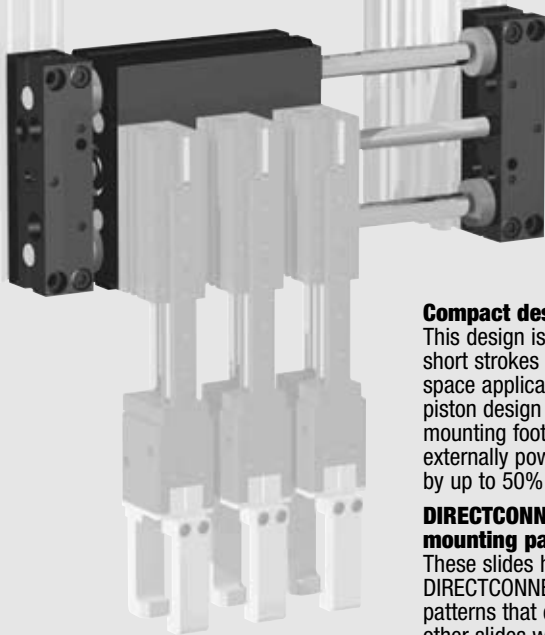


Internally Powered Base Slides



Compact design:
This design is used for short strokes in limited space applications. Internal piston design reduces the mounting foot print over externally powered slides by up to 50%

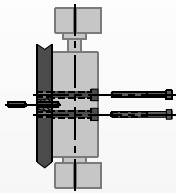
DIRECTCONNECT mounting patterns:
These slides have DIRECTCONNECT mounting patterns that connect to other slides without the need for adapter plates.

DLB SERIES

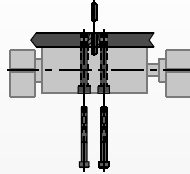
4.8

Mounting Information:

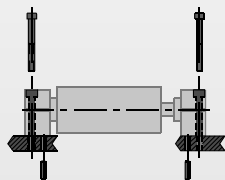
Mounts and operates in any orientation



Payload attaches to tapped holes in body with screws and locates using slip fit dowel pin holes



Payload attaches with screws through clearance and counterbored holes in body and locates using slip fit dowel pin holes



End blocks mount with screws and locate with slip fit dowel pin holes

Technical Specifications:

Pneumatic Specifications

Pressure Operating Range*
Cylinder Type
Dynamic Seals
Valve Required to Operate

Imperial	Metric
40-100 psi	3-7 bar
Double Acting	
Internally Lubricated Buna-N	
4-way, 2-position	

Air Quality Requirements

Air Filtration
Air Lubrication
Air Humidity

40 Micron or Better
Not Necessary**
Low Moisture Content (dry)

Temperature Operating Range

Buna-N Seals (standard)
Viton® Seals (optional)

-30°~180° F	-35°~80° C
-20°~300° F	-30°~150° C

Maintenance Specifications†

Expected Life
Normal Application
w/ Preventative Maintenance
Field Repairable
Seal Repair Kits Available

5 million cycles
10+ million cycles†
No
No

Application Restrictions

Flow controls, shock absorbers and urethane bumpers recommended for nearly all applications. Use composite bushing in dirty or gritty environments. Never use silicone based lubricants with composite bushings.

*Higher pressure possible. Consult factory with application details.
**Addition of lubrication will greatly increase service life
†See Maintenance Section

Product Features

DIRECTCONNECT Mounting Patterns
Main bodies have tapped and counterbored through holes including slip fit dowel holes on DIRECTCONNECT mounting surface

Shock Absorbers
with built-in hard stop

Inductive Proximity Sensors
8mm diameter, threaded body with quick disconnect

Hardened Pads
Hardened steel stop, shock and sensor pads

Aircraft Quality Aluminum

Precision Ground Shafting
Case hardened to RC60-65. Corrosion resistant optional

Oil Wick
Supplies constant bearing lubrication

Adjustable Hard Stops
For precision (+/- .001" [0.01]) hard stop end point positioning. Allows for stop adjustment independent of shock absorber hard stop

Bearing Options
Preloaded linear ball bushings or composite bushings

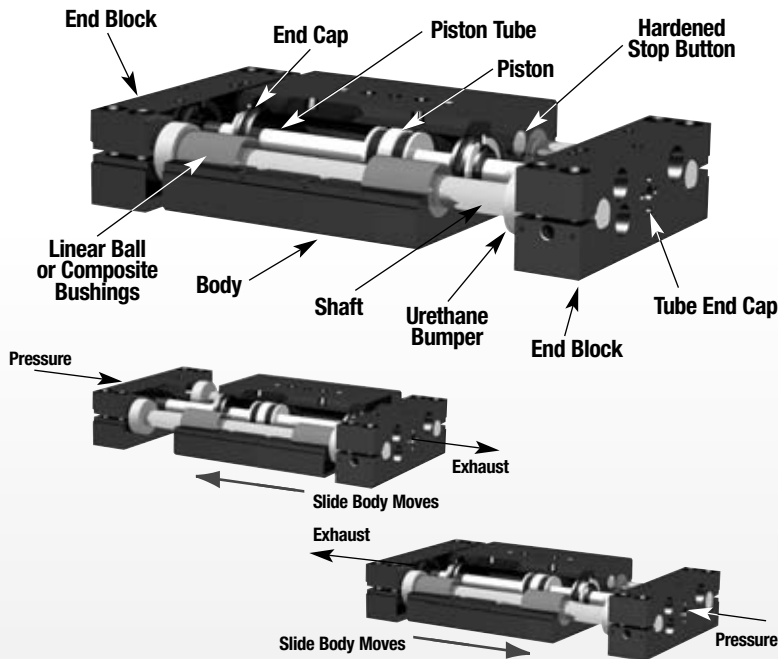
Modular Telescoping Airlines
Eliminates flexing air lines. Patented self aligning air tube design extends useful seal life. (2) user air ports per module

End Block Mounting Dowel Holes
For precision mounting to machine bases (not available on -08)

Seal Option
Viton® or self-lubricating Buna-N dynamic seals

Urethane Bumpers

Operating Principle

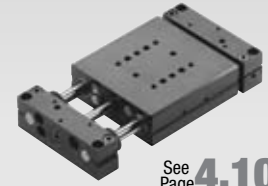


- A stationary piston is sandwiched between two fixed end blocks by two hollow piston tubes.
- The piston separates the cylinder bore in the body into two chambers
- The tubes fit into the piston in such a way that allows air to escape from the tube/ piston interface into one air chamber of the body.
- The body is guided by four linear bearings sliding on two shafts that are supported by the end blocks.
- The body has two end caps attached to each end of the cylinder bore which seals the air chambers.
- When air is supplied through a piston tube, it pressurizes that side of the cylinder of the body.
- The pressure creates a force against the end cap which pulls the body along with it.

Designed and manufactured in the USA

Style-B Short Body Slide

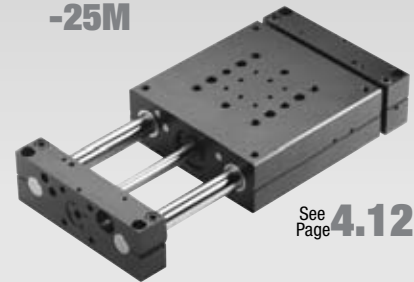
Size 10M (shown)
12M
16M



See Page **4.10**

Style-B Short Body Slide

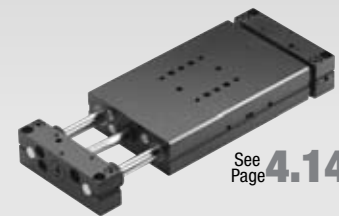
Size -20 (shown)
-25
-20M
-25M



See Page **4.12**

Style-L Long Body Slide

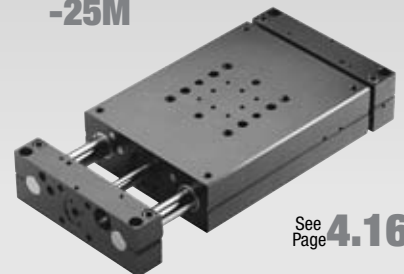
Size -10M (shown)
-12M
-16M



See Page **4.14**

Style-L Long Body Slide

Size -20 (shown)
-25
-20M
-25M



See Page **4.16**



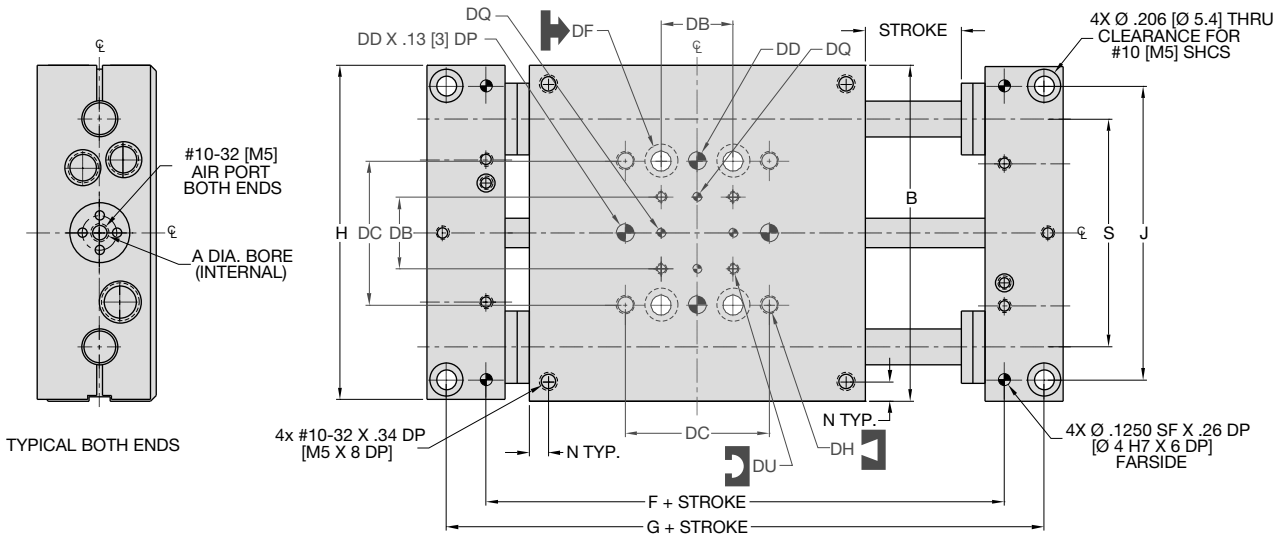
DLB SERIES

4.9



DIRECTCONNECT™

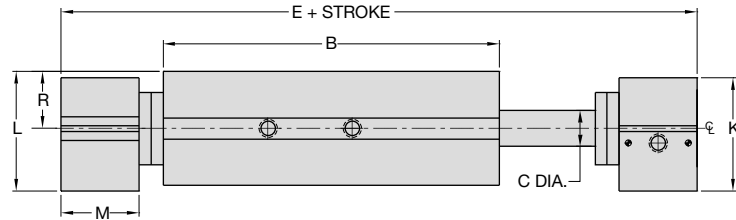
SHORT BODY SLIDE DLB -10M, 12M, 16M -B BUILT-IN REPAIRABLE CYLINDER



TYPICAL BOTH ENDS

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

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

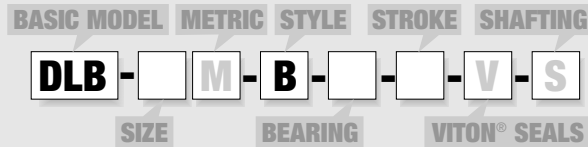


DIRECTCONNECT DIMENSIONS STANDARD MOUNTING PATTERN FOR ALL SIZES

	Imperial (inches)	Metric (mm)
DB	.750	19.1
DC	1.500	38.1
DD	.1880 X .25 DP	5mm H7 X 6 DP
DF	Clearance for #10	Clearance for M5
DH	#10-32 X .34DP	M5 X 8.5DP
DQ	.0940 X .078 DP	3H7 X 2 DP
DU	#4-40 X .25 DP	M3 X 6 DP

MODEL #	BORE DIA.		BODY SIZE		SHAFT DIA.									
	A	B	C	E	F	G	H	J	K	L	M	N	R	S
DLB-10	3/4	3.50	.375	5.63	4.3975	5.228	3.485	3.0600	1.178	1.245	.813	N/A	.594	2.375
DLB-12	1	4.00	.472	6.13	4.8975	5.728	3.985	3.5000	1.615	1.657	.813	.375	.813	2.750
DLB-16	1	4.75	.630	6.88	5.6475	6.478	4.735	4.2500	1.615	1.657	.813	.375	.813	2.750
DLB-10M	19	88.9	9.5	143.0	111.70	132.8	88.5	77.72	29.9	31.6	20.7	N/A	15.09	60.33
DLB-12M	25	101.6	12	155.7	124.40	145.5	101.2	88.90	41.0	42.1	20.7	9.5	20.65	69.85
DLB-16M	25	120.7	16	174.8	143.45	164.5	120.3	107.95	41.0	42.1	20.7	9.5	20.65	69.85

How to Order: Basic Unit



- SIZE** 10, 12, 16
- METRIC** M
- STYLE** B Short body slide with built-in repairable cylinder
- BEARING** B Linear ball bearings
C Composite bushings
- STROKE** (inches)
DLB-10 1-2 @ 1" increments
DLB-12 1-2 @ 1" increments
DLB-16 1-3 @ 1" increments
Custom strokes available. Please consult factory.
- STROKE** (mm)
DLB-10M 25, 50
DLB-12M 25, 50
DLB-16M 25, 50, 80
- VITON®** V Viton® Seals
- SHAFTING** S Corrosion resistant shafting

SAMPLE ORDER: DLB-12M-B-C-25

Ex: Base Slide, Size 12 Metric, Short Body Style w/Built-in Cylinder, Composite Bushings, 25mm Stroke

Accessories: (Order Separately) DLB-10M DLB-12M DLB-16M QTY/SLIDE

SHOCK/STOP ACCESSORIES

Shock Absorber	SHOK-028	SHOK-010	SHOK-010	1 or 2
Adjustable Hard Stop	DLT-1023	DLT-1023	DLT-1023	1 or 2

INDUCTIVE SENSOR ACCESSORIES †

Inductive Sensor PNP Qk. Disconnect	OISP-011	OISP-011	OISP-011	1 or 2
Inductive Sensor NPN Qk. Disconnect	OISN-011	OISN-011	OISN-011	1 or 2
Quick Disconnect 2M Cable Length	CABL-010	CABL-010	CABL-010	1 or 2
Quick Disconnect 5M Cable Length	CABL-013	CABL-013	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

1/8 NPT Telescopic Airlines (up to 2")	OTAL-037	OTAL-037	OTAL-037	1, 2, 3 or 4
1/8 NPT Telescopic Airlines (up to 3")	OTAL-038	OTAL-038	OTAL-038	1, 2, 3 or 4
#10-32 Adjustable Flow Control	VLVF-007	VLVF-007	VLVF-007	1 or 2
G1/8 Telescopic Airlines (up to 50mm)	OTAL-043	OTAL-043	OTAL-043	1, 2, 3 or 4
G1/8 Telescopic Airlines (up to 80mm)	OTAL-044	OTAL-044	OTAL-044	1, 2, 3 or 4
M5 Adjustable Flow Control	VLVF-008	VLVF-008	VLVF-008	1 or 2
Cylinder Seal Repair Kit	SLKT-101	SLKT-103	SLKT-103	1
Viton® Cylinder Seal Repair Kit	SLKT-101V	SLKT-103V	SLKT-103V	1

†Sensor and cable sold separately

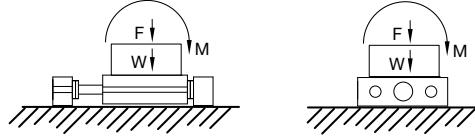


SHORT BODY SLIDE DLB -10M, 12M, 16M -B BUILT-IN REPAIRABLE CYLINDER

Loading Specifications Table - Style DLB-10M, 12M, 16M -B

	10	10M	12	12M	16	16M
Maximum Payload (W) horizontal motion w/Shock Absorbers	15 lbs.	6.8 kg	30 lbs.	13.6 kg	45 lbs.	20.4 kg
Maximum Payload (W) vertical motion w/Shock Absorbers	7 lbs.	3.1 kg	15 lbs.	6.8 kg	22 lbs.	9.9 kg
Maximum Payload (W) horizontal motion w/Urethane Bumpers	5 lbs.	2.2 kg	10 lbs.	4.5 kg	15 lbs.	6.8 kg
Maximum Total Applied Load + Payload (F+W)	25 lbs.	111 N	40 lbs.	178 N	70 lbs.	311N
Total Maximum Moment about any Axis (M)	75 in.-lbs.	8.4 N-m	150 in.-lbs.	16.9 N-m	300 in.-lbs.	33.9 N-m

F=Externally applied force
W=Weight of payload
F+W=Total force
M=Maximum moment



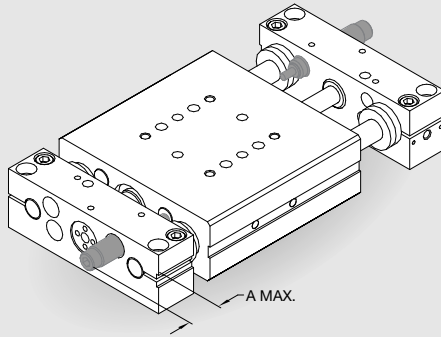
Shock Absorbers and Flow Controls are recommended for nearly all applications

Specifications	DLB-10	DLB-10M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar.	29 lbs.	129 N
Weight (Basic Unit).....	2.08 lbs.	0.93 kg
Additional Weight per Stroke..	0.08 lbs./in.	1.4g/mm
Cylinder Bore Diameter.....	3/4"	19mm
Shaft Diameter.....	0.375"	9.5mm

Specifications	DLB-12	DLB-12M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar.	57 lbs.	254 N
Weight (Basic Unit).....	3.83 lbs.	1.7 kg
Additional Weight per Stroke..	0.12 lbs./in.	2.1g/mm
Cylinder Bore Diameter.....	1.0"	25mm
Shaft Diameter.....	0.472"	12mm

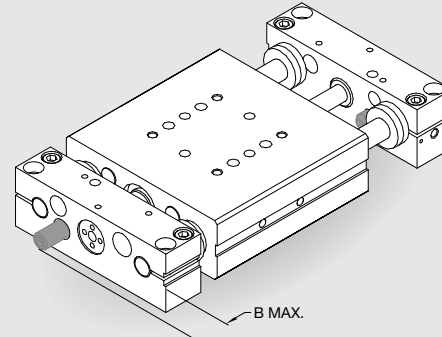
Specifications	DLB-16	DLB-16M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar.	57 lbs.	254 N
Weight (Basic Unit).....	5.19 lbs.	2.4 kg
Additional Weight per Stroke..	0.19 lbs./in.	3.3g/mm
Cylinder Bore Diameter.....	1.0"	25mm
Shaft Diameter.....	.630"	16mm

Accessory Mounting Technical Data



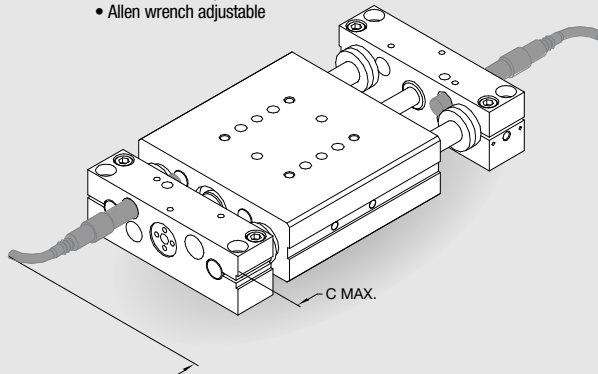
Shock Absorbers

- Full stroking piston rod
- Built-in hard stop
- Allen wrench adjustable



Adjustable Hard Stops

- For precision (+/- .001") hard stop end point positioning
- Allows for stop adjustment independent of shock absorber hard stop
- Allen wrench adjustable

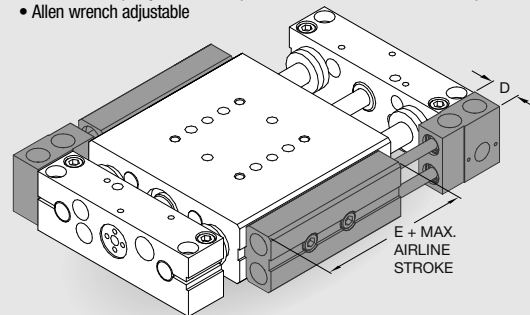


Inductive Proximity Sensors

- 8mm diameter
- Threaded quick disconnect with built-in LED output
- PNP and NPN available

Quick Disconnect Cable

- Threaded coupling with knurled head for secure electrical connections
- 2 meter cable length
- 5 meter cable length



Telescoping Airlines

- Eliminate flexing air lines
- Self aligning air tube design extends useful seal life
- Modular stackable design. Up to (4) modules can be stacked
- Modules can be mounted on either side of slide
- 1/8 NPT or G1/8 pipe threads
- (2) user air ports per module

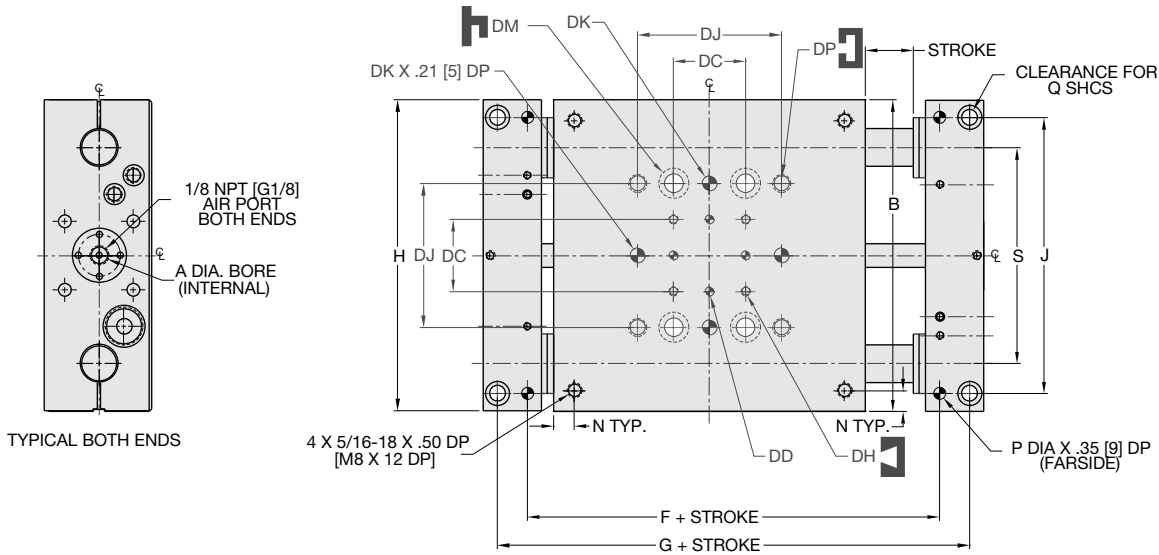
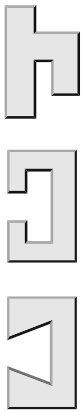
Flow Controls for Cylinders

- Thumb screw adjust with locking nut for adjusting cylinder speed
- #10-32 or M5 pipe threads

	A	B	C	D	E
DLB-10	.70"	.47	2.5	.577	3.60
DLB-12	.95"	.47	2.5	.577	3.60
DLB-16	.95"	.47	2.5	.577	3.60
DLB-10M	17.8mm	11.9	63.5	14.7	91.4
DLB-12M	24.1mm	11.9	63.5	14.7	91.4
DLB-16M	24.1mm	11.9	63.5	14.7	91.4



SHORT BODY SLIDE DLB -20M, 25M -B BUILT-IN REPAIRABLE CYLINDER

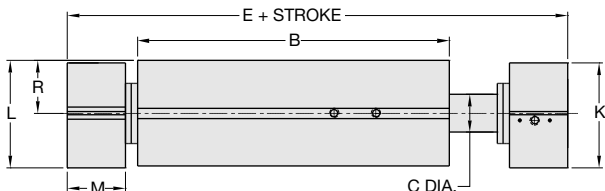


DLB SERIES

4.12

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

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



DIRECTCONNECT DIMENSIONS
STANDARD MOUNTING PATTERN FOR ALL SIZES

	Imperial (inches)	Metric (mm)
DC	1.500	38.1
DD	.1880 X .25 DP	5 mm H7 X 6 DP
DH	#10-32 X .34 DP	M5 X 8.5 DP
DJ	3.000	76.2
DK	.3130 X .37 DP	8 mm H7 X 9.4 DP
DM	Clr & C'bore for 3/8	Clr & C'bore for M10
DP	3/8-16 X .50 DP	M10 X 12 DP

MODEL #	BORE DIA.		BODY SIZE		SHAFT DIA.		BASIC UNIT DIMENSIONS												
	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R	S			
DLB-20	1 1/2	6.50	.787	9.42	7.5850	8.836	6.480	5.7500	2.180	2.236	1.210	.438	.2505	5/16	1.100	4.500			
DLB-25	1 1/2	7.50	.984	10.84	8.7320	10.108	7.480	6.7500	2.180	2.236	1.420	.438	.3130	3/8	1.100	5.250			
DLB-20M	38	165.1	20	239.3	192.66	224.4	164.6	146.05	55.4	56.8	30.7	11.1	6.00	M8	27.94	114.30			
DLB-25M	38	190.5	25	275.3	221.79	256.7	190.0	171.45	55.4	56.8	36.1	11.1	8.00	M10	27.94	133.35			

How to Order: Basic Unit

BASIC MODEL METRIC STYLE STROKE SHAFTING

DLB - - - **B** - - - **V** - **S**

SIZE 20, 25

METRIC M

STYLE B Short body slide with built-in repairable cylinder

BEARING B Linear ball bearings
C Composite bushings

STROKE (inches)
DLB-20 1-4 @ 1" increments
DLB-25 1-5 @ 1" increments

STROKE (mm)
DLB-20M 25, 50, 80, 100
DLB-25M 25, 50, 80, 100, 125

VITON® V Viton® seals

SHAFTING S Corrosion resistant shafting

Custom strokes available.
Please consult factory.

Accessories: (Order Separately)

	DLB-20M	DLB-25M	QTY/SLIDE
SHOCK/STOP ACCESSORIES			
Shock Absorber (adjustable dampening)	SHOK-029	SHOK-029	1 or 2
Adjustable Hard Stop	DLT-1023	DLT-1023	1 or 2
INDUCTIVE SENSOR Accessories*			
Inductive Sensor PNP Qk. Disconnect	OISP-011	OISP-011	1 or 2
Inductive Sensor NPN Qk. Disconnect	OISN-011	OISN-011	1 or 2
Quick. Disconnect 2M Cable Length	CABL-010	CABL-010	1 or 2
Quick. Disconnect 5M Cable Length	CABL-013	CABL-013	1 or 2
PNEUMATIC Accessories			
1/8 NPT Telescopic Airlines (up to 4")	OTAL-049	OTAL-049	1, 2, 3 or 4
1/8 NPT Telescopic Airlines (up to 5")	OTAL-050	OTAL-050	1, 2, 3 or 4
1/8 NPT Adjustable Flow Control	VLVF-004	VLVF-004	1 or 2
G1/8 Telescopic Airlines (up to 100mm)	OTAL-051	OTAL-051	1, 2, 3 or 4
G1/8 Telescopic Airlines (up to 125mm)	OTAL-052	OTAL-052	1, 2, 3 or 4
G1/8 Adjustable Flow Control	VLVF-005	VLVF-005	1 or 2
Cylinder Seal Repair Kit	SLKT-105	SLKT-105	1
Viton® Cylinder Seal Repair Kit	SLKT-105V	SLKT-105V	1

SAMPLE ORDER: DLB-20-B-C-3-V

Ex: Base Slide, Size 20, Short Body Style w/Built-in Cylinder, Composite Bushings, 3 Inch Stroke, Viton® Seals

DIRECTCONNECT™

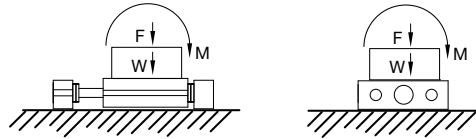


SHORT BODY SLIDE DLB -20M, 25M -B BUILT-IN REPAIRABLE CYLINDER

Loading Specifications Table - Style DLB-20M, 25M -B

	20	20M	25	25M
Maximum Payload (W) horizontal motion using Shock Absorbers	60 lbs.	27.2 kg	100 lbs.	45.3 kg
Maximum Payload (W) vertical motion using Shock Absorbers	30 lbs.	13.6 kg	50 lbs.	22.0 kg
Maximum Payload (W) horizontal motion using Urethane Bumpers	20 lbs.	9.1 kg	25 lbs.	11.3 kg
Maximum Total Applied Load + Payload (F+W)	100 lbs.	444 N	150 lbs.	667 N
Total Maximum Moment about any Axis (M)	600 in.-lbs.	67.7 N-m	1200 in.-lbs.	135.5 N-m

F=Externally applied force
W=Weight of payload
F+W=Total force
M=Maximum moment

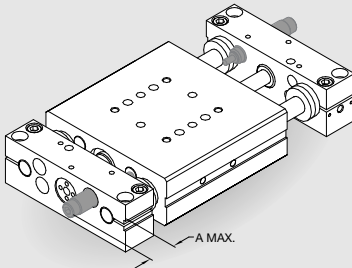


Shock Absorbers and Flow Controls are recommended for nearly all applications

Specifications	DLB-20	DLB-20M
Maximum Air Pressure	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar	126 lbs.	560 N
Weight (Basic Unit)	13.0 lbs.	5.9 kg
Additional Weight per Stroke	0.32 lbs./in.	5.54g/mm
Cylinder Bore Diameter	1-1/2"	38mm
Shaft Diameter	0.787"	20mm

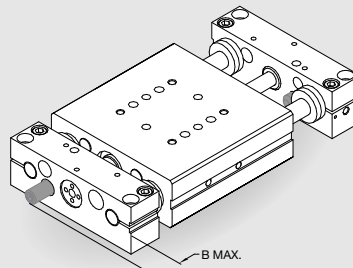
Specifications	DLB-25	DLB-25M
Maximum Air Pressure	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar	126 lbs.	560 N
Weight (Basic Unit)	18.2 lbs.	8.2 kg
Additional Weight per Stroke	0.47 lbs./in.	8.4g/mm
Cylinder Bore Diameter	1-1/2"	38mm
Shaft Diameter	0.984"	25mm

Accessory Mounting Technical Data



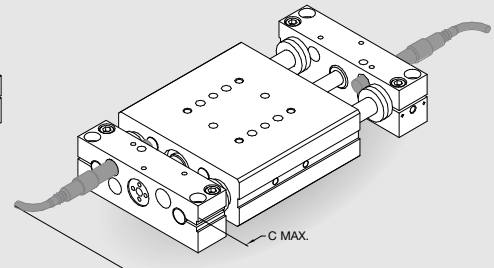
Shock Absorbers

- Full stroking piston rod
- Built-in hard stop
- Position adjustable
- Adjustable dampening



Adjustable Hard Stops

- For precision (+/- .001") hard stop end point positioning
- Allows for stop adjustment independent of shock absorber hard stop
- Allen wrench adjustable

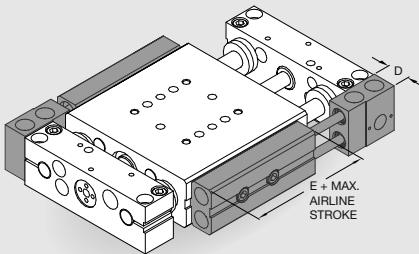


Inductive Proximity Sensors

- 8mm diameter
- Threaded quick disconnect with built-in LED output
- PNP and NPN available

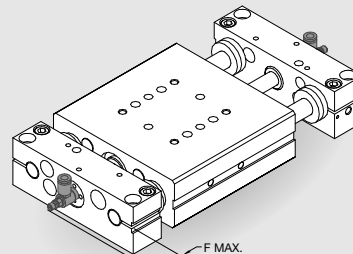
Quick Disconnect Cable

- Threaded coupling with knurled head for secure electrical connections
- 2 meter cable length
- 5 meter cable length



Telescoping Airlines

- Eliminate flexing air lines
- Self aligning air tube design extends useful seal life
- Modular stackable design. Up to (4) modules can be stacked
- Modules can be mounted on either side of slide
- 1/8 NPT or G1/8 pipe threads
- (2) user air ports per module



Flow Controls for Cylinders

- Thumb screw adjust with locking nut for adjusting cylinder speed
- 1/8 NPT or G1/8 pipe threads

	A	B	C	D	E	F
DLB-20	2.03"	.10	2.1	.577	3.60	1.25
DLB-25	1.82"	.10	1.9	.577	3.60	1.25
DLB-20M	51.6mm	2.5	53.8	14.7	91.4	31.8
DLB-25M	46.2mm	2.5	48.3	14.7	91.4	31.8

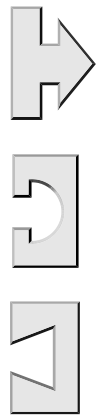


DLB SERIES

4.13

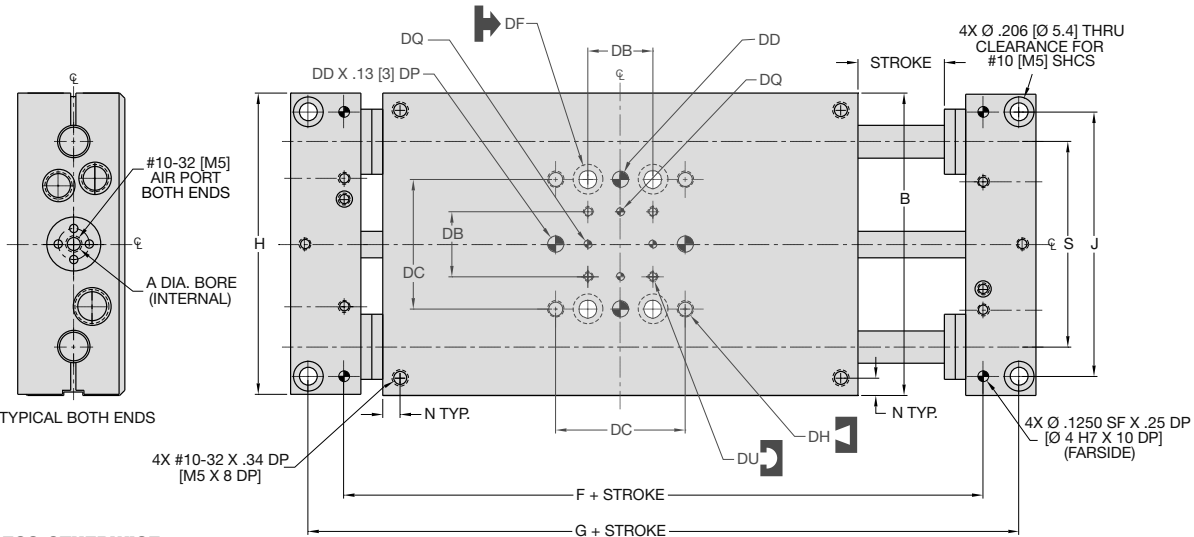
DIRECTCONNECT™

LONG BODY SLIDE DLB-10M, 12M, 16M -L BUILT-IN REPAIRABLE CYLINDER



DLB SERIES
4.14

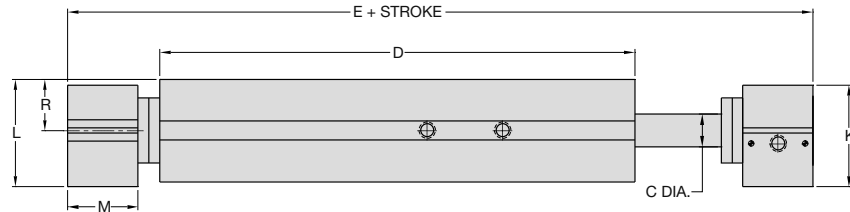
DIRECTCONNECT™



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

- Dimensions are symmetrical about centerline
- Third Angle Projection
- All Dowel Holes are SF (Slip Fit). Locational Tolerance ±.0005" or [±.013mm]
- Metric Threads Course Pitch

Imperial in.	Metric [mm]
0.00 = ±.01	[0.] = [±.25]
0.000 = ±.005	[0.0] = [±.13]
0.0000 = ±.0005	[0.00] = [±.013]

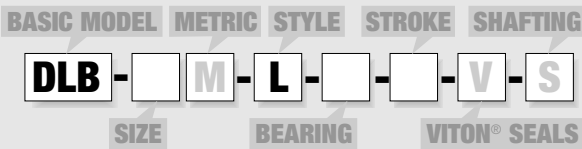


MODEL #	BORE DIA.		C	SHAFT DIA.											
	A	B		D	E	F	G	H	J	K	L	M	N	R	S
DLB-10	3/4	3.50	.375	5.50	7.63	6.3975	7.228	3.485	3.0600	1.178	1.245	.813	N/A	.594	2.375
DLB-12	1	4.00	.472	6.50	8.63	7.3975	8.228	3.985	3.5000	1.615	1.657	.813	.375	.813	2.750
DLB-16	1	4.75	.630	7.50	9.63	8.3975	9.228	4.735	4.2500	1.615	1.657	.813	.375	.813	3.250
DLB-10M	19	88.9	9.5	139.7	193.8	162.50	183.6	88.5	77.72	29.9	31.6	20.7	N/A	15.09	60.33
DLB-12M	25	101.6	12	165.1	219.2	187.90	209.0	101.2	88.90	41.0	42.1	20.7	9.5	20.65	69.85
DLB-16M	25	120.7	16	190.5	244.6	213.30	234.4	120.3	107.95	41.0	42.1	20.7	9.5	20.65	82.55

	DIRECTCONNECT DIMENSIONS	
	Imperial (inches)	Metric (mm)
DB	.750	19.1
DC	1.500	38.1
DD	.1880 X .25 DP	5mm H7 X 6 DP
DF	Clearance for #10	Clearance for M5
DH	#10-32 X .34DP	M5 X 8.5DP
DQ	.0940 X .078 DP	3H7 X 2 DP
DU	#4-40 X .25 DP	M3 X 6 DP

How to Order: Basic Unit

Accessories: (Order Separately) DLB-10M DLB-12M DLB-16M QTY/SLIDE



- SIZE** 10, 12, 16
- METRIC** M
- STYLE** L Long body slide with built-in repairable cylinder
- BEARING** B Linear ball bearings
C Composite bushings
- STROKE** (inches)
DLB-10 1-4 @ 1" increments
DLB-12 1-5 @ 1" increments
DLB-16 1-6 @ 1" increments
- STROKE** (mm)
DLB-10M 25, 50, 80, 100
DLB-12M 25, 50, 80, 100, 125
DLB-16M 25, 50, 80, 100, 125, 150
- VITON®** V Viton® seals
- SHAFTING** S Corrosion resistant shafting

Custom strokes available.
Please consult factory.

SHOCK/STOP ACCESSORIES

Shock Absorber	SHOK-028	SHOK-010	SHOK-010	1 or 2
Adjustable Hard Stop	DLT-1023	DLT-1023	DLT-1023	1 or 2

INDUCTIVE SENSOR ACCESSORIES*

Inductive Sensor PNP Qk. Disconnect	OISP-011	OISP-011	OISP-011	1 or 2
Inductive Sensor NPN Qk. Disconnect	OISN-011	OISN-011	OISN-011	1 or 2
Quick. Disconnect 2M Cable Length	CABL-010	CABL-010	CABL-010	1 or 2
Quick. Disconnect 2M Cable Length	CABL-013	CABL-013	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

1/8 NPT Telescopic Airlines (up to 4")	OTAL-049	OTAL-049	OTAL-049	1, 2, 3 or 4
1/8 NPT Telescopic Airlines (up to 5")	OTAL-050	OTAL-050	OTAL-050	1, 2, 3 or 4
1/8 NPT Telescopic Airlines (up to 6")	OTAL-039	OTAL-039	OTAL-039	1, 2, 3 or 4
#10-32 Adjustable Flow Control	VLVF-007	VLVF-007	VLVF-007	1 or 2
G1/8 Telescopic Airlines (up to 100mm)	OTAL-051	OTAL-051	OTAL-051	1, 2, 3 or 4
G1/8 Telescopic Airlines (up to 125mm)	OTAL-052	OTAL-052	OTAL-052	1, 2, 3 or 4
G1/8 Telescopic Airlines (up to 160mm)	OTAL-045	OTAL-045	OTAL-045	1, 2, 3 or 4
M5 Adjustable Flow Control	VLVF-008	VLVF-008	VLVF-008	1 or 2
Cylinder Seal Repair Kit	SLKT-101	SLKT-103	SLKT-103	1
Viton® Cylinder Seal Repair Kit	SLKT-101V	SLKT-103V	SLKT-103V	1

*Sensor and cable sold separately

SAMPLE ORDER: DLB-12M-L-C-25-V

Ex: Base Slide, Size 12 Metric, Long Body Style w/Built-in Cylinder, Composite Bushings, 25mm Stroke, Viton® Seals

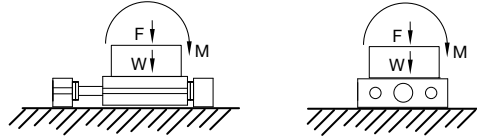


LONG BODY SLIDE DLB -10M, 12M, 16M -L BUILT-IN REPAIRABLE CYLINDER

Loading Specifications Table - Style DLB -010M, 12M, 16M -L

	10	10M	12	12M	16	16M
Maximum Payload (W) horizontal motion w/Shock Absorbers	15 lbs.	6.8 kg	30 lbs.	13.6 kg	45 lbs.	20.4 kg
Maximum Payload (W) vertical motion w/Shock Absorbers	7 lbs.	3.1 kg	15 lbs.	6.8 kg	22 lbs.	9.9 kg
Maximum Payload (W) horizontal motion w/Urethane Bumpers	5 lbs.	2.2 kg	10 lbs.	4.5 kg	15 lbs.	6.8 kg
Maximum Total Applied Load + Payload (F+W)	25 lbs.	111 N	40 lbs.	178 N	70 lbs.	311 N
Total Maximum Moment about any Axis (M)	75 in.-lbs.	8.4 N-m	150 in.-lbs.	16.9 N-m	300 in.-lbs.	33.9 N-m

F=Externally applied force
W=Weight of payload
F+W=Total force
M=Maximum moment



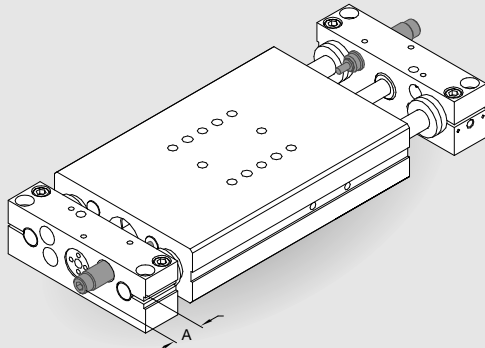
Shock Absorbers and Flow Controls are recommended for nearly all applications

Specifications	DLB-10	DLB-10M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar .	29 lbs.	129 N
Weight (Basic Unit).....	3.34 lbs.	1.5 kg
Additional Weight per Stroke..	0.08 lbs./in.	1.4g/mm
Cylinder Bore Diameter	3/4"	19mm
Shaft Diameter	0.375"	9.5mm

Specifications	DLB-12	DLB-12M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar .	57 lbs.	254 N
Weight (Basic Unit).....	5.13 lbs.	2.3 kg
Additional Weight per Stroke..	0.12 lbs./in.	2.1g/mm
Cylinder Bore Diameter	1.0"	25mm
Shaft Diameter	0.472"	12mm

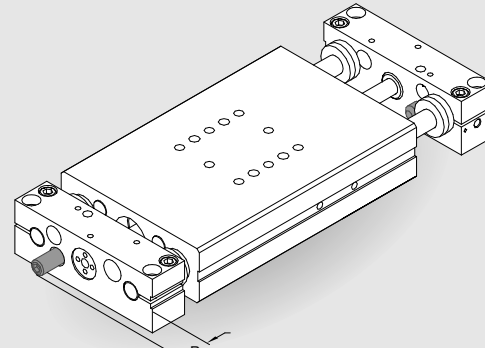
Specifications	DLB-16	DLB-16M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar .	57 lbs.	254 N
Weight (Basic Unit).....	7.30 lbs.	3.3 kg
Additional Weight per Stroke..	0.19 lbs./in.	3.3g/mm
Cylinder Bore Diameter	1.0"	25mm
Shaft Diameter	0.630"	16mm

Accessory Mounting Technical Data



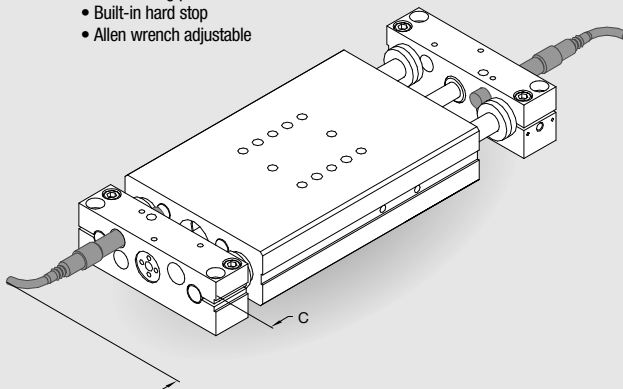
Shock Absorbers

- Full stroking piston rod
- Built-in hard stop
- Allen wrench adjustable



Adjustable Hard Stops

- For precision (+/- .001") hard stop end point positioning
- Allows for stop adjustment independent of shock absorber hard stop
- Allen wrench adjustable

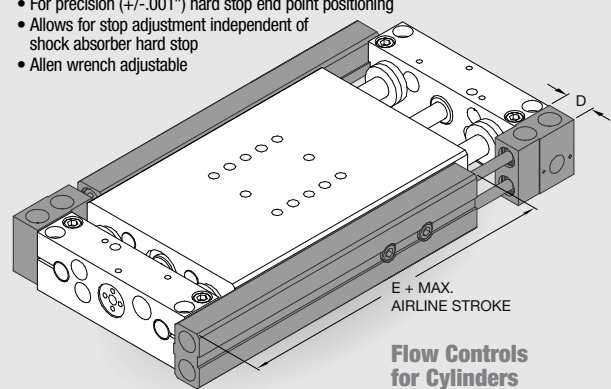


Inductive Proximity Sensors

- 8mm diameter
- Threaded quick disconnect with built-in LED output
- PNP and NPN available

Quick Disconnect Cable

- Threaded coupling with knurled head for secure electrical connections
- 2 meter cable length
- 5 meter cable length



Telescoping Airlines

- Eliminate flexing air lines
- Self aligning air tube design extends useful seal life
- Modular stackable design. Up to (4) modules can be stacked
- Modules can be mounted on either side of slide
- 1/8 NPT or G1/8 pipe threads
- (2) user air ports per module

E + MAX. AIRLINE STROKE

Flow Controls for Cylinders

- Thumb screw adjust with locking nut for adjusting cylinder speed
- #10-32 or M5 pipe threads

	A	B	C	D	E
DLB-10	.70"	.47	2.5	.577	3.60
DLB-12	.95"	.47	2.5	.577	3.60
DLB-16	.95"	.47	2.5	.577	3.60
DLB-10M	17.8mm	11.9	63.5	14.7	91.4
DLB-12M	24.1mm	11.9	63.5	14.7	91.4
DLB-16M	24.1mm	11.9	63.5	14.7	91.4

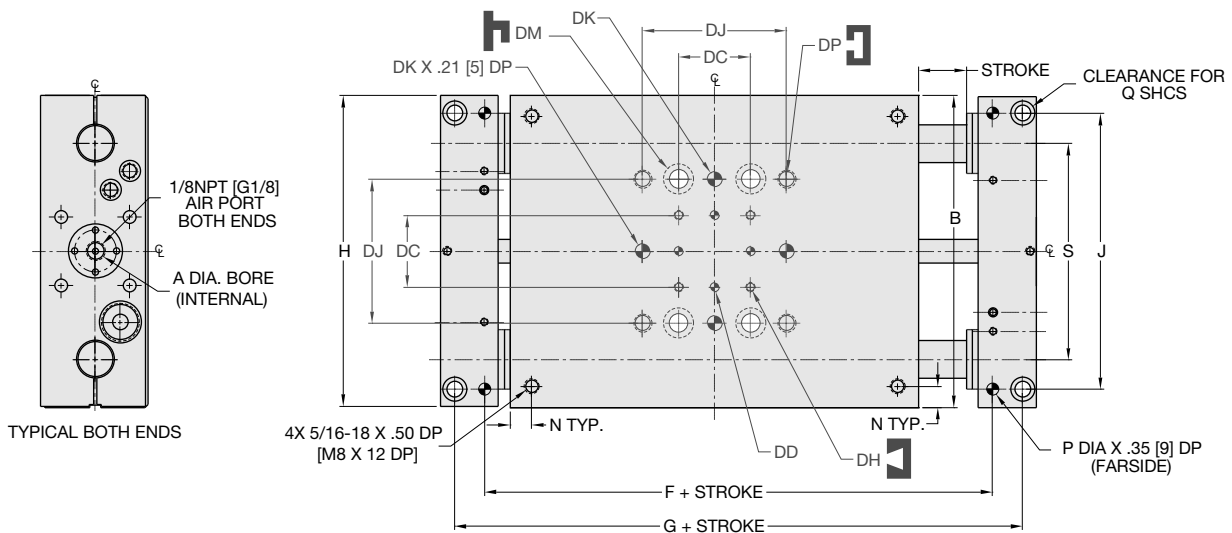


DLB SERIES

4.15

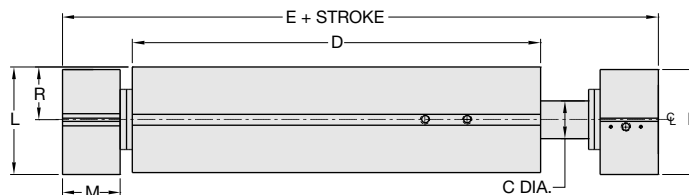
DIRECTCONNECT™

LONG BODY SLIDE DLB -20M, 25M -L BUILT-IN REPAIRABLE CYLINDER



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

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



DIRECTCONNECT DIMENSIONS STANDARD MOUNTING PATTERN FOR ALL SIZES

MODEL #	BORE DIA.		BODY SIZE		SHAFT DIA.												
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
DLB-20	1 1/2	6.50	.787	8.50	11.42	9.5850	10.836	6.480	5.7500	2.180	2.236	1.210	.438	.2505	5/16	1.100	4.500
DLB-25	1 1/2	7.50	.984	9.50	12.84	10.7320	12.108	7.480	6.7500	2.180	2.236	1.420	.438	.3130	3/8	1.100	5.250
DLB-20M	38	165.1	20	215.9	290.1	243.46	275.2	164.6	146.05	55.4	56.8	30.7	11.1	6.00	M8	27.94	114.30
DLB-25M	38	190.5	25	241.3	326.1	272.59	307.5	190.0	171.45	55.4	56.8	36.1	11.1	8.00	M10	27.94	133.35

	Imperial (inches)	Metric (mm)
DC	1.500	38.1
DD	.1880 X .25 DP	5 mm H7 X 6 DP
DH	#10-32 X .34 DP	M5 X 8.5 DP
DJ	3.000	76.2
DK	.3130 X .37 DP	8 mm H7 X 9.4 DP
DM	Clr & C'bore for 3/8	Clr & C'bore for M10
DP	3/8-16 X .50 DP	M10 X 12 DP

How to Order: Basic Unit

BASIC MODEL METRIC STYLE STROKE SHAFTING

DLB - **M** - **L** - **C** - **80** - **V** - **S**

SIZE BEARING VITON® SEALS

SIZE **20, 25**

METRIC **M**

STYLE **L** Long body slide with built-in repairable cylinder

BEARING **B** Linear ball bearings
C Composite bushings

STROKE (inches)

DLB-20 **1-6** @ 1" increments

DLB-25 **1-7** @ 1" increments

Custom strokes available.
Please consult factory.

STROKE (mm)

DLB-20M **25, 50, 80, 100, 125, 160**

DLB-25M **25, 50, 80, 100, 125, 160, 175**

VITON® **V** Viton® seals

SHAFTING **S** Corrosion resistant shafting

SAMPLE ORDER: DLB-20M-L-C-80-V

Ex: Base Slide, Size 20 Metric, Long Body Style w/Built-in Cylinder, Composite Bushings, 80mm Stroke, Viton® Seals

Accessories: (Order Separately)

SHOCK/STOP ACCESSORIES

	DLB-20M	DLB-25M	QTY/SLIDE
Shock Absorber (adjustable dampening)	SHOK-029	SHOK-029	1 or 2
Adjustable Hard Stop	DLT-1023	DLT-1023	1 or 2

INDUCTIVE SENSOR ACCESSORIES¹

	DLB-20M	DLB-25M	QTY/SLIDE
Inductive Sensor PNP Qk. Disconnect	OISP-011	OISP-011	1 or 2
Inductive Sensor NPN Qk. Disconnect	OISN-011	OISN-011	1 or 2
Quick. Disconnect 2M Cable Length	CABL-010	CABL-010	1 or 2
Quick. Disconnect 5M Cable Length	CABL-013	CABL-013	1 or 2

PNEUMATIC ACCESSORIES

	DLB-20M	DLB-25M	QTY/SLIDE
1/8 NPT Telescopic Airlines (up to 6")	OTAL-039	OTAL-039	1, 2, 3 or 4
1/8 NPT Telescopic Airlines (up to 12")	OTAL-040	OTAL-040	1, 2, 3 or 4
1/8 NPT Adjustable Flow Control	VLVF-004	VLVF-004	1 or 2
G1/8 Telescopic Airlines (up to 160mm)	OTAL-045	OTAL-045	1, 2, 3 or 4
G1/8 Telescopic Airlines (up to 300mm)	OTAL-046	OTAL-046	1, 2, 3 or 4
G1/8 Adjustable Flow Control	VLVF-005	VLVF-005	1 or 2
Cylinder Seal Repair Kit	SLKT-105	SLKT-105	1
Viton® Cylinder Seal Repair Kit	SLKT-105V	SLKT-105V	1

¹Sensor and cable sold separately

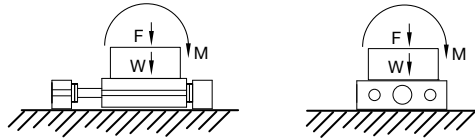


LONG BODY SLIDE DLB -20M, 25M -L BUILT-IN REPAIRABLE CYLINDER

Loading Specifications Table - Style DLB -20M, 25M -L

	20	20M	25	25M
Maximum Payload (W) horizontal motion using Shock Absorbers	60 lbs.	27.2 kg	100 lbs.	45.3 kg
Maximum Payload (W) vertical motion using Shock Absorbers	30 lbs.	13.6 kg	50 lbs.	22.0 kg
Maximum Payload (W) horizontal motion using Urethane Bumpers	20 lbs.	9.1 kg	25 lbs.	11.3 kg
Maximum Total Applied Load + Payload (F+W)	100 lbs.	444 N	150 lbs.	667 N
Total Maximum Moment about any Axis (M)	600 in.-lbs.	67.7 N-m	1200 in.-lbs.	135.5 N-m

F=Externally applied force
W=Weight of payload
F+W=Total force
M=Maximum moment

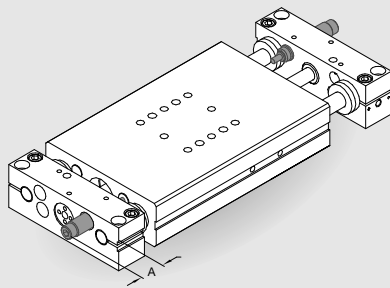


Shock Absorbers and Flow Controls are recommended for nearly all applications

Specifications	DLB-20	DLB-20M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar.....	126 lbs.	560 N
Weight (Basic Unit).....	15.6 lbs.	7.1 kg
Additional Weight per Stroke.....	0.32 lbs./in.	5.6g/mm
Cylinder Bore Diameter.....	1-1/2"	38mm
Shaft Diameter.....	0.787"	20mm

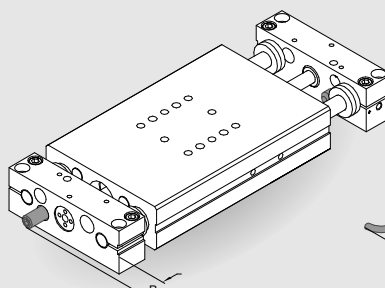
Specifications	DLB-25	DLB-25M
Maximum Air Pressure.....	100 psi	6.9 bar
Thrust Force @ 80psi/5.5bar.....	126 lbs.	560 N
Weight (Basic Unit).....	21.4 lbs.	9.7 kg
Additional Weight per Stroke.....	0.47 lbs./in.	8.4g/mm
Cylinder Bore Diameter.....	1-1/2"	38mm
Shaft Diameter.....	0.984"	25mm

Accessory Mounting Technical Data



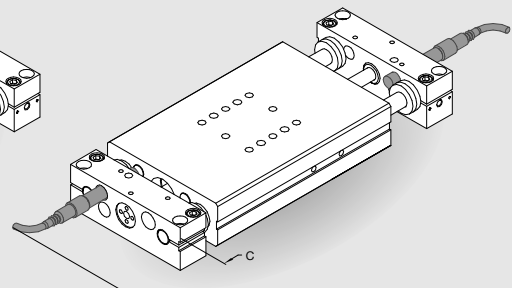
Shock Absorbers

- Full stroking piston rod
- Built-in hard stop
- Position adjustable
- Adjustable dampening



Adjustable Hard Stops

- For precision (+/- .001") hard stop end point positioning
- Allows for stop adjustment independent of shock absorber hard stop
- Allen wrench adjustable

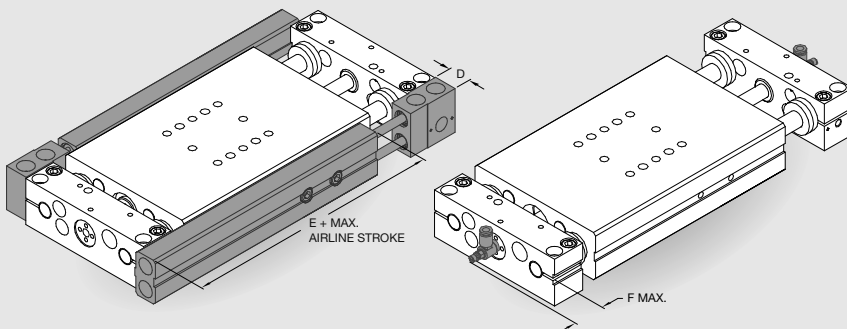


Inductive Proximity Sensors

- 8mm diameter
- Threaded quick disconnect with built-in LED output
- PNP and NPN available

Quick Disconnect Cable

- Threaded coupling with knurled head for secure electrical connections
- 2 meter cable length
- 5 meter cable length



Telescoping Airlines

- Eliminate flexing air lines
- Self aligning air tube design extends useful seal life
- Modular stackable design. Up to (4) modules can be stacked
- Modules can be mounted on either side of slide
- 1/8 NPT or G1/8 pipe threads
- (2) user air ports per module

Flow Controls for Cylinders

- Thumb screw adjust with locking nut for adjusting cylinder speed
- 1/8 NPT or G1/8 pipe threads

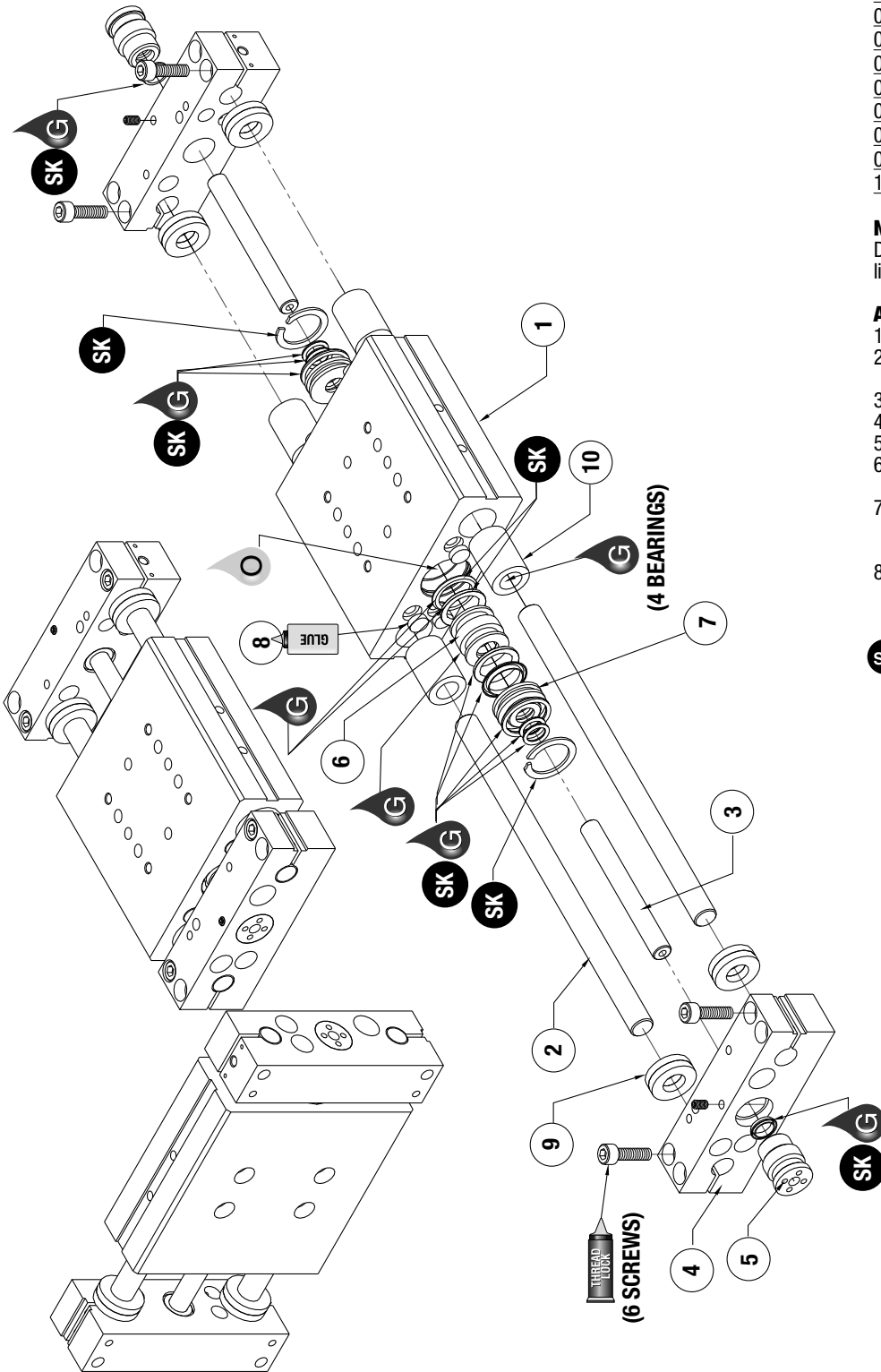
	A	B	C	D	E	F
DLB-20	2.03"	.10	2.1	.577	3.60	1.25
DLB-25	1.82"	.10	1.9	.577	3.60	1.25
DLB-20M	51.6mm	2.5	53.8	14.7	91.4	31.8
DLB-25M	46.2mm	2.5	48.3	14.7	91.4	31.8

DLB-B & L Series Exploded View



A J ROBEY COMPANY

DLB-B & L
SERIES
MAINTENANCE
4.18



Item	Qty	Name
01	1	Body
02	2	Guide Shaft
03	2	Air Tube
04	2	End Block
05	2	Adapter, Internally Powered
06	1	Piston
07	2	Cap, Rod End
08	6	Stop Button
09	8	Shock Pad, Urethane
10	4	Bushing

NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

Assembly Procedure

- 1) Lubricate and install seals.
- 2) Install piston, air shafts, bearings, caps, and retainer rings into body.
- 3) Install guide shafts into bearings.
- 4) Insert air shafts to piston.
- 5) Slide bumpers onto shaft ends.
- 6) Slide end blocks onto shaft ends and tighten.
- 7) Attach air port adapter to end of each air shaft through center of each end block using spanner wrench.
- 8) Set air port adapters into places with set screw.

**SK Seal Repair Kit Order #'s
See Product Data Sheets**



Seal Kit Items



Thread Locker



Krytox™ Lubricant



Lightweight Machine Oil



Teflon® Based Grease



Super Bonder



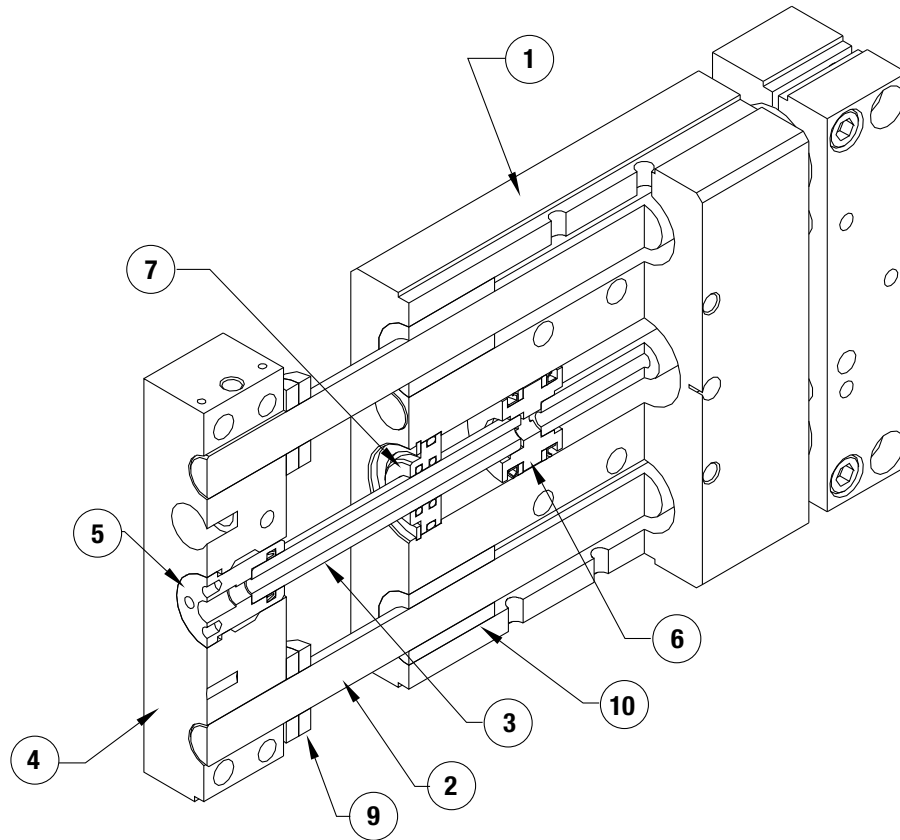
Third Angle Projection

Please see back cover for DE-STA-CO Global Locations. www.destaco.com

www.comoso.com

Item	Qty	Name
------	-----	------

01	1	Body
02	2	Guide Shaft
03	2	Air Tube
04	2	End Block
05	2	Adapter, Internally Powered
06	1	Piston
07	2	Cap, Rod End
08	6	Stop Button
09	8	Shock Pad, Urethane
10	4	Bushing



NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

NOTE: For accessory mounting information see Product Data Sheets.



Seal Kit
Items



Thread
Locker



Krytox™
Lubricant



Lightweight
Machine Oil



Teflon® Based
Grease



Super
Bonder



Third Angle
Projection