

# All Round Cylinders

R32 - R63 Series

# Round Cylinder

## Ø 32-63 mm

Series R..., RK...  
Series RDU...

### Versions:

- double acting without cushioning
- double acting with adjustable cushioning
- for contactless position sensing

Universal cylinder for mounting by a thread on the cylinder covers.  
Pivot mounted on the front and rear cylinder covers.

### The delivery includes:

- 1 Cylinder
- 1 Hexagon nut for piston rod thread and for cylinder mountings

Versions without contactless position sensing on request.

### Characteristics

Characteristics	Symbol	Unit	Description			
General Features						
Type			Round cylinder			
Series			R..., RK...			
System			Piston rod cylinder			
R6..., RK6...			Double acting without cushioning			
R5...			Double acting with cushioning			
RDU6...			With through piston rod Double acting without cushioning			
Ambient temperature range	$T_{min}$ $T_{max}$	°C °C	-10 +70	Note: When using below freezing point (°C) please contact us for advice		
Medium temperature range	$T_{max}$	°C	+70			
Weight (mass)		kg	See table			
Medium			Filtered and lubricated or filtered and unlubricated compressed air			
Lubrication			Oil mist lubrication compatible with NBR and PU			
Material						
Cylinder barrel			Aluminium, anodised			
Front/rear end caps			Aluminium			
Piston rod			Steel, high-alloy			
Pneumatic Characteristics						
Nominal pressure	$p_n$	bar	6			
Piston diameter		mm	32	40	50	63
Operating pressure range	$p_{min}$ $p_{max}$	bar bar	1 10			
Port size			G1/8	G1/4	G1/4	G3/8
Piston rod diameter		mm	12	16	20	20
Stroke length		mm	For standard stroke lengths see order instructions, max. 500, longer strokes on request			
Cushioned stroke			At both ends progressively adjustable			
Cushioned stroke		mm	22	27	28	28



## Weight (mass) kg

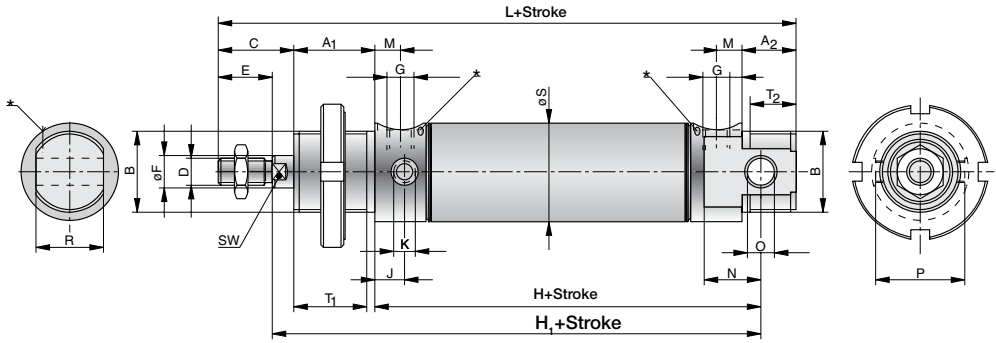
Cylinder version	Cylinder diameter							
	Ø32		Ø40		Ø50		63	
	1*	2*	1*	2*	1*	2*	1*	2*
Basic cylinder Typ R....	0.550	0.150	0.940	0.250	1.400	0.300	1.900	0.400
With through piston rod Typ RDU....	1.100	0.340	1.480	0.560	2.560	0.850	3.260	0.950

\* 1 = Weight for cylinder with 100 mm stroke

2 = Weight for every additional 100 mm stroke length

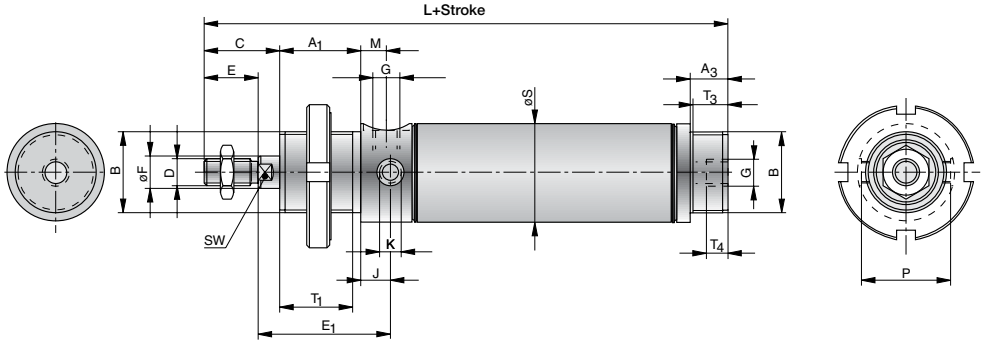
Mounting	Cylinder diameter			
	Ø32	Ø40	Ø50	63
RA (1 bracket)	0.100	0.190	0.290	0.360
RC	0.100	0.190	0.290	0.360
RB	0.170	0.290	0.480	0.700
RE	0.150	0.260	0.380	0.590

Dimensions – Basic Cylinder, Series R..., Ø 32 – 63 mm



\* adjustable end cushioning only for series R 5000

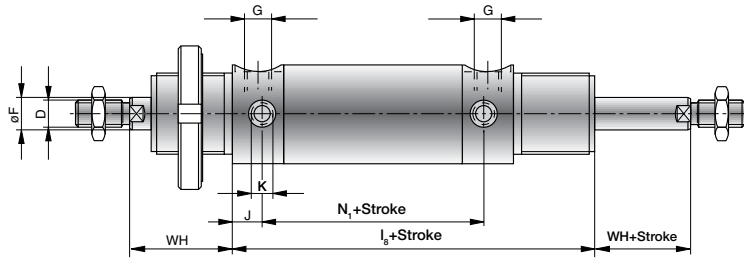
Dimensions – Basic Cylinder, Series RK..., Ø 32 – 63 mm



Dimension Table (mm) – Basic Cylinder, Series R..., RK..., RDU...

Cyl. Ø	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	B	C	D	E	E <sub>1</sub>	ØF	G	H	H <sub>1</sub> +Stroke	J	K	I <sub>8</sub> +Stroke
32	30	19.5	14	M30x1.5	28	M10	20	49	12	G1/8	90.5	128.5	11	M8x1	83.5
40	35	21.5	16	M38x1.5	34	M12	24	57	16	G1/4	99.5	144.5	12	M10x1	89
50	38	25	18	M45x1.5	44	M16	32	63	20	G1/4	109.5	159.5	13	M12x1.5	93.5
63	38	24.5	18	M45x1.5	45	M16	32	64.5	20	G3/8	116.5	167.5	13.5	M14x1.5	101

**Dimensions – Basic Cylinder with Through Piston Rod, Series RDU..., Ø32 – 63 mm**



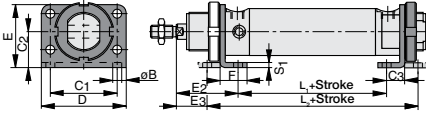
Cyl. Ø	L + Stroke R....	L + Stroke RK....	M	N	N <sub>1</sub> + Stroke	O	P	R <sub>m12</sub>	ØS	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	SW	WH	WH + Stroke
32	160.5	138.5	9.5	21	61.5	10	33	25	35	27	16.5	12	8	10	38	38
40	181.5	156.5	11	24	65	12	42	30	43	32	17.5	14	12	14	45	45
50	205.5	179.5	11	27	67.5	14	52	35	54	35	21	16	12	17	50	50
63	215.5	186.5	12.5	28	74	16	62	35	67	35	20.5	16	12	17	51	51

**Accessories**



Mountings – Series R..., RK..., Ø 32–63 mm

Foot Mounting Type RA2-..



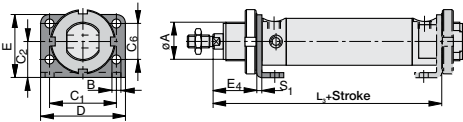
Material: steel, passivated

Dimension Table (mm) – Foot Mounting Type RA2

Cyl. Ø	ØB	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	D	E	E <sub>2</sub>	E <sub>3</sub>	F	L <sub>1</sub> +Stroke	L <sub>2</sub> +Stroke	S <sub>1</sub>
32	6.6	52	28	14	66	49	48	24	21	63	111	4
										46.5*	94.5*	
40	9	60	33	20	80	58	60	25	30	61	131	5
										41.5*	111.5*	
50	9	70	40	20	90	70	64	30	30	70.5	138.5	6
										51.5*	119.5*	
63	9	76	45	20	96	80	65	31	30	80	148	6
										57.5*	125.5*	

\* Dimensions in the grey fields are valid for series RK....

Foot Mounting Type RA1-..  
Flange Mounting Type RC-..



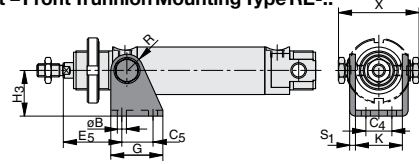
Material: steel, passivated

Dimension Table (mm) – Mounting RA1, RC

Cyl. Ø	ØA	B	C <sub>1</sub>	C <sub>2</sub>	C <sub>6</sub>	D	E	E <sub>4</sub>	L <sub>3</sub> +Stroke	S <sub>1</sub>
32	30.1	6.6	52	28	28	66	49	34	125	4
									108.5*	
40	38.1	9	60	33	30	80	58	40	141	5
									121.5*	
50	45.1	9	70	40	40	90	70	44	154.5	6
									135.5*	
63	45.1	9	76	45	50	96	80	45	165	6
									142.5*	

\* Dimensions are valid for series RK....

Pivot – Front Trunnion Mounting Type RE-..

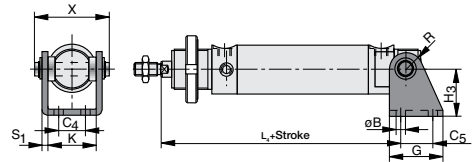


Material: steel, passivated

Dimension Table (mm) – Pivot – Front Trunnion Mounting Type RE

Cyl. Ø	ØB	C <sub>4</sub>	C <sub>5</sub>	E <sub>5</sub>	G	H <sub>3</sub>	K	R	S <sub>1</sub>	X
32	6.6	20	24	45	40	35	36.1	12	4	60
40	9	28	30	54	50	40	45.1	13	5	75
50	9	36	34	59	54	45	55.1	14	6	89
63	9	42	35	63.5	65	50	70.1	16	6	109

Pivot – Rear Trunnion Mounting Type RB-..



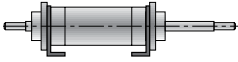
Material: steel, passivated

Dimension Table (mm) – Pivot Rear Trunnion Mounting Type RB

Cyl. Ø	ØB	C <sub>4</sub>	C <sub>5</sub>	G	H <sub>3</sub>	H	K	L <sub>4</sub> +Stroke	R	S <sub>1</sub>	X
32	6.6	20	24	40	35	8	36.1	124.5	12	4	58
40	9	28	30	50	40	10	45.1	141.5	13	5	70
50	9	36	34	54	45	10	55.1	155.5	14	6	86
63	9	42	35	65	50	15	70.1	166.5	16	6	100

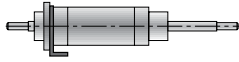
**Mountings – Series RDU... (with through piston rod), Ø 32–63 mm**

**Foot mounting  
(2 mounting brackets)**



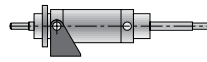
Material: steel, passivated

**Foot mounting  
(Flange mounting)**



steel, passivated

**Pivot – Front Trunnion Mounting**



steel, passivated

**Accessories**

**Piston Rod Eye**



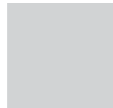
**Piston Rod Clevis**





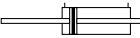
**Compensating Coupling**



**Magnetic Switch**



Order Instructions – Basic Cylinder \*

Series	Symbol	Piston-Ø	Order Instructions	
			Type	Order-No.
Double acting with adjustable end cushioning For contactless position sensing		32	R 5032/....*	PD46443-...
		40	R 5040/....	PD46445-....
		50	R 5050/....	PD46447-....
		63	R 5063/....	PD46449-....
Double acting without adjustable end cushioning For contactless position sensing		32	R 6032/....	PD46444-....
			RK 6032/....	PA58220-....
		40	R 6040/....	PD46446-....
			RK 6040/....	PA59140-....
		50	R 6050/....	PD46448-....
			RK 6050/....	PA60210-....
		63	R 6063/....	PD46450-....
			RK 6063/....	PA61150-....
With through piston rod Double acting without adjustable end cushioning For contactless position sensing		32	RDU 6032/....*	PD58270-...
		40	RDU 6040/....	PD59200-....
		50	RDU 6050/....	PD60270-....
		63	RDU 6063/....	PD61200-....

Complete type designation and order no. with stroke length (in mm)

(4-digit)

Standard stroke lengths: 0025, 0050, 0080, 0100, 0125, 0160, 0200, 0250, 0320, 0400, 0500 delivered preferably

\* Magnetic switch mounting by band

Order Instructions – Mountings - Accessories

Description	Type	Order-No.			
		Ø32	Ø40	Ø50	Ø63
Foot mounting (1 mounting bracket)	RA 1-..	KK 29.302	KK 30.302	KK 31.302	KK 32.302
Foot mounting (standard version)	RA 2-..*	PD 25712	PD 25713	PD 25714	PD 25715
Flange mounting (1 mounting bracket)	RC- ..	KK 29.302	KK 30.302	KK 31.302	KK 32.302
Rear trunnion mounting	RB- ..	PD 40390	PD 40391	PD 40392	PD 40393
Front trunnion mounting	RE-..	PD 40394	PD 40395	PD 40396	PD 40397

Complete type designation with piston-Ø

Ordering example: RA-32 KK 29.302

\* consists of 2 mounting brackets and 1 groove nut