



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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US300

SPECIFICATIONS

- **OEM and End User**
- **High Accuracy**
- **Compact Package**
- **Wide Temperature Range**

The low cost US300 Series incorporates stainless steel isolation, and provides a wide choice of standard pressure ranges and electrical outputs in a very compact package. This product uses MEAS' UltraStable™ technology that provides stability over a wide temperature range, performance previously available only in much higher priced sensors. The modular design is adaptable to a wide variety of pressure ports and electrical connectors. Standard outputs include 0 to 10mV/V, 0.5 to 4.5V ratiometric, 1 to 5V regulated and 4 to 20mA current loop.

FEATURES

- ±0.1% Accuracy
- -40°C to +105°C Operating Temperature Range
- 100% Stainless Steel 316L Isolation
- Wide Variety of Pressure Ranges and Electrical Outputs
- Low Cost and Compact Package
- UltraStable™ Technology

APPLICATIONS

- Refrigeration and HVAC Controls
- Compressed Gases
- Process Control
- Water Pressure Monitoring

STANDARD RANGES

Range	psig	psia	Range	Barg	Bara
0 to 015	•	•	0 to 001	•	•
0 to 030	•	•	0 to 002	•	•
0 to 050	•	•	0 to 3.5	•	•
0 to 100	•	•	0 to 007	•	•
0 to 300	•	•	0 to 020	•	•
0 to 500	•	•	0 to 035	•	•
0 to 01k	•	•	0 to 070	•	•
0 to 03k	•	•	0 to 200	•	•
0 to 05k	•	•	0 to 350	•	•

Intermediate ranges available

PERFORMANCE SPECIFICATIONS (AMPLIFIED OUTPUT)

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Accuracy (combined non linearity, hysteresis, and repeatability)	-0.15	±0.1	0.15	%Span	FS<1kpsi @25°C
	-0.25	±0.2	0.25	%Span	FS≥1kpsi @25°C
Span Tolerance	-1.0	±0.5	1.0	%Span	@25°C
Zero Offset	-1.0	±0.5	1.0	%Span	@25°C
Temperature Error – Span	-1.5	±0.75	1.5	%Span	
Temperature Error – Offset	-1.5	±0.75	1.5	%Span	
Thermal Hysteresis – Span		±0.05		%Span	
Thermal Hysteresis – Offset		±0.05		%Span	
Long Term Stability – Span		±0.10		%Span/year	
Long Term Stability – Offset		±0.10		%Span/year	
Insulation Resistance (50Vdc)	50			MΩ	
Response Time	1		1	Ms	
Proof Pressure			3X	Rated	
Burst Pressure			4X	Rated	
Compensated Temperature	-20		+85	°C	Except cable -20~80°C
Operating Temperature	-40		+105	°C	Except cable -20~80°C
Storage Temperature	-40		+125	°C	Except cable -20~80°C
Media Compatibility	Liquids and gases compatible with 316/316L Stainless Steel				
Vibration	±20g MIL-STD-810C, Procedure 514.2, Figure 514-2, Curve L				
Shock (11ms)	100g 11mS				
Pressure Cycles (Zero to Full Scale)	1 million cycles 0 to full scale				
Environmental Protection	IP67 (Cable Version)				

For custom configurations, consult factory.

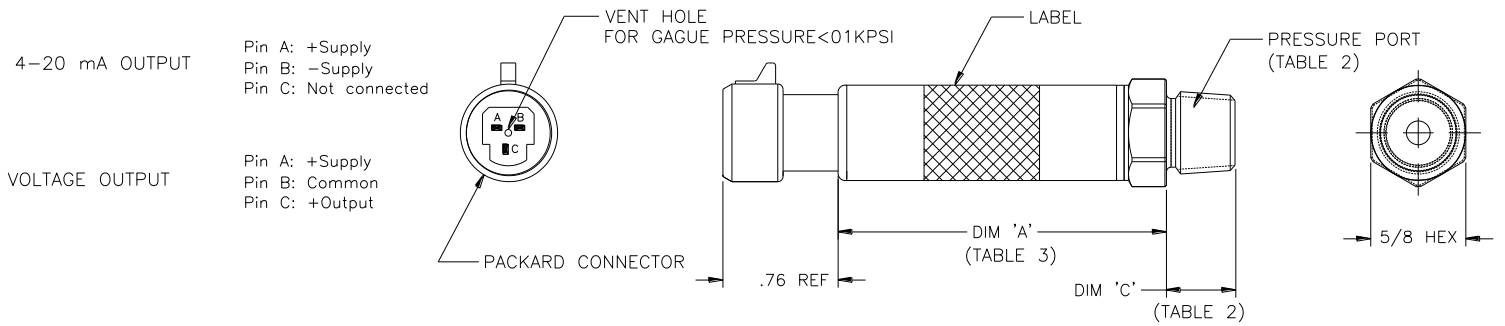
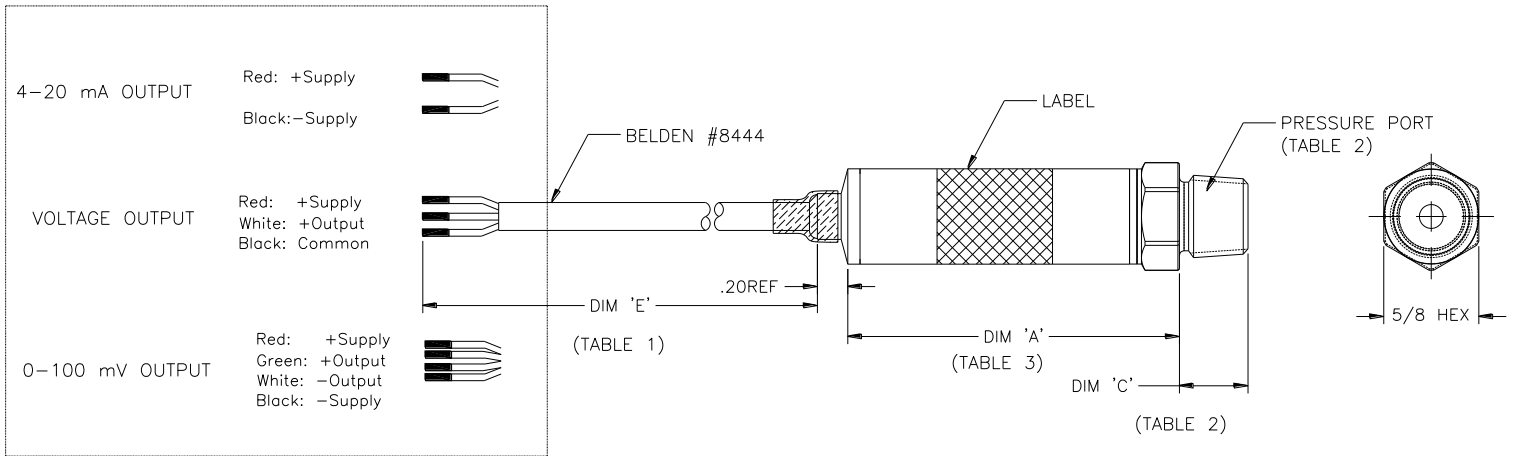
PERFORMANCE SPECIFICATIONS (mv OUTPUT)

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	99	100	101	mV	FS≥15psi
	98	100	102	mV	FS≥1kpsi
Zero Pressure Output	-1.0		1.0	mV	
Pressure Non Linearity	-0.10		0.10	%Span	FS≥15psi
	-0.25		0.25	%Span	FS≥1kpsi
Pressure Hysteresis	-0.05	±0.02	0.05	%Span	FS≥15psi
	-0.1		0.1	%Span	FS≥1kpsi
Repeatability		±0.02		%Span	FS≥15psi
Input Resistance	6.0	10.0	19.0	kΩ	
Output Resistance	4.0		6.0	kΩ	
Temperature Error – Span	-1.0		1.0	%Span	
Temperature Error – Offset	-1.0		1.0	%Span	
Thermal Hysteresis – Span	-0.25		0.25	%Span	FS≤15psi over -20°~85°C
	-0.15		0.15	%Span	FS>15psi over -20°~85°C
Thermal Hysteresis – Offset	-0.25		0.25	%Span	FS≤15psi over -20°~85°C
	-0.15		0.15	%Span	FS>15psi over -20°~85°C
Long Term Stability – Span		±0.10		%Span/year	
Long Term Stability – Offset		±0.10		%Span/year	
Supply Voltage	2.5	10	14	Vdc	
Output Load Resistance	5			MΩ	
Insulation Resistance (50Vdc)	50			MΩ	
Output Noise (10Hz to 1kHz)		1.0		uV p-p	
Response Time (10% to 90%)			0.1	ms	
Proof Pressure			3X	Rated	
Burst Pressure			4X	Rated	
Compensated Temperature	-20		+85	°C	Except cable -20~80°C
Operating Temperature	-40		+125	°C	Except cable -20~80°C
Storage Temperature	-40		+125	°C	Except cable -20~80°C
Media Compatibility	Liquids and gases compatible with 316/316L Stainless Steel				
Vibration	±20g MIL-STD-810C, Procedure 514.2, Figure 514-2, Curve L				
Shock (11ms)	100g 11mS				
Pressure Cycles (Zero to Full Scale)	1 million cycles 0 to full scale				
Environmental Protection	IP67 (Cable Version)				

For custom configurations, consult factory.

DIMENSIONS



CODE	CONNECTION	DIM 'E'
1	CABLE,BELDEN #8444 2 FEET	24"±1"
2	CABLE,BELDEN #8444 4 FEET	48"±2"
3	CABLE,BELDEN #8444 10 FEET	120"±4"
4	PACKARD CONNECTOR	-

CODE	PRESSURE PORT	DIM 'C'
2	1/4-19 BSPP	0.45 [11.43]
4	7/16-20 UNF Male SAE J514 Straight Thread Boss O-Ring Buna-N 70SH -904, ID8.92mm X W1.83mm	0.33 [8.38]
5	1/4-18 NPT	0.45 [11.43]
6	1/8-27 NPT	0.32 [8.13]

DIM 'A'	CONNECTION	V/mA OUTPUT		mV OUTPUT
		<1000 PSIG/A	≥1000 PSIG/A	
	CABLE	2.18" MAX	2.24" MAX	1.21"
PACKARD	2.14" MAX	2.19 MAX	-	

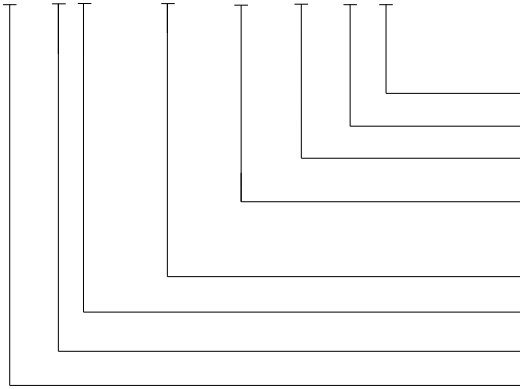
OUTPUT OPTIONS

Code	Output	MIN	Supply (V)	
			TYP	MAX
2	0 – 100mV (Constant Voltage 10mV/V Output)	2.5	10	14
3	0.5 – 4.5 V (Ratiometric @ 5V)	4.75	5	5.25
4	1 – 5 V	8		30
8	4 – 20 mA	9		30

Packard connector not available with mV output

ORDERING INFORMATION

US381-000005-500PG



Type (A = Absolute, G = Gage)
 Units (P = psi, B = Bar)
 Pressure Range (See Pressure Range Table)
 Pressure Port (2 = 1/4-19BSP, 4 = 7/16-20UNF, 5 = 1/4-18NPT, 6 = 1/8-27NPT)
 Options (nnnnn = Custom Drawing)
 Connection (1 = 2ft, 2 = 4ft, 3 = 10ft Cable, 4 = Packard)
 Output (2 = 0 - 100mV Ratiometric, 3 = 0.5 - 4.5V, 4 = 1 - 5V, 8 = 4 - 20mA)
 Model

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