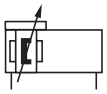
- > Ø 25 ... 40 mm
- > Compact, space-saving design
- > Proven sealing system
- > Adjustable cushioning
- > Magentic piston as standard



Technical features

Medium:
Compressed air, filtered, lubricated or non-lubricated
Operation:
Double acting, magnetic piston
Operating pressure:
1 ... 8 bar (14 ... 116 psi)

Cylinder diameters:
25, 32, 40 mm
Strokes:
5000 mm or 196 inches max.
Non-standard strokes:
on request

Operating temperature:
-30 ... +80°C (-22 ... +176°F) max.
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:
Barrel: Anodised aluminium alloy
End covers: Aluminium alloy
Yoke: Anodised aluminium alloy
Cover and Pistons: Plastic
Sealing strip: PU
Cover strip: PA
Seals: NBR & PU

Technical data

Cylinder Ø (mm)	25	32	40
Port size	G1/8	G1/8	G1/4
Cushion length (mm)	18	23	35
Theoretical thrusts at 6 bar (N)	250	410	640
Air consumption (l/cm) per stroke at 6 bar	0,035	0,056	0,088

Loading values applicable to a speed of ≤ 0,2 m/s. Maximum working life is normally reached below a speed of 1 m/s.

Option selector

★/440★★/M/★★★★

Porting	Substitute
ISO G-thread (standard)	**M**
NPT- hread	**C**
Cylinder Ø	**Substitute**
25	**25**
32	**32**
40	**40**

★★★

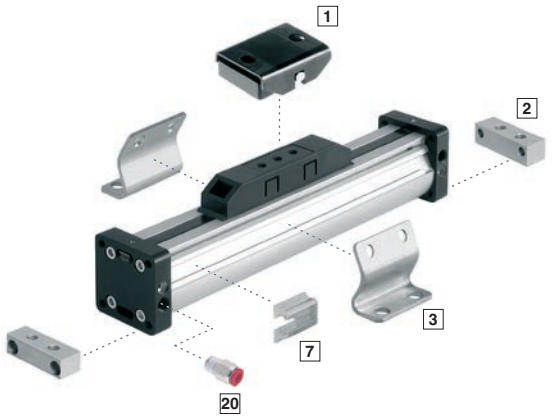
Stroke	
5000 max.	**in mm for ISO G-thread**
196 max.	**in full inches for NPT-thread**

★

Fractional increments of stroke (inches)					
Substitute		**Substitute**		**Substitute**	
0	A	3/8	G	3/4	P
1/16	B	7/16	H	13/16	R
1/8	C	1/2	J	7/8	S
3/16	D	9/16	K	15/16	T
1/4	E	5/8	M	Special	X
5/16	F	11/16	N		

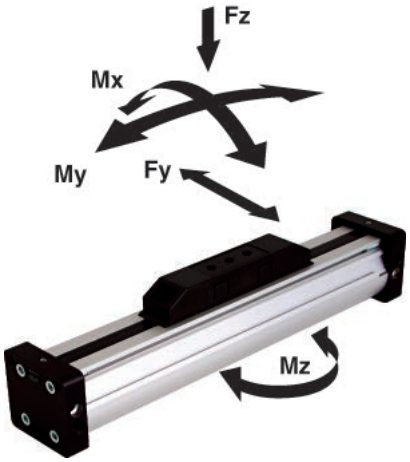
Note: When specifying NPT ports the stroke should be given in inches

Mountings



Model	Type C	Type V	Type S	Switch mountng brackets	Magnetically operated switches
					
	2	3	1	7	
Ø	Page 6	Page 6	Page 6		Page 6 & 7
25	QM/44025/21	Q44025AAAAAM332	Q44025AAAAAM337	M/P72487	
32	QM/44032/21	Q44032AAAAAM332	Q44032AAAAAM337	M/P72487	
40	QM/44040/21	Q44040AAAAAM332	Q44040AAAAAM337	M/P72487	

Item	Type	Description
1	S	Yoke: zinc plated steel Mounting support: anodised aluminium Screws: zinc plated steel Bolts: stainless steel
2	C	Anodised aluminium Screws: zinc plated steel
3	V	Zinc plated steel Screws: zinc plated steel
7	Bracket	Plastic
20	Fitting	Body: PBT, O-Ringe, NBR Grab ring: stainless steel Release button: POM Data sheet: en 9.1.001



Loading values for LINTRA® Cylinders
The values given in the table below show the forces in the directions Fy and Fz and the maximum moments Mx, My and Mz. All values are applicable for speeds up to 0,2 m/s. A requirement for using these values is a smooth movement of the mass over the whole stroke length of the cylinder. The reference point from which the moments for all cylinders should be calculated is the centre line of the piston.

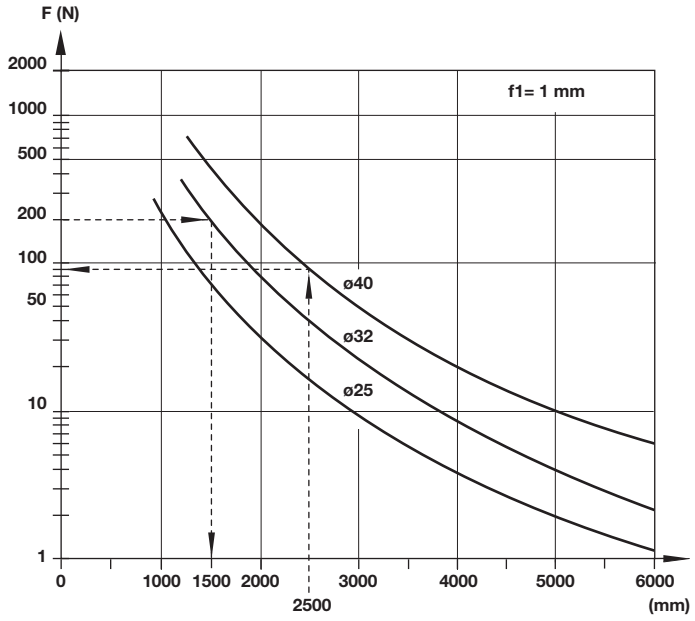
Total loads
When a Lintra® Cylinder has to take several loads and moments, an additional calculation is necessary using the following formula:

$$\frac{Mx}{Mx\ max} + \frac{My}{My\ max} + \frac{Mz}{Mz\ max} + \frac{Fy}{Fy\ max} + \frac{Fz}{Fz\ max} \leq 1$$

Ø	Loading values (N) Fy	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)
25	90	280	1	13	4
32	120	370	2	21	6
40	240	720	4	56	16

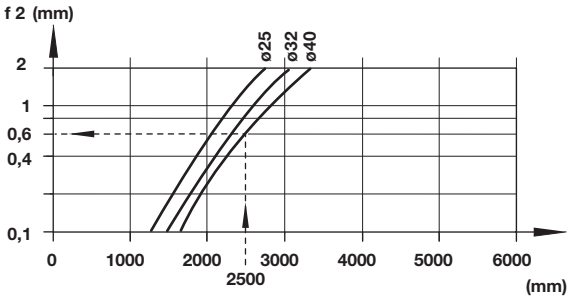
Cylinder deflection

Deflection due to external force.



Cylinder Ø 32 mm, stroke length 3500 mm, external load 200 N
Maximum distance between supports = 1500 mm (see diagram).
Therefore additional support is required.

Deflection due to cylinder weight.

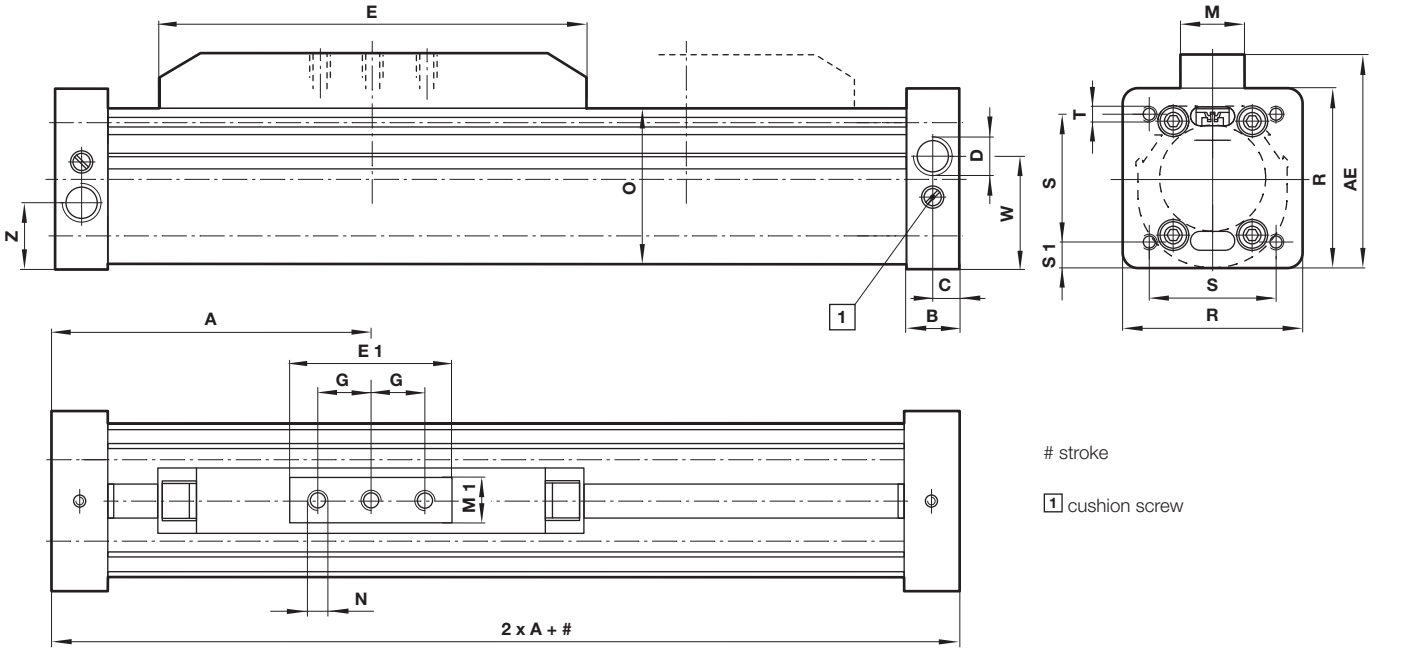


Cylinder Ø 40 mm, external force 120 N, distance between supports 2500 mm
Required: Total deflection
1. Deflection due to external force (f1):
See diagram (1mm/90 N) · 120 N 1,3 mm
2. Deflection due to cylinder weight (f2): See diagram +0,6 mm
Total deflection: 1,9 mm

Maximum permitted deflection:
f1 + f2 √ 1 mm per 1000 mm stroke
Result:
1,9 mm are below the max. permitted deflection of 2,5 mm

Basic dimensions

Dimensions in mm
Projection/First angle



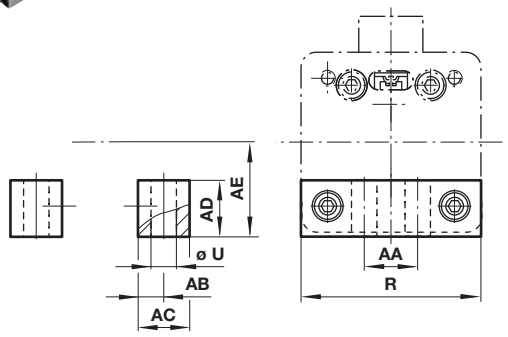
stroke

1 cushion screw

Ø	A	AE	B	C	D (Port threads) *1)		E	E1	G	M	M1	N
25	72,5	53,2	13,5	7	G 1/8	1/8 NPT	100	40	12,5	22	18	M5-7 deep
32	82,5	67,8	13,5	7	G 1/8	1/8 NPT	120	50	15	24	20	M6-10 deep
40	112,5	79,3	19	9,5	G 1/4	1/8 NPT	165	60	20	24	200	M6-10 deep
Ø	**O**	**R**	**S**	**S1**	**T**	**W**	**Z**	**kg at 0 mm**	**kg per 100 mm**			**Model**
25	35	42	33	4,5	M4-13,5	25,6	16,4	0,60	0,15			./44025/M/*
32	46,5	53	41	6	M6-13,5	33,5	19,5	0,90	0,25			./44032/M/*
40	58	65,5	48	8,75	M6-19	40,8	24,8	1,40	0,35			./44040/M/*

* Insert stroke length
*1) Optional ISO G or NPT-thread

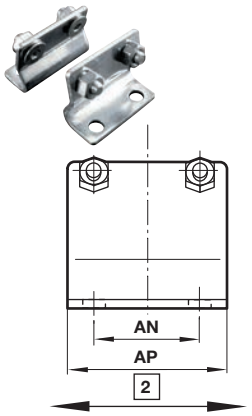
QM/44000/21 – Foot mounting

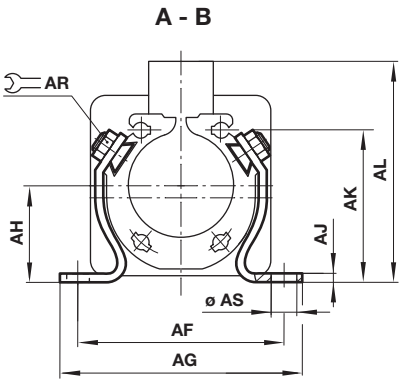


Ø	AA	AB	AC	AD	AE	R	Ø U	kg	Model (C)
25	18,5	5	10	10	21,5	42	5,5	0,04	QM/44025/21
32	20	8	16	16	28,5	53	9	0,09	QM/44032/21
40	27	7,5	15	22	35	65,5	9	0,13	QM/44025/21

Q44000AAAAAM332 – Centre support mounting type

Dimensions in mm
Projection/First angle

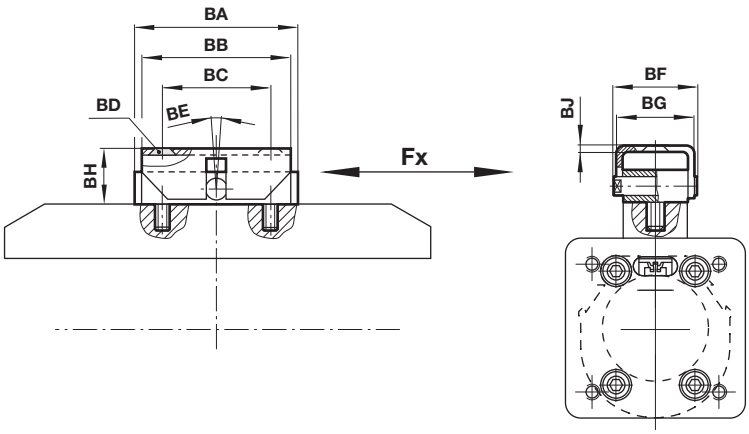




2 Adjustable

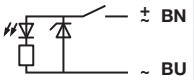
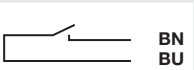
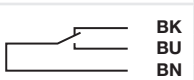
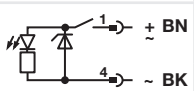
Ø	AF	AG	AH	AJ	AK	AL	AN	AP	AR	Ø AS	kg	Model (V)
25	58	70	21,5	3	31	53,5	25	25	10	6,6	0,07	QM44025AAAAAM337
32	70	83	28,5	3	43	70	30	50	10	9	0,15	QM44025AAAAAM337
40	79	92	35	3	55	81,5	40	60	10	9	0,25	QM44040AAAAAM337

QM44000AAAAAM337 – Swinging bridge mounting type S



Ø	BA	BB	BC	BD (Din74)	BE	BF	BG	BH	BJ	Fx	kg	Model (S)
25	40	40	28	BM 5	± 8	29	28	15 +5	2	250 N	0,15	QM44025AAAAAM337
32	50	55	40	BM 6	± 8	31	30	17,5 + 5	2	410 N	0,20	QM44032AAAAAM337
40	60	55	40	BM 6	± 8	31	30	18 + 5	2	640 N	0,25	QM44040AAAAAM337

Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage (V a.c.)	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/*V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

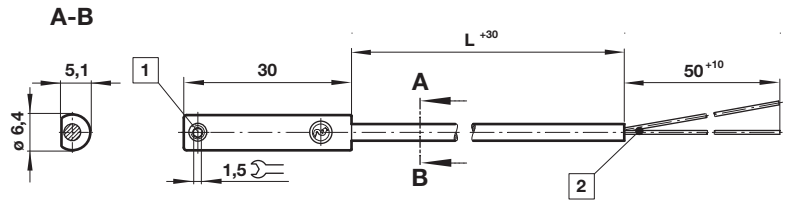
Drawings

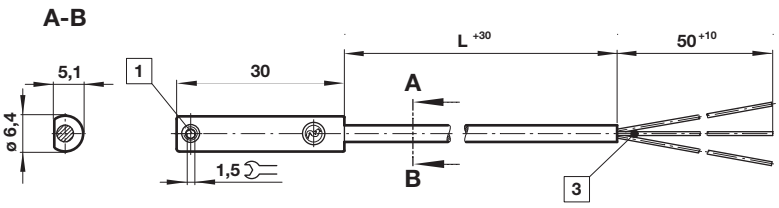
M/50/LSU/*V, M/50/LSU/5U, TM/50/RAU/2S
Cable length L = 2, 5 or 10 m

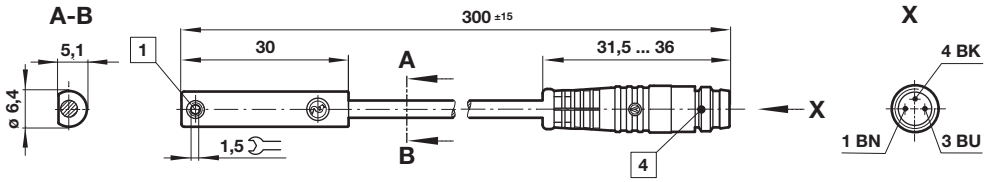
M/50/RAC/5V
Cable length L = 5 m

M/50/LSU/CP

Dimensions in mm
Projection/First angle







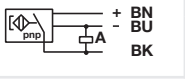
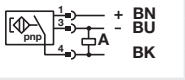
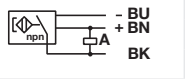
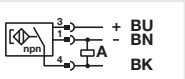
1 Fixing screw
2 + BN = brown; - BU = blue (output)
3 - BK = black; + BN = brown; - ≠BU = blue
4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Accessories

Plug-in connector cable with nut

Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

Technical data - Solid state - additional informations see data sheet N/en 4.3.007

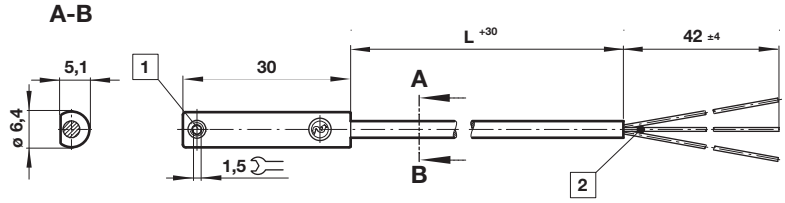
Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue

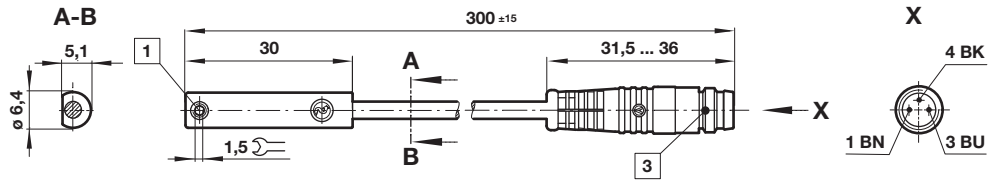
Drawings

Dimensions in mm
Projection/First angle

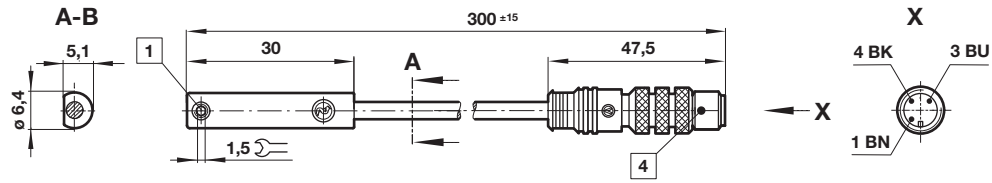
M/50/EAP/*V,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC



1 Fixing screw
2 Color code: BK = black; BN = brown; BU = blue
3 Plug M8 x 1
4 Plug M12 x 1

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under **»Technical features/data«**.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.