

December 30, 2014

**Attention:** Jeremy M. Payne  
ASHCROFT INC  
250 EAST MAIN STREET  
STRATFORD, CT 06614

The design submission, tracking number 2014-10277, originally received on December 08, 2014 was surveyed and accepted for registration as follows:

**CRN :** 0F02805.72

**Accepted on:** December 30, 2014

**Reg Type:** New Design

**Expiry Date:** November 07, 2024

**Drawing No. :** ASHCROFT BULLETIN DG-5503 As Noted

**Fitting type:** TYPE 5503 DIFFERENTIAL PRESSURE GAUGE

**The registration is conditional on your compliance with the following notes:**

*\*\* This registration has been issued:*

- 1. Based on the review from the province of NB*
- 2. Based on the Association of Chief Inspectors Policy on Reciprocal Recognition of Design Review for Fitting Design Registration*

*\*\* Refer to SR-5503 Rev 0 for scope of registration*

*This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form. This registration is valid only until the indicated expiry date only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date. Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.*

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

Enclosed are stamped prints for your reference.

Sincerely,



DICK, ASHLING, P. Eng.



STATUTORY DECLARATION  
Registration of Fittings



I, Philip Reed

Quality Assurance Manager

(company title, e.g. vice president, plant manager, chief engineer) (must be in a position of authority)

of Ashcroft, Inc.

(name of manufacturer)

located at 250 Main Street, Stratford, Connecticut 06614, USA

(plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

comply with the requirements of ASME B31.3, B31.1; ANSI 82.03 which specifies the dimensions,  
(title of recognized North American Standard)

materials of construction, pressure/temperature ratings and identification marking of the fittings, or

are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with \_\_\_\_\_ as supported by the attached data which identifies the dimensions,

materials of construction, pressure/temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, Lloyd's Register Quality Assurance as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are F

In support of this application, the following information, calculations and/or test data are attached:

Type 5503 differential pressure gauge per Ashcroft bulletin DG-5503; scope of registration SR-5503-Rev0

DECLARED before me at Stratford in the state of Connecticut

this 10<sup>th</sup> day of October, 2014  
(Month) (Year)

(print) Irene Ferrigno

IRENE FERRIGNO  
NOTARY PUBLIC  
State of Connecticut  
My Commission Expires  
November 30, 2017

Philip Reed  
(Signature of Applicant)

(sign) Irene Ferrigno  
(A Commissioner for Oaths)

For Office Use Only

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category 'F'

Registration Number: OF 02805 72

T.M. IASHINGI DICK  
(For the Administrator/Chief Inspector of Alberta)

Date Registered: DEC 30 2014

Expiry Date: Nov 7, 2024

**Scope of Registration Summary – Type 5503 differential Pressure Gauges**

Differential Pressure Gauge Type	Process Connection Sizes (in) ASME B1.20.1	Maximum Pressure in Temperature Range (psi)	Temperature range (°F)	Material
5503 (PN400)	¼ NPT, ½ NPT	265 bar [1] 400 bar [2]	-20 to 185	A182 F316L
5503 (PN160)		145 bar [1] 160 bar [2]		

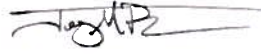
[1] Qualified per ASME B31.1 referenced Section I, A-22 & ASME B31.3 referenced ASME Section VIII, div. 1, UG-101.

[2] Qualified per ANSI/ISA 82.03–1988 (equivalently Annex G of CSA C22.2 No. 61010-1, Sections G.2.3 (a) & (b), and Table G.1)

[3] See Ashcroft bulletin DG-5503 for product specifications

[4] See PR-5503-Rev0 for witnessed proof test reports and calculations.

I, the undersigned, hereby confirm that the above is accurate and true:

Approved by: Jeremy M. Payne Signed: 

Date Signed: 6 October 2014

## Type 5503 Differential Pressure Gauge



- $\pm 1.6\%$  full scale accuracy
- **Stainless steel case**
- **Nace compliant option**
- **Available with custom flow monitoring dials**
- **1450 psi static pressure standard with optional static pressure to 5801 psi**
- **External zero adjust**
- **Optional liquid-filled case**
- **4" (100mm) or 6" (160mm) dial sizes**

The Ashcroft® Type 5503 differential pressure gauge is available with ranges from 16 I.W.D. to 600 psi with optional static pressure to 5801 psi. Optional wetted parts includes Hastelloy C. Typical applications include chemical, petrochemical power, food & beverage and the pulp and paper industries.

### PRODUCT SPECIFICATIONS

**Model Number:** 5503  
**Accuracy:**  $\pm 1.6\%$  full scale  
**Dial Size:** 4" (100mm) or 6" (160mm)  
**Ranges:** 0-30 IWD (inches of water differential) to 300 psid  
**Static Pressure:** 1450 psi standard  
 Optional  
 3625 psi ranges <10 psid  
 5801 psi ranges >10 psid

**Case Material:** 304 SS open front case with a bayonet ring; (316 SS case and ring optional)  
**Window:** Shatterproof glass  
**Dial:** White painted aluminum  
**Pointer:** Black painted aluminum with external adjust feature standard (to 25% of range)  
**Diaphragm Material:** 316 stainless steel for ranges of 15 psi and below. High strength cobalt alloy (Duratherm 600) for ranges of 10 psi and above  
**Housing Material:** 316 SS with a Viton® O-ring  
**Mounting:** Stem, wall or pipe  
**Connection Size:** 1/4, 1/2 NPT  
**Purge & Bleed Connection:** Standard on top of each pressure chamber (6% with plug)  
**Connection Location:** Lower

### OPTIONAL FEATURES

316 SS case and ring (XYW)  
 Glycerin fill - Standard (L)  
 Silicone fill - Optional (XGV)  
 Weatherproof/Hermetically sealed case (IP65) (XLJ)  
 Static pressure to 3625 psi (ranges <10 psid) 5801 psi (ranges >10 psid) (XSP)  
 Wall mounting bracket (XFW)  
 Pipe mounting bracket (Available for ranges 5 psid and above.) (XTM)  
 3-way manifold (X43)  
 Hastelloy C diaphragm with 316 SS housing<sup>(1)</sup> (HS)  
 Hastelloy C diaphragm and housing Ranges 60 psid and above NACE compliant (HH)  
 Electric Warning Contacts<sup>(2)</sup>  
 High and Low (XED)  
 Double High (XEE)  
 Double Low (XEF)  
 Oxygen cleaning (X6B)

<sup>(1)</sup> Only available with 1450 psi static pressure.

<sup>(2)</sup> Specify contact arrangement. Specify if magnetic or inductive contacts.

### Temperature Limits

Process: -20/185°F  
 Ambient: -20/185°F  
 Storage: -20/185°F  
 Viton® is a registered trademark of DuPont Co.

STANDARD RANGE TABLE*			
psid	mBar	bar	I.W.D.
3	40	0.6	10
5	60	1.0	30
10	100	1.6	60
15	160	2.5	100
30	250	4	200
60	400	6	
100		10	
160		16	
200		25	
300			
400			
600			
WEIGHT (lbs)			
		100mm	160mm
For ranges $\leq 5$ psid			
Dry		20	21
Liquid Filled		21	22
For ranges $\geq 10$ psid			
Dry		9	10
Liquid Filled		10	11

### HOW TO ORDER (Typical example)

10 5503 S S 02L XXX 0/100 psid

Dial Size: 100mm (10), 160mm (16) \_\_\_\_\_

Case Type: 5503 \_\_\_\_\_

Diaphragm: (S) 316 SS \_\_\_\_\_

Housing, Socket: (S) 316 SS \_\_\_\_\_

Connection Size, Location: 1/4 (02), 1/2 (04), Lower (L) \_\_\_\_\_

Options: \_\_\_\_\_

Range: 0/100 psid \_\_\_\_\_

See Acceptance Letter for the comments and/or conditions of registration.

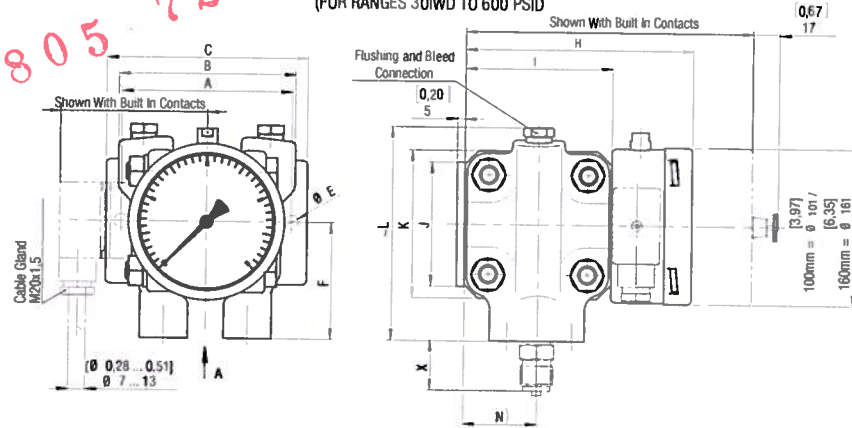
SAFETY CODES ACT - PROVINCE OF ALBERTA  
 REGISTRATION OF FITTINGS  
 REGISTRATION NO. OF 02805-72  
 WG. NO. or CAT. NO. Ashcroft Bulletin PG-5503  
 TYPE OF FITTINGS 5503 Differential Pressure Gauge  
 IEC 30 2014  
 INITIALS TMD  
 T.M. (ASHCROFT) DICK, P.ENG.  
 LICENSED PROFESSIONAL ENGINEER

## DEC 30 2014 Type 5503 Differential Pressure Gauge

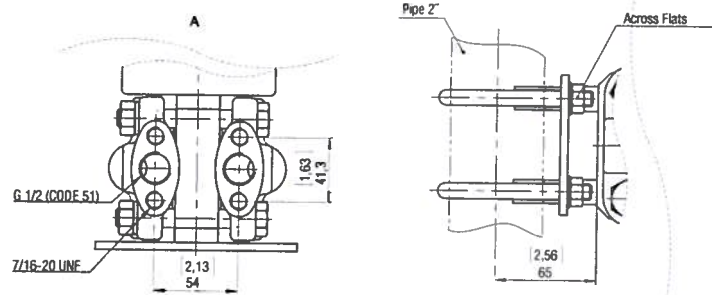
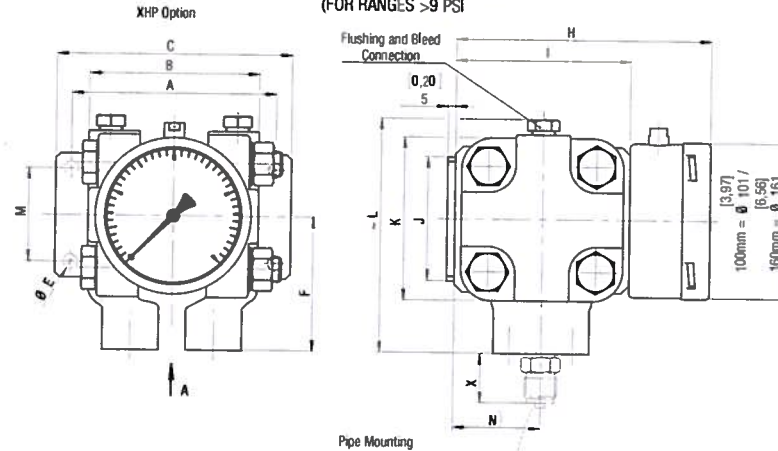
### DIMENSIONS

FOR MAXIMUM STATIC PRESSURE 1450 PSI  
(FOR RANGES 30IWD TO 600 PSID)

OF 02805 72



FOR MAXIMUM STATIC PRESSURE 5801 PSI  
(FOR RANGES >9 PSI)



AVAILABLE SOCKET CONNECTIONS	CODE
1/4-18 NPT MALE, DIN EN 837	02
1/2-14 NPT MALE, DIN EN 837	04
G 1/4 B MALE, DIN EN 837	13
G 1/2 B MALE, DIN EN 837	15
G 1/4 FEMALE, DIN EN 837	27
1/2-14 NPT FEMALE	50

	A	B	C	D	E	F	G	H	I	J	K	-L	M	(N)
60 = 400 mbar MAX. PN100	[5,20] 132	[4,25] 108	[5,98] 152	[4,72] 120	[0,35] 4 x Ø 9	[3,94] 100	[9,43] 239,5	[7,62] 193,5	[5,55] 141	[3,15] 80	[5,55] 141	[7,11] 181	[2,36] 60	[2,78] 70,5
MAX. PN250	[6,69] 170	[5,83] 148	[7,87] 200	-	[0,43] 4 x Ø 11	[4,72] 120	-	[8,96] 227,5	[6,89] 175	[3,94] 100	[6,69] 170	[8,62] 219	[2,36] 60	[3,44] 87,5
0.6 = 25 bar MAX. PN400	[5,20] 132	[4,33] 110	[5,98] 152	-	[0,35] 2 x Ø 9	[3,41] 86,5	-	[6,52] 165,5	[4,45] 113	[3,15] 80	[4,13] 105	[5,94] 151	-	[2,22] 56,5