

## Data Sheet

# F5509, F6509 Differential Pressure Gauge

### FEATURES

- 316L Stainless steel case and wetted parts
- Static pressure 232 psi or 580 psi
- Ingress protection IP66/NEMA 4X
- Compliant to DIN 16003
- Dry or liquid filled
- Optional solid front case

### TYPICAL USES

- Chemical and petrochemical plants
- Marine and offshore technology
- Power plants



**F5509**  
100mm (4"),  
160 mm (6") dial sizes

### SPECIFICATIONS

Accuracy:	Class 1.6 with $\pm 1.6\%$ of span Class 1 with $\pm 1\%$ of span (OPT.)
Dial Sizes:	100mm (4"), 160mm (6")
Static Pressure:	1-5 psi static 232 psi (16 bar) 6-362 psi static 580 psi (40 bar)
Over-Pressure:	Single sided over-pressure 10 times the range of the gauge not to exceed the max. working/static pressure of the gauge
Process Connection Size:	¼ NPT, ½ NPT, G ¼ B, G ½ B
Process Connection Location:	Lower
Case Style:	316L Stainless steel open front case (F5509) (F5509) with rear blow out disk 316L Stainless steel solid front case (F6509) (F6509) with rear blow out back
Pointer:	Black, aluminum Red set hand, maximum pointer (OPT.)
Weather Protection:	EN 60529/IEC 529 IP65 for instruments with integrated contacts IP66/NEMA 4X
Mounting:	Direct, wall, 2" pipe mounting (OPT.)
Dial:	Black figures on white background (secondary scale is inner scale for dual scale dials), aluminum. Meets DIN 16003
Electric Contacts:	Consult Inside Sales

### KEY BENEFITS

- Perfect solution for challenging application and installation requirements
- Designed for harsh services
- High reliability and safety

### WETTED COMPONENTS

Pressure Chamber	Diaphragm	Process Connection Materials
316L SS	316Ti SS $\leq 6$ psi Duratherm® 2.4781 (NiCrCo alloy) $\geq 8$ psi	316L SS

### NON-WETTED COMPONENTS

Case	Window	Bayonet Ring
316L SS	Laminated safety glass	316L SS

### MIN/MAX TEMPERATURE LIMITS

Version	Ambient	Process	Storage
Dry	-4°F to 176°F (-20°C to 80°C)	-40°F to 212°F (-40°C to 100°C)	-4°F to 176°F (-20°C to 80°C)
Glycerin Fill	16°F to 176°F (-9°C to 80°C)	-20°F to 212°F (-7°C to 100°C)	16°F to 176°F (-9°C to 80°C)
Silicone Fill	-4°F to 176°F (-20°C to 80°C)	-40°F to 212°F (-40°C to 100°C)	-4°F to 176°F (-20°C to 80°C)
Temperature Effects:	Max. 0.8% of span per 10 K change with reference temperature of 68°F (20°C)		

# Data Sheet

## F5509, F6509 Differential Pressure Gauge

<b>ORDERING CODE</b>	Example:	10	F5509	S	D	27	L	10IW	-XC4
<b>Dial Size</b>									
10 - 100mm (4")		10							
16 - 160mm (6")									
<b>Model</b>									
F5509 - 316L Stainless steel open front case			F5509						
F6509 - 316L Stainless steel solid front case									
<b>Housing Material</b>									
S - 316 Stainless steel				S					
<b>Case Fill</b>									
D - Dry					D				
L - Glycerin fill									
<b>Process Connection Size</b>									
02 - ¼ NPT Male									
04 - ½ NPT Male									
13 - G ¼ B Male									
15 - G ½ B Male									
16 - M20X1.5 Male									
25 - ¼ NPT Female									
27 - G ¼ B Female									
50 - ½ NPT Female									
51 - G ½ B Female									
<b>Process Connection Location</b>									
L - Lower							L		
<b>Range (coding examples only, see range tables on page 3 for all standard ranges)</b>									
10IW - 10 in. H <sub>2</sub> O								10IW	
<b>Options (If choosing an option(s) must include an "X")</b>									
AN - Class 1 with ±1% of span									-X__
CS - Combination range/Dual scale									
DA - Dial marking									
EP - Maximum pointer adjustable and polycarbonate window									
EQ - Minimum pointer adjustable and polycarbonate window									
FW - Wall mounting bracket									
GT - Napvis fill (used with magnetic spring contacts only)									
GV - Silicone fill									
HY - Hydrostatic pressure test									
ML - Mass spectrometer leak test									
MQ - Positive material identification (PMI)									
NH - Stainless steel Wired tag									
NN - Paper tag bonded to case									
ON - Without Ashcroft logo, neutral									
PD - Polycarbonate window									
TM - Pipe mounting bracket									
C3 - Certificate according EN 10204 3.1									
C4 - Individual calibration chart									C4
6B - Oxygen Service									
6W - Cleaned for oxidizing processes other than oxygen									

# Data Sheet

## F5509, F6509 Differential Pressure Gauge

### STANDARD RANGES

Single Scale			
psid	mbar	bar	IWD
1#	40MB	0.6BR	10IW
5#	60MB	1BR	15IW
10#	100MB	1.6BR	30IW
15#	160MB	2.5BR	60IW
30#	250MB	4BR	100IW
60#	400MB	6BR	160IW
100#	-	10BR	200IW
160#	-	16BR	-
200#	-	25BR	-
300#	-	-	-
400#	-	-	-

Dual Scale							
mbar	psi	bar	psi	kPa	psi	MPa	psi
25MB	0.36#	0.6BR	8.7#	2.5KP	0.36#	0.6MP	87#
40MB	0.58#	1BR	14.5#	4KP	0.58#	1MP	145#
60MB	0.87#	1.6BR	23#	6KP	0.87#	1.6MP	232#
100MB	1.45#	2.5BR	36#	10KP	1.45#	2.5MP	362#
160MB	2.3#	4BR	58#	16KP	2.3#		
250MB	3.6#	6BR	87#	25KP	3.6#		
400MB	5.8#	10BR	145#	40KP	5.8#		
		16BR	232	60KP	8.7#		
		25BR	362#	100KP	14.5#		
		<b>kg/cm<sup>2</sup></b>	<b>psi</b>	160KP	23#		
		0.6KSC	8.53#	250KP	36#		
		1KSC	14.22#	400KP	58#		
		1.6KSC	22.76#				
		2.5KSC	35.56#				
		4KSC	56.89#				
		6KSC	85.34#				
		10KSC	142.2#				
		16KSC	277.6#				
		25KSC	355.6#				

# Data Sheet

## F5509, F6509 Differential Pressure Gauge

### DIMENSIONS in [ ] are inches

For reference only, consult Ashcroft for specific dimensional drawings

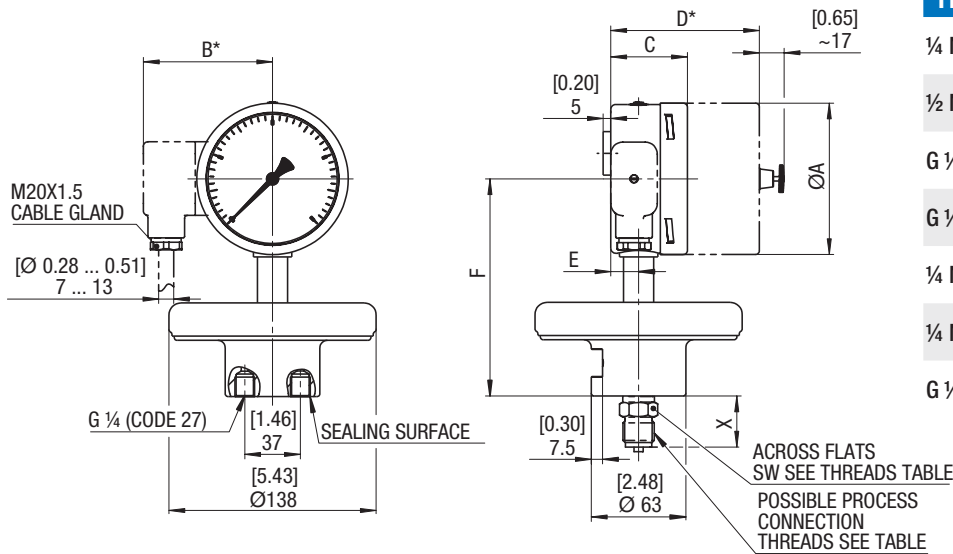
Dial Size Millimeters	ØA	B*	C	D	E	F	F1
<b>100</b>	101 [3.98]	86 [3.39]	51 [2.01]	99 [3.90]	18.5 [0.73]	145 [5.71]	144 [5.67]
<b>160</b>	161 [6.34]	120 [4.72]	50 [1.96]	100 [3.94]	17 [0.67]	175 [6.89]	174 [6.85]

\*With optional integrated contacts. Consult Inside Sales.

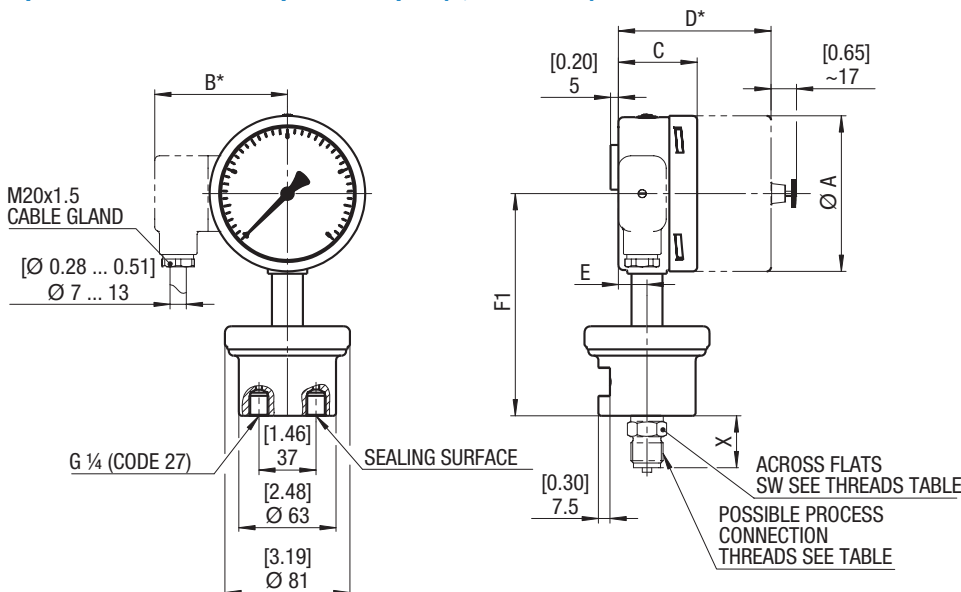
Weight			
Dial Size Millimeters	Dry lbs	Liquid Filled lbs	
<b>100</b>	≤4 psi:	20	21
	≥6 psi:	9	10
<b>160</b>	≤4 psi:	21	22
	≥6 psi:	9	10

THREADS	CODE	X	SW
¼ NPT Male	02	30 [1.18]	19 [0.75]
½ NPT Male	04	37 [1.46]	22 [0.87]
G ¼ B Male; DIN EN 837	13	25 [0.98]	19 [0.75]
G ½ B Male; DIN EN 837	15	37 [1.46]	22 [0.87]
¼ NPT Female	25	20 [0.79]	19 [0.75]
¼ NPT Female	50	26 [1.02]	27 [1.06]
G ½ B Female; DIN EN 837	51	26 [1.02]	27 [1.06]

### Open front case for 1 psi - 4 psi (25 - 250 mbar)



### Open front case for 6 psi - 362 psi (0,4 - 25 bar)



# Data Sheet

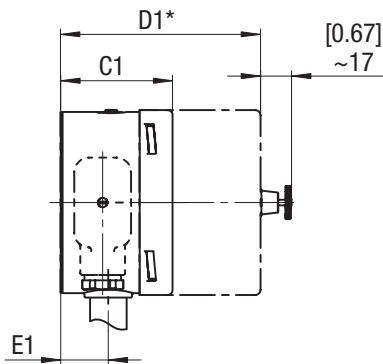
## F5509, F6509 Differential Pressure Gauge

### DIMENSIONS in [ ] are inches

For reference only, consult Ashcroft for specific dimensional drawings

### Solid front case

Dial Size Millimeters	C1	D1*	E1
100	61 [2.38]	109 [4.29]	26 [1.02]
160	64 [2.52]	115 [4.53]	28 [1.11]

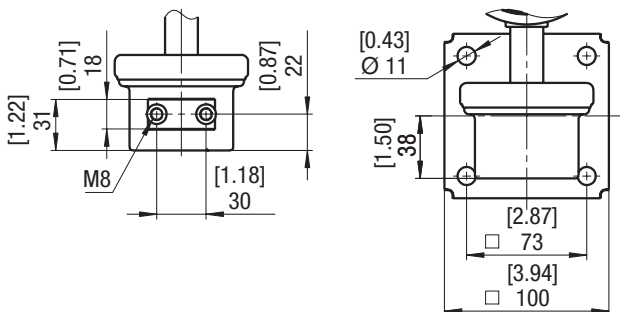


\*With optional integrated contacts. Consult Inside Sales.

### Mounting options

Range	G	H
1 psi - 4 psi (25 - 250 mbar)	83 [3.27]	111 [4.35]
6 psi - 362 psi (0,4 - 25 bar)	82 [3.22]	55 [2.15]

Wall mounting bracket option FW



2" Pipe mounting bracket option TM

