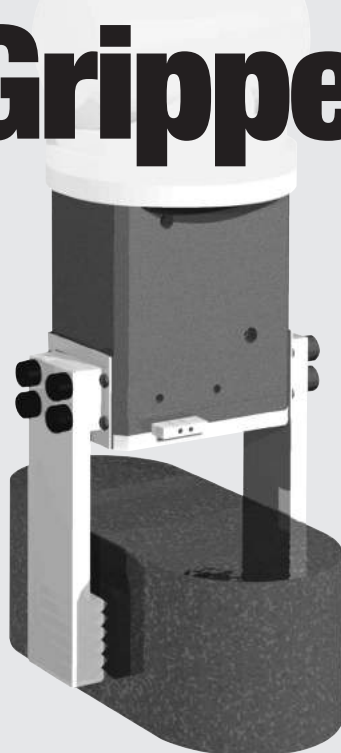
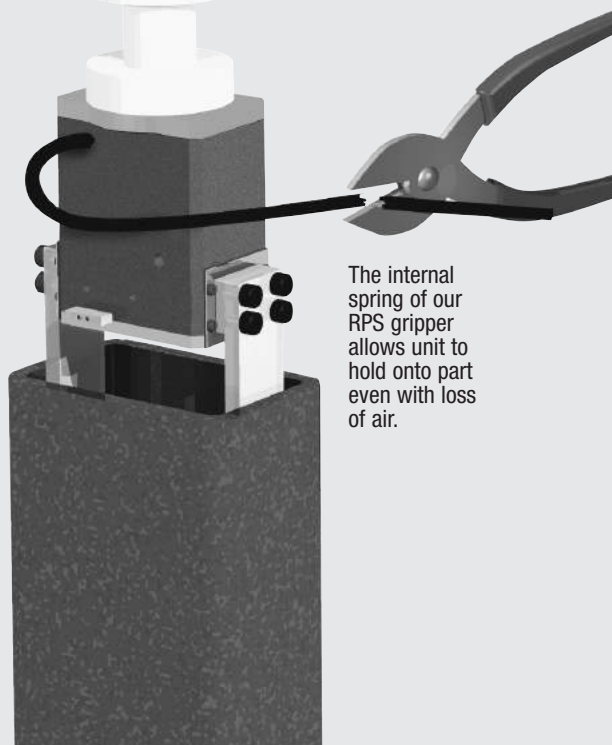


RPS Spring Assist 2-Jaw Parallel Grippers



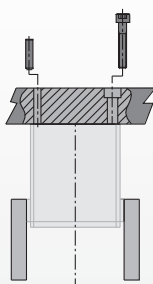
- Patented double wedge design:**
This gripper utilizes our patented double wedge design for actuation and synchronization.
- Fail safe operation:**
The force supplied from the internal spring can be used to maintain gripping force if the gripper loses air pressure.
- Single acting spring return:**
A gripper can be actuated in one direction working against the spring with a single air supply line and actuate in the opposite direction with the force of the spring.
- Double acting spring assist:**
Spring assist along with the pressurized gripping motion generates resulting grip force that is greatly increased allowing higher grip forces at lower air pressures.
- Internal or external gripping:**
This gripper is available in a spring closed model (-C) for external gripping or spring open model (-O) for internal gripping.



The internal spring of our RPS gripper allows unit to hold onto part even with loss of air.

Mounting Information:

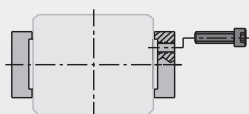
Grippers can be mounted & operated in any orientation



Body mounts with screws and locates with dowel pins for accuracy



Unit can be mounted and operated upside down



Fingers attach to jaws with screws and locate by keying or dowel pins

Technical Specifications:

Pneumatic Specifications	Imperial	Metric
Pressure Operating Range	50-100 psi	3.5-7 bar
Cylinder Type	Double Acting Spring Assist or Single Acting Spring Return	
Dynamic Seals	Internally Lubricated Buna-N	
Valve Required to Operate	4-way, 2-position for Double Acting or 3-way, 2-position for Single Acting	
Air Quality Requirements		
Air Filtration	40 Micron or Better	
Air Lubrication	Not Necessary*	
Air Humidity	Low Moisture Content (dry)	
Temperature Operating Range		
Buna-N Seals (standard)	-30°~180° F	-35°~80° C
Viton® Seals (optional)	-20°~300° F	-30°~150° C
Maintenance Specifications†		
Expected Life	5 million cycles	
Normal Application w/ Preventative Maintenance	10+ million cycles*	
Field Repairable	Yes	
Seal Repair Kits Available	Yes	

*Addition of lubrication will greatly increase service life
†See Maintenance Section

Product Features

One Piece Body Design

One piece lightweight aluminum body made of 7075-T6 aircraft quality aluminum

Hard Coat Anodize

The body has hard-coat anodize 60 RC with Teflon® impregnation

Accessory Mounting Holes

(Mounts sensors to unit)

Spring Assist

Ground and squared music wire spring

Sensor Option

Reads position of jaw (sold separately—see "How to order" Section for more info)

Extremely Robust Design

Jaws are supported throughout the length of the body

Dowel Holes

Slip fit dowel pin holes in body and jaws

Jaws

Jaw components are precision ground for minimal jaw play and hardened for wear resistance and long life

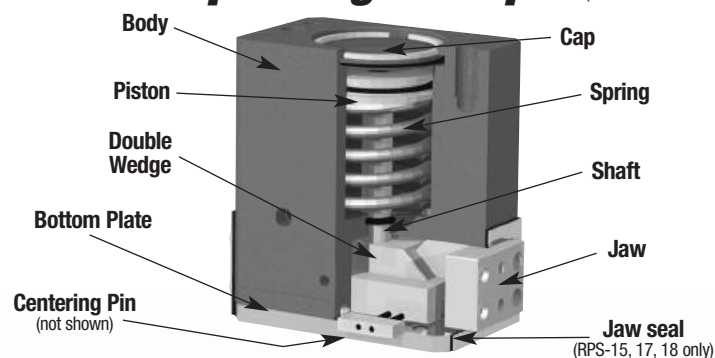
Self Lubricating Seals

Self lubricating dynamic seals (Buna-N only)

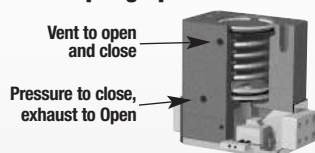
Sealed Design

Unit repels contaminants (not available on RPS-11&12)

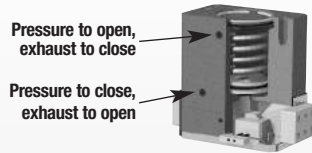
Operating Principle (RPS-C shown)



RPS-0 Spring Open

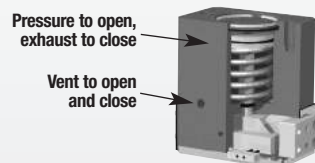


Single Acting Spring Open

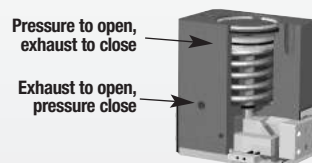


Double Acting Spring Assist Open

RPS-C Spring Closed



Single Acting Spring Closed



Double Acting Spring Assist Closed

- A double acting piston is connected by a shaft to a double sided wedge.
- The wedge slides in a slot located in each of the jaws converting vertical motion of the wedge into horizontal synchronous motion of the jaws.
- The large surface area of the wedge minimizes frictional wear.
- The built-in cylinder and spring can be used as either a double acting cylinder with spring assist or as a single acting cylinder with spring return.
- This gripper is suitable for internal or external gripping.

U.S. Patent # 5,125,708 Designed and manufactured in the USA

Style-RP-5-FS Spring Gripper Size-5

See Page **1.134**

Style-RPS Spring Gripper Size-11M



Style:	RPS-11	RPS-11M
Stroke:	0.25 in.	6.4 mm
Grip Force:	50 lb	222 N
Weight:	.36 lb	.16 Kg

See Page **1.146**

Style-RPS Spring Gripper Size-12M



Style:	RPS-12	RPS-12M
Stroke:	0.38 in.	9.5 mm
Grip Force:	60 lb	270 N
Weight:	.76 lb	.34 Kg

See Page **1.147**

Style-RPS Spring Gripper Size -15M



Style:	RPS-15	RPS-15M
Stroke:	0.50 in.	12.7 mm
Grip Force:	90 lb	400 N
Weight:	1.44 lb	.65 Kg

See Page **1.148**

Style-RPS Spring Gripper Size -17M



Style:	RPS-17	RPS-17M
Stroke:	0.75 in.	19.1 mm
Grip Force:	300 lb	1334 N
Weight:	3.0 lb	1.4 Kg

See Page **1.149**

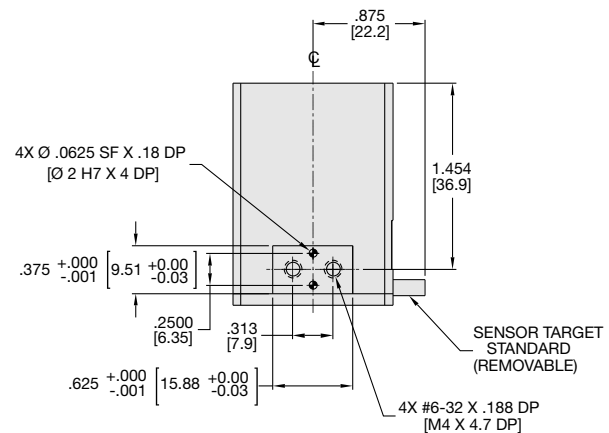
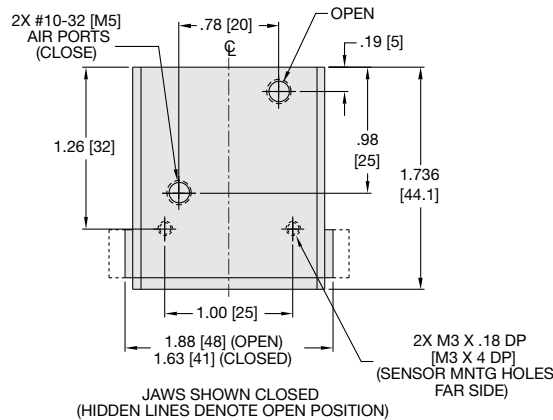
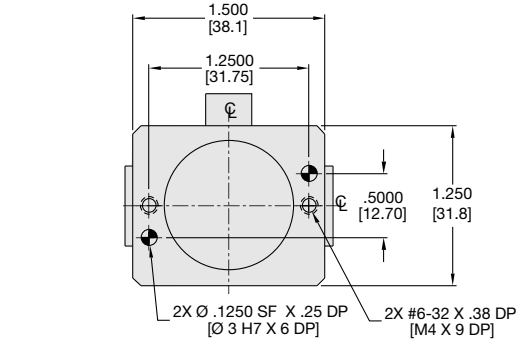
Style-RPS Spring Gripper Size -18M



Style:	RPS-18	RPS-18M
Stroke:	1.25 in.	31.8 mm
Grip Force:	600 lb	2669 N
Weight:	11 lb	5.0 Kg

See Page **1.150**

RPS-11 Product Specifications



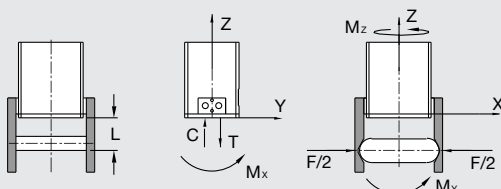
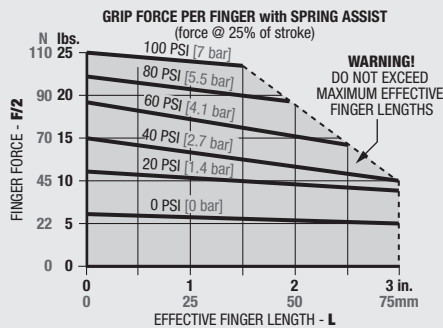
Specifications

	RPS-11	RPS-11M
Total Rated Grip Force F @ 100 psi, 7 bar	50 lbs.	222 N
Stroke	0.25 in.	6.4 mm
Weight	0.36 lbs.	0.16 Kg
Pressure Range	50-100 psi	3.4-7 bar
Cylinder Bore Ø	1.00 in.	25.4 mm
Displacement	0.098 in ³	1.6 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.15 sec.	0.15 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate single acting....	3 way, 2-position	
Valve required to actuate double acting....	4-way, 2-position	

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	0.00 = ±.01	[0.] = [±.25]
Third Angle Projection	0.000 = ±.005	[0.0] = [±.13]
All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]	0.0000 = ±.0005	[0.00] = [±.013]
Metric Threads		
Course Pitch		

Loading Information



Loading Capacity †

	Static	Dynamic
Maximum Tensile T	100 lbs. [445 N]	25 lbs. [111 N]
Maximum Compressive C	200 lbs. [890 N]	25 lbs. [111 N]
Maximum Moment Mx	100 in.-lbs. [11 Nm]	25 in.-lbs. [3 Nm]
Maximum Moment My	100 in.-lbs. [11 Nm]	25 in.-lbs. [3 Nm]
Maximum Moment Mz	100 in.-lbs. [11 Nm]	25 in.-lbs. [3 Nm]

† Capacities are per set of jaws and are not simultaneous

How to Order: (Order Separately)

BASIC MODEL

SPRING DIRECTION (See below)

RPS-11 **M** - **V**

METRIC

VITON® SEALS

SPRING DIRECTION **O** Spring Open
C Spring Closed

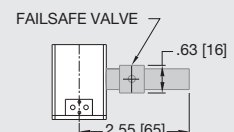
SENSOR ACCESSORIES

	Order #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-003	1
3mm NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
3mm PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

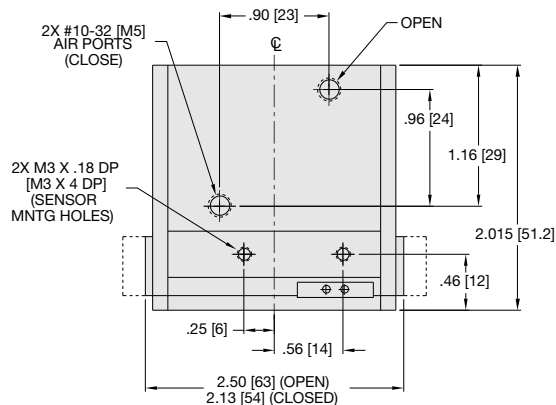
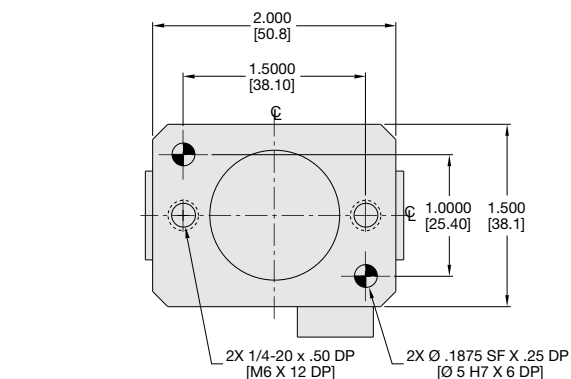
Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-036	1
Viton® Seal Repair Kit	SLKT-036V	1

*Sensor and cable sold separately.

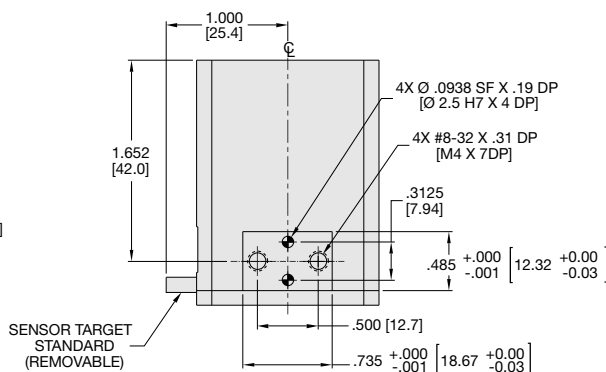


RPS-12 Product Specifications

RPS SERIES



JAWS SHOWN IN CLOSED POSITION
(HIDDEN LINES DENOTE OPEN POSITION)



Specifications

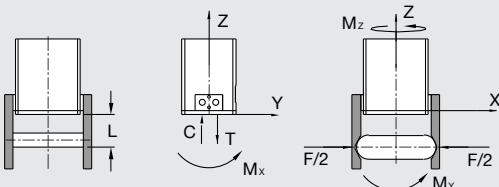
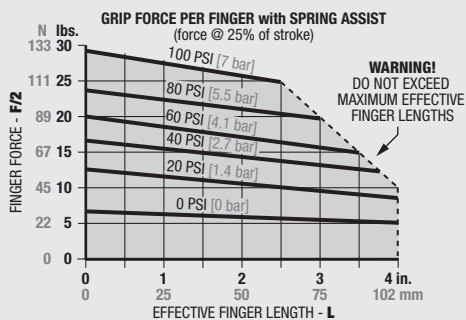
	RPS-12	RPS-12M
Total Rated Grip Force F @ 100 psi, 7 bar	60 lbs.	267 N
Stroke	0.38 in.	9.5 mm
Weight	0.76 lbs.	0.34 Kg
Pressure Range	50-100 psi	3.4-7 bar
Cylinder Bore Ø	1.000 in.	25.4 mm
Displacement	0.150 in³	2.5 cm³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.15 sec.	0.15 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate single acting	3 way, 2-position	
Valve required to actuate double acting	4-way, 2-position	

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	0.00 = ±.01 0.000 = ±.0005	[0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
Third Angle Projection		
All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]		
Metric Threads Course Pitch		

Loading Information

How to Order: (Order Separately)



Loading Capacity †

Static

Dynamic

Maximum Tensile T	200 lbs. [890 N]	50 lbs. [222 N]
Maximum Compressive C	400 lbs. [1779 N]	50 lbs. [222 N]
Maximum Moment Mx	150 in.-lbs. [17 Nm]	50 in.-lbs. [6 Nm]
Maximum Moment My	150 in.-lbs. [17 Nm]	50 in.-lbs. [6 Nm]
Maximum Moment Mz	150 in.-lbs. [17 Nm]	50 in.-lbs. [6 Nm]

† Capacities are per set of jaws and are not simultaneous

BASIC MODEL

SPRING DIRECTION

(See below)

RPS-12 M - V

METRIC

VITON® SEALS

SPRING DIRECTION

O Spring Open

C Spring Closed

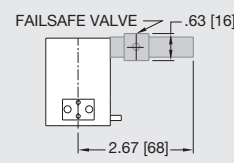
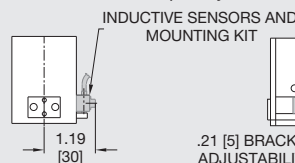
SENSOR ACCESSORIES

	Order #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-003	1
3mm NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
3mm PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

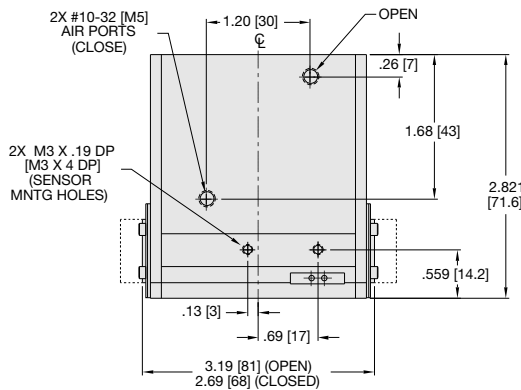
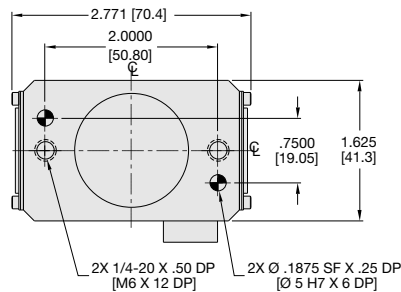
PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-040	1
Viton® Seal Repair Kit	SLKT-040V	1

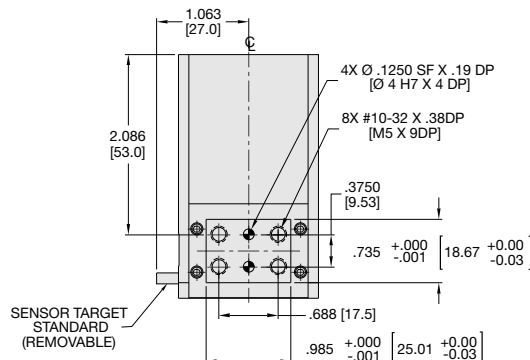
*Sensor and cable sold separately.



RPS-15 Product Specifications



JAWS SHOWN IN CLOSED POSITION
(HIDDEN LINES DENOTE OPEN POSITION)



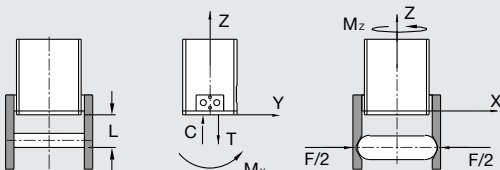
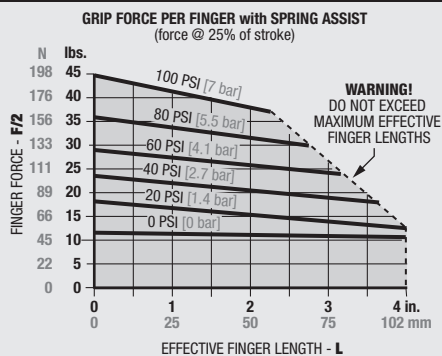
Specifications

	RPS-15	RPS-15M
Total Rated Grip Force F @ 100 psi, 7 bar	90 lbs.	400 N
Stroke	0.50 in.	12.7 mm
Weight	1.44 lbs.	0.65 Kg
Pressure Range	50-100 psi	3.4-7 bar
Cylinder Bore Ø	1.250 in.	31.8 mm
Displacement	0.300 in³	4.9 cm³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.17 sec.	0.17 sec.
Accuracy	±0.002 in.	±0.05 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate single acting	3 way, 2 position	
Valve required to actuate double acting	4-way, 2-position	

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	0.00 = ±.01	[0.] = [±.25]
Third Angle Projection	0.000 = ±.005	[0.0] = [±.13]
All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]	0.0000 = ±.0005	[0.00] = [±.013]
Metric Threads		
Course Pitch		

Loading Information



Loading Capacity †

	Static	Dynamic
Maximum Tensile T	400 lbs. [1779 N]	100 lbs. [445 N]
Maximum Compressive C	750 lbs. [3336 N]	100 lbs. [445 N]
Maximum Moment Mx	300 in.-lbs. [34 Nm]	100 in.-lbs. [11 Nm]
Maximum Moment My	300 in.-lbs. [34 Nm]	100 in.-lbs. [11 Nm]
Maximum Moment Mz	300 in.-lbs. [34 Nm]	100 in.-lbs. [11 Nm]

† Capacities are per set of jaws and are not simultaneous

How to Order: (Order Separately)

BASIC MODEL

SPRING DIRECTION

(See below)

RPS-15 **M** - **V**

METRIC

VITON® SEALS

SPRING DIRECTION **O** Spring Open
C Spring Closed

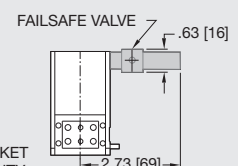
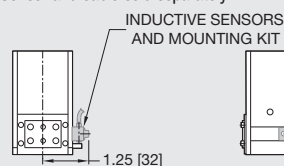
SENSOR ACCESSORIES

	Order #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-003	1
3mm NPN Inductive Sensor with Quick Disconnect*	OISN-019	1 or 2
3mm PNP Inductive Sensor with Quick Disconnect*	OISP-019	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

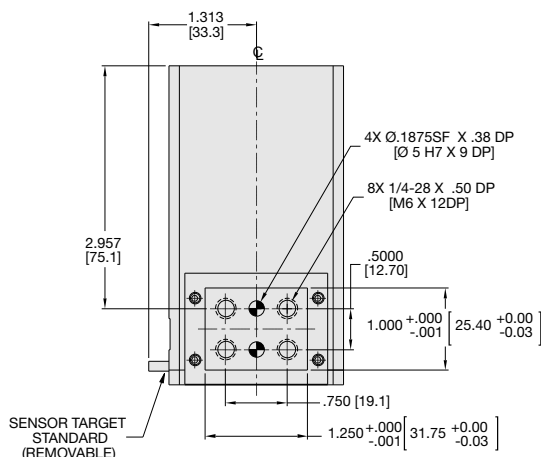
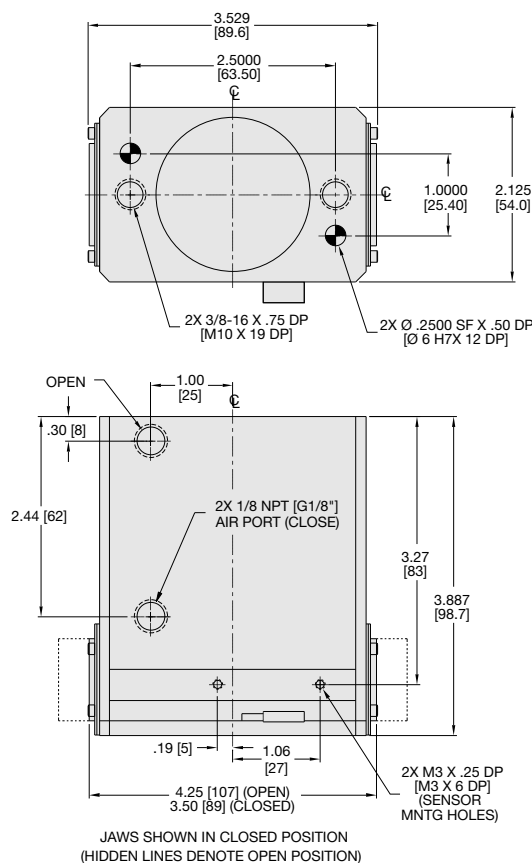
Fail Safe Valve (Imperial)	OFSV-001	1
Fail Safe Valve (Metric)	OFSV-004	1
Standard Seal Repair Kit	SLKT-041	1
Viton® Seal Repair Kit	SLKT-041V	1

*Sensor and cable sold separately.



RPS-17 Product Specifications

RPS SERIES



Specifications

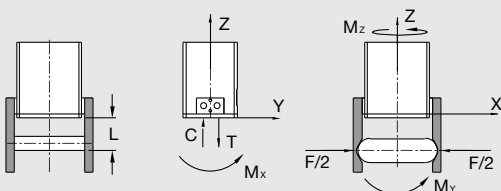
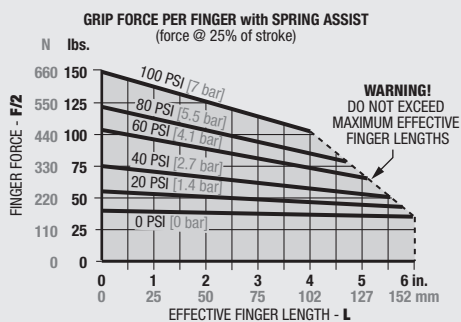
	RPS-17	RPS-17M
Total Rated Grip Force F @ 100 psi, 7 bar	300 lbs.	1334 N
Stroke	0.75 in.	19.1 mm
Weight	3.00 lbs.	1.4 Kg
Pressure Range	50-100 psi	3.4-7 bar
Cylinder Bore Ø	1.813 in.	46.1 mm
Displacement	1.400 in ³	22.9 cm ³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.31 sec.	0.31 sec.
Accuracy	±0.003 in.	±0.08 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate single acting	3 way, 2 position	
Valve required to actuate double acting	4-way, 2-position	

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = ±.25 [0.0] = ±.13 [0.00] = ±.013
Third Angle Projection		
All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or ±.013mm		
Metric Threads Course Pitch		

Loading Information

How to Order: (Order Separately)



Loading Capacity †

Static

Dynamic

Maximum Tensile T	750 lbs. [3336 N]	200 lbs. [890 N]
Maximum Compressive C	1500 lbs. [6672 N]	200 lbs. [890 N]
Maximum Moment Mx	750 in.-lbs. [85 Nm]	250 in.-lbs. [28 Nm]
Maximum Moment My	750 in.-lbs. [85 Nm]	250 in.-lbs. [28 Nm]
Maximum Moment Mz	750 in.-lbs. [85 Nm]	250 in.-lbs. [28 Nm]

† Capacities are per set of jaws and are not simultaneous

BASIC MODEL

SPRING DIRECTION (See below)

RPS-17 M - V

METRIC

VITON® SEALS

SPRING DIRECTION **O** Spring Open
C Spring Closed

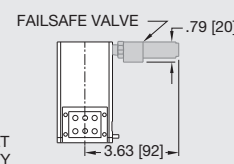
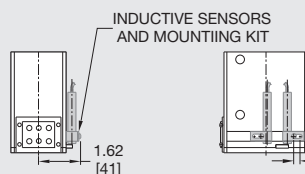
SENSOR ACCESSORIES

	Order #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-072	1
8mm NPN Inductive Sensor with Quick Disconnect*	OISN-011	1 or 2
8mm PNP Inductive Sensor with Quick Disconnect*	OISP-011	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

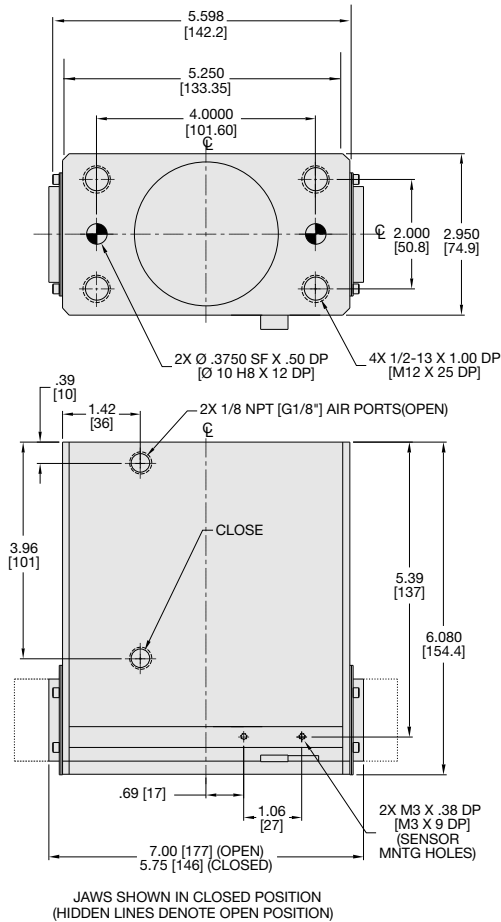
PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-002	1
Fail Safe Valve (Metric)	OFSV-005	1
Standard Seal Repair Kit	SLKT-042	1
Viton® Seal Repair Kit	SLKT-042V	1

*Sensor and cable sold separately.

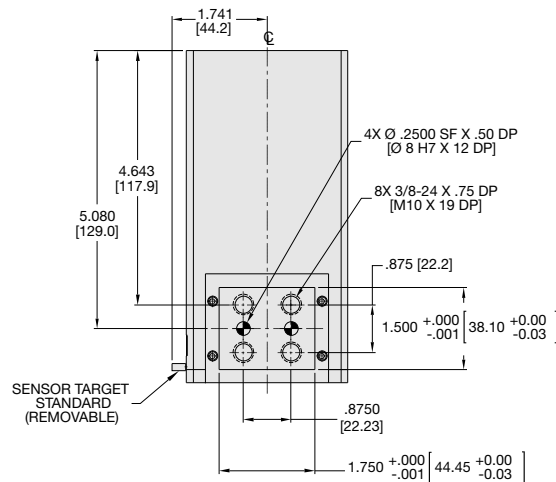


RPS-18 Product Specifications



Specifications

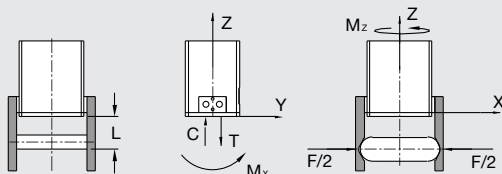
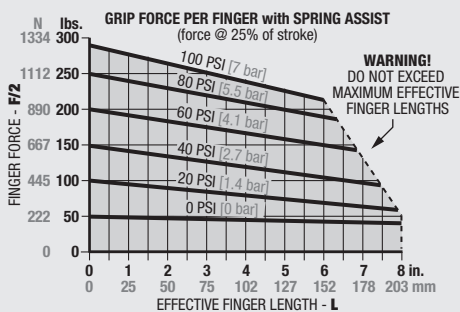
	RPS-18	RPS-18M
Total Rated Grip Force F @ 100 psi, 7 bar	600 lbs.	2669 N
Stroke	1.25 in.	31.8 mm
Weight	11 lbs.	5.0 Kg
Pressure Range	50-100 psi	3.4-7 bar
Cylinder Bore Ø	2.500 in.	63.5 mm
Displacement	4.400 in³	72.1 cm³
Temperature Range		
Standard Seals	-30°~180° F	-35°~80° C
Viton® Seals	-20°~300° F	-30°~150° C
Actuation	0.51 sec.	0.51 sec.
Accuracy	±0.003 in.	±0.08 mm
Repeatability	±0.001 in.	±0.03 mm
Valve required to actuate single acting	3 way, 2 position	
Valve required to actuate double acting	4-way, 2-position	



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

	Imperial in.	Metric [mm]
Dimensions are symmetrical about centerline	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0.] = [±.25] [0.0] = [±.13] [0.00] = [±.013]
Third Angle Projection		
All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]		
Metric Threads Course Pitch		

Loading Information



Loading Capacity †

	Static	Dynamic
Maximum Tensile T	1500 lbs. [6672 N]	500 lbs. [2224 N]
Maximum Compressive C	3000 lbs. [13345 N]	500 lbs. [2224 N]
Maximum Moment Mx	1500 in.-lbs. [170 Nm]	500 in.-lbs. [57 Nm]
Maximum Moment My	1500 in.-lbs. [170 Nm]	500 in.-lbs. [57 Nm]
Maximum Moment Mz	1500 in.-lbs. [170 Nm]	500 in.-lbs. [57 Nm]

† Capacities are per set of jaws and are not simultaneous

How to Order: (Order Separately)

BASIC MODEL

SPRING DIRECTION (See below)

RPS-18 **M** - **V**

METRIC

VITON® SEALS

SPRING DIRECTION O Spring Open
C Spring Closed

SENSOR ACCESSORIES

	Order #	QTY/UNIT
Sensor Mounting Kit for Imperial & Metric Units (mounts 2 sensors)	OSMK-072	1
8mm NPN Inductive Sensor with Quick Disconnect*	OISN-011	1 or 2
8mm PNP Inductive Sensor with Quick Disconnect*	OISP-011	1 or 2
Quick Disconnect 2 Meter Cable Length*	CABL-010	1 or 2
Quick Disconnect 5 Meter Cable Length*	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

Fail Safe Valve (Imperial)	OFSV-002	1
Fail Safe Valve (Metric)	OFSV-005	1
Standard Seal Repair Kit	SLKT-043	1
Viton® Seal Repair Kit	SLKT-043V	1

*Sensor and cable sold separately.

