

# Hydraulics Pressure Transmitter

- All-stainless steel (316L) welded isolation diaphragm with no o-ring seals
- Wide pressure range from -14.5 PSI up to 8500 PSI
- Output accuracy options  $\pm 0.5\%$  &  $0.25\%FS$
- Resistant to vibration (20g, 25Hz–2kHz) and mechanical shock (20g/1ms)
- Compact & lightweight for deployment into confined spaces



## About

The P411 is a compact and durable pressure transmitter designed specifically for use in hydraulics and similar demanding environments. It utilizes a diffused silicon sensor and an integrated circuit to provide a reliable 4–20mA current output, ideal for remote transmission and direct PLC or instrument interface. Its all-316L stainless steel sealed construction provides corrosion resistance, while its strong shock and vibration resistance ensures stable performance in high-impact settings. The transmitter supports gauge, absolute, and sealed gauge pressure references, making it versatile for a wide range of pressure monitoring tasks.

## Applications

- ✓ Mobile Hydraulic Equipment
- ✓ Stationary Hydraulic Equipment
- ✓ Industrial Automation & Control Systems
- ✓ Aerospace & Defense Equipment
- ✓ Automotive Systems
- ✓ Medical Instrumentation
- ✓ More

# Build Your Part Number

## Series P411

**Example: P411GAH375C6B-PSE16**

<b>Series</b>																																																																																																		
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<b>Pressure Reference - select one (please refer to options within pressure range chart below)</b>																																																																																																		
G	Gauge																																																																																																	
A	Absolute pressure																																																																																																	
S	Sealed gauge pressure																																																																																																	
<b>Output Signal - select one</b>			<b>Supply</b>																																																																																															
A	4 ... 20 mA		12 ... 36 VDC																																																																																															
<b>Accuracy Output - select one</b>																																																																																																		
S	0.5% FS (standard)																																																																																																	
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<table border="1"> <thead> <tr> <th>Pressure Range (psi) - select one</th> <th>Over Pressure (psi)</th> <th>Burst Pressure (psi)</th> <th>Pressure Reference</th> </tr> </thead> <tbody> <tr><td>14</td><td>-14.5 ... 30</td><td>60</td><td>150</td><td>Gauge</td></tr> <tr><td>24</td><td>0 ... 30</td><td>60</td><td>150</td><td>Gauge or Absolute</td></tr> <tr><td>25</td><td>0 ... 50</td><td>100</td><td>250</td><td>Gauge or Absolute</td></tr> <tr><td>26</td><td>0 ... 100</td><td>200</td><td>500</td><td>Gauge or Absolute</td></tr> <tr><td>27</td><td>0 ... 150</td><td>300</td><td>750</td><td>Gauge or Absolute</td></tr> <tr><td>28</td><td>0 ... 200</td><td>400</td><td>1000</td><td>Gauge or Absolute</td></tr> <tr><td>29</td><td>0 ... 250</td><td>500</td><td>1250</td><td>Sealed</td></tr> <tr><td>31</td><td>0 ... 300</td><td>600</td><td>1500</td><td>Sealed</td></tr> <tr><td>32</td><td>0 ... 400</td><td>8000</td><td>12000</td><td>Sealed</td></tr> <tr><td>33</td><td>0 ... 500</td><td>1000</td><td>1500</td><td>Sealed</td></tr> <tr><td>34</td><td>0 ... 1000</td><td>2000</td><td>3000</td><td>Sealed</td></tr> <tr><td>35</td><td>0 ... 1500</td><td>3000</td><td>4500</td><td>Sealed</td></tr> <tr><td>36</td><td>0 ... 2000</td><td>4000</td><td>6000</td><td>Sealed</td></tr> <tr><td>37</td><td>0 ... 3000</td><td>4500</td><td>6000</td><td>Sealed</td></tr> <tr><td>38</td><td>0 ... 5000</td><td>7500</td><td>10000</td><td>Sealed</td></tr> <tr><td>39</td><td>0 ... 7500</td><td>11250</td><td>15000</td><td>Sealed</td></tr> <tr><td>85</td><td>0 ... 8500</td><td>12750</td><td>17000</td><td>Sealed</td></tr> <tr><td>XX</td><td colspan="3">For custom ranges please inform below pat number (Ex: 0...550 psi)</td><td></td></tr> </tbody> </table>					Pressure Range (psi) - select one	Over Pressure (psi)	Burst Pressure (psi)	Pressure Reference	14	-14.5 ... 30	60	150	Gauge	24	0 ... 30	60	150	Gauge or Absolute	25	0 ... 50	100	250	Gauge or Absolute	26	0 ... 100	200	500	Gauge or Absolute	27	0 ... 150	300	750	Gauge or Absolute	28	0 ... 200	400	1000	Gauge or Absolute	29	0 ... 250	500	1250	Sealed	31	0 ... 300	600	1500	Sealed	32	0 ... 400	8000	12000	Sealed	33	0 ... 500	1000	1500	Sealed	34	0 ... 1000	2000	3000	Sealed	35	0 ... 1500	3000	4500	Sealed	36	0 ... 2000	4000	6000	Sealed	37	0 ... 3000	4500	6000	Sealed	38	0 ... 5000	7500	10000	Sealed	39	0 ... 7500	11250	15000	Sealed	85	0 ... 8500	12750	17000	Sealed	XX	For custom ranges please inform below pat number (Ex: 0...550 psi)			
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5E	1/2 NPT male																																																																																																	
5N	G1/4 male																																																																																																	
5Q	G1/2 male																																																																																																	
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6D	M12x1																																																																																																	
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PSE1	M12x1, 5 pole - straight with cable gland (field wireable)																																																																																																	
PSE2	M12x1, 5 pole - straight with 1 meter PUR cable																																																																																																	
PSE3	M12x1, 5 pole - straight with 3 meter PUR cable																																																																																																	
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PSE15	DIN 43650-A with 1 meter PUR cable																																																																																																	
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PSE18	DIN 43650-A with 3 meter PUR shielded cable																																																																																																	
PSE19	DIN 43650-A with 1/2" NPT female & cable gland (field wireable)																																																																																																	

# Technical Parameters

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<b>Accuracy</b>	Accuracy	± 0.5% FS typical ± 0.25% FS typical	
	Hysteresis	0.1% FS	
	Repeatability	0.1% FS	
	Response time	≤ 90ms (up to 90% FS)	
	Service life	≥ 10 <sup>6</sup> pressure cycles	
<b>Electrical</b>	Output	4 ... 20mA	
	Power supply	12 ... 36 VDC	
	Insulation resistance	≥100MΩ / 250VDC	
	Surge	IEC 61000-4-5 level 1	
	Voltage resistance	500 VAC @ 1 minute	
<b>Environmental</b>	Static electricity	IEC 61000-4-2 level 2	
	Medium temperature	115- (0.35×Ambient temp.) °C	
	Ambient temperature	-40°C ... 85°C	
	Storage temperature	-40°C ... 125°C	
	Temperature drift	± 1.5% FS (-20°C ... +85°C)	
	Protection	IP65	
	Medium compatibility	All media compatible with stainless steel 316L	
	Vibration resistance	Sine curve	20g, 25Hz ... 2kHz; IEC 60068-2-6
		Random	7.5g, 5Hz ... 1kHz; IEC 60068-2-64
	Shock resistance	Shock	20g / 1ms; IEC 60068-2-27
		Free fall	1m; IEC 60068-2-32
<b>EMC</b>	Immunity	IEC 61000-6-2	
	Radiation	IEC 61000-6-3	
<b>Mechanical</b>	Hex nut	HEX27	
	Net weight	130g ± 20g	

## Applications

Cavitation, liquid hammer and pressure peak may occur in air or fluid systems with varying flow rates, such as the rapid closing of the valve or the start and stop of the pump. Even at relatively low operating pressures, these problems may occur at the entrance and exit.

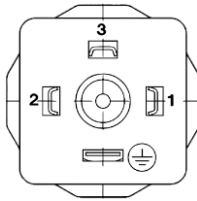
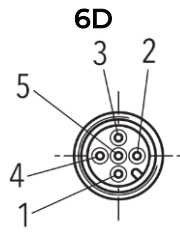
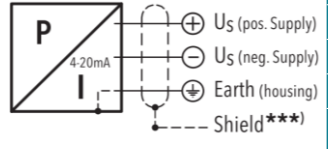
### Medium Condition

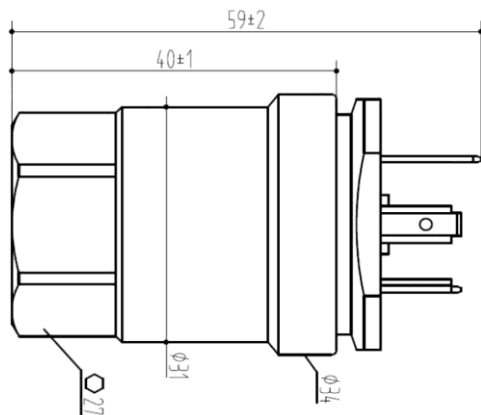
In liquid containing particles, pressure port clogging may occur. The vertical mounting of the pressure transmitter (6 O'clock) minimizes the risk of clogging because the flow of fluid is limited to the initial start-up while the volume behind the nozzle is fixed and the nozzle aperture is relatively large (1.2mm).

## Notes

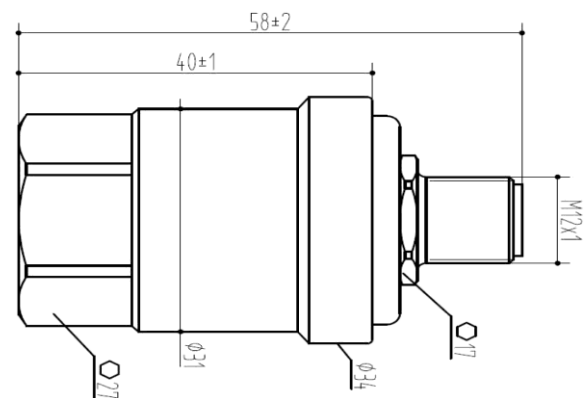
- 1) Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.
- 2) Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
- 3) Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.
- 4) Misuse of the product may cause danger or personal injury.

# Electrical Connections

Protection / Electrical Connection	
IP65	IP65
DIN43650-A	M12x1
	
<b>Output Signal</b> 	<b>6B</b> 1 2 3
	<b>6D</b> Please ask



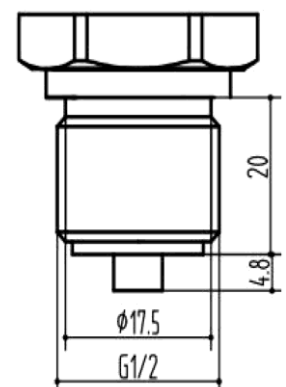
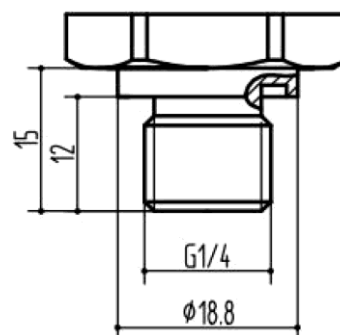
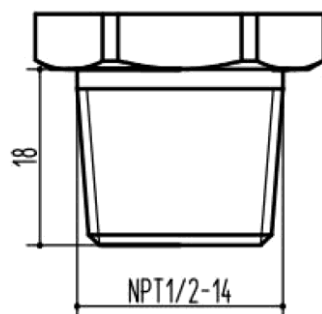
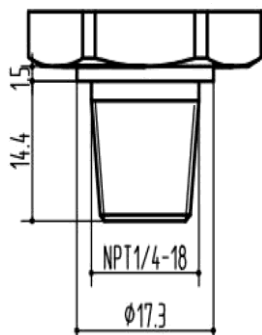
DIN 43650-A



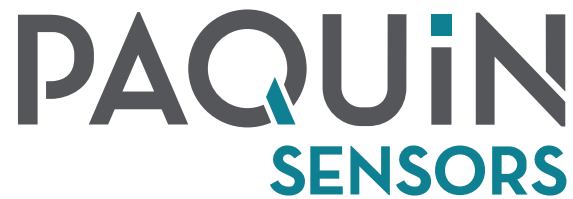
M12 x 1

## Process Ports

Recommended Torque: 15 ... 25 Nm



# Additional Information



*Paquin Sensors' product portfolio is designed to provide options to fit the most diverse range of specifications.*

*We collaborate with our customers to match the best product technologies with your unique application requirements.*

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