



PROCESS GAUGES

SOLFRUNT® Solid Front 4-1/2" Model 1981 Process Gauges

DESCRIPTION

The Solid Front Model 1981 and 1981 *Advantage* 4-1/2" process gauges have all 316L stainless steel wetted surfaces with a seamless Bourdon tube. The 1981 *Advantage* includes a dampened movement option to provide users with some of the benefits of liquid filling. These gauges have a PET turret style case for chemical and petrochemical processing applications. The PET material gives this case superior impact strength and a broad spectrum of chemical resistance. They are available dry, with a dampened movement, or liquid filled from the factory. Your local stocking distributor can provide a liquid fill kit, or the EZ Fill design to facilitate filling in the field without special tools.

The Model 1981 and 1981 *Advantage* 4-1/2" SOLFRUNT gauges are supplied in 26 vacuum, compound, and pressure ranges from 30" Hg vacuum through 11600 psi. The low-connected PET turret case can be easily liquid filled in the field using the appropriate conversion kit, or buying the EZ Fill version.

Pointer adjustments are easily made by removing ring and window, and using the adjustment screw on the micro-adjustable pointer.

Please contact Customer Service at +1 215-674-1234 or email us at usg.sales@ametek.com for more information.

SPECIFICATIONS

SIZE: 4-1/2"

ACCURACY: ±0.5% of span (Grade 2A), except where seamless stainless steel bourdon tubes are used in following ranges: Type 316L from 10000 to 11600 psi; accuracy is ±0.5% on ascending pressure and ±1.0% on descending pressure

BOURDON TUBE: 316L seamless stainless steel/TIG welded

WINDOW: High temperature acrylic, laminated shatter-resistant safety glass options available (G038312)

MOVEMENT: Geared movement with components of corrosion-resistant 300 series stainless steel; optional dampened movement available on *Advantage* unit

DIAL: Aluminum with baked white background and black markings; optional luminescent or high visibility bright yellow dial (metric single scale, dual scale and custom dials available)

POINTER: Anodized aluminum, micro-adjustable with black finish; optional red pointer or lazy hand (lazy hand can only be used on dry gauges, #132371; also called drag pointer, tell-tale pointer or red tracking pointer)

CASE AND RING:

For Stem or Wall Mounting:

PET turret case (black) with glass-filled polypropylene threaded ring and pressure-relieving back, EZ Fill option available

CONNECTION: 316L stainless steel, 1/2-14 NPT standard (1/4-18 NPT, optional)

LIQUID FILLING: The Model 1981 is also available in liquid filled or field fillable (EZ Fill) configurations. Please reference the Spec Number Selection Chart in this section.

WEATHER PROTECTION: NEMA 4X/IP66 with EZ Fill Case



Model 1981



Model 1981
with Lazy Hand option



Model 1981
with luminescent dial



Model 1981
with bright yellow dial
and red pointer



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Spec Number Selection Chart						
Model Number	1981				1981 <i>Advantage</i>	
Connection Size	1/2" NPT	1/2" NPT	1/4" NPT	1/4" NPT	1/2" NPT	1/2" NPT
Movement Type	Standard	Standard	Standard	Standard	Dampened	Dampened
Dial Scale	PSI	PSI	PSI	PSI	PSI	PSI
Case Type	Dry	EZ Fill	Dry	EZ Fill	Dry	EZ Fill
Fill Fluid Type	N/A	See Note	N/A	See Note	N/A	See Note
Ranges*	Spec No.	Spec No.	Spec No.	Spec No.	Spec No.	Spec No.
0 - 30" Hg VAC	150016X	170016X	155016X	175016X	150016DM	170016DM
30" - 0 - 15 psi	150017X	170017X	155017X	175017X	150017DM	170017DM
30" - 0 - 30 psi	150018X	170018X	155018X	175018X	150018DM	170018DM
30" - 0 - 60 psi	150019X	170019X	155019X	175019X	150019DM	170019DM
30" - 0 - 100 psi	150020X	170020X	155020X	175020X	150020DM	170020DM
30" - 0 - 150 psi	150021X	170021X	155021X	175021X	150021DM	170021DM
30" - 0 - 200 psi	150785X	170785X	155785X	175785X	150785DM	170785DM
30" - 0 - 300 psi	150786X	170786X	155786X	175786X	150786DM	170786DM
0 - 15 psi	150022X	170022X	155022X	175022X	150022DM	170022DM
0 - 30 psi	150023X	170023X	155023X	175023X	150023DM	170023DM
0 - 60 psi	150024X	170024X	155024X	175024X	150024DM	170024DM
0 - 100 psi	150025X	170025X	155025X	175025X	150025DM	170025DM
0 - 160 psi	150026X	170026X	155026X	175026X	150026DM	170026DM
0 - 200 psi	150027X	170027X	155027X	175027X	150027DM	170027DM
0 - 300 psi	150028X	170028X	155028X	175028X	150028DM	170028DM
0 - 400 psi	150029X	170029X	155029X	175029X	150029DM	170029DM
0 - 600 psi	150030X	170030X	155030X	175030X	150030DM	170030DM
0 - 800 psi	150031X	170031X	155031X	175031X	150031DM	170031DM
0 - 1000 psi	150032X	170032X	155032X	175032X	150032DM	170032DM
0 - 1500 psi	150033X	170033X	155033X	175033X	150033DM	170033DM
0 - 2000 psi	150523X	170523X	155523X	175523X	150523DM	170523DM
0 - 2300 psi	150034X	170034X	155034X	175034X	150034DM	170034DM
0 - 3000 psi	150509X	170509X	155509X	175509X	150509DM	170509DM
0 - 3500 psi	150035X	170035X	155035X	175035X	150035DM	170035DM
0 - 5000 psi	150510X	170510X	155510X	175510X	150510DM	170510DM
0 - 6000 psi	150036X	170036X	155036X	175036X	150036DM	170036DM
0 - 10000 psi	150524X	170524X	155524X	175524X	150524DM	170524DM
0 - 11600 psi	150037X	170037X	155037X	175037X	150037DM	170037DM

* Metric and dual scale dials are available on all 1900 Series gauges.

NOTE: This table is not intended to be all inclusive of all possible configurations; please see Ordering Codes on next page for more options.



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SOLFRUNT® Solid Front 4-1/2" Model 1981 Process Gauges

Spec Number Selection Chart - Dual Scale Part Numbers			
Model Number	1981		
Connection Size	1/2" NPT	1/2" NPT	1/2" NPT
Movement Type	Standard	Standard	Standard
Dial Scale	PSI & KPA	PSI & KG	PSI & BAR
Case Type	Dry	Dry	Dry
Fill Fluid Type	N/A	N/A	N/A
Ranges*	Spec No.	Spec No.	Spec No.
0 - 30" Hg VAC	150301X	-	-
30" - 0 - 15 psi	150893X	150537X	150922X
30" - 0 - 30 psi	150878X	150489X	150923X
30" - 0 - 60 psi	150894X	150920X	150924X
30" - 0 - 100 psi	150895X	150490X	250176X
30" - 0 - 150 psi	150896X	250727X	-
30" - 0 - 200 psi	150926X	-	250442X
30" - 0 - 300 psi	150927X	-	250654X
0 - 15 psi	150582X	150451X	150825X
0 - 30 psi	150478X	150452X	150826X
0 - 60 psi	150583X	150453X	150827X
0 - 100 psi	150584X	150454X	150828X
0 - 160 psi	150585X	150491X	150829X
0 - 200 psi	150482X	150455X	150830X
0 - 300 psi	150581X	150492X	150831X
0 - 400 psi	150586X	150493X	150832X
0 - 600 psi	150587X	150494X	150833X
0 - 800 psi	150580X	150919X	150925X
0 - 1000 psi	150588X	150495X	150834X
0 - 1500 psi	150684X	150496X	150835X
0 - 2000 psi	150942X	250304X	150079X
0 - 2300 psi	150747X	150497X	250525X
0 - 3000 psi	150943X	250305X	250490X
0 - 3500 psi	150686X	-	150944X
0 - 5000 psi	150841X	250296X	250489X
0 - 6000 psi	150687X	150499X	250774X
0 - 10000 psi	250086X	250421X	-
0 - 11600 psi	150898X	-	-

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Spec Number Selection Chart					
Model Number	1981		Model Number	1981	
Connection Size	1/2" NPT		Connection Size	1/2" NPT	
Movement Type	Standard		Movement Type	Standard	
Dial Scale	KPA		Dial Scale	KPA	
Window	Acrylic		Window	Acrylic	
Fill Fluid Type	N/A		Fill Fluid Type	N/A	
Case Type	Dry	EZ Fill	Case Type	Dry	EZ Fill
Pressure Range	Spec No.	Spec No.	Pressure Range	Spec No.	Spec No.
VAC - 0 - 760 mm Hg	150560X	170560X	0 - 1,400 KPA	150699X	170699X
VAC -100 - 0 KPA	150688X	170688X	0 - 1,600 KPA	150319X	170319X
-100 - 0 - 100 KPA	150689X	170689X	0 - 2,100 KPA	150572X	170572X
-100 - 0 - 200 KPA	150690X	170690X	0 - 2,500 KPA	150330X	170330X
-100 - 0 - 400 KPA	150804X	170804X	0 - 2,800 KPA	150701X	170701X
-100 - 0 - 700 KPA	150692X	170692X	0 - 4,000 KPA	150574X	170574X
-100 - 0 - 1,000 KPA	150693X	170693X	0 - 5,500 KPA	150575X	170575X
-100 - 0 - 1,400 KPA	250307X	270307X	0 - 6,000 KPA	150326X	170326X
0 - 100 KPA	150694X	170694X	0 - 7,000 KPA	150576X	170576X
0 - 200 KPA	150695X	170695X	0 - 8,000 KPA	150545X	170545X
0 - 250 KPA	150543X	170543X	0 - 10,000 KPA	150605X	170605X
0 - 400 KPA	150696X	170696X	0 - 14,000 KPA	250636X	270636X
0 - 600 KPA	150329X	170329X	0 - 16,000 KPA	150577X	170577X
0 - 700 KPA	150697X	170697X	0 - 25,000 KPA	150578X	170578X
0 - 800 KPA	150318X	170318X	0 - 40,000 KPA	150579X	170579X
0 - 1,000 KPA	150544X	170544X	0 - 60,000 KPA	150332X	170332X
0 - 1,100 KPA	150698X	170698X	0 - 80,000 KPA	150321X	170321X

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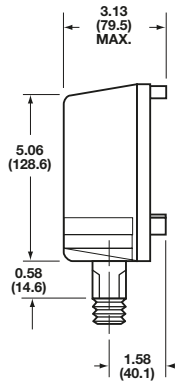
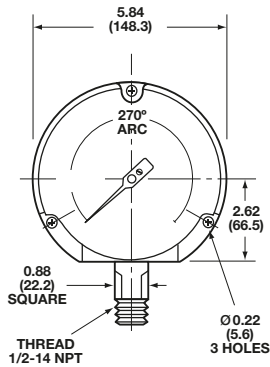
Spec Number Selection Chart					
Model Number	1981		Model Number	1981	
Connection Size	1/2" NPT		Connection Size	1/2" NPT	
Movement Type	Standard		Movement Type	Standard	
Dial Scale	BAR		Dial Scale	KG/CM ²	
Window	Acrylic		Window	Acrylic	
Fill Fluid Type	N/A		Fill Fluid Type	N/A	
Case Type	Dry	EZ Fill	Case Type	Dry	EZ Fill
Pressure Range	Spec No.	Spec No.	Pressure Range	Spec No.	Spec No.
-1 - 0 BAR	150900X	170900X	-1 - 0 - 2 KG/CM ²	250557X	270557X
-1 - 0 - 1 BAR	150891X	170891X	-1 - 0 - 4 KG/CM ²	150844X	170844X
-1 - 0 - 1.5 BAR	150902X	170902X	0 - 1 KG/CM ²	150552X	170552X
-1 - 0 - 2 BAR	250198X	270198X	0 - 2 KG/CM ²	150553X	170553X
-1 - 0 - 7 BAR	250794X	270794X	0 - 4 KG/CM ²	150554X	170554X
0 - 1 BAR	150467X	170467X	0 - 6 KG/CM ²	150881X	170881X
0 - 2 BAR	150468X	170468X	0 - 7 KG/CM ²	150506X	170506X
0 - 4 BAR	150469X	170469X	0 - 10 KG/CM ²	150631X	170631X
0 - 6 BAR	150821X	170821X	0 - 11 KG/CM ²	150507X	170507X
0 - 7 BAR	150513X	170513X	0 - 14 KG/CM ²	150558X	170558X
0 - 11 BAR	150470X	170470X	0 - 16 KG/CM ²	150342X	170342X
0 - 14 BAR	150471X	170471X	0 - 20 KG/CM ²	150632X	170632X
0 - 16 BAR	150549X	170549X	0 - 21 KG/CM ²	150508X	170508X
0 - 21 BAR	150472X	170472X	0 - 25 KG/CM ²	150343X	170343X
0 - 25 BAR	150550X	170550X	0 - 28 KG/CM ²	150559X	170559X
0 - 28 BAR	250339X	270339X	0 - 40 KG/CM ²	150808X	170808X
0 - 40 BAR	150512X	170512X	0 - 60 KG/CM ²	150879X	170879X
0 - 56 BAR	250570X	270570X	0 - 70 KG/CM ²	150542X	170542X
0 - 70 BAR	150473X	170473X	0 - 100 KG/CM ²	150807X	170807X
0 - 105 BAR	150474X	170474X	0 - 105 KG/CM ²	250030X	270030X
0 - 140 BAR	250351X	270351X	0 - 160 KG/CM ²	250033X	270033X
0 - 160 BAR	150475X	170475X	0 - 210 KG/CM ²	250277X	270277X
0 - 210 BAR	250638X	270638X	0 - 250 KG/CM ²	150903X	170903X
0 - 350 BAR	250639X	270639X	0 - 400 KG/CM ²	150899X	170899X
0 - 420 BAR	250738X	270738X	0 - 420 KG/CM ²	250279X	270279X
			0 - 700 KG/CM ²	250280X	270280X
			0 - 800 KG/CM ²	150777X	170777X

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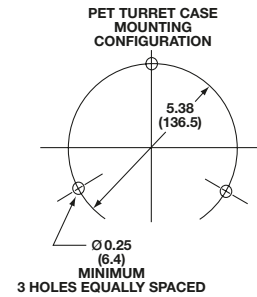
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**INCHES
(MM)**



Model Number Ordering Codes:

Case type	
15 or 25	Standard dry case
17 or 27	EZ Fill case
Connection size	
0	1/2-14 NPT thread
5	1/4-14 NPT thread
Pressure range	
Pressure range – see tables on previous pages	
Movement type	
X	Standard movement
DM	Dampened movement
Fill fluid type	
LG	Glycerin
LS	Silicone
LM	Mineral
Additional options	
SR	Shatter-resistant window
CL	Oxygen service
N	NACE compliance
/C	NIST certification
/M	Material certification for socket
LUM	Luminescent dial
/YB	Bright yellow dial
/RP	Red pointer
LHZ	Lazy hand
15	0
025	X
LG	SR

