



# | 116CP SERIES

## PRESSURE SENSOR

### Introduction

Utilizing Sensata's industry leading ceramic capacitive technology, the 116CP is housed in a small and innovative plastic package ideal for boilers, pumps, and other light industrial applications.

The 116CP is offered in a wide range of configurations including various pressure ports, electrical outputs and pressure ranges from 0-4 to 0-16 bar.



### Features

- Multiple port & Connector options
- High accuracy:  $\pm 1.5\%V_s$
- Small & compact size
- 100% automated calibration
- REACH/RoHS/CE compliant
- Drinking water safe options available (126CP and 127CP only)

### Applications

- Boilers
- Heat pumps
- Residential booster pumps
- Lawn & Pool pumps
- Circulator pumps
- Pump controllers
- Food & Beverage equipment



## SPECIFICATIONS

### Electrical

<b>Supply Voltage</b>	5VDC (ratiometric) or 8-30VDC (voltage regulated)
<b>Output Voltage</b>	Commonly 0.5 to 3.5V or 0.5 to 4.5V (Others available under ordering options)
<b>Supply Current</b>	8.0mA
<b>Output Current</b>	5.0mA (max)
<b>Output Load</b>	10kOhm pull down
<b>Output Response Time</b>	<10ms
<b>Overvoltage Protection</b>	$\pm 40V$
<b>Reverse Voltage</b>	-14V
<b>Short Circuit Protection</b>	Up to 40V
<b>EMC</b>	EMC Conforms to EN 61326-2-3 for sensors
<b>ESD</b>	Conforms to IEC 61000-4-2 Level 3, 4kV contact / 8kV air

<b>Pressure Ranges</b>	0-4 to 0-16bar (0-60 to 0-232 PSI)
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# Physical

<b>Proof Pressure</b>	2xFS <sup>(1)</sup>
<b>Burst Pressure</b>	3xFS <sup>(1)</sup>
<b>Random Vibration</b>	DIN IEC 60068-2-27: 5G (2-2kHz)
<b>Mechanical Shock</b>	DIN IEC 60068-2-6: 40G1/2 HL SINE
<b>Drop (any Axis)</b>	1m
<b>Medium</b>	Water*

<sup>(1)</sup> FS (Pressure) = Pmax – Pmin

\*Other Media available upon consultation with Sensata

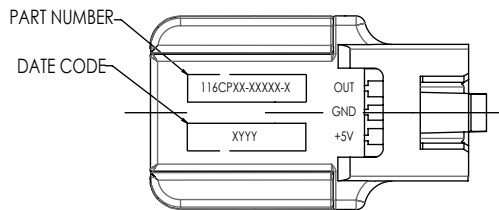
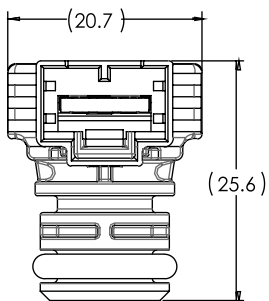
# Performance

<b>Electrical Connection</b>	RAST 2.5 (see ordering options)
<b>Pressure Connection</b>	G $\frac{3}{8}$ , G $\frac{1}{4}$ , quick connect (see configurations below and ordering options)
<b>Pressure Reference</b>	Sealed Gauge (1bar)
<b>Total Error Band Accuracy</b>	+/-1.5%V <sub>s</sub> (typical) <sup>(2)</sup>
<b>Operating Temperature</b>	2° to 90°C
<b>Storage Temperature</b>	-40° to 115°C

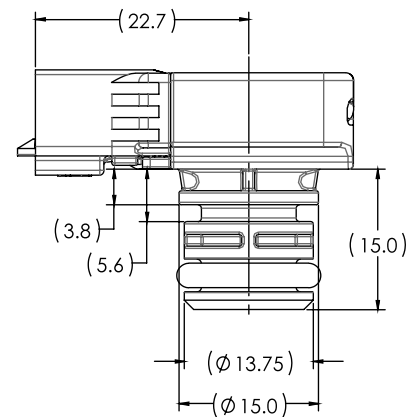
<sup>(2)</sup> Vs = Supply Voltage

## DIMENSIONS

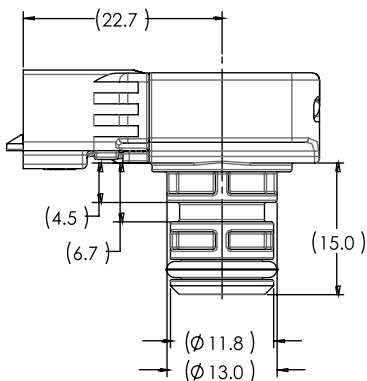
Dimensions in mm



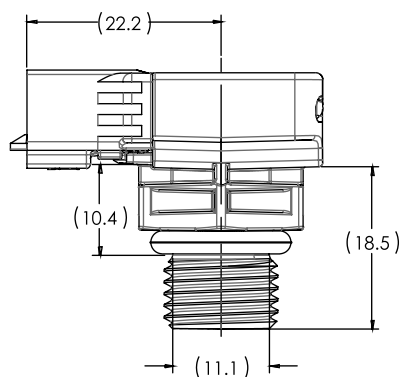
**Quick Connect Type 1**



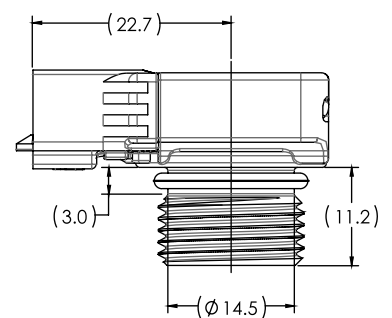
**Quick Connect Type 2**



**G 1/4 Thread**



**G 3/8 Thread**

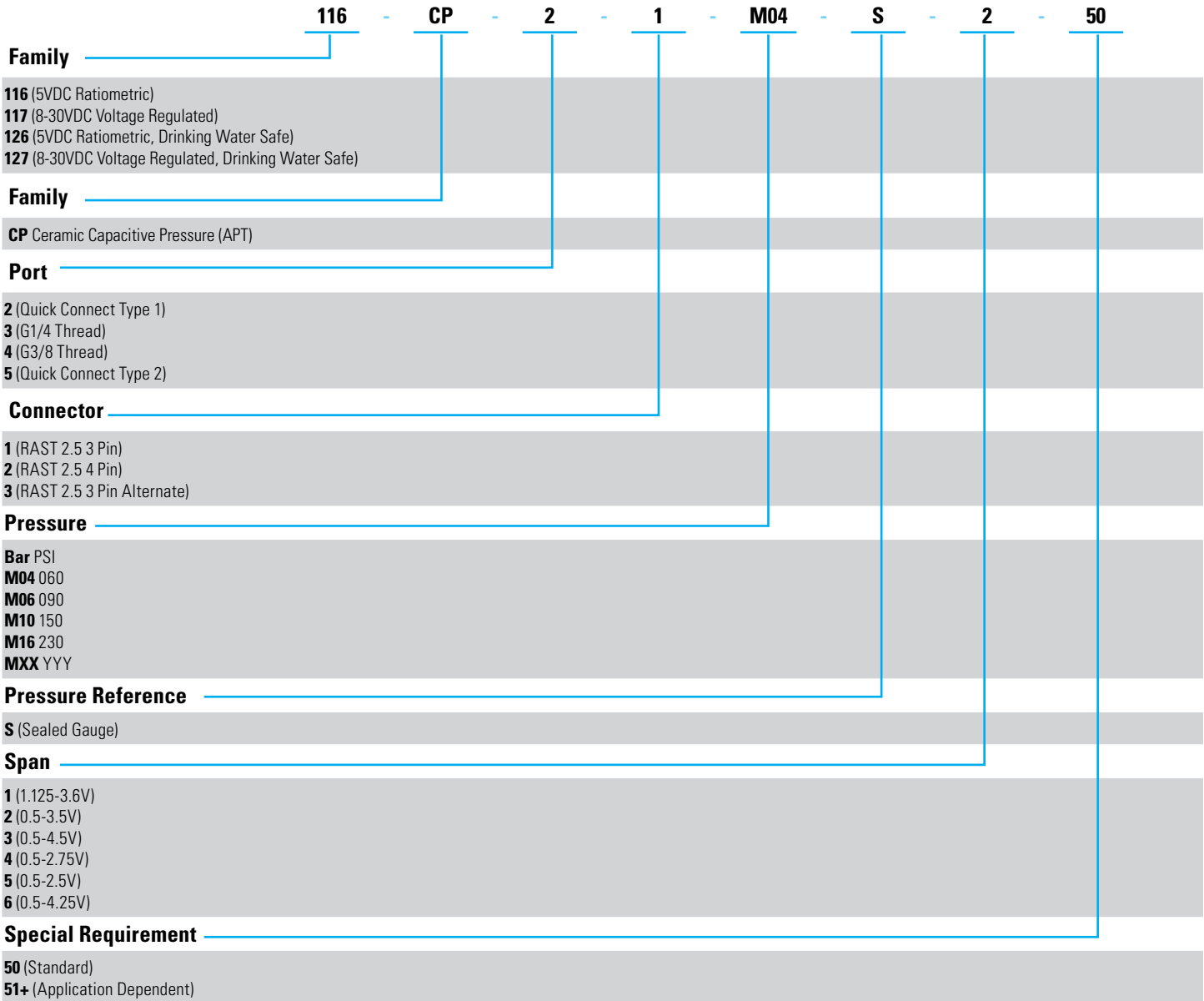




# ORDERING OPTIONS

Example : 116CP21-M04S2-50

5VDC ratiometric output, ceramic capacitive pressure sensing, quick connect type 1, RAST 2.5 3 position connector, 4 bar sealed gauge pressure, 0.5-3.5 voltage output, standard requirements



# STANDARD CONFIGURATIONS

Item Number	Input Voltage	Port	Connector	Pressure	Span
116CP21-M04S2-50	5VDC Ratiometric	Quick Connect Type 1	RAST 2.5 3 Pin	4 Bar Gauge	0.5-3.5V
116CP21-M10S3-50	5VDC Ratiometric	Quick Connect Type 1	RAST 2.5 3 Pin	10 Bar Gauge	0.5-4.5V
116CP21-M16S3-50	5VDC Ratiometric	Quick Connect Type 1	RAST 2.5 3 Pin	16 Bar Gauge	0.5-4.5V
116CP31-M04S2-50	5VDC Ratiometric	G1/4 Thread	RAST 2.5 3 Pin	4 Bar Gauge	0.5-3.5V
116CP31-M10S3-50	5VDC Ratiometric	G1/4 Thread	RAST 2.5 3 Pin	10 Bar Gauge	0.5-4.5V
116CP31-M16S3-50	5VDC Ratiometric	G1/4 Thread	RAST 2.5 3 Pin	16 Bar Gauge	0.5-4.5V



## AGENCY APPROVALS & CERTIFICATIONS



REACH  
NSF-61, WRAS, KTW, and ACS

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