air), 0-600 psi Optional, dual and triple scale metric dials			60 psi-100 psi (180° dial arc) 160 psi-300 psi (235° dial arc)
	Vac/0/120 psi retard to 250 psi, 0/500 psi Vac/0/500 psi retard to 800 psi, 0/800 psi Optional, alternate refrigerant ranges		Consult factory for high cycle life applications
	Note: for panel mount refrigeration gauges (recovery, recycling) see Type 1001T gauge. Specify 1001T, XRR gauge		
These gauges are UL-393 listed, UL of Canada listed and FM approved for fire protection sprinkler service for either water or air systems.	Typical applications include checking or servicing refrigerant levels in automotive, residential or industrial air-conditioning units; refrigerant recovery and reclamation units; refrigerant transport systems and large scale air-conditioning and chilling equipment.	These gauges are designed to meet the needs of heating, ventilating, plumbing and air-conditioning contractors.	These gauges are perfect for a multitude of applications where a 1½" conventional size gauge is too large, such as mini-FRL's, pneumatic stack valves, air compressors and accessories.



TYPE 12DDG/15DDG DIRECT DRIVE GAUGE

Quick Guide Commercial Gauges



ACCURACY

Standard: ±2% at setpoint (setpoint is normally 50% of range) UL listed: ±3.5% of span of middle three-fifths of scale

DIAL SIZE 11/4, 11/2

CASE MATERIAL Stainless steel, sealed

WETTED MATERIAL Beryllium copper tube/brass socket

SENSING ELEMENT Spiral wound Bourdon tube Optional, silicone dampened tube, silicone-filled tube

CONNECTION

1/8 NPT back, safety plug in 1500 psi-4000 psi ranges. Optional, 1/4 NPT back, throttle plugs

RANGES

 RANGES

 0/60 psi (180° arc)

 0/100 psi, 0/160 psi, 0/200 psi,

 0/300 psi, (235° arc)

 0/700 psi (200° arc)

 0/1,200 psi (180° arc)

 0/1,500 psi (2,000 psi, 0/3,000 psi,

 0/4,000 psi (165° arc)
 0/4,000 psi (165° arc)

Consult factory for high cycle life applications

Applications include pumps, air compressors, portable tire inflators, portable oxy-gen equipment, self-contained breathing apparatus, portable industrial gas cylinders and a variety of other applications.

Quick Guide Diaphragm Seals

			—— Т	HREADE	D	
Specification Ma Ashcroft Diaphragm Se Pressure Instrument Isola F = Female M = Male	als & ators					
Process Connecti	ion Type	Threaded	Threaded w/Flushing Connection	Threaded or Threaded w/Flushing Connection	Threaded or Threaded w/Flushing Connection	Low Pressure Threaded or
Model No.	Code	100/200/300(1)	101/201/301 ⁽¹⁾	400/401 ⁽¹⁾	500/501 ⁽¹⁾	Threaded w/Flushing Conn.* 740/741(1)
Process Connection Size	Female Male	544	594	504	504	
1/4 1/2	25 02 50 04	F/M F/M	F/M F/M	F/M F/M	F/M F/M	F
3/4	75 06	F/M	F/M	F/M	F/M	F
1	10 08	F/M	F/M	F/M	F/M	F
1½	15					
2	20					
3	30					
4	40					
6	60 80					
Diaphragm Materials	00					
316L stainless steel	S	100 & 200	101 & 201	•	•	•
304L stainless steel	С	100 & 200	101 & 201			
Monel 400	Р	100 & 200	101 & 201	•	•	•
Nickel	Ν	100 & 200	101 & 201			
Carpenter 20	D	100 & 200	101 & 201			
Tantalum Hastelloy B	U G	100 & 200 100 & 200	101 & 201 101 & 201	•	•	•
Hastelloy C 22	J	100 & 200	101 & 201	•	•	•
Hastelloy C 276	H	100 & 200	101 & 201	•	•	•
Teflon	Т	200 & 300	201 & 301			
Viton	Y	200 & 300	201 & 301			
Kalrez	К	200 & 300	201 & 301			
Titanium	ТІ	200	201	•	•	•
Halar Coated Monel Bottom Housing Materials	R	100	101			
Steel	В	•	•			•
304L stainless steel	С	•	•			
316L stainless steel	S	•	•	•	•	•
Hastelloy B	G	•	•	•	•	•
Hastelloy C 22	J	•	•	•	•	•
Hastelloy C 276	H	•	•	•	•	•
Carpenter 20 Monel 400	M	•	•		•	•
Inconel 600	W	•	•			
Nickel	Ν	•	•			
PVC	V	Only 1/4 or 1/2 NPT				
Kynar	KY	Only 1/4 or 1/2 NPT				
Titanium	TI	•	•	•	•	•
Pressure Ratings ⁽¹⁾ 500 psi		Viton or Kalrez diaph.	Viton or Kalrez diaph.		•	
2500 psi		Metal & Teflon® diaph.	Metal & Teflon® diaph.		-	750 psi
4400 psi				•		
5000 psi	HP	100 & 200 metal diaph.	101 & 201 metal diaph.	401		
9000 psi	HP			400		
Instrument Connection Size						
1/4	02T 04T	•	•	•	•	•
72 Filling Fluid	041	•	•	•	•	•
Glycerin	CG	•	•	•	•	• ⁽⁴⁾
Silicone (direct to 10' capillary)	СК	•	•	•	٠	•
Silicone (over 10' capillary)	DJ	•	•	•	•	•
Halocarbon	CF	•	•	•	•	•
Syltherm	HA	•	•	•	•	•
Food Grade Silicone Distilled Water	CZ FJ	•	•	•	•	•
Ethylene Glycol & Water	СТ	•	•	•	•	•
Propylene Glycol	CV	•	•	•	•	•
⁽¹⁾ See Table A on pages 170-171		nt compatibility	(1) Oliversite sect	recommended for vacuum, co		1

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility. Minimum pressure is determined by the instrument that will be attached to the diaphragm seal. ⁽⁴⁾ Glycerin not recommended for vacuum, compound or inches of water.

Quick Guide **Diaphragm Seals**

			— т	HREADE	D	
Specification Ma Ashcroft Diaphragm Se Pressure Instrument Isolo	als &					
F = Female M = Male	ABLE		1道1			
Process Connect	ion Type	Diaphragm Seal	Diaphragm Seal	Diaphragm Seal (w/Flushing Connection)	Diaphragm Seal (w/Flushing Connection)	Female & Male Threaded
Model No. Process Connection Size	Code. Female Male	510 ⁽¹⁾	510HP ⁽¹⁾	511	511HP	311
1/4	25 02					F/M
1/2	50 04	M	М	M	М	F/M
3⁄4	75 06 10 08					F/M F/M
11/2	15 00					17101
2	20					
3	30					
4	40					
6 8	60 80					
Diaphragm Materials						
316L stainless steel	S	•	•	•	•	•
304L stainless steel	С					
Monel 400	P	•	•	•	•	
Nickel	N					
Carpenter 20 Tantalum	DU					•
Hastelloy B	G					
Hastelloy C 22	J					
Hastelloy C 276	Н	•	•	•	•	•
Teflon	Т					
Viton	Y					
Kalrez Titanium	K TI					
Halar Coated Monel	R					
Bottom Housing Materials						
Steel	В					
304L stainless steel	С					
316L stainless steel Hastelloy B	S G	•	•	•	•	•
Hastelloy C 22	J					
Hastelloy C 276	Н	•	•	•	•	•
Carpenter 20	D					
Monel 400	Μ	•	•	•	•	
Inconel 600	W					
Nickel PVC	N V					
FVC Kynar	V KY					
Titanium	TI					
Pressure Ratings (1)					1	
500 psi						
1000 psi		•		•		•
1500 psi 2500 psi		•		•		
5000 psi	HP		•		•	
9000 psi	HP					
Instrument Connection Size						
1/4	02T					•
½ Filling Fluid	04T	•	•	•	•	•
Glycerin	CG	•	•	•	•	•
Silicone (direct to 10' capillary)	СК	•	•	•	•	•
Silicone (over 10' capillary)	DJ	•	•	•	•	•
Halocarbon	CF	•	•	•	•	•
Syltherm	HA	•	•	•	•	•
Food Grade Silicone Distilled Water	CZ FJ	•	•	•	•	•
Ethylene Glycol & Water	CT	•	•	•	•	•
Propylene Glycol	CV	•	•	•	•	•
⁽¹⁾ See Table A on pages 170-171 of	of OH-1 for instrument c	ompatibility.	•	•	•	

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility. Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.
 ⁽²⁾ Type 300 series not available with metallic diaphragms.
 ⁽³⁾ Type 302/303 not available with 1[°] process size.

Quick Guide Diaphragm Seals

——————————————————————————————————————						
Specification Mar Ashcroft Diaphragm Sec Pressure Instrument Isola F = Female M = Male	als & tors LE	Female Threaded	Male/Female Threaded Mini	1 [°] Male		In-line
Process Connecti Model No.	on Type Code	(w/Flushing Connection)	(w/Flushing Connection) 310/315*	Flush Mini 330	Quick Connect 320/321	Threaded 104/204
Process Connection Size	Female Male	312	310/315"	330	320/321	104/204
1/4	25 02	F	F/M			F
1/2	50 04	F	F/M			F
³ ⁄ ₄	75 06 10 08		M	М		
1½	15				•	
2	20				•	
3	30					
4 6	40 60					
8	80					
Diaphragm Materials						
316L stainless steel	S	•	•	•	•	•
304L stainless steel	С					•
Monel 400 Nickel	P N		•			•
Carpenter 20	D					•
Tantalum	U	•				•
Hastelloy B	G		•			•
Hastelloy C 22	J					•
Hastelloy C 276 Teflon	H T	•	•			• 204
Viton	Y					204
Kalrez	К					204
Titanium	TI					•
Halar Coated Monel	R					104
Bottom Housing Materials Steel	В					•
304L stainless steel	C					•
316L stainless steel	S	•	•	•	•	•
Hastelloy B	G		•			•
Hastelloy C 22	J					•
Hastelloy C 276 Carpenter 20	H	•	•			
Monel 400	M		•			•
Inconel 600	W					•
Nickel	Ν					•
PVC	V					
Kynar Titanium	KY TI					•
Pressure Ratings (1)						
500 psi						Viton or Kalrez diaph.
1000 psi		•			•	
2500 psi			•			Metal & Teflon® diaph.
3000 psi 5000 psi	HP			•		
9000 psi	HP					
Instrument Connection Size						
1/4	02T	•	•	•	•	•
1/2 Filling Fluid	04T	•	•	•	2" only	•
Glycerin	CG	•	•	•	•	•
Silicone (direct to 10' capillary)	СК	•	•	•	•	•
Silicone (over 10' capillary)	DJ	•	•	•	•	•
Halocarbon	CF	•	•	•	•	•
Syltherm Food Grade Silicone	HA CZ	•	•	•	•	•
Distilled Water	FJ	•	•	•	•	•
Ethylene Glycol & Water	СТ	•	•	•	•	•
Propylene Glycol	CV	•	•	•	•	•

NASHCROFT[®]

Quick Guide **Diaphragm Seals**

F L A N G E D						
Specification Ma Ashcroft Diaphragm Sea Pressure Instrument Isola F = Female M = Male	als & itors			E		P Tr
Process Connection	on Type	Raised Face Flange	Raised Face Flange w/Flushing Connection	In-Line Flanged	Raised Face Flange *w/Flushing Connection	Low Pressure Flanged *w/Flushing Connection
Model No.	Code	102/202/302(1,2)	103/203/303(1,2)	106/206	402/403*	702/703*
Process Connection Size						
1/4	25					
1/2	50	•	•	•	•	•
3/4	75	•	•	•	•	•
1 1½	10 15			•	•	•
2	20					
3	30		•	•	•	•
4	40	-	-	•	-	-
6	60			•		
8	80			•		
Diaphragm Materials						
316L stainless steel	S	102 & 202	103 & 203	•	•	•
304L stainless steel	С	102 & 202	103 & 203	•		
Monel 400	Р	102 & 202	103 & 203	•	•	•
Nickel	Ν	102 & 202	103 & 203	•		
Carpenter 20	D	102 & 202	103 & 203	•		
Tantalum	U	102 & 202	103 & 203	•	•	•
Hastelloy B	G	102 & 202	103 & 203	•	•	•
Hastelloy C 22	J	102 & 202	103 & 203	•	•	
Hastelloy C 276	Н	102 & 202	103 & 203	•	•	•
Teflon	Т	202 & 302	203 & 303	206		
Viton	Y	202 & 302	203 & 303	206		
Kalrez	K	202 & 302	203 & 303	206		
Titanium	TI	202	203	206	•	•
Halar Coated Monel	R	102	103	106		
Bottom Housing Materials						
Steel	B C	•	•	•		
304L stainless steel		•	•	•		
316L stainless steel Hastelloy B	S G	•	•	•	•	•
Hastelloy C 22	J			•		
Hastelloy C 22	H		•	•	•	
Carpenter 20	D	•	•	•		•
Monel 400	M	•	•	•	•	•
Inconel 600	W	•	•			
Nickel	Ν	•	•			
PVC	V	1, 1½, 2				
Kynar	KY	1, 1½, 2				
Titanium	TI	•	•		•	•
Pressure Ratings (1)					·	
500 psi						
2500 psi						
Flange Class						
150, 300, 600, 900 or 1500		•	•	150	•	150, 300, 600
Instrument Connection Size				i		
1/4	02T	•	•	•	•	•
1/2	04T	•	•	•	•	•
Filling Fluid	00					
Glycerin	CG	•	•	•	•	•
Silicone (direct to 10' capillary)	CK	•	•	•	•	•
Silicone (over 10' capillary)	DJ	•	•	•	•	•
Halocarbon	CF	•	•	•	•	•
Syltherm	HA	•	•	•	•	•
Food Grade Silicone Distilled Water	CZ FJ	•	•	•	•	•
Ethylene Glycol & Water	CT	•	•	•		
Propylene Glycol	CV		•			
горунепе Слусон	07	•	•	•	•	· ·

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility. Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.
 ⁽²⁾ Type 300 series not available with metallic diaphragms.
 ⁽³⁾ Type 302/303 not available with 1" process size.

Quick Guide **Diaphragm Seals**

			-IN-LINE		
pecification Mat shcroft Diaphragm Sec essure Instrument Isolat	lls & tors				00
F = Female M = Male	BLE				
		Saddle	In-line Socket Weld	In-line Butt Weld	Isolation Ring
Process Connection Size		105/205	107/207	108/208	80/81
	25		•	•	Pipe Size (inches) 2.0 Type 80 only
1/2	50		•	•	3.0 12.0
3/4	75		•	•	4.0 14.0
1	10		•	•	5.0 16.0
11/2	15		•	•	6.0 18.0
2	20		•	•	8.0 20.0
3	30	3″			10.0
4	40	4" and larger			
8	60 80				
o Diaphragm Materials	80				Inner Flexible Wall
316L stainless steel	S	•	•	•	Buna N (E)
304L stainless steel	C	•	•	•	Teflon (T)
Monel 400	P	•	•	•	Viton (Y)
Nickel	N	•	•	•	Natural Rubber (NP)
Carpenter 20	D	•	•	•	Silicone (S)
Tantalum	U	•	•	•	
Hastelloy B	G	•	•	•	
Hastelloy C 22	J	•	•	•	
Hastelloy C 276	Н	•	•	•	
Teflon	Т	205	207	208	
Viton Kalrez	Y K	205 205	207	208 208	
Titanium	TI	205	207 207	208	
Halar Coated Monel	R	105	107	108	
Bottom Housing Materials					Ass'y. Flanges / Code
Steel	В	•	•	•	Carbon Steel (B)
304L stainless steel	С	•	•	•	316 SS (S)
316L stainless steel	S	•	•	•	CPVC (CP)
Hastelloy B	G	•	•	•	Teflon Enveloped (CT)
Hastelloy C 22	J	•	•	•	Polypropylene (P)
Hastelloy C 276	Н	•	•	•	
Carpenter 20	D	•	•	•	
Monel 400 Inconel 600	M W	•	•	•	
Nickel	N				
PVC	V				
Kynar	KY				
Titanium	TI				
ressure Ratings (1)					
500 psi		Viton or Kalrez diaph. only	Viton or Kalrez diaph. only	Viton or Kalrez diaph. only	
2500 psi		Metal & Teflon® diaph.	Metal & Teflon® diaph.	Metal & Teflon® diaph.	
lange Class					
150, 300, 600, 900 or 1500					150 or 300
nstrument Connection Size	TCO	•	•	•	1/4 NPT (201)
1/4 1/2	02T 04T	•	•	•	1/4 NPT (02T) 1/2 NPT (04T)
⁷² Filling Fluid	041	•	•		1/2 11/2 1 (041)
Glycerin	CG	•	•	•	•
Silicone (direct to 10' capillary)	СК	•	•	•	•
Silicone (over 10' capillary)	DJ	•	•	•	•
Halocarbon	CF	•	•	•	•
Syltherm	HA	•	•	•	•
Food Grade Silicone	CZ	•	•	•	•
Distilled Water	FJ	•	•	•	•
Ethylene Glycol & Water	CT	•	•	•	•
Propylene Glycol	CV	•	•	•	•

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility. Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.
 ⁽²⁾ Type 300 series not available with metallic diaphragms.
 ⁽³⁾ Type 302/303 not available with 1" process size.

Quick Guide Transducers & Transmitters

MODEL GC31 TYPE GC55 **MODEL GC35 ULTRA-COMPACT TYPE GC51 RANGEABLE** WET/WET DIFFERENTIAL **ULTRA-COMPACT DIGITAL** DIGITAL PRESSURE SENSOR PRESSURE TRANSMITTER PRESSURE SENSOR PRESSURE TRANSDUCER ACCURACY: ±1.0% Span ACCURACY: ±1.0% Span ACCURACY: ±0.25% Span (URL)0 ACCURACY: ± 0.5% Span ANALOG OUTPUT: (1-5Vdc) ANALOG OUTPUT: (4-20mA) ANALOG OUTPUT: 4-20mA (2-wire) ANALOG OUTPUT: (4-20mA or 1-5Vdc) DISPLAY TYPE: 3½ digit, 10mm LED DISPLAY TYPE: 4 digit, 8mm LED DISPLAY TYPE: 4 digit, 10mm LCD with DISPLAY TYPE: 3½ digits LED backlight STANDARD RANGES (Gauge): STANDARD RANGES (Gauge): STANDARD RANGES (Differential): STANDARD RANGES (Compound): 50 to 1500 psia 50 to 7500 psig 75 to 300 psid STANDARD RANGES (Compound): -15 to 15 psig thru -15 to 300 psig –15 to 15 psi thru –15 to 50 psi STANDARD RANGES (Compound): Pressure Range STANDARD RANGES (Gauge): Burst -15 to 75 psig thru -15 to 300 psig **Proof Pressure:** Proof Proof Pressure: 2X Span (URL) 10X Span (URL) 50 to 7500 psig Overpressure (Span): 2X range: 500 psi & below Ranges 1500 psig & below: 4X range Proof Burst Static (Line) Pressure Effects: None Ranges 3000 psig & above: 2.5X range 1.5X range: 1000 psi & above 1500 psi and below 200% 500% Single Side (Differential Limits): 3000, 5000 psi Burst Pressure: **Burst Pressure:** 150% 300% Pressure Range 10X range Ranges 1500 psi & below: 10X range 7500 psi 120% 150% Proof Burst Ranges 3000 psi & below: 5X range SWITCH CONTACTS: **ENVIRONMENTAL RATING:** ΔII 2X Span (URL) 10X Span (URL) (2) NPN or PNP open collector outputs Ranges 5000 psi & above: 3X range IP65 / NEMA 4X MEDIA: Fluids and gases compatible with MEDIA: Fluids and gases compatible with SWITCH CONTACTS: MEDIA: Fluids and gases compatible with 304SS (sensor housing) and 17-4 pH SS 304SS (sensor housing) and 17-4 pH SS (2) NPN or PNP open collector outputs 316SS and pH17-4 stainless steel (sensor diaphragm) (sensor diaphragm) MEDIA: Fluids and gases compatible with AGENCY APPROVALS: CE ENVIRONMENTAL RATING: IP66 **ENVIRONMENTAL RATING: IP40** 304SS (sensor housing) and 17-4 pH SS (sensor diaphragm) AGENCY APPROVALS: CE LOOK FOR THIS MARK ON OUR PRODUCT ENVIRONMENTAL RATING: IP40 LOOK FOR THIS MARK ON OUR PRODUCT AGENCY APPROVALS: CE LOOK FOR THIS MARK ON OUR PRODUCT This ultra-compact pressure sensor is used Compact high-differential pressure Ultra-compact digital pressure sensor, ideal Compact pressure transmitter used to transducer for filter monitoring on HVAC hydronic cooling/heating systems and pump controls. Model contains two on a wide variety of applications where for monitoring pressures within hydraulic monitor wet/dry media pressures within process automation, hydraulic systems, consistent, reliable pressure measurement presses/stamping equipment and lifts, is essential. The GC31 features an integral water/wastewater pressure control and cooling / lubrication systems. This versatile sensor offers a highly visible LED display compressors, pumps and tank level display, user scalable analog ouput and polysilicon thin film sensors with welded applications. two independent switches. Ideal for Stainless Steel wetted components to monitoring and control of pneumatic and for local indication. Product features allow accommodate wet or dry pressure media. hydraulic systems where high cycle life and the user to configure the analog scaling to The product features a bright LED front functionality is required. any range within the full scale of the sensor panel display for local indication and button range while integrated switches offer actuto allow the user to select between the dP value and line pressure readings from ation and deadband to any points within the full scale range. either sensor.



Quick Guide Transducers & Transmitters



Quick Guide Transducers & Transmitters

TYPE G2 KM15 HIGH VOLUME K1/K2 SERIES K8 SERIES OEM PRESSURE TRANSDUCER OEM PRESSURE TRANSDUCER INDUSTRIAL TRANSDUCER TRANSDUCER w/mV SIGNAL Cable Connection Hirschmann Connection Metri-Pack ACCURACY: ±0.5%, ±1.0% Span ACCURACY: ACCURACY: ACCURACY: ±0.5%, ±1.0% Span ±0.5% Span, 100 psig and above ±1.0% Span, 75 psig and below ±1% Span: through –20/85°C (–4/185°F) ±1.5% Span: through –40/–20°C and OUTPUT: Varies from 6-18 mV/V at Span OUTPUT: ratiometric K1: 4-20mA, 1,5Vdc, 1-6Vdc, 1-11Vdc K2: 2, 3, 10, 20 mV/V (-40/-4°F) and 85/125°C (185/257°F). OUTPUT: 1-5Vdc, 1-6Vdc, STANDARD RANGES: OUTPUT: 4-20mA, 0-5Vdc, 0-10Vdc, 0.5-4.5Vdc (ratiometric) Pressure Ranges (Span): 45 to 20,000 psig Overpressure (Span): Proof Burst **ENVIRONMENTAL RATING:** 1-5Vdc. 1-6Vdc. 0.5-4.5Vdc (ratiometric) ENVIRONMENTAL RATING: IP67 NEMA 1. NEMA 4X ENVIRONMENTAL RATING: $\leq 2000 \text{ psig}$ 2 x Span 2 x Span STANDARD RANGES: STANDARD RANGES: 3000 to 5000 psig 1.5 x Span 3 x Span NEMA 4X JP65 and JP67 Pressure Ranges (Span): 15 to 7500 psig/s, Pressure Ranges (Span): 15 to 20,000 psig, 7500 to 20,000 psig 1.2 x Span 1.5 x Span compound to 60 psig Overpressure (Span): Proof STANDARD RANGES: compound to 300 psig Pressure Ranges (Span): 30 to 20,000 psig, compound to 300 psig ENVIRONMENTAL RATING: NEMA 4X Overpressure (Span): Proof Burst Burst \leq 2000 psig 2 x Span 8 x Span 3000 to 5000 psig 1.5 x Span 3 x Span \leq 3000 psig 2 x Span 5 x Span Overpressure: (Varies w/pressure range) 1.5 x Span 5 x Span 5000 psig Proof: up to 3 x Span 7500 tpsig 1.2 x Span 5 x Span 7500 to 20,000 psig 1.2 x Span 1.5 x Span Burst: up to 10 x Span AGENCY APPROVALS: CE AGENCY APPROVALS: AGENCY APPROVALS: CE Intrinsically Safe - FM (consult factory) I OOK FOR THIS MARK ON OUR PRODUCT LOOK FOR THIS MARK > LOOK FOR THIS MARK ON OUR PRODUCT FM A robust pressure transducer designed for An economical transducer designed for the A versatile and proven industrial transducer A pressure transducer for applications that OEM applications featuring Ashcroft's proven high volume OEM. Product features include with an extensive installed base. Wide range of can incorporate an unconditioned mV/V outpolysilicon thin film pressure sensing elevoltage outputs, a variety of pressure ports pressure fittings and electrical terminations put and require the proven benefits of the and electrical terminations to international standards with excellent accuracy and per-formance over –30 to 120°C (–25 to 250°F). IP67 ingress rating and 100V/m EMC ment. Product features include voltage and along with FM hazardous area approvals. polysilicon thin film pressure sensing elecurrent outputs, a variety of pressure ports ment. A broad range of pressure fittings allow and electrical terminations to international the user design flexibility in packaging. standards with excellent accuracy and performance over -40 to 125°C, (-40 to 257°F). immunity.

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CXLdp SERIES DIN/PANEL/WALL MOUNT	DXLdp SERIES DIN MOUNT	RXLdp SERIES REDUCED SIZE	XLdp SERIES HIGH PERFORMANCE
S YEAR WARRANTY		STEAR WARRANT	S VEAR MARRANT
ACCURACY: 0.8% or 0.4% Span	ACCURACY: 0.25%, 0.50% or 1.00% Span	ACCURACY: 1.00% Span	ACCURACY: 0.25% or 0.50% Span
OUTPUT SIGNAL: 4-20mA, (12-36Vdc), 0-5, 0-010Vdc (24Vac/Vdc)	OUTPUT SIGNAL: 4-20mA, (12-36Vdc), 1-5Vdc, 1-6Vdc, 0-5Vdc, 0-10Vdc	OUTPUT SIGNAL: 4-20mA, (12-36Vdc), 1-5Vdc, 1-6Vdc, 0-5Vdc, 0-10Vdc	OUTPUT SIGNAL: 4-20mA, (12-36Vdc), 1-5Vdc, 1-6Vdc
PRESSURE RANGES (Inches W.C.) Unidirectional: 0.10 to 0/25 I.W.C. Bidirectional: ±0.10 to ±15 I.W.C. Overpressure Proof Pressure: Proof Pressure: 15 psi Burst Pressure: 25 psi	PRESSURE RANGES (Inches W.C.): Unidirectional: 0.10 to 100 I.W.C. Bidirectional: ±0.05 to ±100 I.W.C. Overpressure Proof Pressure: 15 psi Burst Pressure: 25 psi 25 psi	PRESSURE RANGES (Inches W.C.): Unidirectional: 0.10 to 50 I.W.C. Bidirectional: ±0.05 to ±50 I.W.C. Overpressure Proof Pressure: 15 psi Burst Pressure: 25 psi Spin	PRESSURE RANGES (Inches W.C.): Unidirectional: 0.10 to 100 I.W.C. Bidirectional: ±0.05 to ±100 I.W.C. Overpressure Proof Pressure: 15 psi Burst Pressure: 25 psi
ENVIRONMENTAL RATING: NEMA 1	Max. static (line) pressure: 25 psi	Max. static (line) pressure: 25 psi	Max. static (line) pressure: 25 psi
MOUNTING: DIN rail or panel mount	MOUNTING: DIN rail mount: EN50022	MEDIA Clean, dry and non-corrosive gas	MEDIA Clean, dry and non-corrosive gas
MEDIA: Clean, dry and non-corrosive gas	EN50035 EN50045	(consult factory for use on other media)	(consult factory for use on other media)
NOT FOR USE ON LIQUIDS	MEDIA	NOT FOR USE ON LIQUIDS	NOT FOR USE ON LIQUIDS
ENVIRONMENTAL RATING: NEMA 1	Clean, dry and non-corrosive gas (consult factory for use on other media)	ENVIRONMENTAL RATING: NEMA 1	ENVIRONMENTAL RATING: NEMA 2
AGENCY APPROVALS: CE	NOT FOR USE ON LIQUIDS	AGENCY APPROVALS: CE (optional)	AGENCY APPROVALS: CE (optional)
	ENVIRONMENTAL RATING: NEMA 1	CC LOOK FOR THIS MARK	
LOOK FOR THIS MARK ON OUR PRODUCT	AGENCY APPROVALS: CE		
	CE LOOK FOR THIS MARK IN OUR PRODUCT		
Static or velocity pressure measurement for flow stations, ducts, building pressure, filter efficiency, van boxes or room pressurization.	Designed for ease of installation and system calibration, the DXLdp is ideal for pharmaceu- tical plants and other installations where large numbers of air flow and dp measurements are being monitored.	A compact transmitter for comfort control and other HVAC applications.	High performance dp transmitter with proven reliability and stability. Excellent for air han- dling applications including fume hood control and room pressurization.

Quick Guide Transducers & Transmitters

IXLdp SERIES INDUSTRIAL	TYPE T5500E PROCESS GAUGE WITH OUTPUT	TYPE DM61 DIGITAL PANEL METER	TYPE 4080, 4480 PNEUMATIC TRANSMITTER
SYERRUCE	BIR BIR I	NEW SYEAR	
ACCURACY: 0.25% or 0.50% Span	ACCURACY:	ACCURACY: 0.10% of span	OUTPUT RANGES, PSI: 3-15 & 3-27 (see
OUTPUT SIGNAL:	OUTPUT SIGNAL:	DISPLAY: 6 Digit	note below for vacuum application)
4-20mA, 1-5Vdc, 1-6Vdc, ±5Vdc, ±2.5Vdc	PRESSURE RANGES:	POWER: 12 or 24 V Power Supply	SUPPLY AIR REQUIREMENTS: 18-20 psi for 3-15 psi range;
PRESSURE RANGES (Inches W.C.): Unidirectional: 0.10 to 200 I.W.C.		INPUTS: Field Selectable: 0-20, 4-20mA, ±10 Vdc, 0-5 Vdc, 1-5 Vdc, 0-10 Vdc,	30-35 psi for 3-27 psi range AIR CONSUMPTION SCFM: 0.1
Bidirectional: ±0.05 to ±100 I.W.C. Overpressure	DIAL SIZE: CASE MATERIAL:	Modbus PV (slave)	SPEED OF RESPONSE: Time constant of 4
Proof Pressure: 20 psi Burst Pressure: 50 psi	SENSING ELEMENT:	BUTTONS/DISPLAY & MIN/MAX VALUES: User-Programmable and User-Defined	seconds per 500 ft of tubing
Max. static (line) pressure: 100 psi	WETTED MATERIAL:	ENVIRONMENTAL: Operating Temperature Range:	AIR CONNECTION: 1/4 NPT Female ACCESSORIES: See optional features and
MEDIA Clean, dry and non-corrosive gas	AGENCY APPROVALS:	-40°C to 65°C (-40°F to 149°F) Storage Temperature Range:	accessories
(consult factory for use on other media)		-40°C to 85°C (-40°F to 185°F) Relative Humidity: 0-90% R.H. non-condensing	TRANSMISSION DISTANCE: 1000 ft MOUNTING WEIGHT:
	LOOK FOR THIS MARK	ENCLOSURE: 1/8 DIN, high impact plastic,	Approximate weight 9 lb
ENVIRONMENTAL RATING: NEMA 4X AGENCY APPROVALS: FM	-	UL 94V-0	REPEATABILITY % OF SPAN: 0.15
		CONNECTIONS: Removable screw terminal blocks accept	ACTUATION: Bourdon Tube
LOOK FOR THIS MARK ON OUR PRODUCT		12 to 22 AWG wire, RJ45 for external relays, digital I/O, and serial communica-	316 SS
\sim		tion adapters ALARM POINTS: 2 or 4 SPDT (Form C)	AMBIENT TEMPERATURE EFFECT: 1/2% per 50°F
		internal and/or 4 SPST (Form Å) external	PROCESS CONNECTION: 1/2 NPT (ordering code 04L)
		ALARM DEADBAND: 0-100%, User-Se- lectable	Note: Vacuum application: The transmitted
		OPTION: Expansion Modules For Relays, Digital I/O and USB, RS-232 and RS-485 Communi- cations Adapters	air pressure increases as the measured vacuum approaches zero
		CUD US CE LOOK FOR THIS MARK LISTED	
A rugged low pressure transmitter in cast 300 series stainless steel enclosure. A good choice for dp monitoring in pollution con- trol, combustion control, and other applica- tions where precision sensing is needed in a tough environment.	Product combines a reliable, local, analog pressure indication with 4-20mA transmit- ter. The wide selection of system materials and corrosion-proof housing meet a variety of demanding applications including those with vibration and pulsation.	The new Digital Panel Meter is a multi-pur- pose meter used to control and/or monitor transmitter applications involving level, flow or pressure. The user-friendly/ field-programmable device offers a 6 digit LED display, min./max. capability, relay/ alarm functions and password protection; all which complement the expanding Ashcroft transducer line.	The Ashcroft transmitter is a self-nulling motion-balance instrument, using a pneu- matic relay operating on the nonbleed force balance principle for converting input pres- sures into proportional low air pressure signals for transmittal to remote indicators or controllers.

Quick Guide Temperature Instruments

EI, CI & EL INDUSTRIAL Bimetal Thermometers	600A & 600B DURATEMP® Thermometers	AR10 & AT10 STANDARD PROCESS RTD's & THERMOCOUPLES	AR20 and AT20 PROCESS RTD's THERMOCOUPLES
10 150 1 7 250 1 00 550 50 200 1 00 550 50 200 50 200 5	250 + 450 550 - 450 500 - 12 750 0 - 12 750		
ACCURACY ASME B 40.3 Grade A (±1% of span)	ACCURACY ASME B 40.3 Grade A (±1% of span)	SPECIFICATIONS 1. Ashcroft Series: AR10 & AT10	SPECIFICATIONS 1. Ashcroft Series: AR20 & AT20
DIAL SIZE EI, CI 2, ~3, ~5~ (EL 3, ~5~)	DIAL SIZE $600A - 4^{1/2}$, 6" $600B - 4^{1/2}$ "	2. Insert Stem Diameter: 3 mm, 4.5 mm, 6 mm, 8mm 3. Stem Length:	2. Insert Stem Diameter: 3 mm, 4.5 mm, 6 mm, 8mm, 1/8," 3/16," 1/4" 3. Stem Length:
STEM/BULB DESIGN Rigid stem 0.250″ dia.	STEM/BULB DESIGN Rigid stem 0.375" dia. (600B) Bendable 0.375" dia. (600A)	Minimum: 0.05 m (2 in.) Maximum: 100 m (3937 in.) 4. Sensor Type & Measuring Range:	Minimum: 0.05 m (2 in.) Maximum: 100 m (3937 in.) 4. Sensor Type & Measuring Range:
(EI, EL external), (CI none) SEALING DESIGN	RECALIBRATOR Adjustable pointer	AR10 RTDs Pt 100: -200 to +600°C Pt 1000: -40 to +600°C AT10 Thermocouples	AR20 RTDs Pt 100: -200 to +600°C Pt 1000: -40 to +600°C AT20 Thermocouples Type J: -40 to +750°C Type E: -200 to +800°C Type K: -200 to +1100°C Type N: -200 to +1100°C 5. Wiring Configuration AR20 RTDs 2 wire
Hermetically sealed; EL liquid filled DAMPENING Silicone-dampened bimetal coil;	SEALING DESIGN Weatherproof DAMPENING	Type J: -40 to +750°C Type E: -200 to +800°C Type E: -200 to +1100°C	
EL liquid filled CONNECTION LOCATION El rear, lower, Everyangle™ mount Cl rear, lower EL rear, Everyangle mount	Silicone-encapsulated helical Bourdon tube CONNECTION LOCATION 600A – rear, lower – remote mount 600B – Everyangle – direct mount	Type N: -200 to +1100°C 5. Wiring Configuration AR10 RTDs 2 wire	
CONNECTION SIZES (NPT) Plain ¹ / ₄ (2" sizes only)	CONNECTION SIZES (NPT) 1/2" fixed or union	3 wire 4 wire AT10 Thermocouple 2 wire	3 wire 4 wire AT20 Thermocouple 2 wire
1/2 and 1/2 fixed or union (3," 5" sizes only) STEM LENGTH	STEM LENGTH 6 [~] -36 [~] – 600B	6. Accuracy Class: AR10 RTDs (IEC 60751)	6. Accuracy Class: AR20 RTDs (IEC 60751)
21/2~-60″	CAPILLARY LENGTH 5´-80´ - 600A	Class A Class B	Class A Class B
RANGES -80°F to 1000°F, -50°C to 500°C EL -40°F to 550°F, -20°C to 300°C	RANGES -320°F to 1200°F -200°C to 650°C	1/2 Class B 1/3 Class B AT10 Thermocouples (IEC 60584-2)	1/2 Class B 1/3 Class B AT20 Thermocouples (IEC 60584-2)
CASE/RING MATERIAL Stainless steel	CASE/RING MATERIAL Stainless steel, aluminum, phenol	Class 1 Class 2 Class 3	Class 1 Class 2 Class 3
CASE/BULB MATERIAL Stainless steel	CASE/BULB MATERIAL Stainless steel	AT10 Thermocouples (ANSI MC96.1) Standard	AT20 Thermocouples (ANSI MC96.1) Standard
WINDOW EI, CI glass (EL Polycarbonate)	CAPILLARY MATERIAL 600A– 300 Series stainless steel	Special 7. Process Connection G 1/2 A male	Special 7. Process Connection 1/2 NPT male
	WINDOW Glass	G 3/4 A male M14 x 1.5 male M18 x 1.5 male 1/2 NPT male	
General industrial temperature applications including gases, liquids, and other processes. All stainless steel construction.	Rugged applications including gases, liquids and other processes. Wide temperature ranges including remote monitoring.	 APPLICATIONS INCLUDE Process temperature measurements for liquefied natural gas systems, and power generation systems. Exhaust gas temperature measurements for hazardous environments. Reactor measurements in petrochemical 	 APPLICATIONS INCLUDE Process temperature measurements for power generation. Exhaust gas temperature measurements for diesel engines. Bearing temperature measurements for turbines. Oven temperature measurements for industrial drying ovens.

ASHCROFT[®]

Quick Guide Temperature Instruments

AT30 SKIN TYPE THERMOCOUPLES	THREADED THERMOWELLS	FLANGED THERMOWELLS	SOCKET-WELD THERMOWELLS
SPECIFICATIONS 1. Ashcroft Series: AT30 2. Insert Stem Diameter: 6 mm, 8mm, 3/8" 3. Stem Length: Minimum: 0.25 m (9.84 in.) Maximum: 550 m (2165 in.) 4. Sensor Type & Measuring Range:	 KEY FEATURES Straight, stepped or tapered designs One piece bar stock Wide selection of sizes, material and dimensions Stamped with date code, material and heat numbers 	KEY FEATURES • Straight, stepped or tapered designs • One piece bar stock • Wide selection of sizes, material and dimensions • Stamped with date code, material and heat numbers • Full penetration weld	 KEY FEATURES Straight, stepped or tapered designs One piece bar stock Wide selection of sizes, material and dimensions Stamped with date code, material and heat numbers
AT30 Thermocouples Type J –200 to +750°C Type K –200 to +1100°C 5. Wiring Configuration AT30 Thermocouples 2 wire 6. Accuracy Class: AT30 Thermocouples (IEC 60594-2)	SPECIFICATIONS Process connection: 1/2, 3/4 and 1 NPT Bore size: .260", .385" Instrument connection: 1/2 NPSM 1/2 NPT Others on request for all above specifications MATERIALS: 304 stainless steel 316 stainless steel Brass Carbon steel Many other alternate materials available on request. TESTS & CERTIFICATIONS:	SPECIFICATIONS Process connection: Raised face, flat & ring joint flanges Ratings: 150#, 300#, 600#, 900#, 1500#, & 2500# Instrument connection: 1/2 NPSM	SPECIFICATIONS Process connection: 3/4 and 1 pipe sizes Bore size: .260', .385'' Instrument connection: 1/2 NPSM 1/2 NPT Others on request for all above specifications
AT30 Thermocouples (IEC 60584-2) Class 1 Class 2 Class 3 AT30 Thermocouples (ANSI MC96.1) Standard Special 7. Process Connection		1/2 NPT Others on request for all above specifications MATERIALS: 304 stainless steel 316 stainless steel Brass Carbon steel	MATERIALS: MATERIALS: 304 stainless steel 316 stainless steel Brass Carbon steel Many other alternate materials available on request.
1½ NPT male Flanged	Hydrostatic testing MTR's PMI NACE Wake frequency calculations	Many other alternate materials available on request. TESTS & CERTIFICATIONS: Hydrostatic testing MTR's PMI NACE	TESTS & CERTIFICATIONS: Hydrostatic testing MTR's PMI NACE Wake frequency calculations
		Wake frequency calculations Dye penetrant test	
APPLICATIONS • Surface temperature measurements for			

- Surface temperature measurements for steam lines in power generation processes.
- Wall temperature measurements for reactor vessels in chemical and petrochemical processes.
- Flat surface temperature measurements in industrial processes.

Quick Guide Pressure and Temperature Switches

SINGLE SETPOINT WATERTIGHT ENCLOSURES

B-SERIES



FEATURES

Enclosure: Watertight epoxy-coated aluminum NEMA 4, 4X, IP66

Switch Function: Single setpoint, fixed deadband, SPDT (or) Single setpoint, fixed deadband, (2) SPDT (DPDT action)

Wetted Materials: Stainless steel and Buna, *Teflon® or Viton® (or)

Àll-welded stainless steel (or) All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi Temperature: -40° f hru 750°F Differential Pressure: 30 in.H₂0 diff. thru 600 psid H-Series Pressure: 1000 – 7500 psi

U.L. and CSA LISTED

*Registered trademark of E. I. DuPont







SINGLE SETPOINT EXPLOSION

PROOF ENCLOSURES

FEATURES

Enclosure: Explosion proof, NEMA 7/9, IP66

Switch Function: Single setpoint, fixed deadband, SPDT (or) Single setpoint, fixed deadband, (2) SPDT (DPDT action)

Wetted Materials: Stainless steel, Buna, Teflon® or Viton® (or) All-welded stainless steel (or) All-welded Monel

Ranges: Pressure: vac. thru 3000 psi Temperature: -40°F thru 750°F Differential Pressure: 30 in.H₂O diff. thru 600 psid

U.L. or CSA LISTED, ATEX and IECEx models for Hazardous locations now available.

Dual Seal Rating now available

LOOK FOR THESE MARKS ON OUR PRODUCTS





DUAL SETPOINT

WATERTIGHT ENCLOSURES

Enclosure: Watertight epoxy-coated aluminum NEMA 4, 4X, IP66

Switch Function: Single setpoint, fixed deadband, SPDT contacts (or) Single setpoint, fixed deadband, (2) SPDT contacts (DPDT action) (or) Single setpoint, adjustable deadband, SPDT contacts (or) Dual setpoint, fixed deadband, (2) SPDT contacts, (DPDT action)

Wetted Materials: Stainless steel and Buna, Teflon[®] or Viton[®] (or)

All-welded stainless steel (or) All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi Temperature: –40°F thru 750°F Differential Pressure: 30 in.H₂O diff. thru 400 psid

U.L. and CSA LISTED

LOOK FOR THESE MARKS ON OUR PRODUCTS



Easy-to-use L-Series switches are specifically suited for the OEM seeking more features in a snap-acting switch. Single or dual setpoints and fixed or adjustable deadband models with many wetted materials and electrical ratings are offered. This snap-acting switch also replaces older mercury models and is cost effective.

L-Series switches are ideal for blowers, generators, scrubbers, precipitators, compressors and turbines.

P-SERIES

DUAL SETPOINT EXPLOSION

PROOF ENCLOSURES

FEATURES

Enclosure: Watertight epoxy-coated aluminum explosion-proof NEMA 7/9, IP66

Switch Function:

Single setpoint, fixed deadband, SPDT contacts (or) Single setpoint, fixed deadband (2) SPDT contacts (DPDT action) (or) Single setpoint, adjustable deadband, SPDT contacts (or) Dual setpoint, fixed deadband (2) SPDT contacts, (DPDT action)

Wetted Materials:

Stainless steel and Buna, Teflon® or Viton® (or) All-welded stainless steel (or)

All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi Temperature: -40°F thru 750°F Differential Pressure: 30 in.H₂O diff. thru 400 psid

U.L. or CSA LISTED

Dual Seal Rating now available



More varieties and more features are available in the highly reliable P-Series switch which is especially suited for process and refinery applications. Dual chamber design allows setpoint changes to be made safely, even with power connected. Features include NEMA 4X/ NEMA 7/9 enclosure, with single or dual setpoints, fixed or adjustable deadbands, with many wetted materials and electrical ratings. Dual Seal Rating models available. Optional, all-welded stainless steel or Monel actuators are ideal for applications requiring NACE or fire-safe conformance. Optional UL listed, hermetically sealed switch contacts improve safety and reliability.

General purpose switches for most industrial and process applications. Models are available for steam and fuel pressure-limit controls on boilers and burners. Ideal for compressors, turbines, filters, blowers, etc.

Ashcroft 700 series has been developed for most applications found in process plants U.L. or CSA LISTED.

All models have similar performance characteristics to the popular Ashcroft B400 Series switch line, which has been used throughout the world's plants and mills for over 25 years. They feature rugged, reliable diaphragm-sealed piston actuators, snap-acting contacts and all-popular wetted materials and process connections. Dual Seal Rating models available. Optional hermetically sealed contacts, Monel or fire-safe actuators and scores of options allow you to choose a model for any application.

ASHCROFT[®]

Quick Guide Pressure and Temperature Switches

COMPACT EXPLOSION Proof pressure	MINIATURE WATERTIGHT PRESSURE SWITCHES	MINIATURE EXPLOSION Proof pressure switches
F-SERIES	A-SERIES	A-SERIES
FEATURES	FEATURES	FEATURES
Enclosure (Body): Explosion-proof, anodized aluminum	Enclosure: NEMA 4X watertight, IP67	Enclosure: NEMA 7/9 explosion proof, IP66
Switch Function: Single setpoint, field-adjustable fixed dead- band, SPDT contacts (or) Single setpoint, field-adjustable fixed dead- band, (2) SPDT contacts (DPDT action) Wetted Materials: 316 stainless steel pressure connection and	Switch Function: Single setpoint, fixed deadband, factory set SPDT or DPDT contacts, not field adjust- able (or) Single setpoint, fixed deadband, field-ad- justable SPDT or DPDT contacts Wetted Material: 316 stainless steel piston w/Buna N	Switch Function: Single setpoint, fixed deadband, factory set SPDT or DPDT contacts, not field adjust- able (or) Single setpoint, fixed deadband, field-adjustable SPDT or DPDT contacts Wetted Material: Stainless steel (Buna N. Viton® or welded diaphragm
choice of: Buna N, Teflon® or Viton® diaphragm and O-ring (or) All-welded 316 stainless steel diaphragm Ranges: Pressure: vac. thru 4000 psi	or Viton® or 316 stainless steel welded diaphragm actuator) Single Switch – SPDT Dual Switch DPDT (not available with "S" actuator) with <100 psi range	actuator) Single Switch – SPDT Dual Switch DPDT (not available with "S" actuator) with <100 psi range Ranges:
U.L. and CSA LISTED	Ranges: Vac thru 15,000 psi. U.L. and CSA LISTED SIL 3 capable	Vac thru 15,000 psi. U.L. and CSA LISTED AM, ATEX, IECE, SIL 3 capable
	CRN (Stainless Steel Enclosure)	CRN (Stainless Steel Enclosure)
Compact size facilitates mounting in panels and other installations where space is a premium. Standard hermetically sealed switch element and sealed conduit connection eliminate the possibility of condensation entering the enclosure from the conduit. Standard ¹ / ₂ NPTF pressure connection makes retrofit on existing installations quick and easy.	You should consider Ashcroft A-Series pressure switches for use on heavy vehi- cles, engines and compressors, electronics processing and medical equipment, food and beverage processing equipment, gar- bage compactors, machine tools, or any equipment where space is a consideration. This series is especially suitable for OEM configuration.	You should consider Ashcroft A-Series pressure switches for use on heavy vehi- cles, engines and compressors, electronics processing and medical equipment, food and beverage processing equipment, gar- bage compactors, machine tools, or any equipment where space is a consideration. This series is especially suitable for OEM configuration.
	PROOF PRESSURE Image: Service	PROOF PRESSURE ASERIES FSERIES ASERIES FSERIES ASERIES FATURES Construction Enclosure (Body): Construction Explosion-proof, andized aluminum Methodation Nethor Function: Single setpoint, field adjustable fixed deata Single setpoint, field adjustable fixed deata Single setpoint, field adjustable fixed deata And, PFOT contacts (OPDT action): Single setpoint, field adjustable fixed deata Method Match Single setpoint, field adjustable fixed deata Andreid of (2) SPDT contacts (OPDT action): Single setpoint, field adjustable fixed deata Method Match Single setpoint, field adjustable fixed deata Alt-velded 316 stainless steel diaphragen Single setpoint, field adjustable fixed deata Method Match Single setpoint, field adjustable fixed deata Alt-velded 316 stainless steel diaphragen Single setpoint, fixed deata adjustable fixed deata Method Match Single setpoint, fixed deata <tr< td=""></tr<>

compressors.

Quick Guide Pressure and Temperature Switches

ELECTRONIC PRESSURE STANDARD DIFFERENTIAL ATEX APPROVAL **U.L. LISTED STEAM** FOR HAZARDOUS LOCATONS **SWITCHES** PRESSURE SWITCH LIMIT CONTROL N-SERIES FEATURES Small size and high overpressure capabili-ATEX is a European designation that deals The Ashcroft steam-limit control switch with standards for equipment and protective systems intended for use in potentially explosive atmospheres. This approval is ty make our differential pressure switch ideal for most process and industrial applications. is designed for use on boilers equipped with electrically operated burners. The limit Enclosure: NEMA 4X watertight or NEMA 7/9 explosion proof, IP66 control is an adjustable pressure-operated Minimum static working pressures of 500 psi allow use on the most difficult filter required for switches intended for use in switch set to stop burner operation when the hazardous locations, especially important to recommended safe boiler working pressure applications. Switch Function: We use a unique combination of dia-OEMs who export to Europe and contracis exceeded. Single setpoint with adjustable deadband We recommend a stainless steel diaphragm phragm-sealed piston actuators to get our tors specifying or purchasing products for for steam service. A pigtail siphon should also be used to reduce the possibility of high temperature affecting switch performance. This listing is available for setpoints up to European applications. XCN option adds special features to Ashcroft 700-Series switch enclosures that high static pressure performance in Wetted Material: 12 ranges. For inches of water ranges, we use a large diaphragm for sensitivity which results in Stainless steel meet the requirements for the highest levels lower, more conventional working pressure. 300 psi. Ranges: of security and danger, such as: 60 thru 20,000 psi. Deadbands as low as Consult the factory for application assistance Special locking device requiring an Allen 0.1% of range. on differential pressure switch selection. wrench to remove cover Ϋ́ · Special vents that blow out should the dia-I OOK FOR THIS MARK ON OUR PRODUCTS Optional process and setpoint indication phragm rupture, thus preventing pressure LISTED and 4-20mA transmitter ouput now build-up in the enclosure available. Special conduit plug requiring an Allen wrench for removal Available on pressure, temperature and d/p models Meets explosion class Ex d IIC T6 · IECEx models available · Dual Seal Rating models available LOOK FOR THIS MARK ON OUR PRODUCTS The Ashcroft N-Series electronic pressure switch combines the popular K-Series polysilicon thin film pressure transducer sensor and rugged, epoxy-coated enclosures. The result is a highly reliable pressure switch that is ideal for high cycle, high pressure, or difficult deadband applications. Typical applications include: machine tools, injection molding machines, presses, pumps, hydraulic systems, turbines, and

Quick Guide Pressure and Temperature Switches

U.L. LISTED PRESSURE LIMIT CONTROL



The Ashcroft medium-pressure gas and oil limit control switch is designed for use with air, LP gas, natural gas, #1 and #2 fuel oil and #6 oil preheated to 240°F. This limit control is an adjustable pressure-operated switch with a secondary chamber to prevent fuel from entering the switch enclosure in the unlikely event that the diaphragm develops a leak. The control shuts down a fuel pump in high or low pressure conditions.



LOOK FOR THIS MARK ON OUR PRODUCTS

DDS-SERIES DIFFERENTIAL PRESSURE SWITCH DIAPHRAGM SENSING ELEMENT



FEATURES

Ranges: 0-6 IWD TO 0-150 IWD
Static Pressure Ranges: 250 PSI or 1500 PSI
Rugged: NEMA 4X & 12 Housing Std. Class I, Div. I, Gr. C & D Available SPDT or DPDT Contacts
Maximum Ambient Temperature: 180°F
Minimum Ambient Temperature: –20°F
Pressure Connection: 1/4 NPT Female
Electrical Connection: 3/4 NPT Female
Housing: Cast Aluminum
Deadband: Fixed
Sensitivity: 1% of range
Drift: <1% of range (100,000 operations)
Weight: Approximately 6 lbs.
Contact Ratings: 15A-125, 250, 480 VAC (general purpose other micro switches available)
Contact Listings: UL Listed
Port Material: Aluminum or Stainless Steel
Diaphragm Material: Buna N, Viton or Teflon
Setpoint Adjustment: Screw type, field adjustable

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