The Tecnadyne PCX compensators are designed for use with oil filled subsea systems and subsea hydraulic systems. Using a spring loaded piston, sealed with a unique rolling diaphragm, the Tecnadyne PCX compensators increase the oil pressure of the system a small amount (2-4 psi, 4-8 psi, or 8-15 psi) above the sea water ambient. An indicator rod is used to visually show remaining oil volume, or an optional sensor can be added to the larger PCX units. Available in a variety of materials, all units can be operated to full ocean depth.

COMPENSATION VOLUME

12 Models available with Compensation volumes ranging from 1.3 cubic inches (0.02 L) to 621 cubic inches (10.17 L).

PRESSURE RANGES

Compensation pressures (pressure above sea water ambient) of 2-4 psi (0.14-0.28 bar), 4-8 psi (0.28-0.56 bar) and 8-15 psi (0.56-1.0 bar). Custom pressure ranges are available.

VOLUME SENSING

Standard configuration has a visual rod to indicate remaining volume. PC6X thru PC12X available with optional volume feedback sensor.

DEPTH RATING

All PCX models are rated for operation to full ocean depth.

CONSTRUCTION

Available with hard anodized 6061-T6 aluminum. Type 316 stainless steel, 6Al4V titanium, or Delrin acetal housings. Rolling diaphragm material compatible with most hydraulic fluids.
## MODEL PCX
### DIMENSIONS & SPECIFICATIONS

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DISPL.</th>
<th>A CYL OD</th>
<th>B FLANGE OD</th>
<th>C LENGTH</th>
<th>D CYL LGTH</th>
<th>E CYL LGTH</th>
<th>F ROD LGTH</th>
<th>G ROD DIA</th>
<th>WEIGHT ALUM</th>
<th>WEIGHT SS</th>
<th>WEIGHT Ti</th>
<th>H SAE J514</th>
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<td>1.3 cu in</td>
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</tbody>
</table>
# MODEL PCX

## CONFIGURATION & PART NUMBERING

### PC-AAA-BBB-CC-DD-EEEEEE-FF-GGGG

### AAA

**COMPENSATOR**

- STD - STANDARD SAE J514 FITTINGS INSTALLED
- SPEC - CUSTOMER SPECIFIED PORTING AND FITTINGS

### BBB

**PRESSURE OPTION**

- 024 - 2.4 PSI (0.14 - 0.28 BAR)
- 048 - 4 - 8 PSI (0.28 - 0.56 BAR)
- 815 - 8 - 15 PSI (0.56 - 1.0 BAR)

### CC

**HOUSING MATERIAL OPTION**

- AL - ALL EXTERNAL SURFACES 6061-T6 ALUMINUM, FASTENERS TYPE 316 STAINLESS STEEL
- SS - ALL EXTERNAL SURFACES AND FASTENERS TYPE 316 STAINLESS STEEL
- TI - ALL EXTERNAL SURFACES AND FASTENERS 6AL4V TITANIUM
- DN - ALL EXTERNAL SURFACES DELRIN ACETYL, FASTENERS TYPE 316 STAINLESS STEEL

### DD

**VOLUME SENSOR OPTION**

- RS - REED SWITCH, INDICATES (NO OR NC) ONLY WHEN COMPENSATOR IS EMPTY
- SP - STRING POTENTIOMETER RETURNS LINEAR VOLTAGE SIGNAL PROPORTIONAL TO REMAINING VOLUME
- NS - NO VOLUME SENSOR (DEFAULT OPTION)

### EEEEEEE

**SUBSEA CONNECTOR OPTION**

- FAWL3PBCRA - SEACON FAWL-3P-BC-RA SUBSEA CONNECTOR
- MCBH3M - IMPULSE MCBH3M SUBSEA CONNECTOR

### FF

**ROD VISUAL INDICATOR OPTION**

- ROD - VISUAL INDICATOR ROD INSTALLED
- NR - ROD NOT INSTALLED

### GGGGG

**HYDRAULIC FITTINGS OPTION**

- STD - STANDARD SAE J514 FITTINGS INSTALLED
- SPEC - CUSTOMER SPECIFIED PORTING AND FITTINGS

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**Scale 1:4**

**Model PCX & Part Numbering**

**Part Number:** PC-AAA-BBB-CC-DD-EEEEEE-FF-GGGG

**Configuration & Part Numbering**

- **PC1X & PC2X**
- **PC3X thru PC12X**

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**Requesting a Quote? Don’t Forget to Include Your Configuration**

Visit [www.tecnadyne.com](http://www.tecnadyne.com) for product datasheets

**All Specifications are Subject to Change Without Notice**
WHAT WERE YOU DOING 30 YEARS AGO?

In 1985 Tecnadyne delivered its first thrusters, six Model 1020’s that were installed on the original RTV-500 built by Mitsui Engineering and Shipbuilding (MES) of Tokyo. Since that time, we have manufactured and delivered over 8,000 thrusters, including more than 600 Model 1020’s. Even though the model 1020 that we build today incorporates over 32 design revisions to improve reliability, efficiency and maintainability - that thruster is still 100% compatible with the Model 1020 that was installed on that first RTV-500 system more than 30 years ago. This means that, after 30+ years, our customers can still purchase or repair a Model 1020 thruster to keep its fleet of ROV’s working. In those 30 years, the Model 1020 thruster has powered vehicles to the Titanic, that discovered JFK’s PT-109 in the Pacific, that participated in record depth wellhead completions off the coast of West Africa, that discovered lost cities in the Black Sea, that have scoured the world’s oceans for mines, and that have successfully completed thousand of routine subsea missions. The Model 1020 thruster is still being installed on new ROV and AUV systems worldwide.

Tecnadyne’s twenty-one other thruster models have also served the offshore community with reliability, high performance and cost effectiveness. Tecnadyne is constantly developing and releasing new thruster models to meet the industries ever evolving needs and to incorporate the latest technological advancements. It is Tecnadyne’s commitment to its customers and to the subsea community that no vehicle system, be it an ROV, AUV, manned submersible or any other subsea system, will ever be made obsolete because the Tecnadyne thrusters installed on that system are no longer available. For your next underwater vehicle build or purchase, be sure to specify only genuine Tecnadyne thrusters. You, your operators, your technicians and your customers will be glad you did - for the next 30 years.

FINAL TEST & INSPECTION

All Tecnadyne products undergo a rigorous set of final test procedures. Each thruster is operated at reduced power and full power in both directions for extended time periods. Each thruster is pressure tested and then subjected to an insulation breakdown test to identify leaks or other problems. Prior to shipment to the customer, each thruster is certified to perform correctly and to factory specifications.

WARRANTY

The Company warrants that the equipment covered by this warranty will be free from defects in workmanship and materials (if properly installed, operated and maintained in accordance with the Company’s specifications) for a period of one (1) year from date of shipment. If Buyer gives the Company prompt written notice of breach of this warranty within 12 months from date of shipment, the Company shall, if it determines in its sole discretion that such breach of warranty exists, and as Buyer’s exclusive remedy, repair or replace the subject parts or refund the purchase price. Buyer shall pay the removal and re-installation expenses and transportation costs for all repaired and replaced equipment and materials. The Company shall have the right to require Buyer to deliver the item(s) for repair or replacement if either such option is exercised by the Company, to the Company’s designated service center and the Buyer shall pay all charges for in-bound and out bound transportation and for services of any kind, diagnostic or otherwise, excepting only the direct and actual costs of apparatus repair or replacement as provided above. If the Company determines that any claimed breach is not, in fact, covered by this warranty, Buyer shall pay the Company its then customary charges for any repair or replacement made by the Company. The Company’s warranty is conditioned on Buyer (a) operating and maintaining the equipment in accordance with the Company’s instructions, (b) not making any unauthorized repairs or alterations, and (c) not being in default of any payment obligation to the Company. The Company’s warranty does not cover damage caused by misuse or improper installation.

THE WARRANTIES SET FORTH IN THIS SECTION ARE BUYER’S SOLE AND EXCLUSIVE WARRANTIES. SELLER MAKES NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

BUILT WITH PRIDE IN THE USA