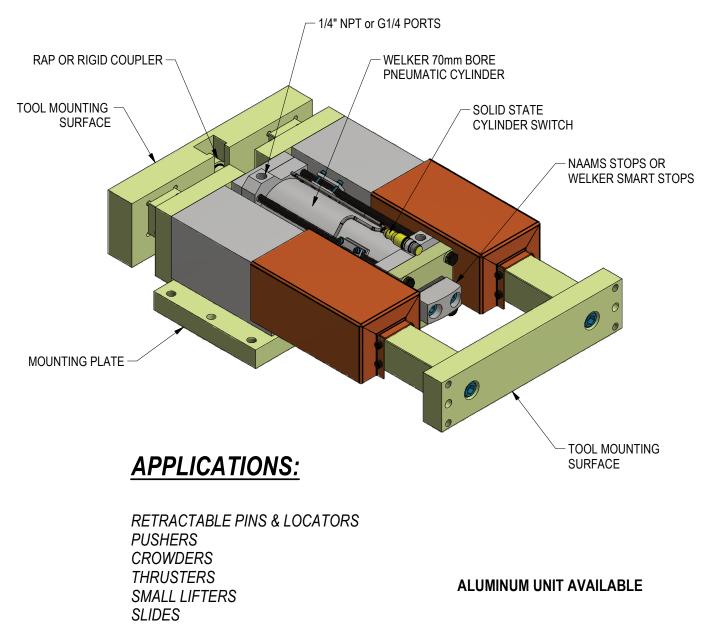
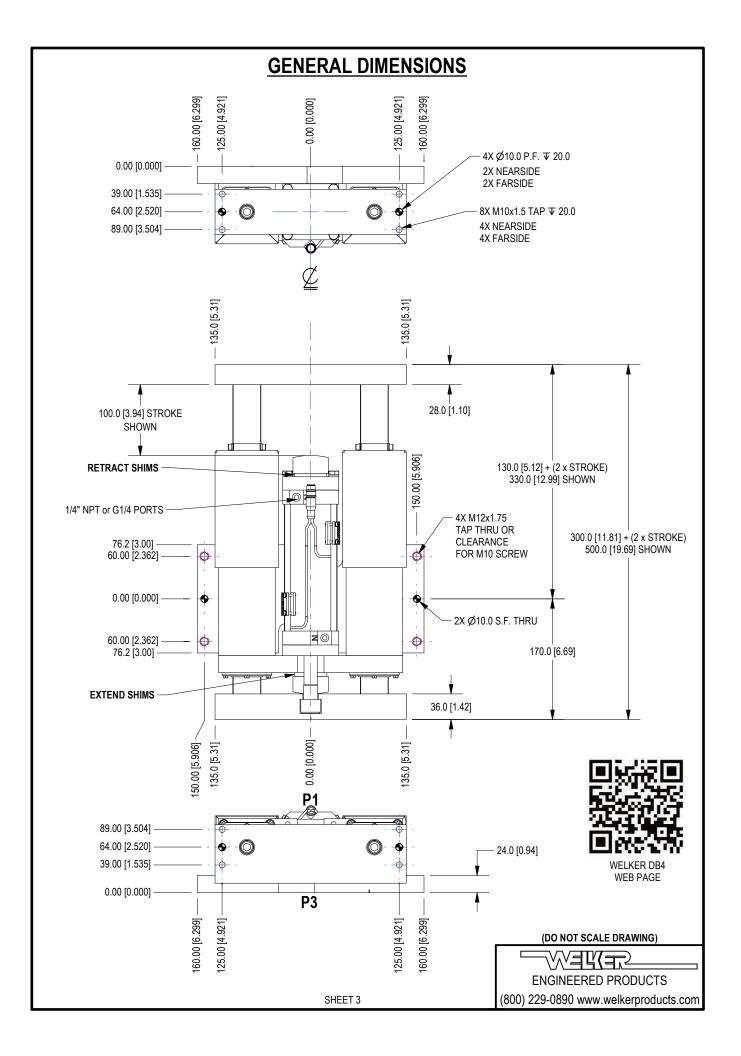


DB4 GUIDED SLIDE



RELEASED: 8/30/21

					ORDE	RING IN	FORM	ATION						
	NOTE: ALL BOXES MUST BE FILLED IN FOR A COMPLETE PART NUMBER													
	DE	3 4												
	Stroke 025 25-150mm (25mm increments)													
Coup	Coupler 0 See Shim C													
A B	A Rap* (shortens nominal stroke by 2mm) B Rigid *Not available with High Precision option Whole mm													
Actua	tor									0	See Shim	Chart		
01 02	Pneumatic Pneumatic									Quar	act Shims ter mm See Shim	Chart		
Mater S		ninum h	ody	Steel mounti	na nlates &	ram				Botra	act Shime			
	0 See Shim Cha													
00	No Switch									Shro				
	Welker Sn See Welke			vitch Chart							No Shroud Shroud			
Precis X	sion Stroke Standard F		1]							
P				lable with Ra	p Coupler op	otion)								
Port F	Rotation —													
1 3	Port in Port													
	Standard	Ontions	ς - ΛΙΙ	other optic	ne may aff	ect price & d	lalivary							
	Standard	options			ns nay and		Jenvery.							
Γ						SHIM	CHART					ר ^י ר		
F				W	HOLE MILLI	SHIM (CHART			QUARTER	MM CODES			
	THK (mm)	COD	DE	THK (mm)	CODE	METER COD THK (mm)	ES CODE	THK (mm)	CODE	THK (mm)	CODE	3		
	0	0	DE	THK (mm) 8	CODE 8	METER COD THK (mm) 16	ES CODE G	24	R	THK (mm) 0.00	CODE 0	5		
	0	0	DE	THK (mm) 8 9	CODE 8 9	METER COD THK (mm) 16 17	ES CODE	24 25	R	THK (mm) 0.00 0.25	CODE 0 A			
	0	0	DE	THK (mm) 8	CODE 8	METER COD THK (mm) 16	ES CODE G H	24	R	THK (mm) 0.00	CODE 0			
	0 1 2	0 1 2	DE	THK (mm) 8 9 10	CODE 8 9 A	METER COD THK (mm) 16 17 18	ES CODE G H J	24 25 26	R S T	THK (mm) 0.00 0.25 0.50	CODE 0 A B	<u>}</u>		
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	0 1 2 3 4 5 6	0 1 2 3 3 4 4 5 6	DE	THK (mm) 8 9 10 11 12 13 14	CODE 8 9 A B C D E	METER COD THK (mm) 16 17 18 19 20 21 22	ES CODE G H J K L L N	24 25 26 27 28 29 30	R S T U V W X	THK (mm) 0.00 0.25 0.50	CODE 0 A B	3		
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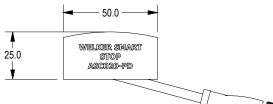
WELKER SMART STOP

WELKER SMART STOP does all stopping & sensing functions in one part. **SMART STOP** minimizes engineering, field set up and operater adjustment time.

WELKER SMART STOP eliminates:

- Need for seperate mounts, brackets & flags.
- Need for switch adjustments when shimming.
- · Improper adjustment of outboard switches.
- Outboard switch vibrating loose in bracket.
- · Protecting outboard proxes from being stepped on or bent in tools.

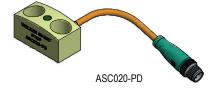
MODEL NO: ASC020-PD FOR CROWNED, DRILL & C'BORE FOR M10 SHCS + DC SWITCH ASC021-PD FOR CROWNED, M10X1.5 TAP + DC SWITCH ASF020-PD FOR FLAT, DRILL & C'BORE FOR M10 SHCS + DC SWITCH ASF021-PD FOR FLAT, M10X1.5 TAP + DC SWITCH





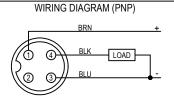
General Specifications

General Specifications		
Switching function	Normally Open (NO)	
Output type	PNP	_
Rated operating distance, sn	1.75mm	
Output polarity	DC	
Assured operating distance sa	0 - 1.42 mm	
Output type	3-wire	
Nominal Ratings		
Operating voltage, U _B	5 - 30 V DC	
Switching frequency, f	0 - 6000 Hz	
Reverse polarity protection	Reverse polarity protected	
Short-circuit protection	Pulsing	
Voltage drop, U _d	≤ 1.5 V	
Operating current, IL	0 - 100 mA	
Off-state current, Ir	0 - 0.2 mA	
No-load supply current, I_0	≤ 15 mA	
Indicators/Operating Means		
Operating voltage indicator	LED green	
Switching state indicator	LED yellow	
Ambient Conditions		
Ambient temperature	-40 - 85 °C (-40 - 185 °F)	
Storage temperature	-40 - 85 °C (-40 - 185 °F)	
Mechanical Specifications		
Connection type Connector plug	M12 x 1 , 4-pin	
Cable length	255mm	
Degree of protection	IP67	
Cable material	Weld spatter resistant, robotic quality POC	
Cable color	Orange	





ASF021-PD



(DO NOT SCALE DRAWING)

ENGINEERED PRODUCTS (800) 229-0890 www.welkerproducts.com

Welker DB4 Technical Information

Shrouds: Safety orange steel shrouds are available for additional protection. Shrouds prevent undesirable buildup of contamination from welding and machining applications. Welker specifically recommends shroud usage in MIG, TIG and arc welding applications. Shrouds should only be removed if clearance problems exist and conditions permit. Consult Welker.

Wipers: The wiper is a custom molded moly impregnated urethane wiper. Welker recommends changing the wiper yearly. Specific applications may require more or less frequent wiper service.

Stroke: The stroke accuracy of shot pins is limited to that of the cylinder. Normal cylinder stroke accuracy is $\pm .015$ " (0.38mm).

Rap couplings cause the unit to be 2mm less than the nominal stroke of the cylinder. The rap allows the cylinder to accelerate without load, acting like a slide hammer. The impact of the coupler helps free tooling from a bound condition, similar to a dowel puller.

Welker cylinders do not require lubrication.

Switch: DB4 is available only with solid state cylinder switch.

Repeatability: Shot pin units utilize a full contact bearing surface for high repeatability. Repeatability within ±.002" (0.05mm) part to part is achievable.

Wear: Defined as variance in position under load over time. Shot pin tests indicate maximum wear of .002" wear at 3 million cycles.

Loading and Deflection: Maximum deflection is \pm .005" and is measured at the **end of the ram** up to the specified strokes and up to the loads and distances as shown below. Longer extensions can be used at lower tolerances and loads. Pins mounted closer to the body exhibit less deflection. For applications with longer strokes and higher loads, consult Welker.

