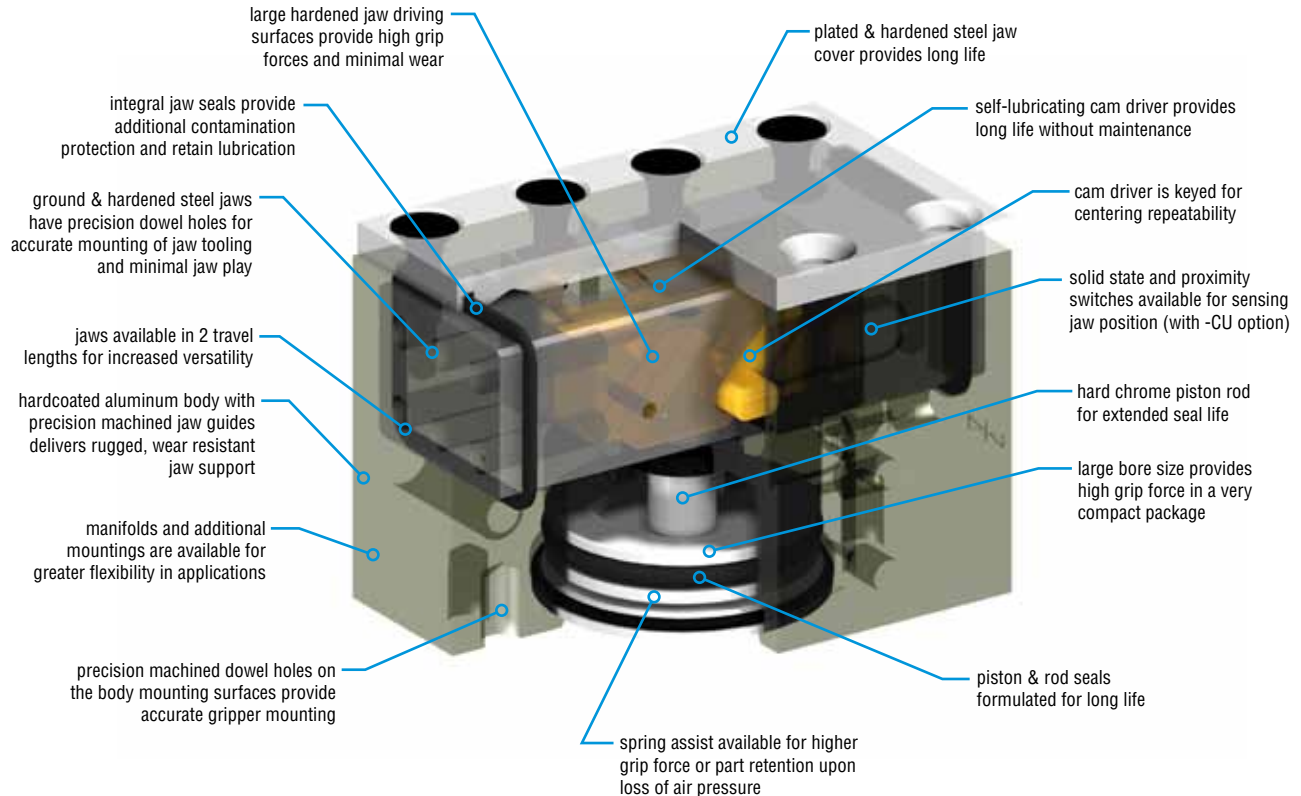


LOW PROFILE PNEUMATIC PARALLEL GRIPPER



Major Benefits

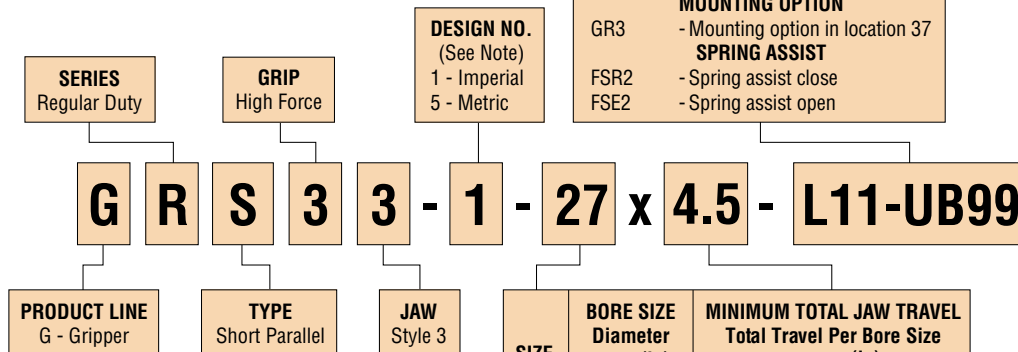
- Large hardened jaw driving surfaces
- Low profile
- Two jaw travels per size
- Manifold porting options
- Four bore sizes with five gripper sizes available in both imperial and metric versions
- Optional mounting and port positions available
- Spring assist on open or close available
- 1-2 day shipping
- Six million cycles minimum rated life (includes spring assist units)



ORDERING DATA: SERIES GRS GRIPPERS

TO ORDER SPECIFY:

Product Line, Series, Type, Grip, Jaw, Design No., Size, Total Jaw Travel, and Options required.



NOTE: Design number indicates imperial or metric mounting holes, dowel pin holes, and ports.

SERIES 6790 & JC1 SWITCHES

PART NO.	DESCRIPTION
67902-1-05	PNP (Source) or NPN (Sink) Reed, 4.5-30 VDC, 5 m cable
JC1SDN-5	NPN (Sink) Solid State, 10-30 VDC, 5 m cable
JC1SDP-5	PNP (Source) Solid State, 10-30 VDC, 5 m cable
67922-1	PNP (Source) or NPN (Sink) Reed, 4.5-30 VDC, Quick Connect
JC1SDN-K	NPN (Sink) Solid State, 10-30 VDC, Quick Connect
JC1SDP-K	PNP (Source) Solid State, 10-30 VDC, Quick Connect
67929-2	PNP (Source) or NPN (Sink) Reed, 65-120 VAC, Quick Connect

SERIES 6790 & JC1SDx CORDSET CHART

PART NO.	DESCRIPTION
63549-02	M8, 3 pin, Straight Female Connector, 2 m cable
63549-05	M8, 3 pin, Straight Female Connector, 5 m cable

NOTES:

- JC1 Switches are rotated 90°. LED faces side of switch bracket.
- See switches & sensors Section for additional switch information and complete specification.

SERIES JC1STP 2 POSITION SWITCHES

PART NO.	DESCRIPTION
JC1STP-2	PNP (Source) Solid State, 12-30 VDC, 2 m cable
JC1STP-K	PNP (Source) Solid State, 12-30 VDC, Quick Connect

SERIES JC1STP CORDSET CHART

PART NO.	DESCRIPTION
81284-1-001	M8, 4 pin, Straight Female Connector, 5 m cable

SWITCH MOUNTING KITS

SIZE	6790 & JC1SDx		JC1STx
	REED	SOLID STATE	SOLID STATE
27 & 28	76108-27	76107-27	81831-27
32	76108-32	76107-32	81831-32
50	76108-50	76107-50	81831-50
63	76108-63	76107-63	81831-63

Each kit includes 1 target, 2 switch mounting brackets (1 for JC1STx), and fasteners for mounting. Switches sold separately.

SIZE	BORE SIZE Diameter mm (in)	MINIMUM TOTAL JAW TRAVEL Total Travel Per Bore Size	
		mm	(in)
27	27 (1.063)	4.5	(.177)
27	27 (1.063)	7	(.276)
28	27 (1.063)	6	(.250)
28	27 (1.063)	10	(.394)
32	32 (1.260)	8	(.315)
32	32 (1.260)	13	(.512)
50	50 (1.969)	19	(.750)
50	50 (1.969)	28	(1.102)
63	63 (2.480)	32	(1.260)
63	63 (2.480)	44	(1.732)



Options may affect unit length. See dimensional pages and option information details.



Refer to this product's online catalog in the product section for complete information including related dimensions and additional specifications. See link at bottom of this page.

4 mm ROUND INDUCTIVE PROXIMITY SWITCHES (SIZE 27, 28, & 32)

PART NUMBER	DESCRIPTION
18430-001-02	NPN (Sink) 2 meter cable
18430-002-02	PNP (Source) 2 meter cable

8 mm THREADED INDUCTIVE PROXIMITY SWITCHES (SIZE 50 & 63)

PART NUMBER	DESCRIPTION
51422-005-02	NPN (Sink) 2 meter cable
51422-006-02	PNP (Source) 2 meter cable

INDUCTIVE PROXIMITY SWITCH MOUNTING KITS

SIZE	KIT NUMBER
27 & 28	70663-27
32	70663-32
50	70663-50
63	70663-63

Each kit includes 1 target, 2 switch mounting brackets, and fasteners for mounting. Switches sold separately.



CAD & Sizing Assistance

Use PHD's free online Product Sizing and CAD Configurator at www.phdinc.com/myphd



ENGINEERING DATA: SERIES GRS GRIPPERS

SPECIFICATIONS	SERIES GRS
OPERATING PRESSURE	
STANDARD UNIT	30 psi min to 100 psi max [2 bar min to 7 bar max] air
SPRING ASSIST UNIT	50 psi min to 100 psi max [3.5 bar min to 7 bar max] air
OPERATING TEMPERATURE	-20°F to +180°F [-28°C to +82°C]
RATED LIFE	6 million cycles minimum (including spring assist units)
GRIP REPEATABILITY	Within ±0.001 in [±0.025 mm] of original position
CYCLE TIME	See table below
LUBRICATION	Factory lubricated for rated life
MAINTENANCE	Field repairable

SIZE	MINIMUM TOTAL JAW TRAVEL		TOTAL CLOSE GRIP FORCE AT 87 psi [6 bar]		GRIPPER WEIGHT		CLOSE OR OPEN TIME 87 psi [6 bar]		DISPLACEMENT		GRIP FORCE FACTOR G _F			
											EXTERNAL GRIP	INTERNAL GRIP	EXTERNAL GRIP	INTERNAL GRIP
	in	mm	lb	N	lb	kg	sec	in ³	cm ³		IMPERIAL	METRIC	IMPERIAL	METRIC
27	0.177	4.5	68	302	0.29	0.13	0.11	0.133	2.2		0.78	50	0.83	54
	0.276	7	48	213	0.29	0.13	0.11	0.133	2.2		0.55	36	0.59	38
28	0.250	6.35	77	341	0.54	0.24	0.13	0.182	3.0		0.88	57	0.93	60
	0.394	10	48	213	0.54	0.24	0.13	0.182	3.0		0.55	36	0.59	38
32	0.315	8	109	485	1.0	0.45	0.16	0.335	5.5		1.25	81	1.33	86
	0.512	13	70	310	1.0	0.45	0.16	0.335	5.5		0.80	52	0.86	56
50	0.750	19	235	1045	2.4	1.1	0.18	1.570	26		2.7	174	2.8	181
	1.102	28	157	697	2.4	1.1	0.18	1.570	26		1.8	116	1.9	123
63	1.260	32	398	1770	7.8	3.5	0.22	4.397	72		4.6	297	4.7	303
	1.732	44	289	1287	7.8	3.5	0.22	4.397	72		3.3	213	3.5	226

SIZE	SPRING ASSIST GRIP FORCE								SPRING ASSIST GRIPPER WEIGHT		SPRING ASSIST		
	S _F (SPRING ONLY)*				S _F (SPRING ONLY)*						CLOSE OR OPEN TIME		
	SPRING CLOSE GRIP FORCE				SPRING OPEN GRIP FORCE						87 psi [6 bar] IN sec		
	MINIMUM		MAXIMUM		MINIMUM		MAXIMUM		WITH SPRING	AGAINST SPRING	SPRING ONLY		
lb	N	lb	N	lb	N	lb	N	lb	kg				
27 x 4.5	22	96	31	137	17	73	33	146	0.39	0.18	0.12	0.24	0.16
27 x 7	15	68	22	96	12	51	23	103	0.39	0.18	0.12	0.24	0.16
28 x 6	23	102	35	154	16	71	37	164	0.69	0.31	0.13	0.26	0.20
28 x 10	14	63	22	96	10	44	23	103	0.69	0.31	0.13	0.26	0.20
32 x 8	29	130	50	224	22	98	53	234	1.34	0.61	0.16	0.46	0.27
32 x 13	19	83	32	143	14	63	34	150	1.34	0.61	0.16	0.46	0.27
50 x 19	74	327	113	503	35	155	113	504	3.11	1.41	0.17	0.32	0.29
50 x 28	49	218	75	336	23	104	76	336	3.11	1.41	0.17	0.32	0.29
63 x 32	79	353	159	708	36	160	160	710	9.5	4.31	0.22	0.42	0.51
63 x 44	58	257	116	515	26	117	116	516	9.5	4.31	0.22	0.42	0.51

*Spring grip force (S_F) varies with spring compression. The minimum spring grip force values occur with the spring at least compression (jaws fully closed on spring close units and fully open on spring open units). The maximum spring grip force values occur with the spring at most compression (jaws fully open on spring close units and fully closed on spring open units).

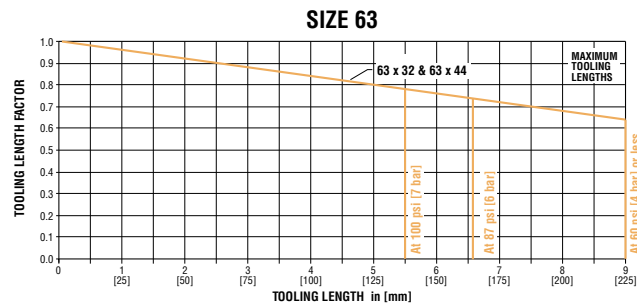
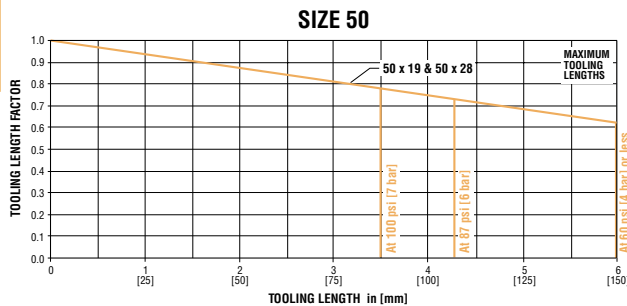
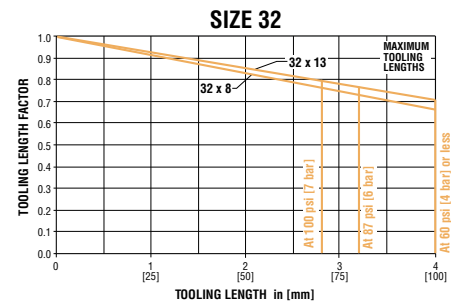
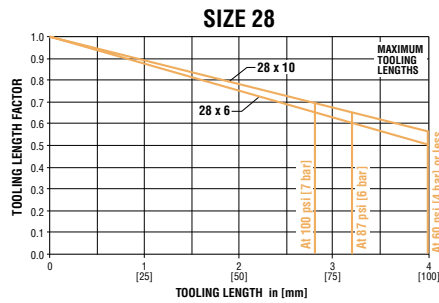
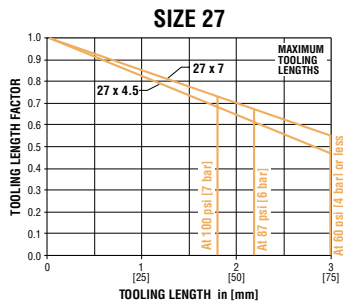


Sizing & Application Assistance

Use PHD's free online Product Sizing Application or view the Product Sizing Catalog at: www.phdinc.com/apps/sizing

TOOLING LENGTH FACTOR

Jaw tooling should be designed so that the grip point is as close to the cover surface as possible. As the grip point is moved away from the cover surface, the applied moment causes jaw friction to increase, resulting in reduced effective grip force. The Grip Force Factor (G_F) values given in the table on page 4-13 are for zero tooling length (cover surface).



GRIP FORCE CALCULATION EQUATIONS:

IMPERIAL:

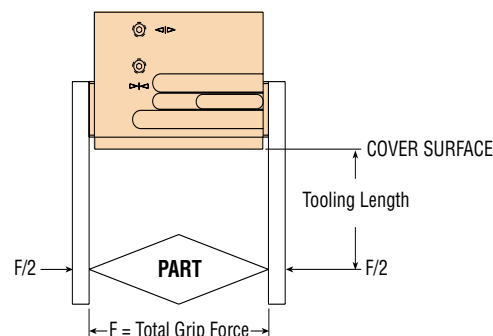
$$\text{TOTAL GRIP FORCE [lb]} = (\text{Pressure [psi]} \times G_F) \times \text{Tooling Length Factor}$$

$$\text{TOTAL GRIP FORCE WITH SPRINGS [lb]} = ((\text{Pressure [psi]} \times G_F) \pm S_F [\text{lb}]) \times \text{Tooling Length Factor}$$

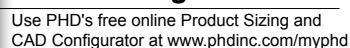
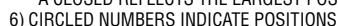
METRIC:

$$\text{TOTAL GRIP FORCE [N]} = (\text{Pressure [bar]} \times G_F) \times \text{Tooling Length Factor}$$

$$\text{TOTAL GRIP FORCE WITH SPRINGS [N]} = ((\text{Pressure [bar]} \times G_F) \pm S_F [\text{N}]) \times \text{Tooling Length Factor}$$



CBS

PHDV2

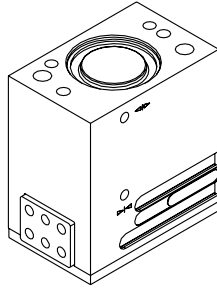
OPTIONS: SERIES GRS GRIPPERS

FSR2 MEDIUM FORCE SPRING ASSIST CLOSE

FSE2 MEDIUM FORCE SPRING ASSIST OPEN

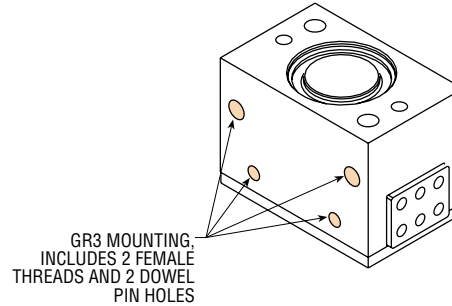
Springs can maintain spring grip force if air pressure is lost or increase grip force in one specific direction when used with air pressure. Spring assist units are engineered and tested for a minimum of 6 million cycles under normal operating conditions.

Working air pressure for spring assist units is 50 psi min - 100 psi max [3.5 bar min - 7 bar max]. For spring grip forces, see table on page 4-13.



GR3 BOTTOM MOUNTING FLANGE

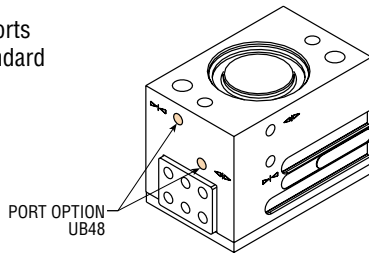
This option provides mounting threads and dowel holes on the side opposite the standard ports.



GRS

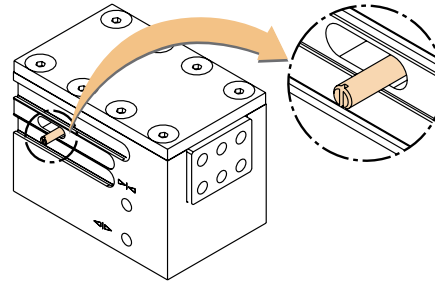
UB48 PORT OPTION IN LOCATION 48

This option provides ports in location 48. The standard ports are plugged.



CU SWITCH READY

With this option the gripper includes a target pin attached to the jaw for use with inductive proximity switches as well as the Series 6790 and JC1 switches. Switches and switch mounting kits are required in addition to the CU option and are sold separately. See Accessories pages for switches and mounting kits.

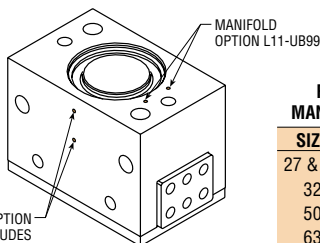


L11-UB99 L11-UB37 MANIFOLD PORTS

With these options the gripper is configured for manifold mounting on either the standard or optional mounting face, according to the selected option code. The standard ports are plugged.

O-ring seals are provided for mounting between the gripper and the manifold.

When the L11-UB37 option is specified, the GR3 option is automatically included to provide mountings on the manifold surface. See online pages for GR3 mounting information.



REPLACEMENT MANIFOLD SEAL KITS

SIZE	KIT NUMBER
27 & 28	70247-27-1
32	70247-32-1
50	70247-50-1
63	70247-63-1

Manifold kit includes O-rings.



Options may affect unit length. See dimensional pages and option information details.



Refer to this product's online catalog in the product section for complete information including related dimensions and additional specifications. See link at bottom of this page.

OPTIONS: SERIES GRS GRIPPERS

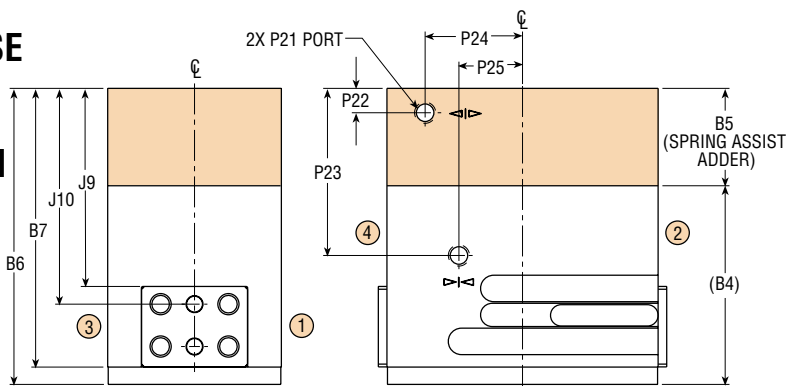
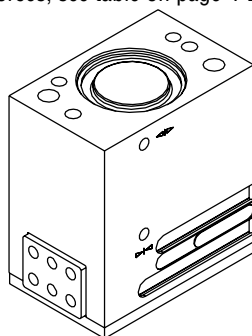
FSR2

**MEDIUM FORCE
SPRING ASSIST CLOSE**

FSE2

**MEDIUM FORCE
SPRING ASSIST OPEN**

Springs can maintain spring grip force if air pressure is lost or increase grip force in one specific direction when used with air pressure. Spring assist units are engineered and tested for a minimum of 6 million cycles under normal operating conditions. Working air pressure for spring assist units is 50 psi min - 100 psi max [3.5 bar min - 7 bar max]. For spring grip forces, see table on page 4-25.



LETTER	SIZE									
	27		28		32		50		63	
DIM	in	mm	in	mm	in	mm	in	mm	in	mm
(B4)	1.130	28.7	1.395	35.4	1.847	46.9	2.438	61.9	3.648	92.7
B5	.6100	15.5	.6100	15.5	.9054	23.0	1.1614	29.5	1.2993	33.0
B6	1.740	44.2	2.005	50.9	2.753	69.9	3.599	91.4	4.948	125.7
B7	1.646	41.8	1.889	48.0	2.592	65.8	3.414	86.7	4.708	119.6
J9	1.212	30.8	1.337	34.0	1.843	46.8	2.389	60.7	3.092	78.5
J10	1.299	33.0	1.456	37.0	2.008	51.0	2.618	66.5	3.465	88.0
P21	10-32	M5 x 0.8	10-32	M5 x 0.8	10-32	M5 x 0.8	1/8 NPT	1/8 BSPP	1/8 NPT	1/8 BSPP
P22	.201	5.1	.201	5.1	.236	6.0	.389	9.9	.413	10.5
P23	1.164	29.6	1.138	28.9	1.553	39.4	2.087	53.0	2.736	69.5
P24	.482	12.2	.433	11.0	.591	15.0	1.016	25.8	1.181	30.0
P25	.601	15.3	.512	13.0	.591	15.0	.965	24.5	1.181	30.0

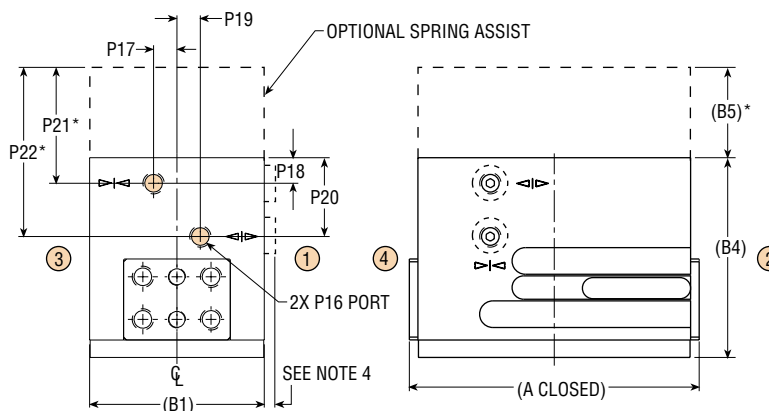
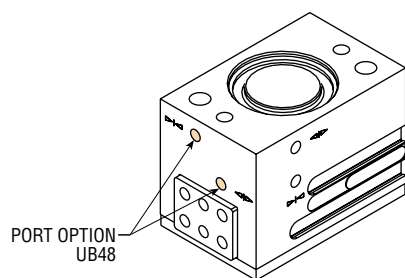
NOTES:

1) DESIGNATED ϕ IS CENTERLINE OF UNIT

UB48

**PORT OPTION IN
LOCATION 48**

This option provides ports in location 48. The standard ports are plugged.



LETTER	SIZE									
	27		28		32		50		63	
DIM	in	mm	in	mm	in	mm	in	mm	in	mm
P16	10-32	M5	10-32	M5	10-32	M5	10-32	M5	1/8 NPT	1/8 BSPP
P17	.276	7.0	.236	6.0	.216	5.5	.295	7.5	.472	12.0
P18	.201	5.1	.201	5.1	.236	6.0	.290	7.4	.394	10.0
P19	.433	11.0	.236	6.0	.216	5.5	.787	20.0	.472	12.0
P20	.446	11.3	.511	13.0	.728	18.5	1.060	26.9	1.407	35.7
P21*	.201	5.1	.201	5.1	.236	6.0	.290	7.4	.394	10.0
P22*	1.056	26.8	1.121	28.5	1.553	39.4	2.086	53.0	2.697	68.5
(B1)	1.378	35.0	1.496	38.0	1.614	41.0	2.283	58.0	2.953	75.0
(B4)	1.130	28.7	1.395	35.4	1.847	46.9	2.438	61.9	3.648	92.7
(B5)*	.610	15.5	.610	15.5	.905	23.0	1.161	29.5	1.299	33.0
(A CLOSED)	1.614	41.0	2.125	54.0	2.677	68.0	3.500	88.9	5.748	146.0

NOTES:

1) DESIGNATED ϕ IS CENTERLINE OF UNIT

2) CIRCLED NUMBERS INDICATE POSITIONS

3) * APPLIES TO SPRING ASSIST UNITS ONLY

4) .098 [2.5 mm] PORT PLUG HEAD FOR SIZE 50 & 63 METRIC UNITS ONLY. FOR ALL OTHER SIZES, PORT PLUG HEAD MAY PROTRUDE TO .040 [1 mm]

All dimensions are reference only unless specifically toleranced.

OPTIONS: SERIES GRS GRIPPERS

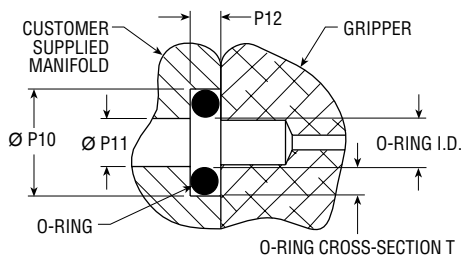
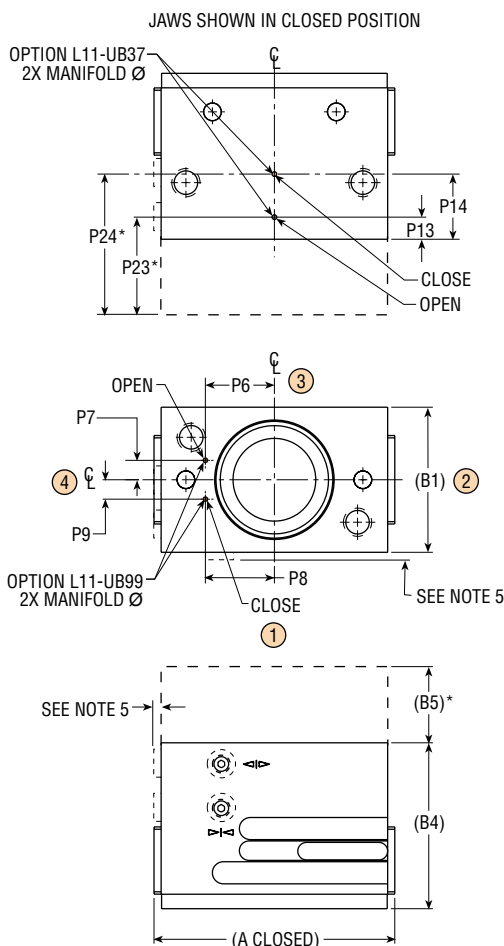
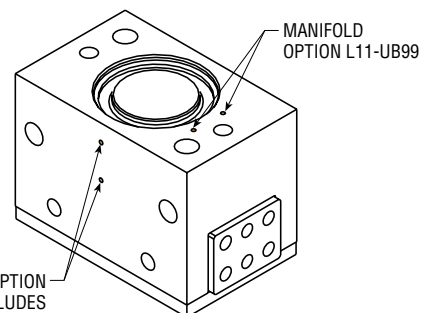
L11-UB99

L11-UB37

MANIFOLD PORTS

With these options the gripper is configured for manifold mounting on either the standard or optional mounting face, according to the selected option code. The standard ports are plugged. O-ring seals are provided for mounting between the gripper and the manifold.

When the L11-UB37 option is specified, the GR3 option is automatically included to provide mountings on the manifold surface. See page 4-30 for GR3 mounting information.



REPLACEMENT MANIFOLD SEAL KITS

SIZE	KIT NUMBER
27 & 28	70247-27-1
32	70247-32-1
50	70247-50-1
63	70247-63-1

Manifold kit includes O-rings.

MANIFOLD PORTING DIMENSIONS

FOR CUSTOMER USE
(DIMENSIONS REQUIRED
FOR CUSTOMER MOUNTING SURFACE)

LETTER DIM	SIZE									
	27		28		32		50		63	
	in	mm	in	mm	in	mm	in	mm	in	mm
P6	.608	15.4	.650	16.5	.768	19.5	1.181	30.0	1.811	46.0
P7	.236	6.0	.177	4.5	.138	3.5	.276	7.0	.472	12.0
P8	.591	15.0	.650	16.5	.768	19.5	1.437	36.5	1.811	46.0
P9	.295	7.5	.236	6.0	.216	5.5	.276	7.0	.472	12.0
P10	.197	5.0	.197	5.0	.197	5.0	.236	6.0	.236	6.0
P10 O-RING (I.D. x T)	2 mm x 1.5 mm		2 mm x 1.5 mm		2 mm x 1.5 mm		3 mm x 1.5 mm		3 mm x 1.5 mm	
P11	.078	2.0	.078	2.0	.078	2.0	.098	2.5	.098	2.5
P12	.048	1.2	.048	1.2	.048	1.2	.048	1.2	.048	1.2
P13	.191	4.9	.190	4.8	.246	6.2	.290	7.4	.343	8.7
P14	.489	12.4	.545	13.8	.725	18.4	1.060	26.9	1.504	38.2
P23*	.191	4.9	.190	4.8	.246	6.2	.290	7.4	.343	8.7
P24*	1.006	25.6	1.121	28.5	1.553	39.4	2.071	52.6	2.743	69.7
(B1)	1.378	35.0	1.496	38.0	1.614	41.0	2.283	58.0	2.953	75.0
(B4)	1.130	28.7	1.395	35.4	1.847	46.9	2.438	61.9	3.648	92.7
(B5)*	.6100	15.5	.6100	15.5	.9054	23.0	1.1614	29.5	1.2993	33.0

NOTES:

- 1) DESIGNATED ϕ IS CENTERLINE OF UNIT
- 2) DIMENSIONS TO MANIFOLD HOLES ARE FOR LOCATION OF O-RING COUNTERBORES. MANIFOLD HOLES MAY DIFFER SLIGHTLY
- 3) * APPLIES TO SPRING ASSIST UNITS ONLY
- 4) CIRCLED NUMBERS INDICATE POSITIONS
- 5) .098 [2.5 mm] PORT PLUG HEAD FOR 50 & 63 METRIC UNITS ONLY. FOR ALL OTHER SIZES, PORT PLUG HEAD MAY PROTRUDE UP TO .040 [1 mm]

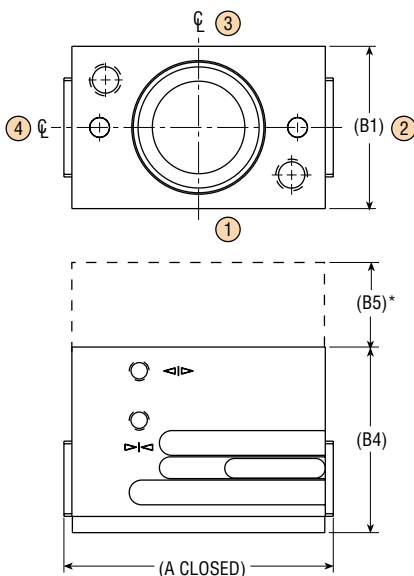
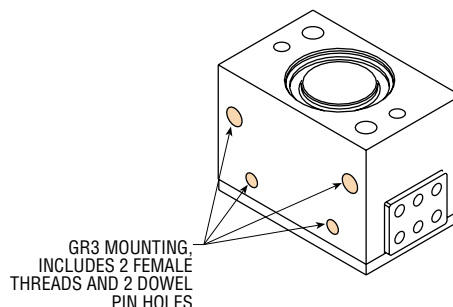
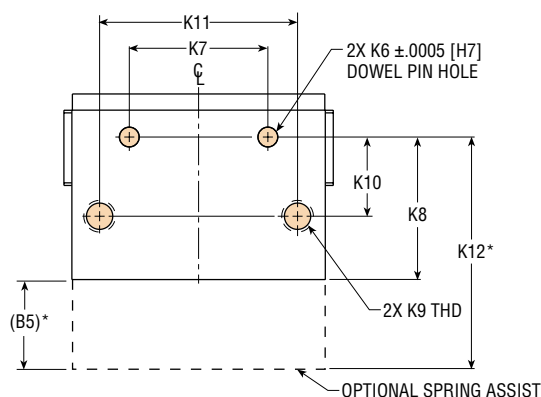
All dimensions are reference only unless specifically toleranced.

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GR3

MOUNTING OPTION IN LOCATION 37

This option provides mounting threads and dowel holes on the side opposite the standard ports.



LETTER DIM	SIZE									
	27		28		32		50		63	
K6	.1283	3.0	.1908	5.0	.1908	5.0	.3158	8.0	.3783	10.0
K7	.7480	19.0	.9449	24.0	1.3780	35.0	1.9685	50.0	3.1496	80.0
K8	.866	22.0	1.063	27.0	1.417	36.0	1.890	48.0	2.717	69.0
K9	8-32	M5 x 0.8	1/4-20	M6 x 1.0	5/16-18	M8 x 1.25	3/8-16	M10 x 1.5	1/2-13	M12 x 1.75
K10	x .315 DP	x 8.0 DP	x .512 DP	x 13.0 DP	x .591 DP	x 15.0 DP	x .630 DP	x 16.0 DP	x 1.024 DP	x 26.0 DP
K11	.433	11.0	.551	14.0	.787	20.0	1.024	26.0	1.378	35.0
K12*	1.220	31.0	1.496	38.0	1.969	50.0	2.559	65.0	4.134	105.0
(B1)	1.378	35.0	1.496	38.0	1.614	41.0	2.283	58.0	2.953	75.0
(B4)	1.130	28.7	1.395	35.4	1.847	46.9	2.438	61.9	3.648	92.7
(B5)*	.6100	15.5	.6100	15.5	.9054	23.0	1.1614	29.5	1.2993	33.0
(A CLOSED)	1.614	41.0	2.125	54.0	2.677	68.0	3.500	88.9	5.748	146.0

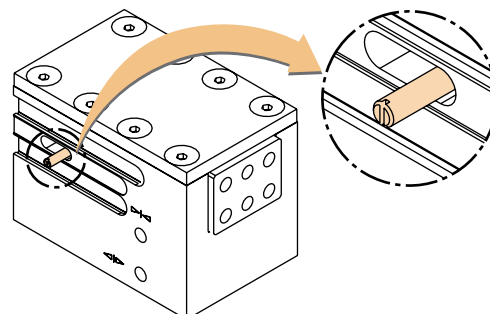
NOTES:

- 1) DESIGNATED ϕ IS CENTERLINE OF UNIT
- 2) METRIC INFORMATION SHOWN IN [] OR IN COLUMNS DESIGNATED mm
- 3) CIRCLED NUMBERS INDICATE POSITIONS
- 4) * APPLIES TO SPRING ASSIST UNITS ONLY

CU

SWITCH READY

With this option the gripper includes a target pin attached to the jaw for use with inductive proximity switches as well as the Series 6790 and JC1 switches. Switches and switch mounting kits are required in addition to the CU option and are sold separately. See Accessories pages for switches and mounting kits.



All dimensions are reference only unless specifically tolerated.

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ACCESSORIES: SERIES GRS GRIPPERS

PROXIMITY SWITCHES (-CU OPTION REQUIRED)

See Switches and Sensors section for complete switch specifications.

4 mm ROUND INDUCTIVE PROXIMITY SWITCHES (SIZE 27, 28, & 32)

PART NUMBER	DESCRIPTION
18430-001-02	NPN (Sink) 2 meter cable
18430-002-02	PNP (Source) 2 meter cable

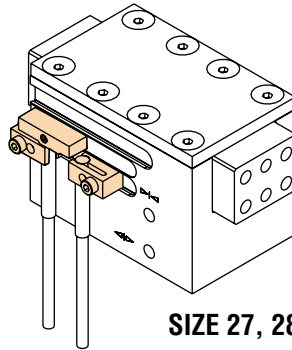
8 mm THREADED INDUCTIVE PROXIMITY SWITCHES (SIZE 50 & 63)

PART NUMBER	DESCRIPTION
51422-005-02	NPN (Sink) 2 meter cable
51422-006-02	PNP (Source) 2 meter cable

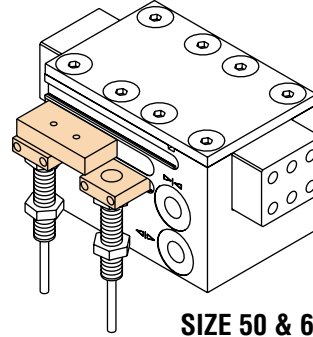
PROXIMITY SWITCH MOUNTING KITS

SIZE	KIT NUMBER
27 & 28	70663-27
32	70663-32
50	70663-50
63	70663-63

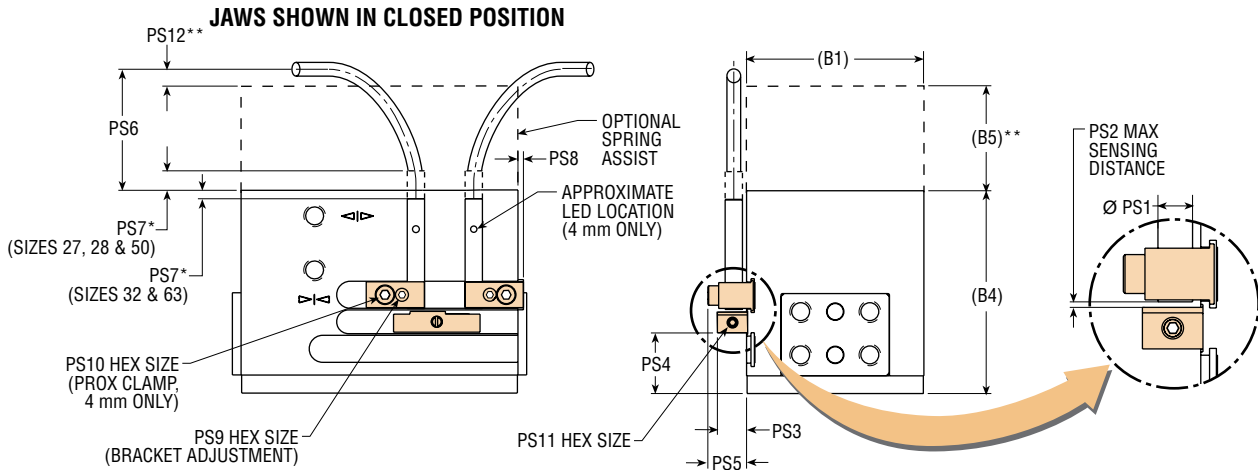
Each kit includes 1 target, 2 switch mounting brackets, and fasteners for mounting. Switches sold separately.



SIZE 27, 28, & 32



SIZE 50 & 63



LETTER DIM	SIZE									
	27		28		32		50		63	
	in	mm	in	mm	in	mm	in	mm	in	mm
PS1	4 mm ROUND		4 mm ROUND		4 mm ROUND		8 mm THREADED		8 mm THREADED	
PS2	.020	.5	.020	.5	.020	.5	.030	.8	.030	.8
PS3	.236	6.0	.236	6.0	.276	7.0	.680	17.3	.680	17.3
PS4	.354	9.0	.454	11.5	.551	14.0	.630	16.0	1.337	34.0
PS5	.393	10.0	.393	10.0	.393	10.0	.690	17.5	.690	17.5
PS6	1.377	35.0	1.218	30.9	.860	21.8	1.252	31.8	.753	19.1
PS7*	.435	11.0	.276	7.0	.082	2.1	.310	7.9	.189	4.8
PS8	.256	6.5	.165	4.2	.050	1.3	—	—	—	—
PS9	.051	1.3	.051	1.3	.051	1.3	.051	1.3	.051	1.3
PS10	.079	2.0	.079	2.0	.079	2.0	—	—	—	—
PS11	.051	1.3	.051	1.3	.051	1.3	.061	1.5	.061	1.5
PS12**	.767	19.5	.608	15.4	—	—	.091	2.3	—	—
(B1)	1.378	35.0	1.496	38.0	1.614	41.0	2.283	58.0	2.953	75.0
(B4)**	1.130	28.7	1.395	35.4	1.847	46.9	2.438	61.9	3.648	92.7
(B5)**	.6100	15.5	.6100	15.5	.9054	23.0	1.1614	29.5	1.2993	33.0

NOTES:

- 1) * INDICATES BOTTOM OF PROXIMITY SWITCH BARREL, DOES NOT INCLUDE CABLE. DIMENSIONS DO NOT APPLY TO SPRING ASSIST UNIT BECAUSE PROXIMITY SWITCH BARREL DOES NOT PROTRUDE ON SPRING ASSIST UNITS
- 2) ** APPLIES TO SPRING ASSIST UNITS ONLY

All dimensions are reference only unless specifically toleranced.

ACCESSORIES: SERIES GRS GRIPPERS

SERIES 6790 & JC1 SWITCHES (-CU OPTION REQUIRED)

SERIES 6790 & JC1 SWITCHES

PART NO.	DESCRIPTION
67902-1-05	PNP (Source) or NPN (Sink) Reed, 4.5-30 VDC, 5 m cable
JC1SDN-5	NPN (Sink) Solid State, 10-30 VDC, 5 m cable
JC1SDP-5	PNP (Source) Solid State, 10-30 VDC, 5 m cable
67922-1	PNP (Source) or NPN (Sink) Reed, 4.5-30 VDC, Quick Connect
JC1SDN-K	NPN (Sink) Solid State, 10-30 VDC, Quick Connect
JC1SDP-K	PNP (Source) Solid State, 10-30 VDC, Quick Connect
67929-2	PNP (Source) or NPN (Sink) Reed, 65-120 VAC, Quick Connect

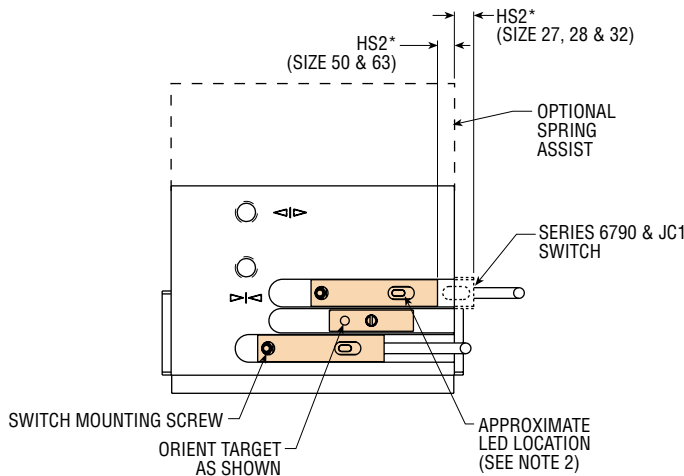
SERIES 6790 & JC1SDx CORDSET CHART

PART NO.	DESCRIPTION
63549-02	M8, 3 pin, Straight Female Connector, 2 m cable
63549-05	M8, 3 pin, Straight Female Connector, 5 m cable

NOTES:

- JC1 Switches are rotated 90°. LED faces side of switch bracket.
- See switches & sensors Section for additional switch information and complete specification.

JAWS SHOWN IN CLOSED POSITION



SERIES JC1STP 2 POSITION SWITCHES

PART NO.	DESCRIPTION
JC1STP-2	PNP (Source) Solid State, 12-30 VDC, 2 m cable
JC1STP-K	NPN (Sink) Solid State, 12-30 VDC, Quick Connect

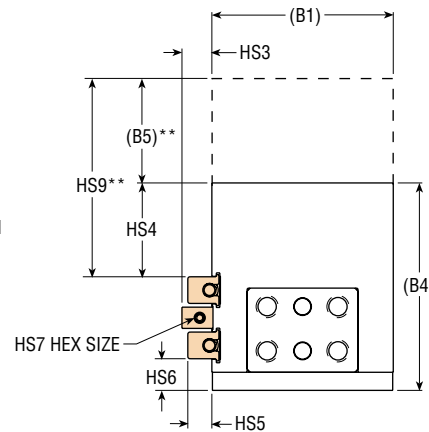
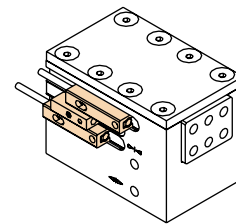
SERIES JC1STP CORDSET CHART

PART NO.	DESCRIPTION
81284-1-001	M8, 4 pin, Straight Female Connector, 5 m cable

SWITCH MOUNTING KITS

SIZE	6790 & JC1SDx		JC1STx
	REED	SOLID STATE	SOLID STATE
27 & 28	76108-27	76107-27	81831-27
32	76108-32	76107-32	81831-32
50	76108-50	76107-50	81831-50
63	76108-63	76107-63	81831-63

Each kit includes 1 target, 2 switch mounting brackets (1 for JC1STx), and fasteners for mounting. Switches sold separately.



LETTER DIM	SIZE									
	27		28		32		50		63	
	in	mm	in	mm	in	mm	in	mm	in	mm
HS2*	.197	5.0	.040	1.0	.040	1.0	.560	14.2	1.298	33.0
HS3	.236	6.0	.236	6.0	.266	6.8	.236	6.0	.236	6.0
HS4	.315	8.0	.483	12.3	.835	21.2	1.194	30.3	1.707	43.4
HS5	.246	6.2	.246	6.2	.214	5.4	.296	7.5	.236	6.0
HS6	.084	2.1	.185	4.7	.282	7.2	.325	8.3	1.032	26.2
HS7 HEX	.051	1.3	.051	1.3	.051	1.3	.061	1.5	.061	1.5
HS9**	.925	23.5	1.093	27.8	1.740	44.2	2.355	59.8	3.006	76.4
(B1)	1.378	35.0	1.496	38.0	1.614	41.0	2.283	58.0	2.953	75.0
(B4)	1.130	28.7	1.395	35.4	1.847	46.9	2.438	61.9	3.648	92.7
(B5)**	.6100	15.5	.6100	15.5	.9054	23.0	1.1614	29.5	1.2993	33.0

NOTES:

- * DIMENSION APPLIES TO INDICATED END OF SWITCH BRACKET (NOT CABLE)
- JC1 SWITCHES ARE ROTATED 90°. LED FACES SIDE OF SWITCH BRACKET
- SEE SWITCHES AND SENSORS SECTION FOR ADDITIONAL SWITCH INFORMATION AND COMPLETE SPECIFICATION.
- ** APPLIES TO SPRING ASSIST UNITS ONLY

All dimensions are reference only unless specifically toleranced.

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