

# T4SC Series

T4SC-420 to T4SC-18300

NEW GENERATION SUB-COMPACT NITROGEN GAS SPRINGS



 <p>APPROVED PED 2014/EB/CE 2 million</p>
 <p>ANAB ACCREDITED</p>
<p>Certified to ISO 9001:2008</p>
 <p>TÜVRheinland Precision Right.</p>

**HYSON**  
METAL FORMING SOLUTIONS™

# GENUINELY HYSON

Since 1964, HYSON has been dedicated to providing safer and more reliable products with worldwide support and service. We are continually at the forefront of innovative product design, and engineer forward-thinking features into our self-contained springs, which enable our customers to provide safer working environments.

Our nitrogen gas springs, which comply with all major industry standards, are designed to reduce the risk of tool damage and injuries and include at least one of the following safety features:



### Overstroke Protection:

In the event of an overstroke, the HYSON cylinder is designed to fail-safe and release pressure in a predefined manner with deformation or knockout plug.



### Overpressure Protection:

Designed to vent excessive gas in the event that the spring becomes overpressured, deformation of the safety lip guide or separation of disc will occur.



### Overload Protection:

The piston rod is designed for controlled gas venting between the seal and the piston rod with a specially designed guide and fundamental safety stop in the event of an overload caused by a jammed tool, part or rod side-load.



Additionally, the majority of HYSON springs are **PED** (Pressure Equipment Directive) approved to withstand a minimum of 2 million full cycles according to PED (2014/68/EU). Many of our competitors are in compliance of PED, but compliance is unequal to the 2 million cycle test and approval that HYSON gas springs have undergone. This is one more assurance that with HYSON Nitrogen Gas Springs, you receive an added value of reliability and operational excellence.

## GENUINELY HYSON SAFETY APP

Created to enable safer working environments and fight against unsafe counterfeit springs in manufacturing facilities around the globe, the Genuinely HYSON Safety App authenticates nitrogen gas springs with HYSON labeling have the design and safety features customers have come to expect with the HYSON brand. The app is available for download at [www.HysonSolutions.com](http://www.HysonSolutions.com).



***IDEAL WHERE SPACE IS LIMITED  
AND VERY HIGH FORCES ARE REQUIRED***

<b>Table of Contents</b>	<b>Page</b>
PED - Pressure Equipment Directive.....	2
Product Features .....	2
Initial Force.....	2
ISO: 9001:2008 Certification .....	2
Product Specifications .....	3
Repair Kits .....	3
Ordering Instructions .....	3
Mounting Options .....	3
T4SC-420.....	4
T4SC-740 .....	6
T4SC-1000.....	8
T4SC-1800.....	10
T4SC-2900 .....	12
T4SC-4700 .....	14
T4SC-7500.....	16
T4SC-11800.....	18
T4SC-18300.....	20



**General Information**

HYSON Metal Forming Solutions, headquartered in Brecksville, Ohio, is a world class engineering and manufacturing company that provides high-quality, safety-engineered force and motion control solutions for a wide range of applications and industries, including automotive, aerospace, appliance, medical and HVAC. HYSON partners with our customers to understand applications and provide the best solutions for each one. We are a full service force and motion control provider for critical machine, vehicle and precision metal processing applications, meaning we supply dependent upon each customer’s needs, including: gas springs, cam systems, cushions, manifolds and knockout systems.

Our success lies with our commitment to continually improve ourselves, our processes and our products to ensure we meet or exceed our customers’ expectations. Our ISO-9001, AS-9000 and PED certifications attest to our ongoing commitment to the highest standards of quality.

## PED - Pressure Equipment Directive

HYSON gas springs are designed to meet customer expectations for reliability, safety and service lifetime. The design, manufacture and testing of HYSON gas springs has been approved according to the European Pressure Equipment Directive (2014/68/EU).



The Pressure Equipment Directive (PED) replaces all previous European legislation governing the design, manufacture and testing of pressure vessels.

## Product Features

- T4SC gas springs are very compact bore-sealed springs, which provide the highest force per cylinder diameter. These gas springs are ideal where space is limited in the die and very high forces are required.
- T4SC gas springs can be hosed together and charged remotely using a control panel and hose system.
- As an option, the T4SC-1000 to 18300 springs can be delivered with a Side Port plate (SP) for applications where a side port is needed (e.g., for use in hose systems).
- From T4SC-1800 to 18300, the new compact unit is supplied with a new stroke length of 65mm.

## Initial Force

Calculation of charge pressure (bar) for T4SC to achieve desired initial force (N):

X = Desired initial force in N

$$\text{Charge pressure} = 150 \cdot \frac{X}{\text{Initial force at 150 bar}}$$

**Example:** T4SC-4700 to have a desired initial force of 25,000 N

$$\text{Charge pressure} = 150 \cdot \frac{25,000}{47,000} \approx 80 \text{ bar}$$

ISO: 9001:2008  
CERTIFICATION



### ISO: 9001:2008 CERTIFICATION

Focused on meeting customer expectations, ISO 9001 is an internationally recognized standard for quality management with certificates issued to organizations in 178 countries. This highly regarded certification reflects HYSON's ongoing commitment to deliver solutions that meet the highest quality standards.

**Product Specifications**

Pressure Medium ..... Nitrogen  
 Max. Charging Pressure ..... 150 bar/2175 psi  
 Min. Charging Pressure ..... 25 bar/360 psi  
 Operating Temperature ..... 0° to 80°C/32° to 176°F  
 Force Increase by Temperature ..... ±0.3% per °C/±0.009% per °F  
 Recommended Max. Strokes/Min for Models 420 & 740 ..... ~50 to 100 @ 20°C  
 Recommended Max. Strokes/Min for Models 1000 & 1800 ..... ~100 @ 20°C  
 Recommended Max. Strokes/Min for Models 2900, 4700, 7500, 11800 & 18300 ..... ~80 to 100 @ 20°C  
 Max. Piston Rod Velocity ..... 48m/min. / 157 ft./min.  
 Max. Utilized Stroke ..... 100%  
 Inlet Valve ..... 4018112 (T4SC-420 through 740) 56-072-5500 (T4SC-1000 through 18300)  
 Rod Surface ..... Nitrited  
 Tube surface ..... Nitrited

**REPAIR KITS**

Gas Spring	New Generation Order Number
T4SC-420	Not Repairable
T4SC-740	Not Repairable
T4SC-1000	<b>3324835</b>
T4SC-1800	<b>3324836</b>
T4SC-2900	<b>3324837</b>
T4SC-4700	<b>3324838</b>
T4SC-7500	<b>3324839</b>
T4SC-11800	<b>3324840</b>
T4SC-18300	<b>3324841</b>

**ORDERING INSTRUCTIONS**

T4SC-XXXX

X

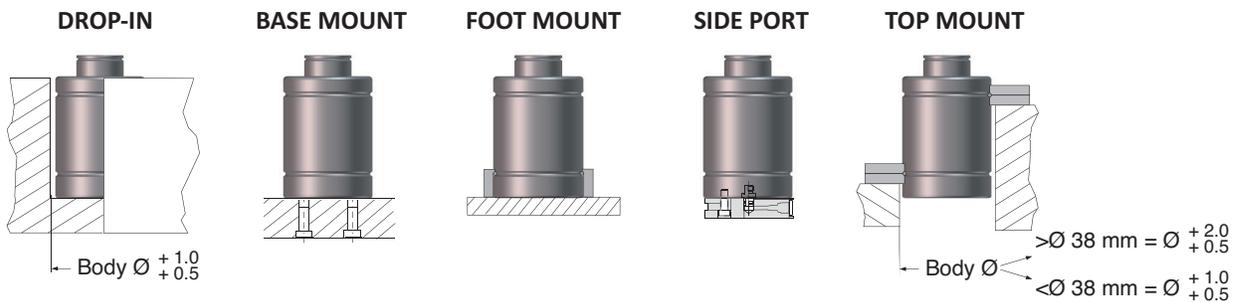
25

**MODEL**  
 T4SC-420, T4SC-740, T4SC-1000,  
 T4SC-1800, T4SC-2900, T4SC-4700,  
 T4SC-7500, T4SC-11800,  
 T4SC-18300

**STROKE (mm)**  
 See Dimensional Information Charts

All gas springs shipped at maximum charge pressure unless otherwise specified.

**MOUNTING OPTIONS**



All dimensions are in millimeters unless otherwise noted.

Advanced Safety Features



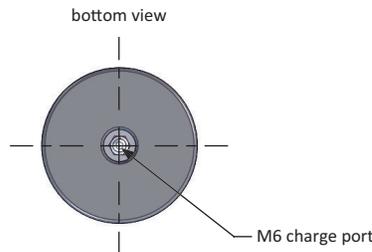
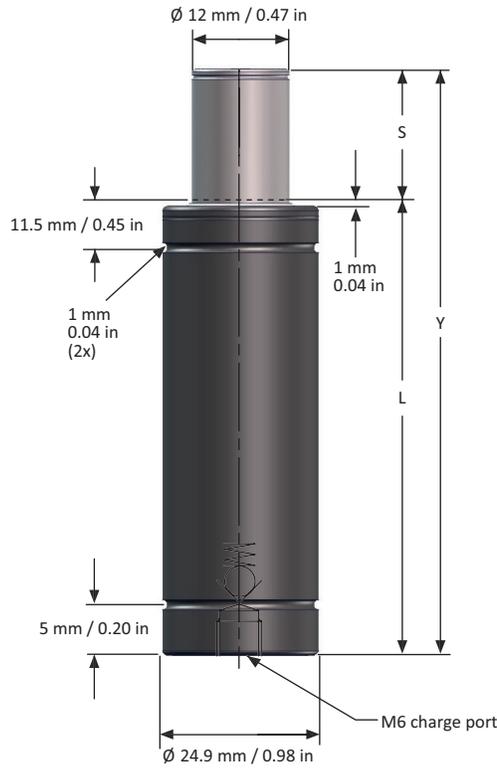
Overload Protection



Overpressure Protection



Overstroke Protection



T4SC-420 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-420x10	10	0.39	4,250	955	6,300	1,416	70	2.76	60	2.36	0.005	0.15
T4SC-420x16	16	0.63			6,300	1,416	91	3.58	75	2.95	0.008	0.18
T4SC-420x25	25	0.98			6,400	1,439	120	4.72	95	3.74	0.011	0.22
Alternative Stroke Lengths												
T4SC-420x6	6	0.24	4,250	955	7,300	1,641	56	2.20	50	1.97	0.003	0.13
T4SC-420x32	32	1.26			7,900	1,776	140	5.51	108	4.25	0.021	0.24
T4SC-420x40	40	1.57			8,000	1,800	165	6.50	125	4.92	0.026	0.27
T4SC-420x50	50	1.97			8,000	1,800	195	7.68	145	5.71	0.032	0.31

NOTE: Stroke lengths of greater than 25 mm should be base or flange mounted.

\*At full charge

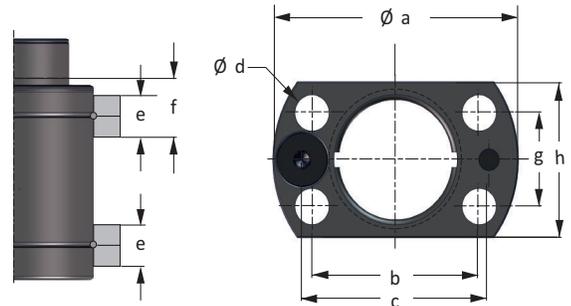
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FCR UPPER SQUARE FLANGE**

Order No.	Ø a		b	
	mm	in	mm	in
FCR-180	50	1.97	34	1.34

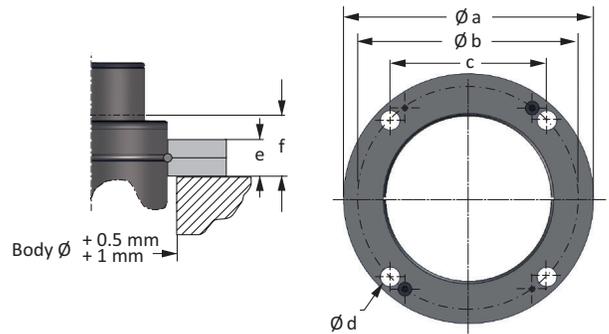
c		Ø d		e		f		g		h	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
38	1.50	7	0.28	9	0.35	16	0.63	18	0.71	30	1.18



**FC CIRCULAR FLANGE**

Order No.
FC-180

Ø a		Ø b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
50	1.97	38	1.50	35	1.38	7	0.28	9	0.35	16	0.63



**Advanced Safety Features**



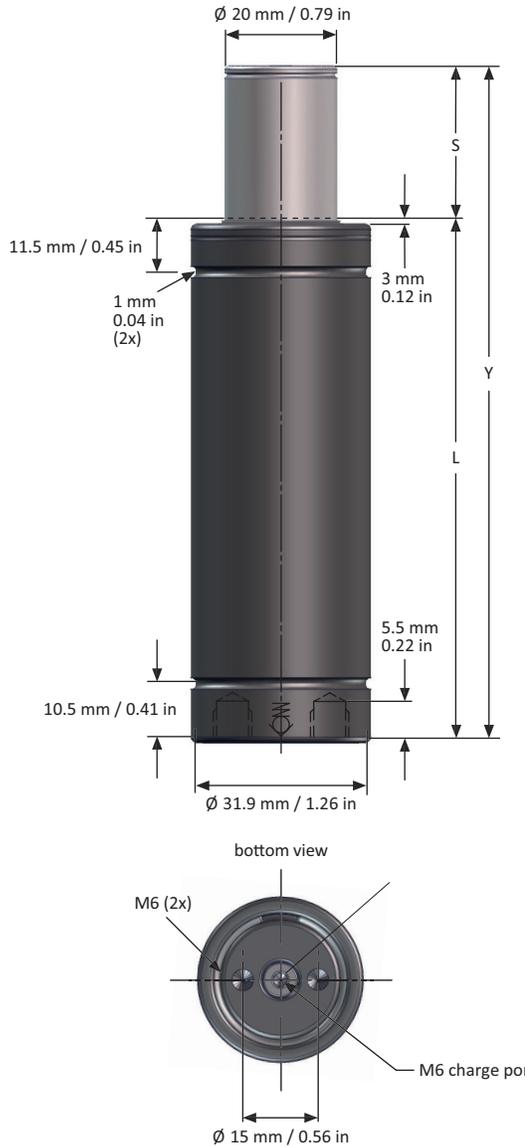
Overload Protection



Overpressure Protection



Overstroke Protection



**T4SC-740 Dimensional Information**

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
<b>Preferred Stroke Lengths (optimal delivery)</b>												
T4SC-740x10	10	0.39	7,400	1,663	10,000	2,250	75	2.95	65	2.56	0.017	0.24
T4SC-740x16	16	0.63			11,000	2,500	93	3.66	77	3.03	0.024	0.28
T4SC-740x25	25	0.98			12,000	2,700	120	4.72	95	3.74	0.034	0.33
<b>Alternative Stroke Lengths</b>												
T4SC-740x6	6	0.24	7,400	1,663	10,000	2,250	63	2.48	57	2.24	0.012	0.20
T4SC-740x32	32	1.26			12,000	2,700	140	5.51	108	4.25	0.042	0.37
T4SC-740x40	40	1.57			12,000	2,700	165	6.50	125	4.92	0.052	0.42
T4SC-740x50	50	1.97			12,000	2,700	195	7.68	145	5.71	0.063	0.48

**NOTE:** Stroke lengths of greater than 25 mm should be base or flange mounted.

\*At full charge

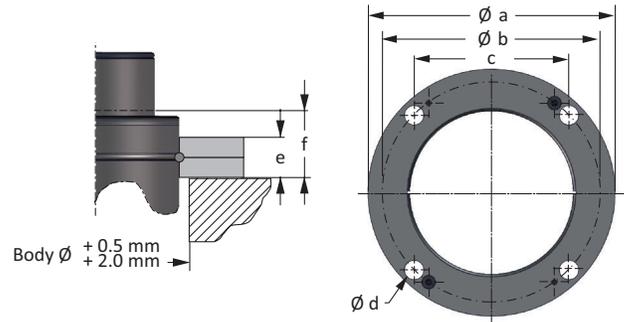
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FC CIRCULAR FLANGE**

<b>Order No.</b>
FC-350

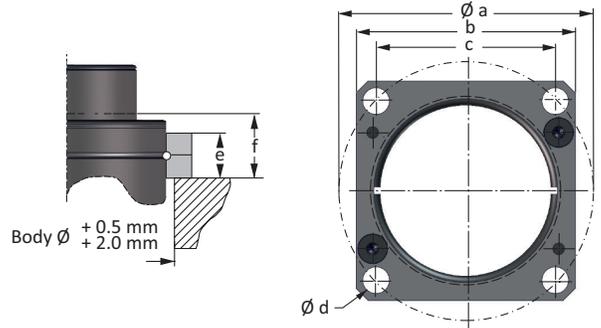
Ø a		Ø b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
60	2.36	49.5	1.95	35	1.38	7	0.28	9	0.35	16	0.63



**FCS UPPER SQUARE FLANGE**

<b>Order No.</b>
FC-32

Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
49.5	1.36	45	1.77	35	1.38	7	0.28	9	0.35	16	0.63



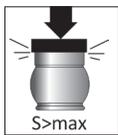
Advanced Safety Features



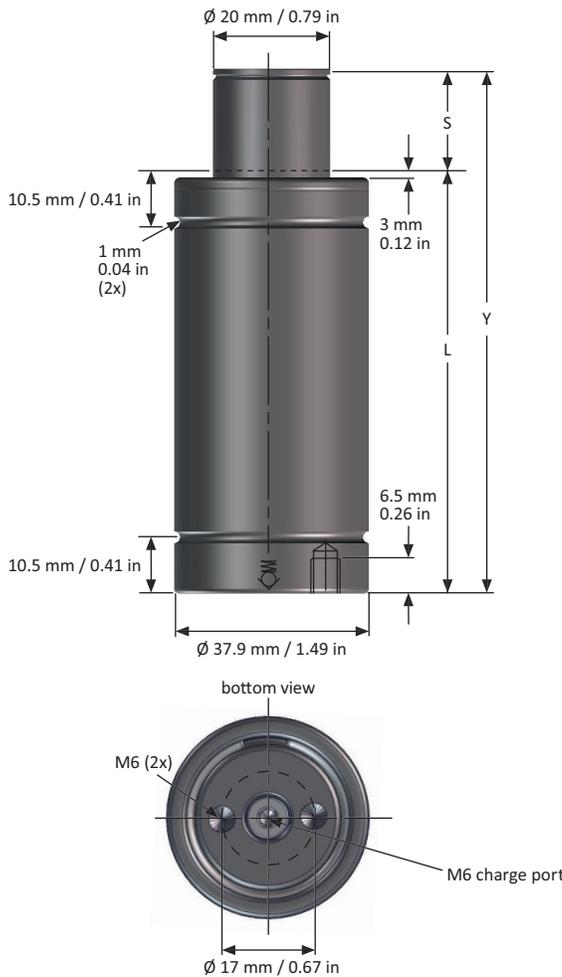
Overload Protection



Overpressure Protection



Overstroke Protection



T4SC-1000 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-1000x10	10	0.39	10,600	2,400	16,000	3,597	78	3.07	68	2.68	0.024	0.38
T4SC-1000x16	16	0.63					100	3.94	84	3.31	0.036	0.44
T4SC-1000x25	25	0.98					135	5.31	110	4.33	0.056	0.54
Alternative Stroke Lengths												
T4SC-1000x6	6	0.24	10,600	2,400	16,000	3,597	61	2.40	55	2.16	0.014	0.33
T4SC-1000x32	32	1.26					167	6.57	135	5.31	0.074	0.65
T4SC-1000x40	40	1.57					195	7.68	155	6.10	0.092	0.73
T4SC-1000x50	50	1.97					230	9.05	180	7.08	0.110	0.83

NOTE: Stroke lengths of greater than 25 mm should be base or flange mounted.

\*At full charge

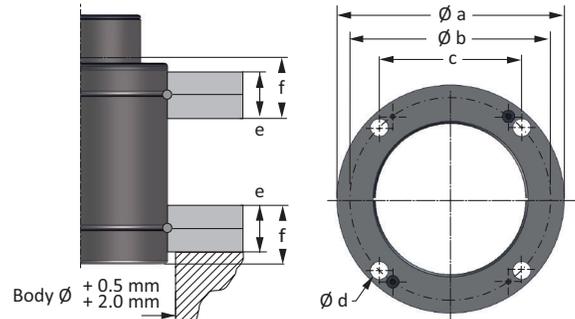
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FC CIRCULAR FLANGE**

<b>Order No.</b>
FC-250

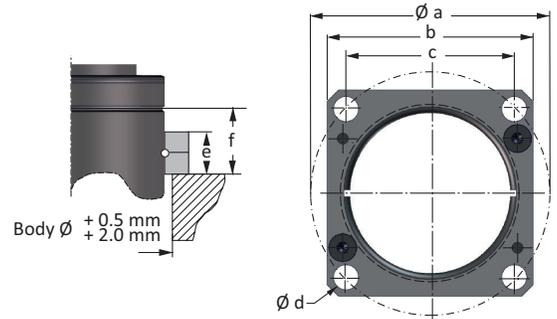
Ø a		Ø b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
68	2.68	56.5	2.22	40	1.57	7	0.28	9	0.35	15	0.59



**FCS UPPER SQUARE FLANGE**

<b>Order No.</b>
FCS-250

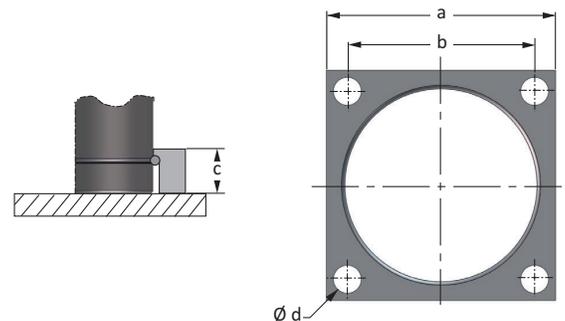
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
56.5	2.22	52	2.05	40	1.57	7	0.28	9	0.35	15	0.59



**BF BASE MOUNT SQUARE FLANGE**

<b>Order No.</b>
BF-1000

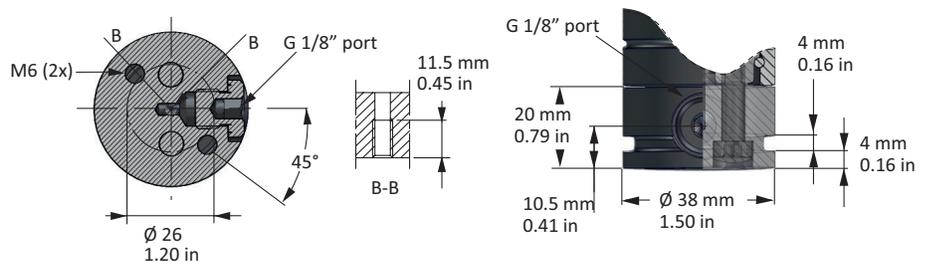
a		b		c		Ø d	
mm	in	mm	in	mm	in	mm	in
52	2.05	40	1.57	14.5	0.57	7	0.28



**SP 1000** The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** The T4SC-1000-SP adapter plate has no valve and can be pressurised only through a hose. It is delivered uncharged.

**NOTE:** Side port attachment fitting part #4016253 included.



<b>Order No.</b>
3116525

### Advanced Safety Features



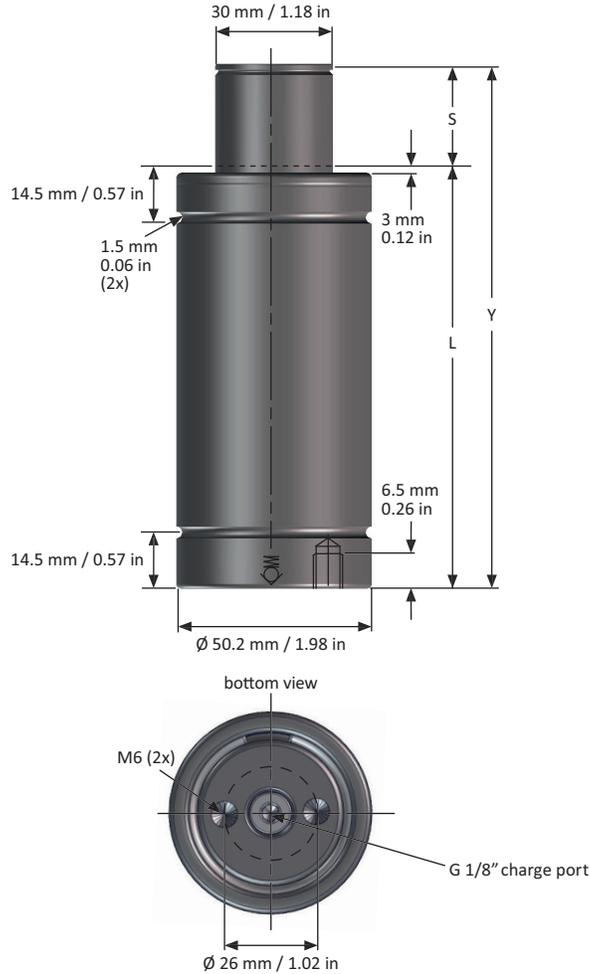
Overload Protection



Overpressure Protection



Overstroke Protection



### T4SC-1800 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-1800x10	10	0.39	18,000	4,050	25,000	5,620	80	3.15	70	2.76	0.044	0.66
T4SC-1800x16	16	0.63			25,000	5,620	106	4.17	90	3.54	0.072	0.79
T4SC-1800x25	25	0.98			26,000	5,845	135	5.31	110	4.33	0.100	0.93
Alternative Stroke Lengths												
T4SC-1800x6	6	0.24	18,000	4,050	24,000	5,395	66	2.60	60	2.36	0.030	0.60
T4SC-1800x32	32	1.26			26,000	5,845	162	6.38	130	5.12	0.126	1.06
T4SC-1800x40	40	1.57			26,000	5,845	190	7.48	150	5.90	0.150	1.19
T4SC-1800x50	50	1.97			27,000	6,070	220	8.66	170	6.69	0.179	1.32
T4SC-1800x65	65	2.56			28,000	6,294	271	10.66	206	8.11	0.240	1.52

**NOTE:** Stroke lengths of greater than 25 mm should be base or flange mounted.

\*At full charge

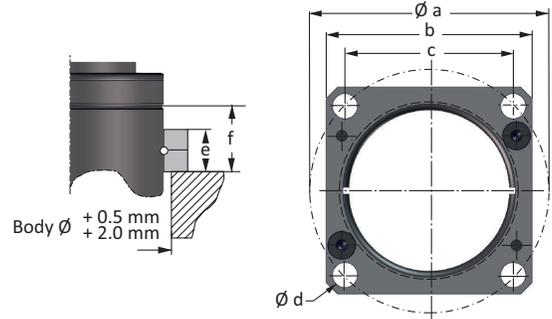
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FK UPPER SQUARE FLANGE**

<b>Order No.</b>
FK-1800

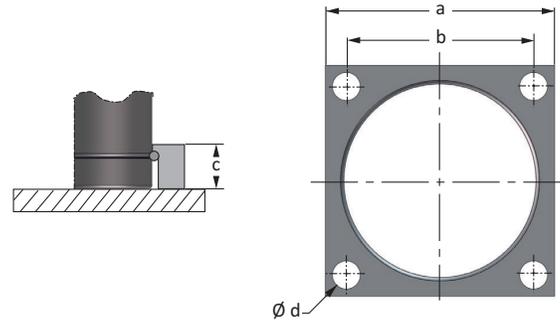
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
80	3.15	70	2.76	56.5	2.22	9	0.35	13	0.51	21	0.83



**BF BASE MOUNT SQUARE FLANGE**

<b>Order No.</b>
BF-1800

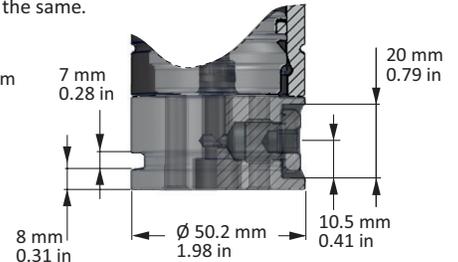
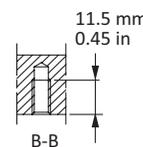
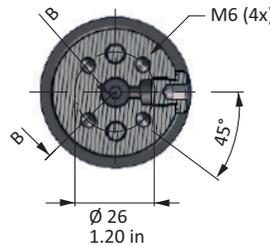
a		b		c		Ø d	
mm	in	mm	in	mm	in	mm	in
70	3.76	56.5	2.22	19.5	0.77	9	0.35



**SP 1800** The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** The T4SC-1800-SP adapter plate has no valve and can be pressurised only through a hose. It is delivered uncharged.

**NOTE:** Side port attachment fitting part #4016253 included.



<b>Order No.</b>
3116526

### Advanced Safety Features



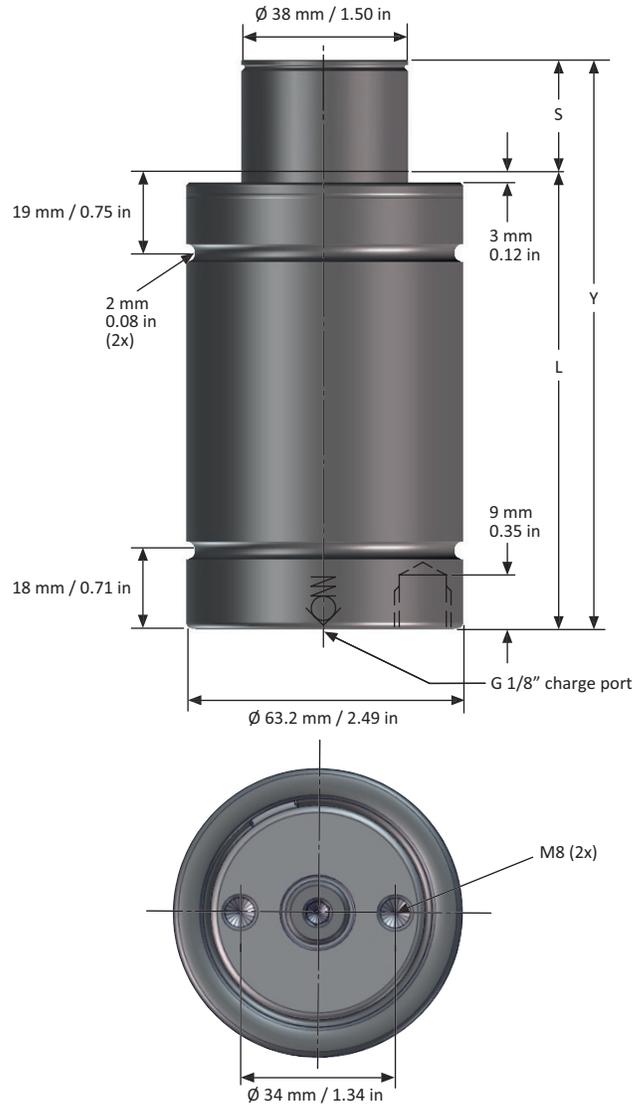
V > max  
Overload Protection



P > max  
Overpressure Protection



S > max  
Overstroke Protection



### T4SC-2900 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-2900x10	10	0.39	29,500	6,630	40,000	8,990	85	3.35	75	2.95	0.08	1.14
T4SC-2900x16	16	0.63			42,000	9,442	103	4.05	87	3.42	0.12	1.28
T4SC-2900x25	25	0.98			45,000	10,120	130	5.12	105	4.13	0.16	1.49
Alternative Stroke Lengths												
T4SC-2900x32	32	1.26	29,500	6,630	46,000	10,340	150	5.90	118	4.64	0.20	1.64
T4SC-2900x40	40	1.57			47,000	10,570	175	6.89	135	5.31	0.24	1.83
T4SC-2900x50	50	1.97			45,000	10,120	205	8.07	155	6.10	0.29	2.06
T4SC-2900x65	65	2.56			47,000	10,570	256	10.08	191	7.52	0.35	2.39

\*At full charge

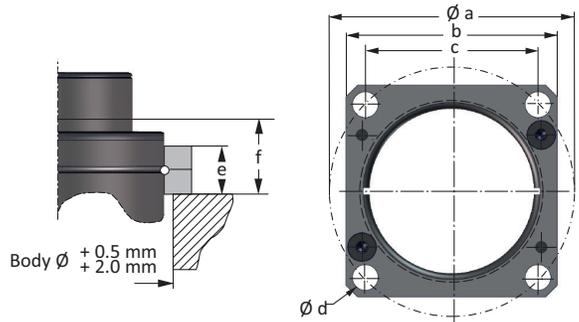
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FCX UPPER SQUARE FLANGE**

<b>Order No.</b>
FCX-1500

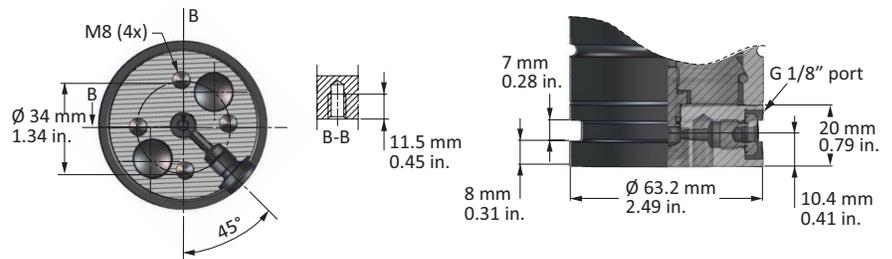
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
104	4.09	90	3.54	73.5	2.89	11	0.43	16	0.63	27	1.06



**SP 2900** The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** The T4SC-2900-SP adapter plate has no valve and can be pressurised only through a hose. It is delivered uncharged.

**NOTE:** Side port attachment fitting part #4016253 included.



<b>Order No.</b>
3120887

### Advanced Safety Features



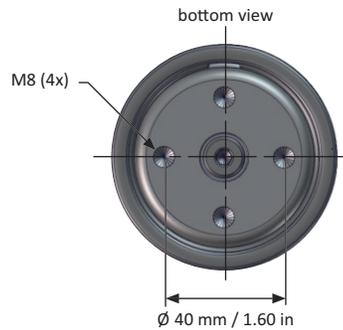
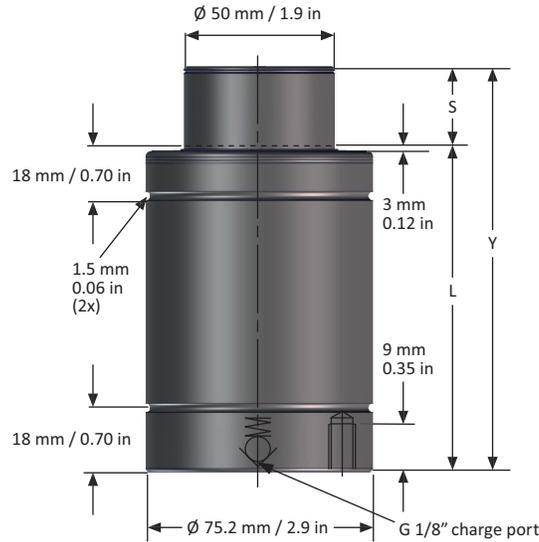
Overload Protection



Overpressure Protection



Overstroke Protection



### T4SC-4700 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-4700x10	10	0.39	47,000	10,600	67,000	15,062	80	3.15	70	2.75	0.10	1.55
T4SC-4700x16	16	0.63			66,000	14,837	106	4.17	90	3.54	0.17	1.79
T4SC-4700x25	25	0.98			68,000	15,287	135	5.31	110	4.33	0.24	2.05
Alternative Stroke Lengths												
T4SC-4700x32	32	1.26	47,000	10,600	67,000	15,062	167	6.57	135	5.31	0.32	2.34
T4SC-4700x40	40	1.57			67,000	15,062	200	7.87	160	6.29	0.41	2.65
T4SC-4700x50	50	1.97			67,000	15,062	240	9.45	190	7.48	0.52	3.01
T4SC-4700x65	65	2.56			71,000	15,961	273	10.75	208	8.19	0.62	3.12

\*At full charge

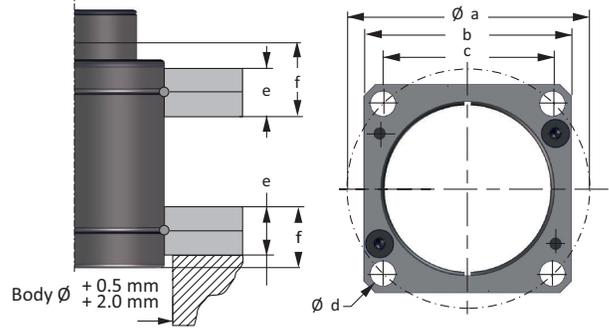
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FK UPPER SQUARE FLANGE**

<b>Order No.</b>
FK-1500

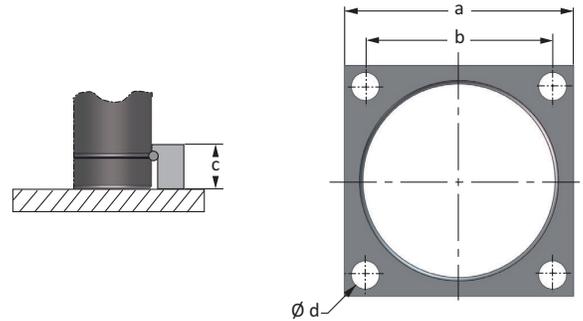
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
104	4.09	90	3.54	73.5	2.89	11	0.43	16	0.63	26	1.02



**BFP BOTTOM SQUARE FLANGE**

<b>Order No.</b>
BFP-4700

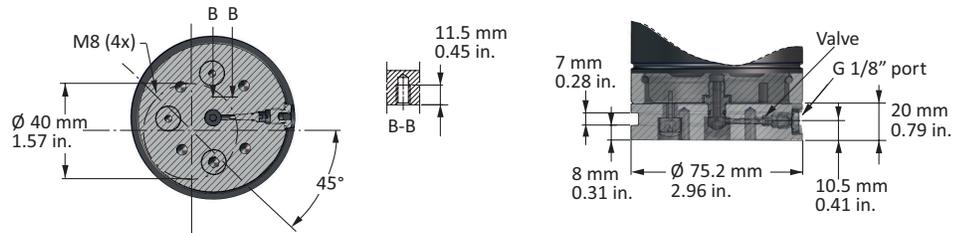
a		b		c		Ø d	
mm	in	mm	in	mm	in	mm	in
90	3.54	73.5	2.89	24.5	0.96	11	0.43



**SP 4700** The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** Side port attachment fitting part #4016253 included.

<b>Order No.</b>
3116527



Advanced Safety Features



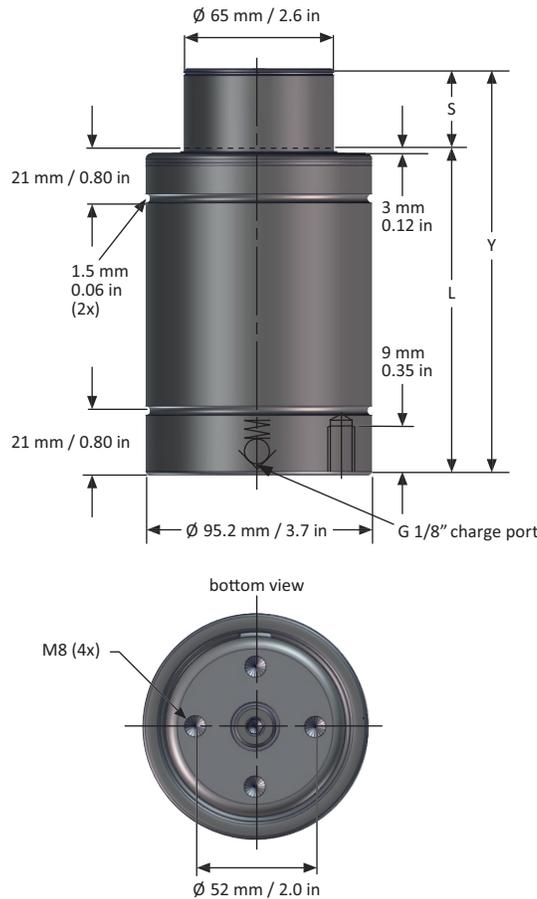
Overload Protection



Overpressure Protection



Overstroke Protection



T4SC-7500 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-7500x10	10	0.39	75,000	16,650	98,500	22,143	90	3.54	80	3.15	0.18	2.86
T4SC-7500x16	16	0.63			100,000	22,480	116	4.56	100	3.94	0.30	3.22
T4SC-7500x25	25	0.98			104,000	23,380	145	5.70	120	4.72	0.41	3.61
Alternative Stroke Lengths												
T4SC-7500x32	32	1.26	75,000	16,650	102,000	22,930	182	7.16	150	5.90	0.57	4.14
T4SC-7500x40	40	1.57			104,000	23,380	210	8.27	170	6.69	0.68	4.52
T4SC-7500x50	50	1.97			103,000	23,155	255	10.04	205	8.07	0.87	5.15
T4SC-7500x65	65	2.56			111,000	24,953	379	14.92	214	8.42	1.00	5.23

\*At full charge

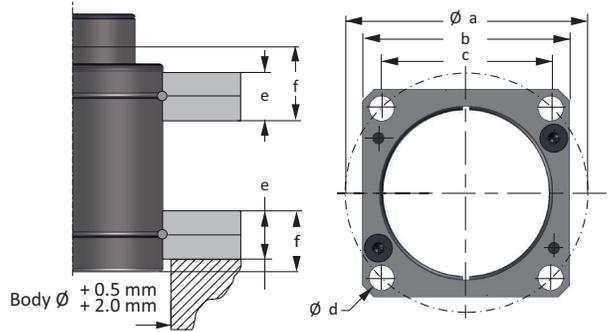
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FK UPPER SQUARE FLANGE**

<b>Order No.</b>
FK-3000

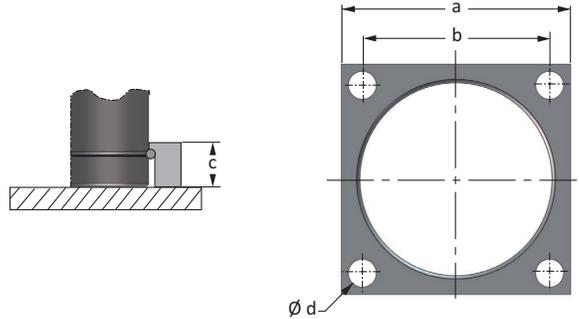
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
130	5.12	110	4.33	92	3.62	13.5	0.53	18	0.71	30	1.18



**BFP BOTTOM SQUARE FLANGE**

<b>Order No.</b>
BFP-7500

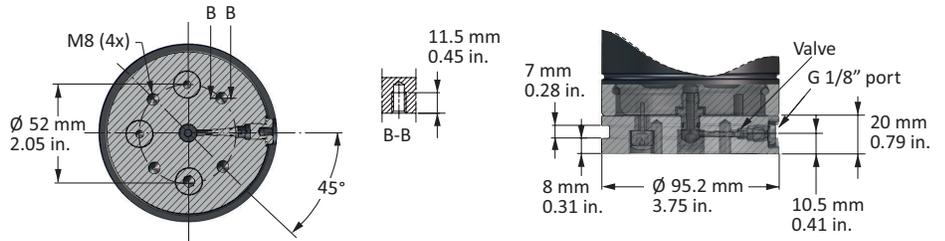
a		b		c		Ø d	
mm	in	mm	in	mm	in	mm	in
110	4.33	92	3.62	27.5	1.08	13	0.51



**SP 7500** The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** Side port attachment fitting part #4016253 included.

<b>Order No.</b>
3116528



### Advanced Safety Features



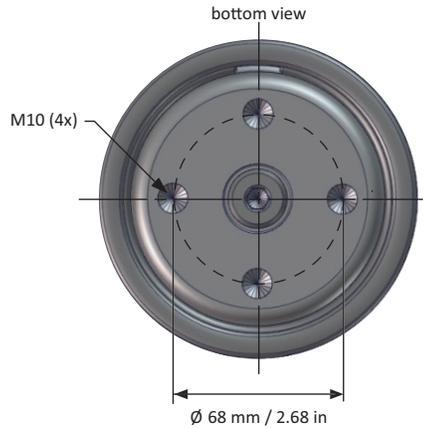
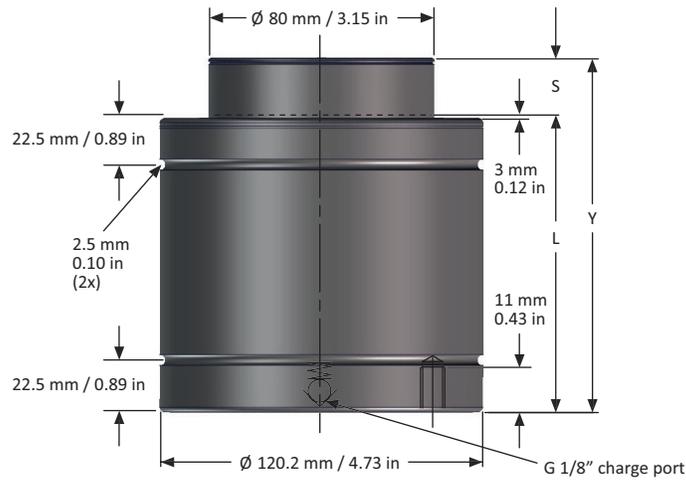
Overload Protection



Overpressure Protection



Overstroke Protection



### T4SC-11800 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-11800x10	10	0.39	118,000	26,527	150,000	33,721	100	3.94	90	3.54	0.33	4.95
T4SC-11800x16	16	0.63			153,000	34,395	126	4.96	110	4.33	0.50	5.55
T4SC-11800x25	25	0.98			160,000	35,969	155	6.10	130	5.12	0.60	6.17
Alternative Stroke Lengths												
T4SC-11800x32	32	1.26	118,000	26,527	165,000	37,093	187	7.36	155	6.10	0.88	6.90
T4SC-11800x40	40	1.57			160,000	35,969	220	8.66	180	7.09	1.00	7.65
T4SC-11800x50	50	1.97			161,000	36,194	260	10.24	210	8.27	1.35	8.55
T4SC-11800x65	65	2.56			163,000	36,643	320	12.60	255	10.04	1.90	9.56

\*At full charge

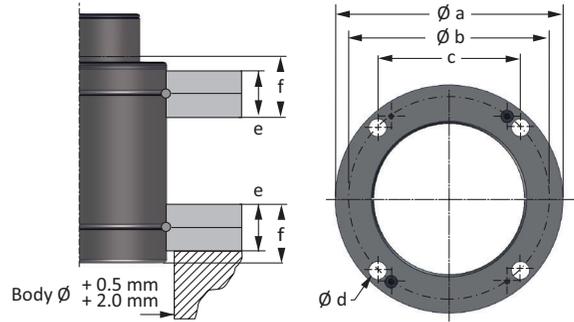
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FC CIRCULAR FLANGE**

Order No.
FC-5000

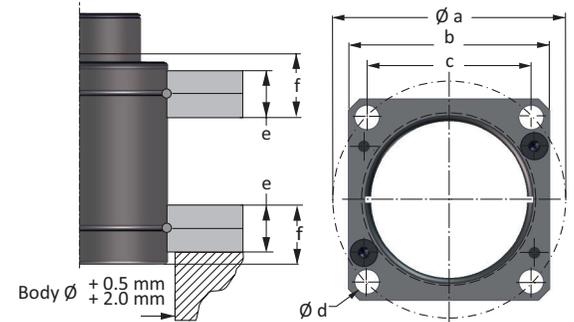
Ø a		Ø b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
175	6.89	155	6.10	109.5	4.31	13.5	0.53	21	0.83	33	1.30



**FCS UPPER SQUARE FLANGE**

Order No.
FCS-5000

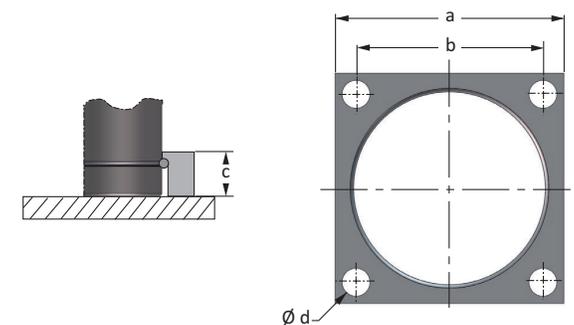
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
155	6.10	130	5.12	109.5	4.31	13.5	0.53	21	0.83	33	1.30



**BF BASE MOUNT SQUARE FLANGE**

Order No.
BF-11800

a		b		c		Ø d	
mm	in	mm	in	mm	in	mm	in
130	5.12	109.5	4.31	29.5	1.16	13	0.51

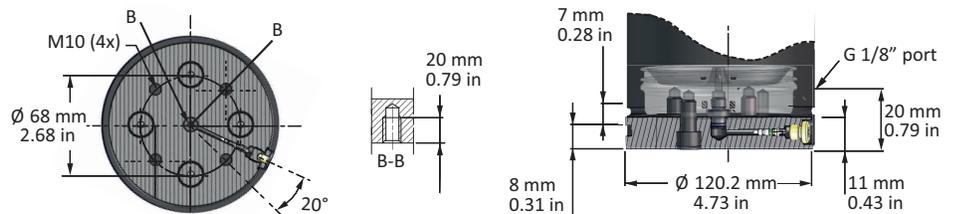


**SP 11800**

The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** Side port attachment fitting part #4016253 included.

Order No.
3116529



### Advanced Safety Features



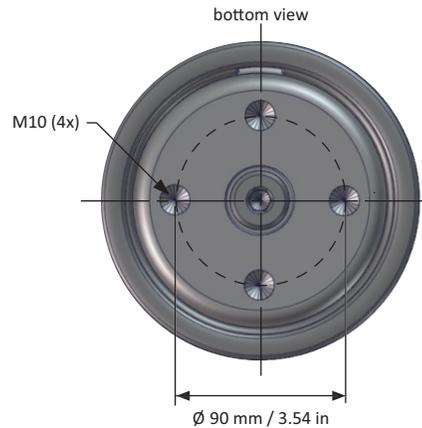
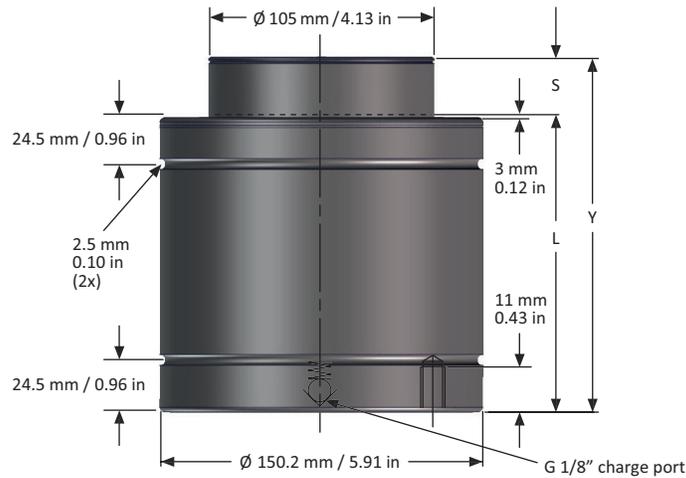
Overload Protection



Overpressure Protection



Overstroke Protection



## T4SC-18300 Dimensional Information

Order Number (model x stroke)	Stroke S		Contact Force* 2610 psi at 68°F		Full Stroke Force*		Cylinder Height		Body Height		Gas Volume ℓ	Weight kg
	mm	in	N	lbf.	N	lbf.	Y ±0.25 mm	Y ±0.010 in	L mm	L in		
Preferred Stroke Lengths (optimal delivery)												
T4SC-18300x10	10	0.39	183,000	41,140	227,000	51,031	110	4.33	100	3.94	0.56	8.78
T4SC-18300x16	16	0.63			233,000	52,380	136	5.35	120	4.72	0.84	9.72
T4SC-18300x25	25	0.98			244,000	54,853	165	6.50	140	5.51	1.13	10.71
Alternative Stroke Lengths												
T4SC-18300x32	32	1.26	183,000	41,140	244,000	54,853	197	7.76	165	6.50	1.45	11.80
T4SC-18300x40	40	1.57			244,000	54,853	235	9.25	195	7.68	1.86	13.28
T4SC-18300x50	50	1.97			248,000	55,752	270	10.63	220	8.66	2.19	14.50
T4SC-18300x65	65	2.56			253,000	56,876	323	12.72	258	10.16	2.90	16.30

\*At full charge

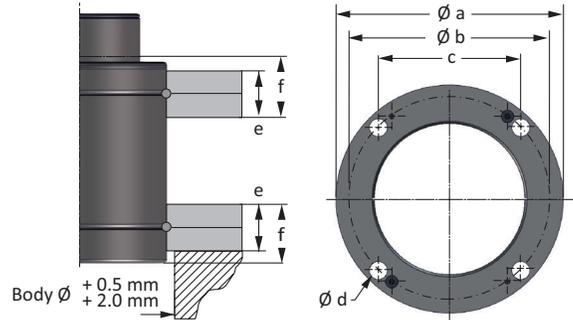
All dimensions are nominal. Data shown are typical. Actual data for any particular unit may vary.

**NOTE:** All flanges ordered separately.

**FC CIRCULAR FLANGE**

<b>Order No.</b>
FC-7500

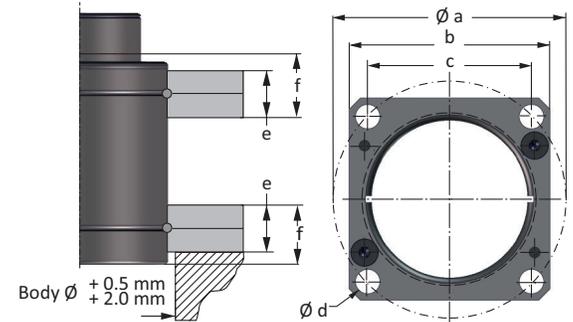
Ø a		Ø b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
220	8.66	195	9.68	138	5.43	17.5	0.69	27	1.06	38	1.50



**FCS UPPER SQUARE FLANGE**

<b>Order No.</b>
FCS-7500

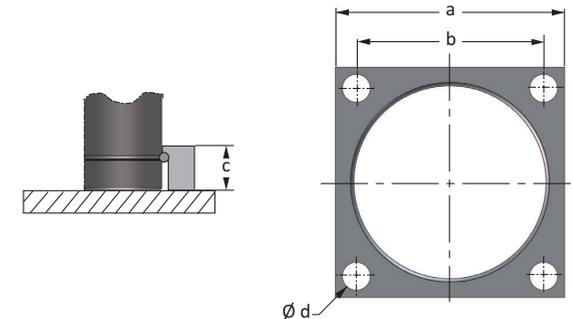
Ø a		b		c		Ø d		e		f	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
195	9.68	162	6.38	138	5.43	17.5	0.69	27	1.06	38	1.50



**BF BASE MOUNT SQUARE FLANGE**

<b>Order No.</b>
BF-18300

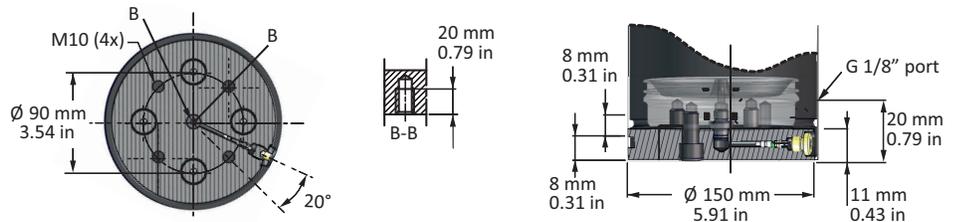
a		b		c		Ø d	
mm	in	mm	in	mm	in	mm	in
162	6.38	138	5.43	34.5	1.36	17.5	0.69



**SP 18300** The SP plates are compatible with the old generation T2SC. The part numbers remain the same.

**NOTE:** Side port attachment fitting part #4016253 included.

<b>Order No.</b>
3116530





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