

PPT82U Pressure Transducer Analog Output & Packard Connector

All stainless steel MEMS transducer for industrial & mobile OEM equipment



DESCRIPTION

The PPT82U is an all stainless steel pressure transducer built for industrial and commercial equipment that sees pressure spikes, vibration, and demanding media. A MEMS piezoresistive element is pressurized on the passive backside of the SS316L housing, giving the series superior long-term stability and accuracy.

Four analog output options, five accuracy grades, and six process connections are configured from one part number, with 5 V or 9–24 V supply. The sealed Packard connector and welded stainless housing make the PPT82U a simple, cost-effective, and reliable choice for OEM programs. Contact us for custom designs.

FEATURES

- Pressure ranges from 1 PSI to 5,000 PSI
- Analog outputs: 0.5–4.5 V, 0–5 V, 4–20 mA, 0–10 V
- Accuracy options from $\pm 0.15\%$ to $\pm 1.00\%$ FS
- All stainless steel (SS316L) wetted parts & housing
- -20 to 85 °C operating and compensated range
- Packard connector — mates with Aptiv 15344728
- Absolute, gauge, sealed gauge & compound references
- Manufactured in the United States of America

APPLICATIONS

- Process control systems
- Industrial automation
- Refrigeration & HVAC systems
- Hydraulic & pneumatic equipment
- Off-highway & automotive systems
- General OEM integration

MAXIMUM ENVIRONMENTAL RATINGS

Operating Temperature	-20 to 85 °C · -4-185 °F	Proof Pressure	1.25× full scale
Compensated Temperature	-20 to 85 °C · -4-185 °F	Burst Pressure	1.5× full scale
Ingress Protection	IP65	Pressure Range	1 to 5,000 PSI

Electrical & performance specifications

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply (Option 1)	Vdd	2.7	5.0	5.5	VDC
Supply (Option 2)	Vdd	9	—	24	VDC
Output — Option 0	Vout	0.5	—	4.5	V
Output — Option 1	Vout	0	—	5	V
Output — Option 2	Iout	4	—	20	mA
Output — Option 3	Vout	0	—	10	V
Accuracy (configurable)	±%FS	±0.15	—	±1.00	%FS
Linearity	±%FS	-0.15	—	+0.15	%FS
Hysteresis	±%FS	-0.05	—	+0.05	%FS
Repeatability	±%FS	-0.05	—	+0.05	%FS
Temperature Error	°C	-1.5	—	+1.5	°C
Response Time	tr	—	5	—	ms
Current Consumption	I	—	5	—	mA
Operating Temperature	—	-20	—	85	°C
Compensated Temperature	—	-20	—	85	°C
Pressure Range	—	1	—	5000	PSI

WIRING

Packard connector pinout

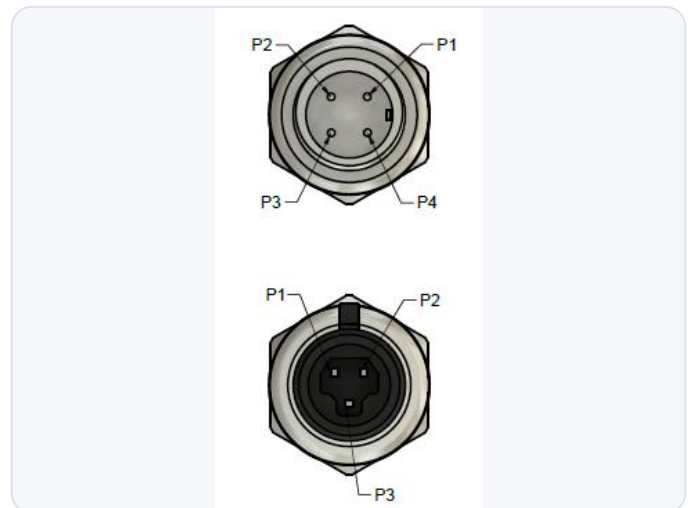
PIN	VOLTAGE OUTPUT (0/1/3)	CURRENT OUTPUT (2)
P1	GND	Loop +
P2	Vs (supply)	Loop -
P3	Vout	N/C

NOTES

- 1) Voltage outputs measured with 5 V supply; output is ratiometric.
- 2) Linearity defined as best straight line.
- 3) Accuracy is a configurable option – see ordering information.
- 4) Proof pressure 1.25× FS; burst pressure 1.5× FS.
- 5) Mating connector: Aptiv 15344728 or equivalent.

FIG. 1

Connector face & pin locations



Viewed into the mating face of the 3-position Packard connector.

Package, media & installation

Package

The body is machined from stainless steel (SS316L) and laser welded, which keeps manufacturing repeatable and long-term stability high. The compact, vibration-resistant design is suited to engine- and frame-mounted OEM installations.

Pressure port

1/4"-18 NPT and 1/8"-18 NPT are standard stainless fittings. 7/16-20 UNF-2A, 9/16-18 UNF-3A AN, and 1/4" BSP are also available, plus custom fittings for OEM programs.

Wetted parts

Wetted surfaces are stainless steel (SS316L) only. UNF ports include a Buna-N O-ring, 70 durometer.

Stability

The silicon MEMS element is mounted to a ceramic base and sealed into the SS housing, pressurized on the passive backside. Thermally matched materials reduce mechanical stress on the element, yielding greater stability over time and temperature. All sensors are factory stabilized and compensated.

Media

The pressure port is tolerant to most media including oil, air, gas, water, and many mildly corrosive fluids. Verify compatibility against the wetted materials for aggressive media.

Pressure ranges

Standard ranges span 1 PSI to 5,000 PSI in absolute, gauge, sealed gauge, and compound (vacuum) references. Custom ranges are available for OEM volumes.

ELECTRICAL CONNECTION

Mating & marking

ITEM	DETAIL
Connector	3-position Packard, black
Mating connector	Aptiv 15344728 (or equivalent)
Ingress protection	IP65 (vent membrane, IP67 rated)
Housing / wetted	SS316L

±0.15%

Best accuracy FS

5,000

Max range PSI

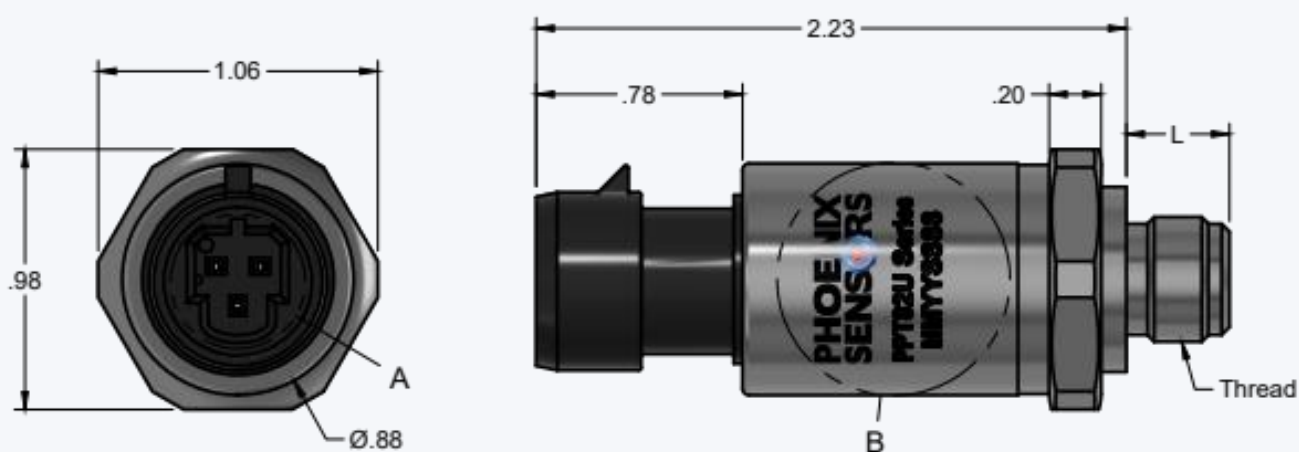
SS316L

All-stainless wetted

4

Analog output options

Outline drawing — inches



DIMENSION	INCHES
Overall length (excl. thread)	2.23
Hex across flats	0.98
Housing diameter	0.88
Connector body length	0.78
Hex height	0.20
Port to hex face	1.06

THREAD	LENGTH L
1/4 NPT	0.49
1/8 NPT	0.38
7/16-20 UNF-2A	0.36
9/16-18 UNF-3A AN	0.80
1/4 BSPP	0.51

NOTES

- 1) Dimensions and tolerances in inches:
X ±0.5, X.X ±0.15, X.XX ±0.010, X.XXX ±0.005.
- 2) Overall length excludes the process thread – add L from the thread table.
- 3) Housing and port are SS316L; UNF ports ship with a Buna-N 70 duro O-ring.
- 4) Vent membrane (IP67 rated) protects the reference port; overall rating IP65.
- 5) Per PPT82U Series Drawing, Rev A – consult factory for full tolerancing.

Part-number configuration

PPT82U

–

0

–

100

G

1

1

2

MODEL
OUTPUT
RANGE
TYPE
ACCURACY
THREAD
SUPPLY

Model	Output	Pressure Range (PSI)	Pressure Type	Accuracy	Thread	Supply
PPT82U	0 = 0.5–4.5V 1 = 0–5V 2 = 4–20mA 3 = 0–10V	1 = 1 PSI 100 = 100 PSI 5K = 5,000 PSI	A = Absolute C = Compound G = Gauge S = Sealed Gauge	1 = ±0.15% FS 2 = ±0.20% FS 3 = ±0.25% FS 4 = ±0.50% FS 5 = ±1.00% FS	1 = 1/4 NPT 2 = 1/8 NPT 3 = 7/16-20 UNF-2A 4 = 9/16-18 UNF-3A AN 5 = 1/4 BSPP 6 = Custom	1 = 5V 2 = 9–24V

EXAMPLE PART NUMBERS

PPT82U-0-100G112 → 0.5–4.5 V · 100 PSI gauge · ±0.15% FS · 1/4 NPT · 9–24 V supply

PPT82U-2-300A351 → 4–20 mA · 300 PSI absolute · ±0.25% FS · 1/4 BSPP · 5 V supply

Configure your PPT82U

Custom pressure ranges, fittings, and connector options are available for OEM volumes.
Talk to an engineer to spec your part.

[REQUEST A QUOTE](#)

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