



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); IP65 (Packard Version)				

For custom configurations, consult factory.

PERFORMANCE SPECIFICATIONS (mV OUTPUT)

All parameters are measured at 10Vdc drive and at 25°C after 10 sec warm up (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	
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	Over -20°~85°C
Thermal Hysteresis – Offset	-0.25		0.25	%Span	FS≤15psi over -20°~85°C
Long Term Stability – Span		±0.10		%Span/year	
Long Term Stability – Offset		±0.10		%Span/year	
Output Load Resistance	5			MΩ	
Insulation Resistance (50VDC)	50			MΩ	At 50 V _{DC}
Output Noise (10Hz to 1kHz)		1.0		μV 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
Wetted Material	316/316L Stainless steel				
Vibration	±20g MIL-STD-810C, Procedure 514.2, Figure 514-2, Curve L				
Shock	50g, 11 msec half sine hock per ML-STD-202g, Method 213B, Condition A				
Pressure Cycles	1 million cycles 0 to full scale				
Environmental Protection	IP67 (Cable connected with mV version only)				

For custom configurations, consult factory.

DIMENSIONS

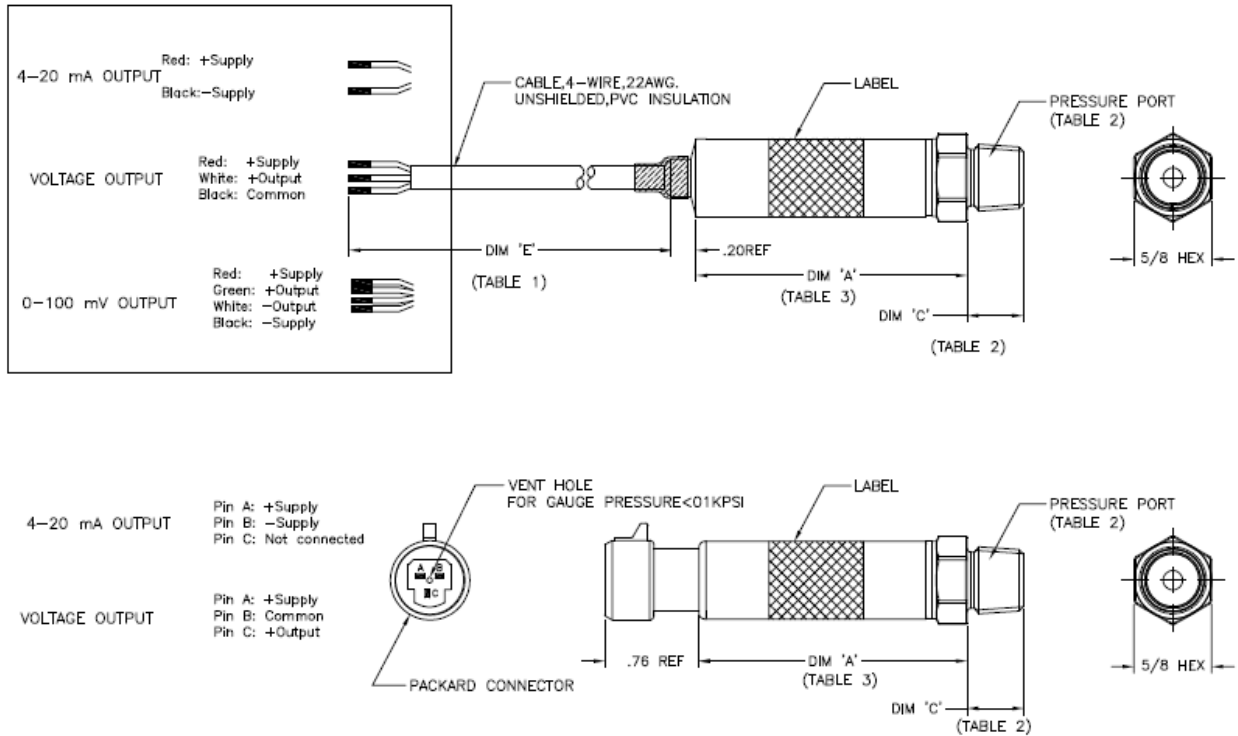


TABLE 1 : CONNECTION

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	-

TABLE 2: PRESSURE PORT

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]

TABLE 3

DIM 'A'	CONNECTION	V/mA OUTPUT		mV OUTPUT
		<math>< 1000 \text{ PSIG/A}</math>	>math>\geq 1000 \text{ PSIG/A}</math>	
	CABLE	2.18" MAX	2.24" MAX	1.21"
	PACKARD	2.14" MAX	2.19 MAX	-

OUTPUT OPTIONS

Code	Output	Supply (V)		
		MIN	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

ORDER INFORMATION

US3 3 3 - 00000 2 - 100P A

Output		
Code	Type	Supply Voltage
2	0 – 100mV Ratiometric	2.5 – 14V (typ. 10V)
3	0.5 – 4.5V Ratiometric	4.75 – 5.25V (Typ. 5V)
4	1 – 5V	8 – 30V
8	4 – 20mA	10 – 30V

Connection		
Code	Connection Type	Dim 'E'
1	Cable, 2 feet	24"±1"
2	Cable, 4 feet	48"±2"
3	Cable, 10 feet	120"±4"
4	Packard Connector	-

Pressure Port		
Code	Port Type	Dim 'C'
2	1/4-19 BSPP	0.45[11.43]
4	7/16"-20UNF Male SAE J514 Straight Thread Boss O-Ring BUNA-N 70SH-904 ID8.92mmxW1.83mm	0.33[8.38]
5	1/4-18 NPT	0.45[11.43]
6	1/8-27 NPT	0.32[8.13]

Pressure Reference	
G	Gauge
A	Absolute

Pressure Range		
mV Output Version	Amplified Output Version	
psi Std.	psi Std	bar Std
015P	015P	001B
030P	030P	002B
050P	050P	3.5B
100P	100P	007B
300P	300P	020B
500P	500P	035B
01KP	01KP	070B
03KP	03KP	200B
05KP	05KP	350B

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Phone: 800-522-6752
Email: customercare.frm@te.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Phone: +31-73-624-6999
Email: customercare.lcsb@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Phone: 0400-820-6015
Email: customercare.shzn@te.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru