

MODEL PCX PRESSURE COMPENSATORS

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 2-4psi (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.



ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

TECNADYNE[®]
THE LEADER IN SUBSEA PROPULSION

Visit www.tecnadyne.com for product datasheets

9770 CARROLL CENTRE RD., SAN DIEGO, CA 92067 | SALES@TECNADYNE.COM | 858-686-9660

MODEL PCX

DIMENSIONS & SPECIFICATIONS

PART NUMBER	DISPL.	A CYL OD	B FLANGE OD	C LENGTH	C LENGTH	D CYL LGTH	E CYL LGTH	F ROD LGTH	G ROD DIA	WEIGHT ALUM	WEIGHT SS	WEIGHT Ti	H SAE J514
PC1X	1.3 cu in 0.021 L	1.75 in 44.5 mm	-	2.55 in 64.8 mm	-	0.93 in 23.6 mm	1.60 in 40.6 mm	1.38 in 35.1 mm	0.19 in 4.8 mm	0.67 lb 0.31 kg	1.55 lb 0.71 kg	0.96 lb 0.44 kg	-2
PC2X	3.5 cu in 0.057 L	2.00 in 50.8 mm	-	4.08 in 103.6 mm	-	1.50 in 38.1 mm	2.55 in 64.8 mm	2.24 in 56.9 mm	0.19 in 4.8 mm	1.17 lb 0.53 kg	3.07 lb 1.40 kg	1.78 lb 0.81 kg	-2
PC3X	15.0 cu in 0.25 L	2.50 in 63.5 mm	3.25 in 82.6 mm	6.71 in 170.4 mm	-	2.12 in 53.8 mm	4.19 in 106.3 mm	3.74 in 95.0 mm	0.38 in 9.7 mm	1.58 lb 0.72 kg	3.56 lb 1.62 kg	2.17 lb 0.98 kg	-4
PC4X	21.5 cu in 0.35 L	2.75 in 69.9 mm	3.50 in 88.9 mm	7.45 in 189.2 mm	-	2.37 in 61.2 mm	4.68 in 118.9 mm	4.34 in 110.2 mm	0.38 in 9.7 mm	1.94 lb 0.88 kg	4.23 lb 1.92 kg	2.60 lb 1.18 kg	-4
PC5X	25.7 cu in 0.42 L	3.00 in 76.2 mm	3.75 in 95.3 mm	7.65 in 194.3 mm	-	2.32 in 59.0 mm	4.80 in 121.9 mm	4.40 in 111.8 mm	0.38 in 9.7 mm	2.63 lb 1.19 kg	5.28 lb 2.40 kg	3.28 lb 1.40 kg	-4
PC6X	69.2 cu in 1.13 L	4.25 in 108.0 mm	5.00 in 127.0 mm	10.63 in 270.0 mm	13.33 in 338.6 mm	3.31 in 84.1 mm	6.79 in 172.5 mm	6.28 in 159.5 mm	0.38 in 9.7 mm	7.06 lb 3.21 kg	15.13 lb 6.87 kg	8.70 lb 3.95 kg	-4
PC7X	86.4 cu in 1.42 L	4.50 in 114.3 mm	5.25 in 133.4 mm	11.50 in 292.1 mm	14.20 in 360.7 mm	3.49 in 88.6 mm	7.23 in 183.7 mm	6.90 in 175.3 mm	0.50 in 12.7 mm	8.55 lb 3.88 kg	17.99 lb 8.17 kg	10.32 lb 4.69 kg	-6
PC8X	118.9 cu in 1.95 L	5.00 in 127.0 mm	5.75 in 146.1 mm	12.32 in 312.9 mm	15.07 in 382.8 mm	3.72 in 94.5 mm	7.83 in 198.9 mm	7.45 in 189.2 mm	0.50 in 12.7 mm	10.88 lb 4.94 kg	22.04 lb 10.01 kg	12.71 lb 5.77 kg	-6
PC9X	157.8 cu in 2.58 L	5.50 in 139.7 mm	6.25 in 158.8 mm	13.55 in 344.2 mm	16.30 in 414.0 mm	4.04 in 102.6 mm	8.74 in 222.0 mm	8.44 in 214.4 mm	0.50 in 12.7 mm	14.51 lb 6.59 kg	27.92 lb 12.68 kg	16.17 lb 7.34 kg	-6
PC10X	291.5 cu in 4.78 L	6.50 in 165.1 mm	7.25 in 184.2 mm	17.07 in 433.6 mm	19.82 in 503.4 mm	5.35 in 135.9 mm	10.95 in 278.1 mm	10.31 in 261.9 mm	0.50 in 12.7 mm	22.37 lb 10.16 kg	42.44 lb 19.27 kg	24.74 lb 11.23 kg	-6
PC11X	482.4 cu in 7.91 L	8.00 in 203.2 mm	9.00 in 228.6 mm	17.57 in 446.3 mm	20.32 in 516.1 mm	5.44 in 138.2 mm	11.10 in 281.4 mm	10.92 in 277.4 mm	0.50 in 12.7 mm	31.19 lb 14.16 kg	59.45 lb 26.99 kg	34.65 lb 15.73 kg	-8
PC12X	620.8 cu in 10.17 L	8.50 in 215.9 mm	9.50 in 241.3 mm	20.0 in 508.0 mm	22.71 in 576.8 mm	6.17 in 156.7 mm	12.81 in 325.4 mm	12.31 in 312.7 mm	0.50 in 12.7 mm	41.64 lb 18.90 kg	72.24 lb 32.80 kg	42.82 lb 19.44 kg	-8

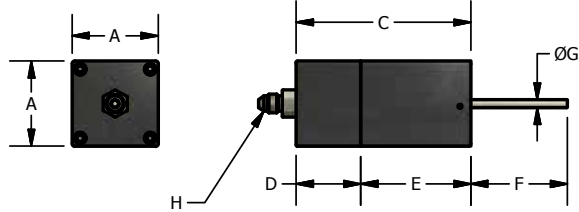
ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
ALL TECNADYNE PRODUCTS ARE SUBJECT TO US GOVERNMENT EXPORT CONTROLS

TECNADYNE[®]
THE LEADER IN SUBSEA PROPULSION

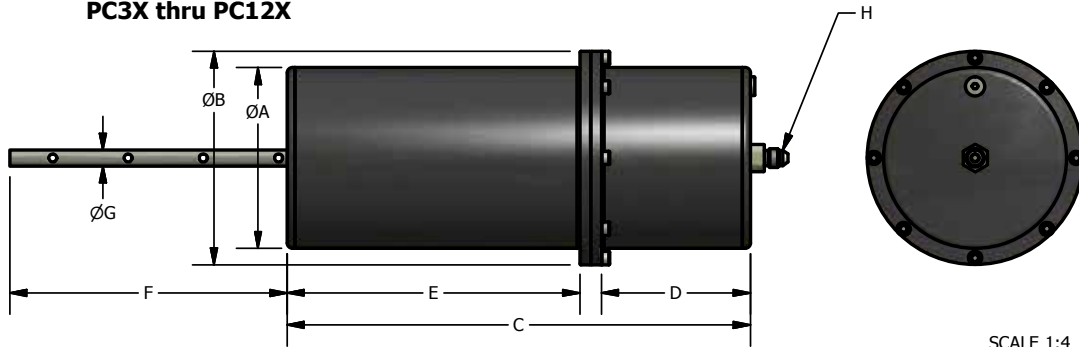
Visit www.tecnadyne.com for product datasheets

MODEL PCX CONFIGURATION & PART NUMBERING

PC1X & PC2X



PC3X thru PC12X



SCALE 1:4

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

<p>AAA COMPENSATOR DISPLACEMENT</p>	<ul style="list-style-type: none"> 1X - 1.3 CU IN (0.021 L) 2X - 3.5 CU IN (0.057 L) 3X - 15 CU IN (0.25 L) 4X - 21.5 CU IN (0.35 L) 5X - 25.7 CU IN (0.42 L) 6X - 69.2 CU IN (1.13 L) 7X - 86.4 CU IN (1.42 L) 8X - 118.9 CU IN (1.95 L) 9X - 157.8 CU IN (2.58 L) 10X - 291.5 CU IN (4.78 L) 11X - 482.4 CU IN (7.9 L) 12X - 620.8 CU IN (10.17 L)
<p>BBB PRESSURE OPTION (CONSULT FACTORY FOR OTHER PRESSURES)</p>	<ul style="list-style-type: none"> 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)
<p>CC HOUSING MATERIAL OPTION</p>	<ul style="list-style-type: none"> 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
<p>DD VOLUME SENSOR OPTION (OTHER SENSOR OPTIONS AVAILABLE)</p>	<ul style="list-style-type: none"> 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)
<p>EEEEEE SUBSEA CONNECTOR OPTION (ONLY FOR RS & SP OPTIONS ABOVE)</p>	<ul style="list-style-type: none"> FAWL3PBCRA - SEACON FAWL-3P-BC-RA SUBSEA CONNECTOR MCBH3M - IMPULSE MCBH3M SUBSEA CONNECTOR
<p>FF ROD VISUAL INDICATOR OPTION</p>	<ul style="list-style-type: none"> ROD - VISUAL INDICATOR ROD INSTALLED NR - ROD NOT INSTALLED
<p>GGGG HYDRAULIC FITTINGS OPTION</p>	<ul style="list-style-type: none"> STD - STANDARD SAE J514 FITTINGS INSTALLED SPEC - CUSTOMER SPECIFIED PORTING AND FITTINGS

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

TECNADYNE[®]
THE LEADER IN SUBSEA PROPULSION