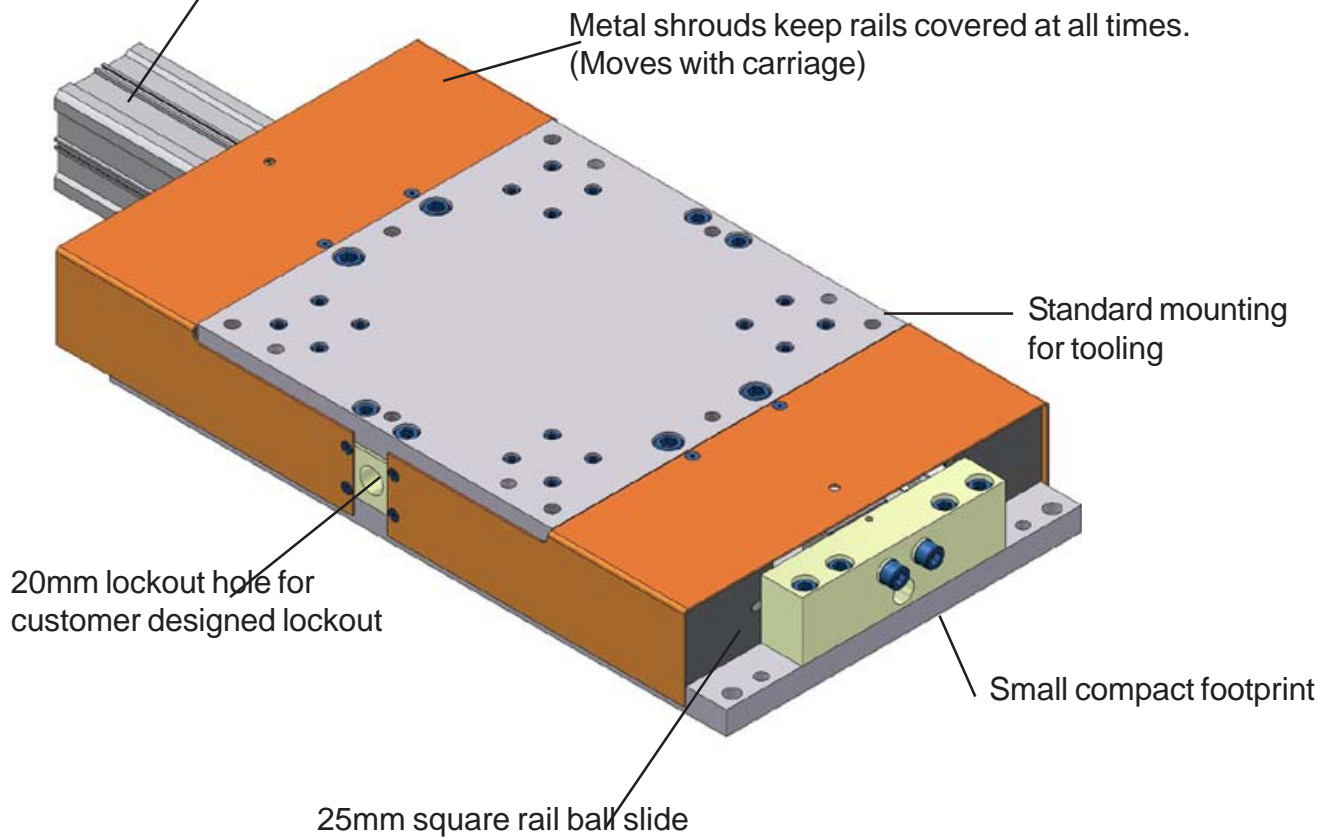


POWERED CS2 COMPACT SLIDE

Welker Smart Stop Available
Shim options for strokes up to 75mm
Aluminum carriage & base plate
Weighs only 69 lbs.

Multiple brand compact cylinder with magnetic piston for customer supplies cylinder switches. (NPT or G Port available)



Welker SMART STOP does all the stopping and sensing functions in one part. SMART STOP minimizes engineering, field set up and operator adjustment time. Eliminates needs for separate mounts, brackets and flags.

Download CAD drawings @ www.welkerproducts.com

Ordering Information

CS2 000 075 30 2 0000 P1W

Series (Sheet 2)
CS2 Slide Series

***Stroke**
075 Stroke (This does not change)

Actuator (Sheet 3)
 30 Welker Compact cylinder w/ NPT Ports
 31 Welker Compact cylinder w/ G Ports
 10 Welker Electric 24V DC motor (1.00 in/sec)
 11 Welker Electric 24V DC motor (0.50 in/sec)
 12 Welker Electric 24V DC motor (0.25 in/sec)

Port Position (Sheet 4)
 2 Port Position P2 (Shown)
 4 Port Position P4

****Additional Retract Shim**
Whole (mm)

0 0 G 16
 1 1 H 17
 2 2 J 18
 3 3 K 19
 4 4 L 20
 5 5 M 21
 6 6 N 22
 7 7 P 23
 8 8 R 24
 9 9 S 25
 A 10 T 26
 B 11 U 27
 C 12 V 28
 D 13 W 29
 E 14 X 30
 F 15

****Additional Retract Shim**
Quarter (mm)

0 0.00
 A 0.25
 B 0.50
 C 0.75

****Additional Extend Shim**
Whole (mm)

0 0 G 16
 1 1 H 17
 2 2 J 18
 3 3 K 19
 4 4 L 20
 5 5 M 21
 6 6 N 22
 7 7 P 23
 8 8 R 24
 9 9 S 25
 A 10 T 26
 B 11 U 27
 C 12 V 28
 D 13 W 29
 E 14 X 30
 F 15

****Additional Extend Shim**
Quarter (mm)

0 0.00
 A 0.25
 B 0.50
 C 0.75

Options

- 0 NAAMS Stop
- P Welker Smart Stop (Sheet 8)

***Stroke Note:** Standard unit stroke is 75mm. If necessary, stops can be shimmed back to achieve the required travel (20mm minimum working stroke).

****Shim Note:** When ordering the shim option, units will have shim packs/grind spacers added to the NAAMS stops on both ends and it will shorten the total working

Welker CS2 slides utilize size 25 square rail bearings, lockout holes on both sides, hard shrouds and a 63mm bore compact cylinder.

Ordering examples: For a "CS2" slide with NPT ports at position 2, no additional shims, Welker smart stop, shrouds,
 order as: **CS20000753020000P1W**

For a "CS2" slide with an electric motor with cable at position 2, 20.50 shims at in the retract and 25.25 shims in the extend, NAAMS stop and no shroud, order as: **CS2000075102LBSA00W**

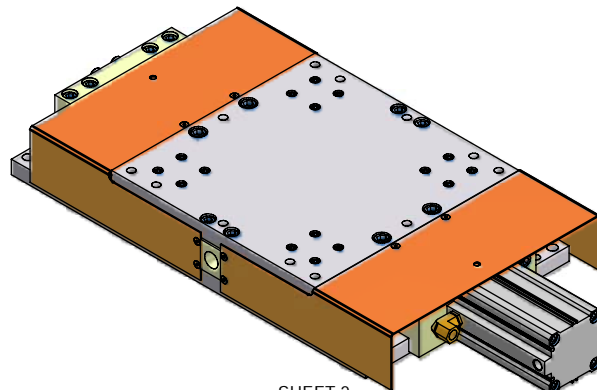
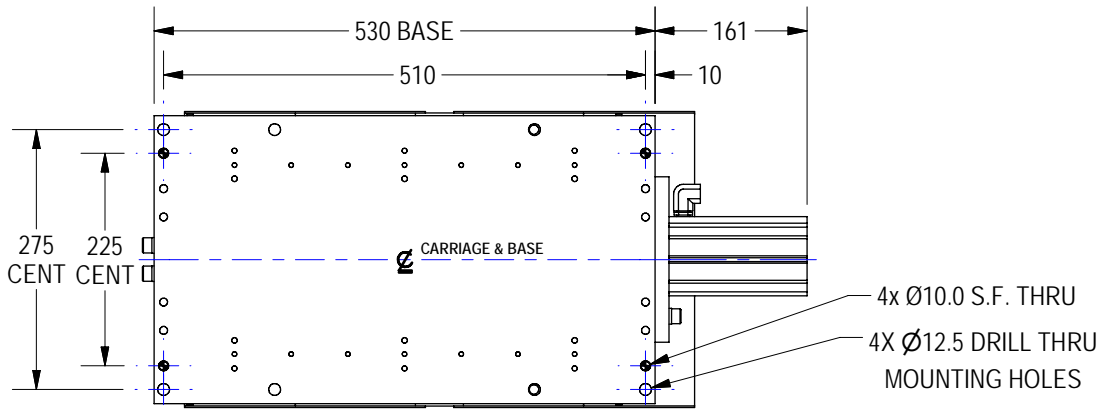
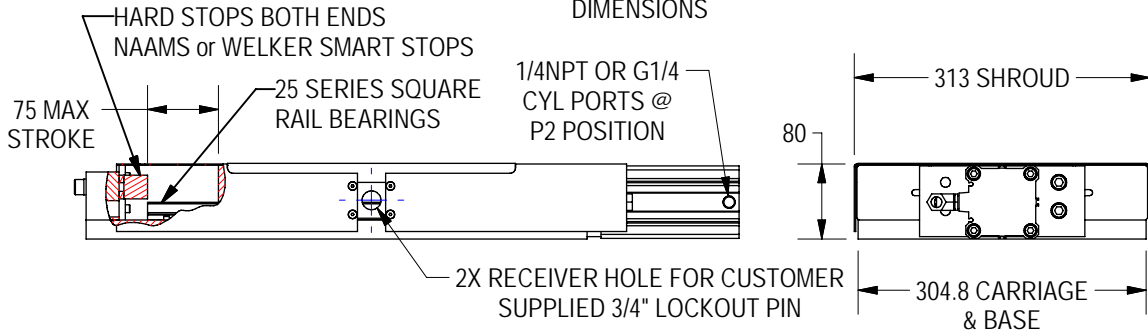
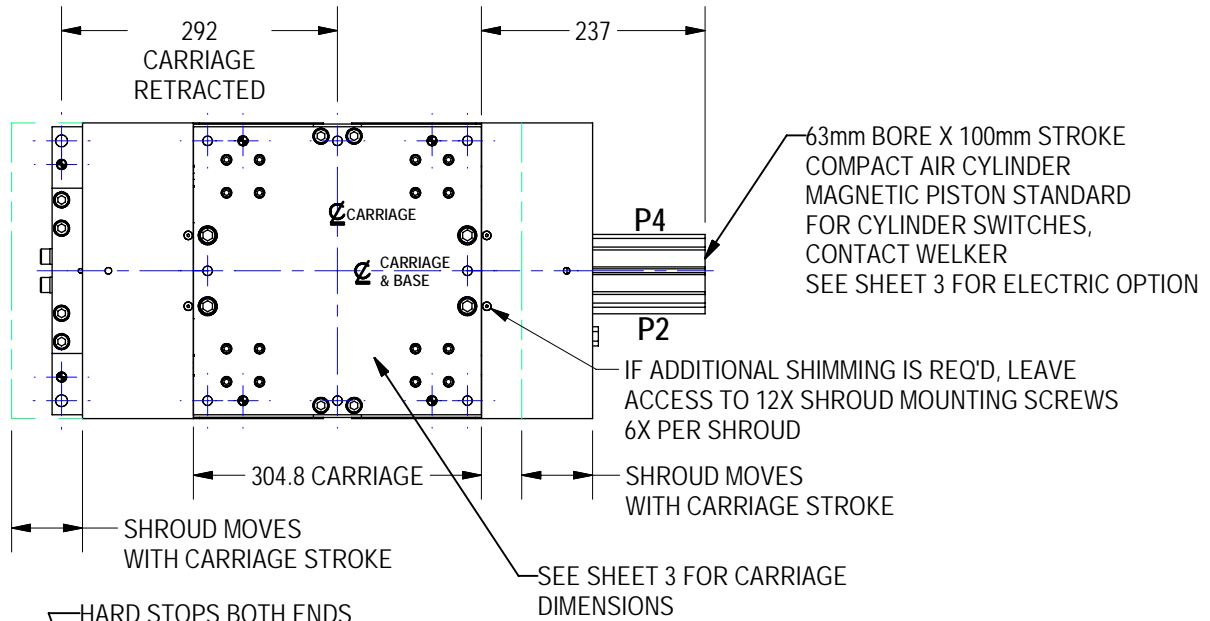
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GENERAL DIMENSIONS

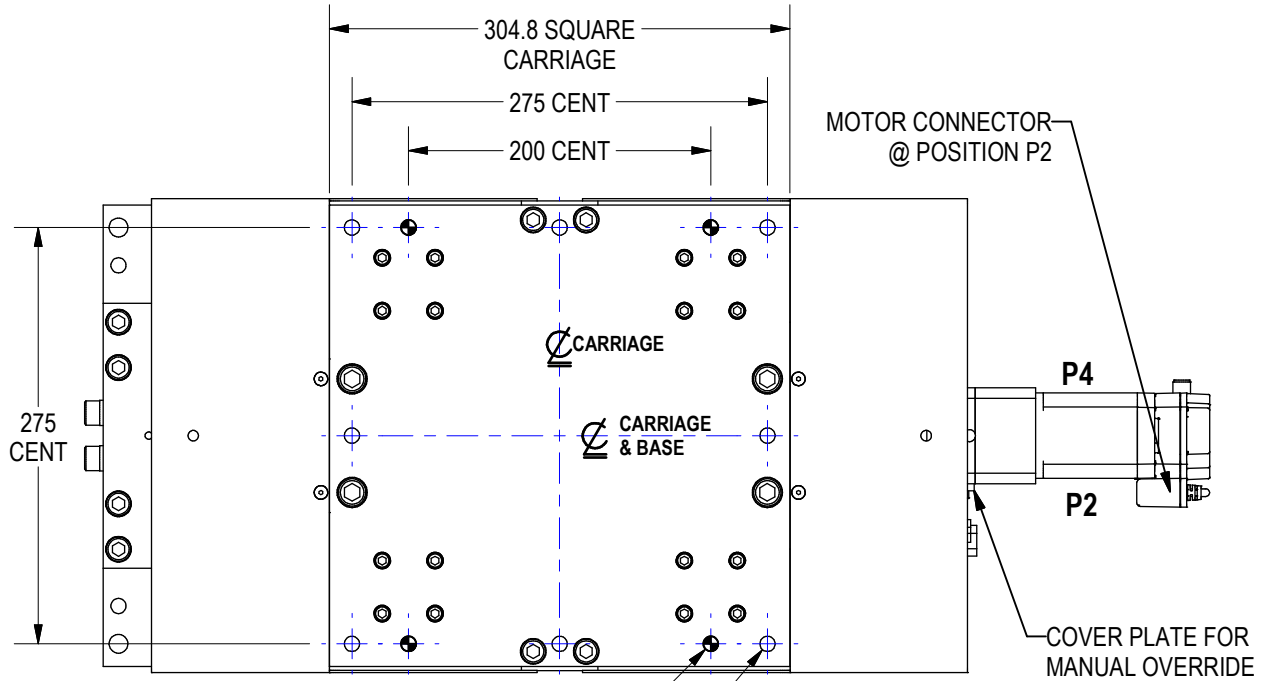


TOTAL WEIGHT: 69 LBS

(DO NOT SCALE DRAWING)

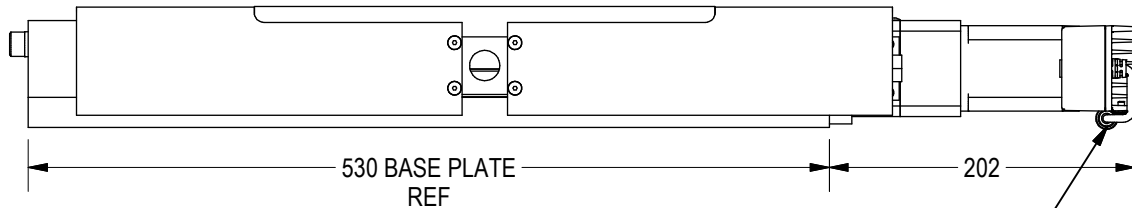
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CARRIAGE AND ELECTRIC SHEET

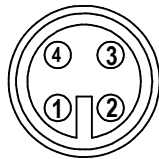


4X Ø10.0 DOWEL P.F. THRU

8X M12 X 1.75 TAP THRU



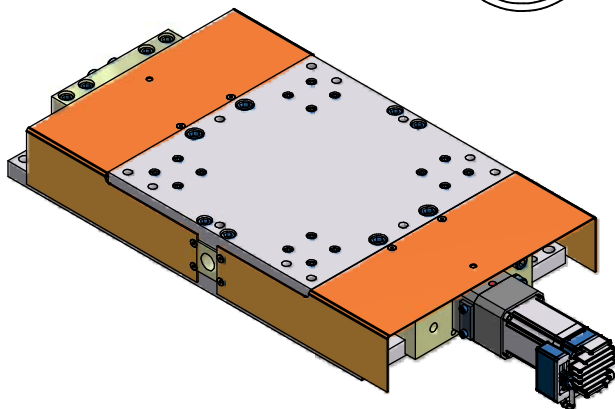
M12 MICRO CONNECTOR
CAN BE FIELD ROTATED



Pin	I/O Block Function	I/O Block Description	Signal
1	V+	Unswitched Control Power	+24Vdc To Motor
2	Input B	Extend	+24Vdc From Motor
3	V-	Aux Power Common	0Vdc To Motor
4	Input A	Retract	+24Vdc From Motor

OUTPUTS 2 AND 4 MUST BE MAINTAINED DURING DRIVE MOTION. THE LOSS OF THE OUTPUT WILL CAUSE THE DRIVE MOTION TO STOP. DURING MOTOR OPERATION, THE DRIVE OPERATES AT SPEED UNTIL OUTPUT IS LOST.

SLIDE TRAVEL IS CONTROLLED BY EXTERNAL CONTROLS. THE MOTION OUTPUT SHOULD BE MAINTAINED UNTIL IN POSITION, AS SENSED BY THE SWITCH. THE MOTION OUTPUT SHOULD THEN BE DROPPED, AND THE DRIVE WILL STOP.



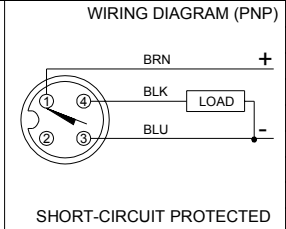
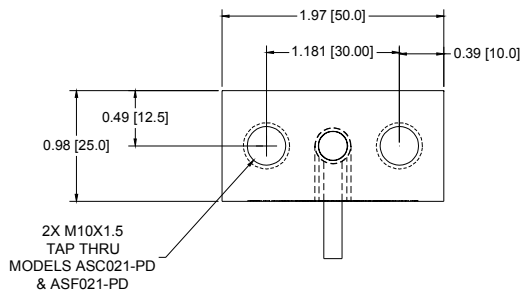
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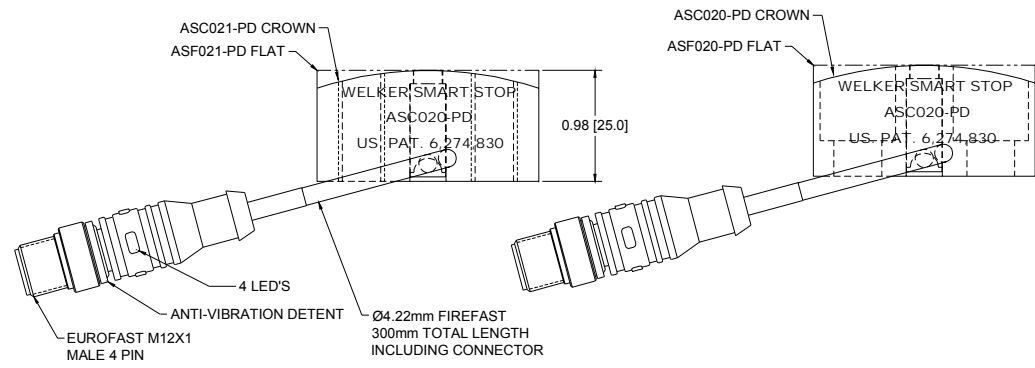
WELKER SMART STOP

MODEL NO:

ASC020-PD FOR CROWNED, DRILL & C'BORE FOR M10 SHCS + DC SWITCH
 ASC021-PD FOR CROWNED, M10X1.5 TAP + DC SWITCH
 ASF020-PD FOR FLAT, DRILL & C'BORE FOR M10 SHCS + DC SWITCH
 ASF021-PD FOR FLAT, M10X1.5 TAP + DC SWITCH

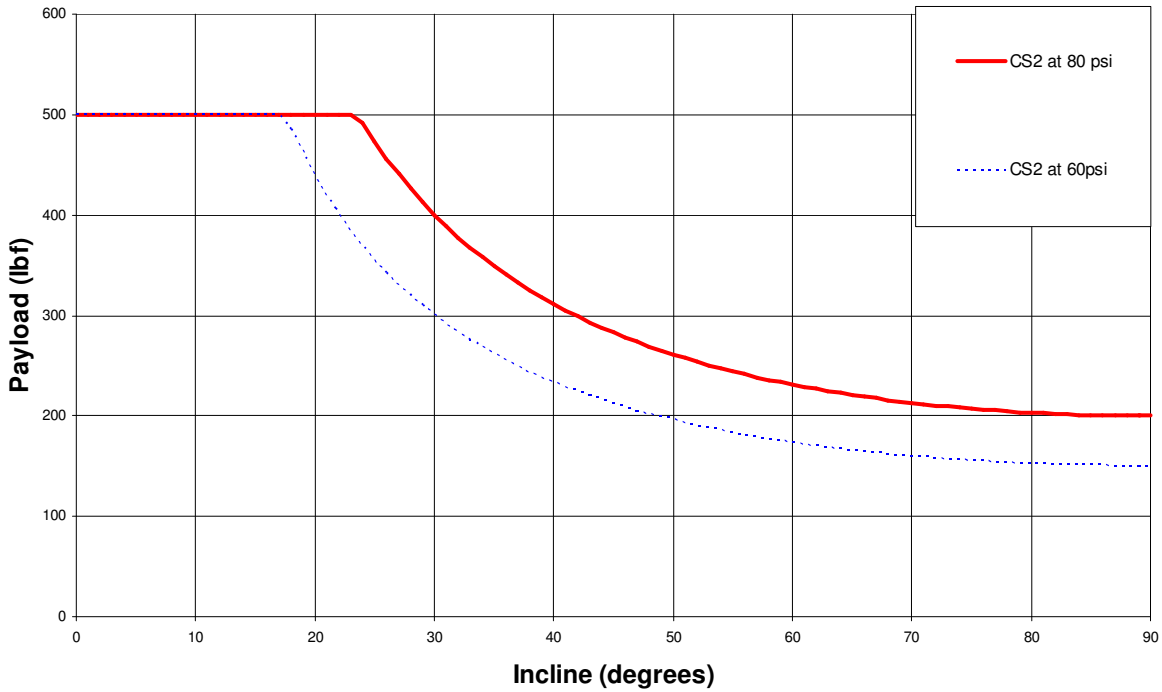


SPECIFICATIONS	
CONTACT CARRIER MATERIAL (RSE)	PUR
MOLDED HEAD MATERIAL/COLOR (RSE)	THERMOPLASTIC PUR/BLACK
CONTACT MATERIAL/PLATING (RSE)	GOLD-PLATED BRASS
COUPLING NUT MATERIAL/PLATING (RSE)	NICKEL-PLATED BRASS
RATED OPERATING DISTANCE	2mm = .079" (NOMINAL)
MOUNTING MODE	FLUSH
HYSTERESIS (DIFFERENTIAL TRAVEL)	3-15%
MAX. RELATIVE TEMPERATURE DRIFT	Ω#±10%
MIN. REPEAT ACCURACY	Ω#2%
OPERATING TEMPERATURE	-25 to 70°C (-13 to 158°F)
RATED OPERATIONAL VOLTAGE (DC)	10-30 VDC
MAX. RIPPLE	Ω#10%
RATED OPERATIONAL CURRENT	Ω#150 mA
NO-LOAD CURRENT	Ω#15 mA
MAX. OFF-STATE CURRENT	Ω#0.1 mA
MAX. SWITCHING FREQUENCY	Ω#8 kHz
RATED INSULATION VOLTAGE	0.5 kV
OUTPUT FUNCTION	3-WIRE, NORMALLY OPEN, PNP
SHORT-CIRCUIT PROTECTION	YES
MAX. VOLTAGE DROP	Ω#1.8 V
WIRE BREAKAGE/REVERSE POLARITY PROTECT	YES
DEGREE OF PROTECTION	IP 67
HOUSING MATERIAL	SST, V2A 1.4301
ACTIVE FACE	PLASTIC, PA12-GF30
OUTER CABLE JACKET (SENSOR)	3mm PUR
VIBRATION RESISTANCE	55 Hz (1mm)
SHOCK RESISTANCE	30 x g (11 ms)
PIG-TAIL LED COLOR	GREEN=POWER, YELLOW=OUTPUT

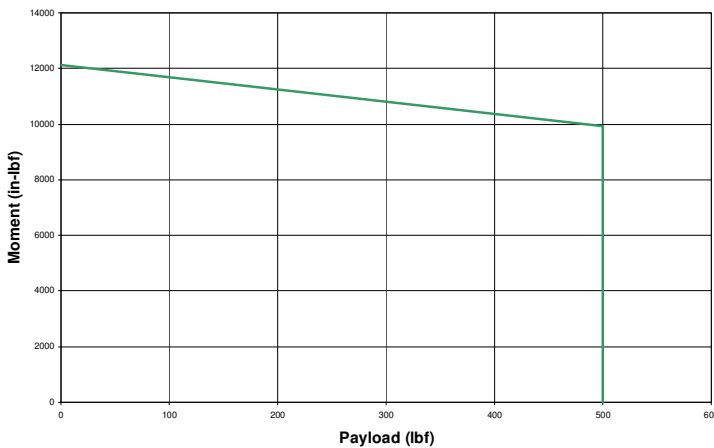


Download CAD drawings @welkerbearing.com

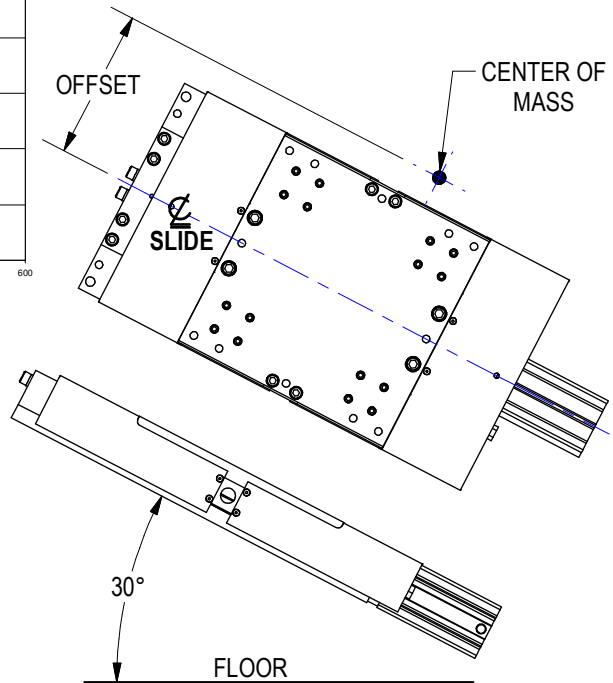
Rail Slide Load-Incline Capacity



Rail Slide Load-Moment Capacity



Applications are evaluated in two separate calculations: payload and moment load. An approvable application meets both criteria. For applications outside the graph safety zone, contact Welker.



Loading Example for CS2 Slide:

For an application with a 250 lbf (1.1 kN) payload, offset 8 inches and operating at a 30 degree incline, first verify if the payload falls inside the "Load-Incline" chart. The 250 lbf payload falls under the 60 psi curve at the 30° incline. This is an acceptable payload. Next, the center of mass, at 8" offset has an applied moment load of 2000 in-lbf. (226 N-m). Using the Moment-Load Capacity chart at 250 lbf, shows an allowable moment load of approx. 11,000 in-lbf (1243 N-m). The 2000 in-lb moment is less than the 11,000 allowable. This is an acceptable moment load. Note that the offset distance is the same regardless of the slide orientation to the floor.

Motor	Speed		Max Thrust Force	
	(in/sec)	(mm/sec)	(lbf)	(Newton)
10	1.00	25.4	70	311
11	0.50	12.7	220	979
12	0.25	6.4	260	1156

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