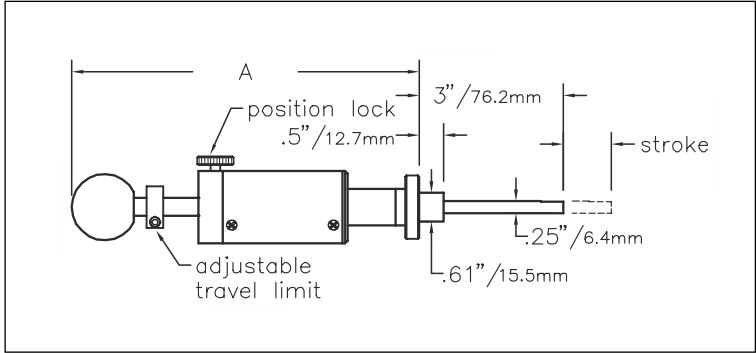


Linear Feedthroughs — Push-Pull



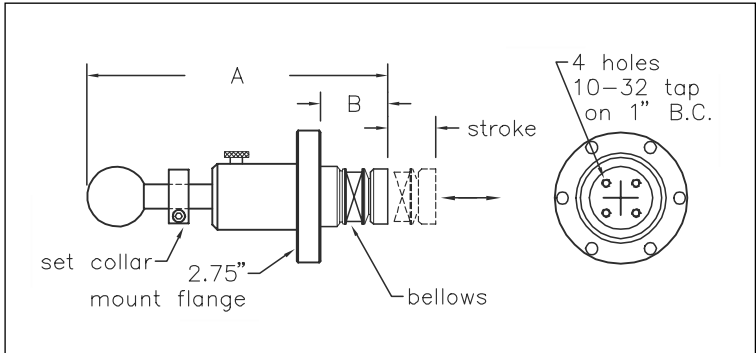
FLML-133-25

Push-Pull Linear Feedthroughs — FLML-133-25 Series

Flange O.D.	Probe O.D.	Stroke*	A	Model No.	Price
1.33"	0.25"	1"	7.24"	FLML-133-25-1	€704
		2"	9.64"	FLML-133-25-2	€825
		3"	12.03"	FLML-133-25-3	€946
		4"	14.42"	FLML-133-25-4	€1084
		6"	19.21"	FLML-133-25-6	€1249

Custom shaft probe add **€66**

* Other strokes available



FLML-275-50

Push-Pull Linear Feedthroughs — FLML-275-50 Series

Flange O.D.	Stroke*	A	Model No.	Price
2.75"	1"	6.39"	FLML-275-50-1	€ 814
	2"	7.79"	FLML-275-50-2	€ 929
	3"	9.18"	FLML-275-50-3	€ 1040
	4"	10.58"	FLML-275-50-4	€ 1150
	6"	15.61"	FLML-275-50-6	€ 1.375
	10"	21.19"	FLML-275-50-10	€ 1.925

* Other strokes available

Hositrاد manufactures a full line of metal-sealed linear motion feedthroughs. They are designed and manufactured to a high level of quality. They are all metal, using welded bellows and stainless steel linear bearings. All manual units are bakeable to 200°C fully assembled. Higher bakeouts may be used with partial disassembly. These feed-throughs are available with a number of cus-tom options, listed below.

Push-Pull Linear Feedthrough

FLML-133-25 Series

- 1/4" O.D. probe
- 1.33" O.D. mounting flange (2.75" O.D. flange optional)
- Up to 6" stroke
- Coarse linear actuated
- Adjustable position stop
- Position lock
- Stainless steel bellows sealed
- Stainless steel linear shaft bearing
- Maximum bakeout temperature: 200°C

FLML-275-50 Series

- 1/2" O.D. support shaft
- 2.75" O.D. mounting flange
- Up to 15" stroke
- Coarse linear actuated
- Adjustable position stop
- Position lock
- Stainless steel bellows sealed
- Stainless steel linear shaft bearing
- Maximum bakeout temperature: 200°C

Options

/2.75" Flange

Model No. **FLML-133(275)-X**

Price add **€ 66**

/CL Custom Length Probe

Price add **€ 66**

/TM Tip Modification

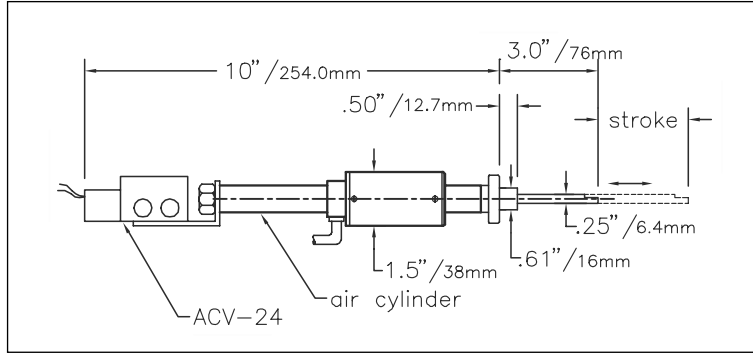
Price *Consult Factory*

Linear Feedthroughs — Pneumatic

Pneumatic Linear Feedthrough

FLML-133-25/PNM Series

- 1/4" O.D. probe
- 1.33" O.D. mounting flange (2.75" O.D. flange optional)
- Up to 6" stroke
- Stainless steel bellows sealed
- Macor linear bushing
- Pneumatically actuated 0.75" I.D. cylinder
- 50 to 150 psi air pressure
- Stainless steel rod and cylinder with bumpers, both ends
- Maximum bakeout temperature: 200°C (with air control valve removed)



FLML-133-25-1/PNM/ACV-24 (shown with optional /ACV-24 air control valve)

FLML-275-50/PNM Series

- 1/2" O.D. support shaft
- 2.75" O.D. mounting flange
- Up to 6" stroke
- Stainless steel bellows sealed
- Bronze bushings
- Pneumatically actuated 0.75" I.D. cylinder
- 50 to 150 psi air pressure
- Stainless steel rod and cylinder with bumpers, both ends
- Maximum bakeout temperature: 200°C (with air control valve removed)

Pneumatic Linear Feedthroughs — FLML-133-25/PNM Series

Flange O.D.	Probe O.D.	Stroke*	Model No.	Price
1.33"	0.25"	1"	FLML-133-25-1/PNM	€ 743
	2"		FLML-133-25-2/PNM	€ 908
		3"	FLML-133-25-3/PNM	€ 1.073
	4"		FLML-133-25-4/PNM	€ 1.238
		6"	FLML-133-25-6/PNM	€ 1.568
Custom probe length				add € 66

* Other strokes available

Options

/2.75" Flange

Model No. FLML-133(275)-X/PNM

Price add € 66

/CL Custom Length Probe

Price add € 66

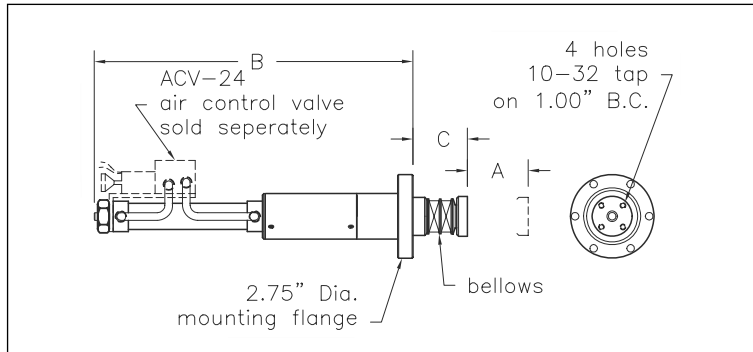
/TM Tip Modification

Price Consult Factory

/ACV-24 Air Control Valve

- For all FLML/PNM pneumatic feedthroughs
- Mounted to feedthrough
- Valve-to-actuator plumbing installed
- Control voltage 24 VDC standard or per customer requirements
- With flow controls, both directions
- Performance: <180 msec from coil energize to finish of 4" travel with 80 psi on an FLML-133-25-4/PNM with shutter

Price add € 127



FLML-275-50-1/PNM/ACV-24 (shown with optional /ACV-24 air control valve)

Pneumatic Linear Feedthroughs — FLML-275-50/PNM Series

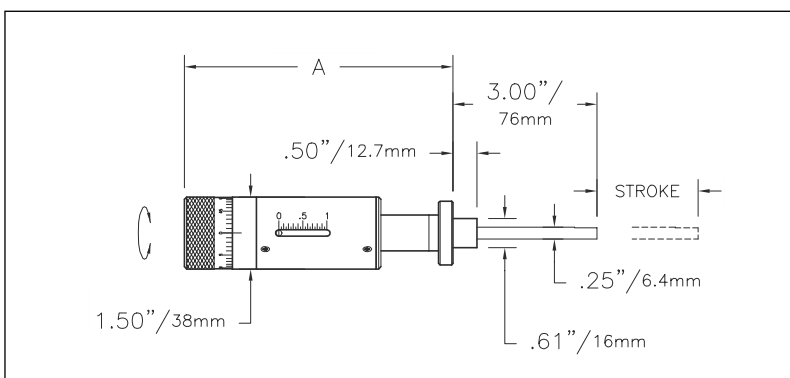
Flange O.D.	Stroke*	B	C	Model No.	Price
2.75"	1"	8.48"	1.39"	FLML-275-50-1/PNM	€ 853
	2"	10.48"	1.79"	FLML-275-50-2/PNM	€ 1.018
	3"	12.48"	2.18"	FLML-275-50-3/PNM	€ 1.183
	4"	14.48"	2.58"	FLML-275-50-4/PNM	€ 1.348
	6"	20.73"	3.36"	FLML-275-50-6/PNM	€ 1.678

* Other strokes available

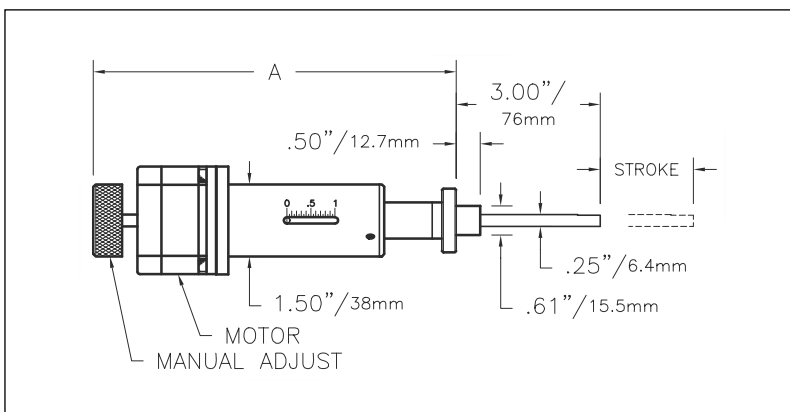
Linear Feedthroughs — Rotary Actuated



FLMR-133-25-2



FLMR-133-25-1



FLMR-133-25-1/MS (shown with optional /MS stepper motor drive)

Rotary Actuated Linear Feedthroughs — FLMR-133-25 Series

Flange O.D.	Probe O.D.	Stroke***	A****	Model No.	Base Price	Motorization /MS**	Opt.* /MY**
1.33"	0.25"	1"	5.60"	FLMR-133-25-1	€ 808	€ 215	€ 215
		2"	6.99"	FLMR-133-25-2	€ 919	€ 215	€ 215
		3"	9.20"	FLMR-133-25-3	€ 1.095	€ 215	€ 215
		4"	12.60"	FLMR-133-25-4	€ 1.271	€ 215	€ 215
		6"	16.60"	FLMR-133-25-6	€ 1.491	€ 215	€ 215

Custom probe length add € 66

* Add motorization option price to base price.

** Price does not include controller.

*** Other strokes available.

**** Dimension A changes with addition of motorization options, Consult Factory.

Rotary Actuated Linear Feedthrough

FLMR-133-25 Series

- 1/4" O.D. probe
- 1.33" O.D. mounting flange (2.75" O.D. flange optional)
- Up to 6" stroke
- Rotary actuated, 20 turns/inch
- Stainless steel bellows sealed
- All ball-bearing drive
- Stainless steel linear shaft bearing
- Includes position indicator

Options

/2.75" Flange

Model No. **FLMR-133(275)-X**

Price add € 66

/CL Custom Length Probe

Price add € 66

/TM Tip Modification

Price Consult Factory

Motorization Options

/MS Stepper Motor Drive

Applications: precise positioning, positioning multiple axes at one time, computer-controlled actuation

- Direct drive
- 200 steps per revolution
- 100 oz-in holding torque (higher torque motors available)
- Maximum speed 300 rpm
- Low inertia design
- Manual knob
- Motor controller sold separately

Price See table

/MY Synchronous Motor Drive

Applications: coarse positioning

- Direct drive
- Single speed, 72 rpm
- 2 directions
- 100 oz-in holding torque (higher torque motors available)
- Maximum speed 300 rpm
- Low inertia design
- Manual knob
- Motor controller sold separately

Price See table

SMC Stepping or YMC Synchronous Motor Controller

On request

Linear Feedthroughs — Rotary Actuated

Hositrاد manufactures a full line of metal-sealed linear motion feedthroughs. They are designed and manufactured to a high level of quality. They are all metal, using welded bellows and stainless steel linear bearings. All manual units are bakeable to 200°C fully assembled. Higher bakeouts may be used with partial disassembly. These feed-throughs are available with a number of custom options, listed below.

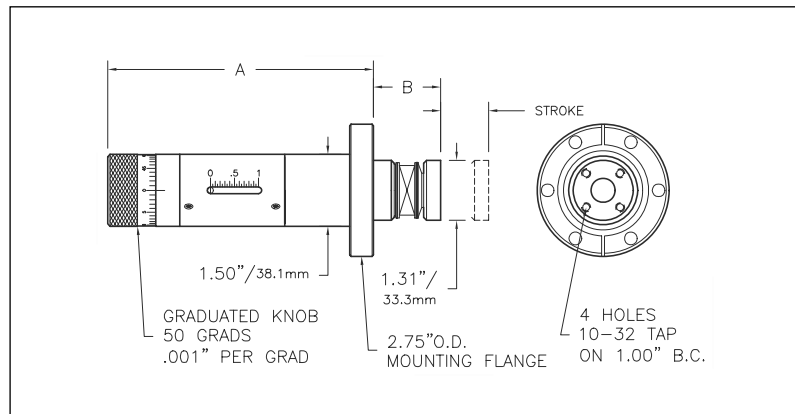
Rotary Actuated Linear Feedthrough

FLMR-275-50 Series

- 1/2" O.D. support shaft
- 2.75" O.D. mounting flange
- Up to 6" stroke
- Rotary actuated, 20 turns/inch
- Stainless steel bellows sealed
- All ball-bearing drive
- Includes position indicator
- Maximum bakeout temperature: 200°C



FLMR-275-50-4



FLMR-275-50-1

Motorization Options

/MS Stepper Motor Drive

Applications: precise positioning, positioning multiple axes at one time, computer-controlled actuation

- Direct drive
- 200 steps per revolution
- 100 oz-in holding torque (higher torque motors available)
- Maximum speed 300 rpm
- Low inertia design
- Manual knob
- Motor controller sold separately

Price See table

/MY Synchronous Motor Drive

Applications: coarse positioning

- Direct drive
- Single speed, 72 rpm
- 2 directions
- 100 oz-in holding torque (higher torque motors available)
- Maximum speed 300 rpm
- Low inertia design
- Manual knob
- Motor controller sold separately

Price See table

SMC Stepping or YMC Synchronous Motor Controller

On request

Rotary Actuated Linear Feedthroughs — FLMR-275-50 Series

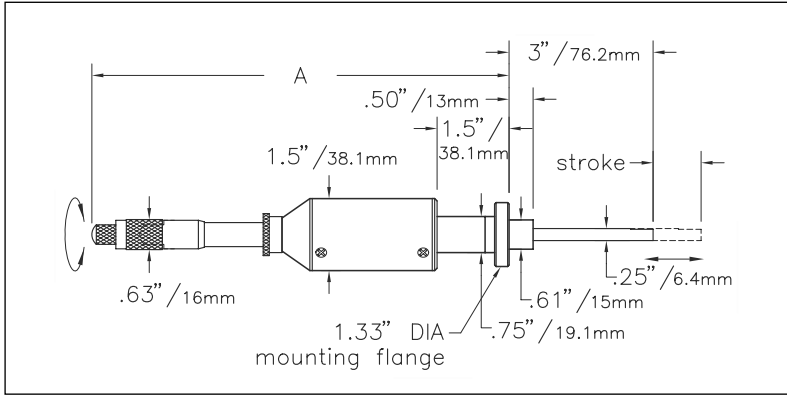
Flange O.D.	Stroke**	A	B	Model No.	Base Price	Motorization Opt.*
2.75"	1"	5.54"	1.40"	FLMR-275-50-1	€ 847	€ 215 € 215
	2"	6.54"	1.79"	FLMR-275-50-2	€ 963	€ 215 € 215
	4"	8.54"	2.58"	FLMR-275-50-4	€ 1.315	€ 215 € 215
	6"	12.79"	3.36"	FLMR-275-50-6	€ 1.535	€ 215 € 215
Custom probe length					add	€ 66

* Add motorization option price to base price

** Other strokes available

*** Price does not include controller

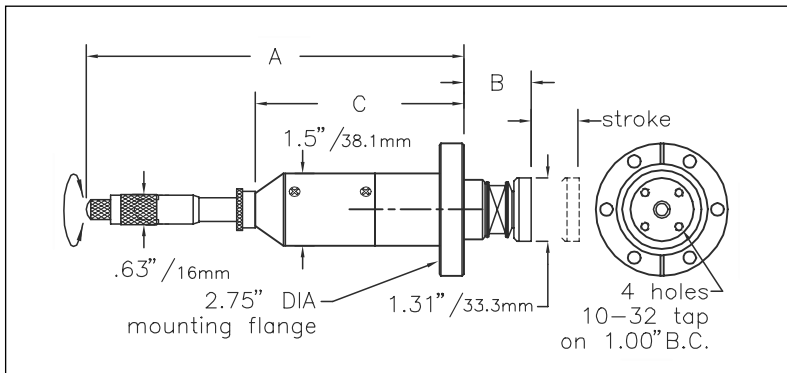
Linear Feedthroughs — Precision



FLMM-133-25 1 & 2

Precision Linear Feedthroughs — FLMM-133-25 Series

Flange O.D.	Probe O.D.	Stroke	A	Model No.	Price
1.33"	0.25"	1"	8.69"	FLMM-133-25-1	€ 1.007
	2"	12.64"		FLMM-133-25-2	€ 1.117



FLMM-275-50 1 & 2

Precision Linear Feedthroughs — FLMM-275-50 Series

O.D.	Stroke	A	B	C	Model No.	Price
2.75"	1"	8.30"	1.40"	4.34"	FLMM-275-50-1	€1.315
	2"	12.09"	1.80"	6.03"	FLMM-275-50-2	€1.425

Hositrاد manufactures a full line of metal-sealed linear motion feedthroughs. They are designed and manufactured to a high level of quality. They are all metal, using welded bellows and stainless steel linear bearings. All manual units are bakeable to 200°C fully assembled. Higher bakeouts may be used with partial disassembly. These feed-throughs are available with a number of custom options, listed below.

Precision Linear Feedthrough

FLMM-133-25 Series

- 1/4" O.D. probe
- 1.33" O.D. mounting flange
- 1" or 2" stroke
- Micrometer actuated, 40 turns/inch, pre-loaded coupling
- 3" minimum flange face to probe tip
- Stainless steel bellows sealed
- Stainless steel linear shaft bearing
- Maximum bakeout temperature: 200°C

FLMM-275-50 Series

- 1/2" O.D. support shaft
- 2.75" O.D. mounting flange
- 1" or 2" stroke
- Micrometer actuated, 40 turns/inch, pre-loaded coupling
- Stainless steel bellows sealed
- Stainless steel linear shaft bearings
- Maximum bakeout temperature: 200°C

Options

/2.75" Flange

Model No. **FLMM-133(275)-X**

Price add € 66

/CL Custom Length Probe

Price add € 66

/TM Tip Modification

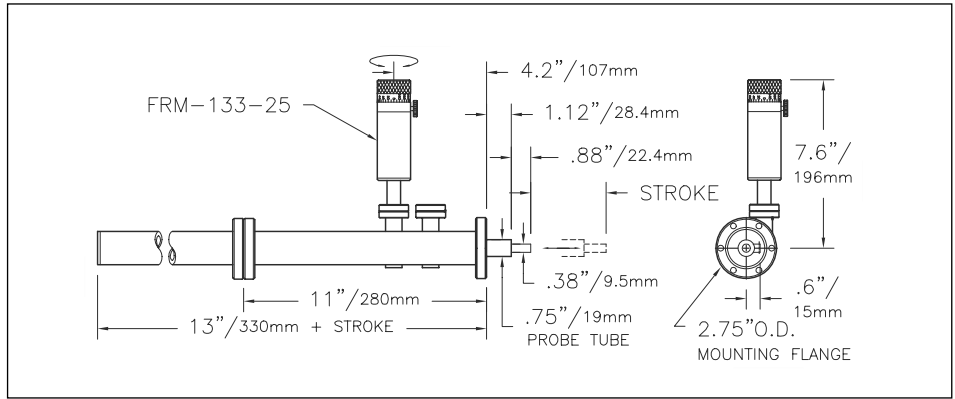
Price Consult Factory

Linear Feedthroughs — Rack & Pinion

Rack & Pinion Linear Feedthrough

RPL Series

- 3/8" O.D. linear probe
- 3/4" O.D. support shaft
- 2.75" O.D. mounting flange
- Up to 50" linear travel
- Rack and pinion positive drive
- Adjustable position stop and lock
- Maximum bakeout temperature: 200°C



RPL-75

Options

/MC Mechanical Counter

- 40 counts per feedthrough rotation
- Removable for bakeout
- Retrofit kit allows mounting without breaking vacuum

Price add € 352

/MS Stepping or /MY

Synchronous Motorization

- With integral motor drive
- /MS stepping or /MY synchronous motor drive
- 50 oz-in holding torque (higher torque motors available)
- Low inertia design
- Manual knob
- Motor controller sold separately

Price See table

NOTE: The /MS or /MY motor option is suitable for the linear actuation when the operation is horizontal. When the linear travel is other than horizontal, the /MS/W option should be used.

We strongly recommend the use of limit switches on this or any other motor drive being used to actuate the linear drive on the RPL. The limit switch actuator assembly (or one similar) should be used to protect the RPL from being over-driven. See the RLS rotary limit switch option on page 2-XX.

/MS/W Stepping or /MY/W Synchronous Motorization with High Precision Worm Drive

- Anti-backlash worm gear drive
- Self-locking
- Manual knob
- Capable of driving up to 16"/min minimum at 1,000 pps
- Motor controller sold separately
- May be field-mounted without breaking vacuum, or returned to the factory for installation

Price See table

NOTE: This motor drive is self-locking. This is necessary to protect the probe and associated equipment from changing location if the power is removed from the motor. However, because of the self-locking design, the drive can generate significant torque at the FRM, and thus do damage if overdriven.

Rack & Pinion Linear Feedthroughs — RPL Series

Flange O.D.	Probe Diameter	Stroke	Model No.	Base Price	Motorization Options*				
					/MS	/MY	/SCC**	/MS/W	/MY/W
2.75"	0.38"	10"	RPL-.75-10	€3.575	€523	€523	€996	€1.265	€1.265
		20"	RPL-.75-20	€3.850	€523	€523	€996	€1.265	€1.265
		30"	RPL-.75-30	€4.125	€523	€523	€996	€1.265	€1.265
		40"	RPL-.75-40	€4.400	€523	€523	€996	€1.265	€1.265
		50"	RPL-.75-50	€4.675	€523	€523	€996	€1.265	€1.265
Additional stroke, per inch				add €28					

Note: Custom strokes between those listed are available.

* Add motorization option price to base price.

** Price includes controller. Other options do not include controller.

SMC Stepping or YMC Synchronous Motor Controller

On request

/RLS Rotary Limit Switch

Actuator Assembly

On request

/MC Mechanical Counter — Motorized Operation

- Mounts to rear of stepping or synchronous drive motors
- Maximum motor speed: 2,500 pps
- 5 digit Veeder Root mechanical counter, metal case
 - 2:1 ratio gear drive
 - Adjustable counter orientation
 - Removes with motor for bakeout
 - Retrofit kit available

Price Consult Factory

/SCC Speed Control Motor Drive

- Variable speed
- Switchable direction
- 5–95 rpm with 50 oz-in torque
- Options: Higher torque motors
Different speed ranges
- Includes controller

Price, per axis See table