

# DZ Cylinder



## Specifications

Characteristics according to VDI 3294								
Characteristics	Symbol	Unit	Description					
<b>General Features</b>								
Type			Piston rod cylinder					
Series			DZ1, DZ5					
System			Double acting with cushioning					
Mounting			See drawing					
Tube connection			Thread					
Ambient temperature range	$\varnothing_{\min}$ $\varnothing_{\max}$	°C	-20	Note: When using below freezing point (°C) it is necessary to consult us				
Medium temperature range	$\varnothing_{\min}$	°C	+80					
Weight (mass)		kg	See table					
Installation			In any position					
Medium			Filtered and lubricated or filtered and unlubricated compressed air					
Lubrication			Oil mist lubrication compatible with Buna N					
Material	Cylinder tube		Aluminum					
	Front/Rear covers		Aluminum					
	Piston rod		Steel, hard-chrome plated					
<b>Pneumatic Characteristics</b>								
Nominal pressure	$p_n$	bar	6					
Operating pressure range	$p_{\min}$	bar	1					
	$p_{\max}$	bar	10					
Piston diameter		mm	125	160	200	250		
Port size			G 1/2	G 3/4	G 3/4	G 1		
Piston rod diameter		mm	32	40	40	50		
Piston rod thread			M27x2**	M36x2	M36x2	M42x2		
Stroke length		mm	For max. stroke length see load diagram 2.05.002E					
Cushioning			At both ends, infinitely variable					
Cushioning stroke		Cyl.	125	160	200	250		
		mm	42	52	52	52		
<b>Weight (mass) kg</b>								
Mounting	Cylinder-Ø		160		200		250	
		125						
	*1	*2	1	2	1	2	1	2
Basic cylinder	7.2	1.3	12.5	2.05	20	2.2	35	4
A	9.3		16.1		25		on request	
B	8.5		14.9		24			
BA	8.7		15.0		24			
BAS	8.6		14.9		24			
C	8.7		15.0		30			
D	8.7		15.0		30			
EN	10.5		18.3		32			

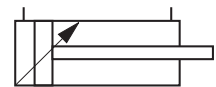
## Series DZ

Ø125 - 250mm

ISO 6431

CETOP RP53P\*\*

### DZ 1: Double Acting, Cushions



### DZ 5: Double Acting, Magnets, Cushions



### Features:

Hard-Chrome Plated Rod  
Magnetic Piston  
Adjustable Cushions  
Pre-Lubricated Design

\*1 = Weight for cylinder with 100mm stroke

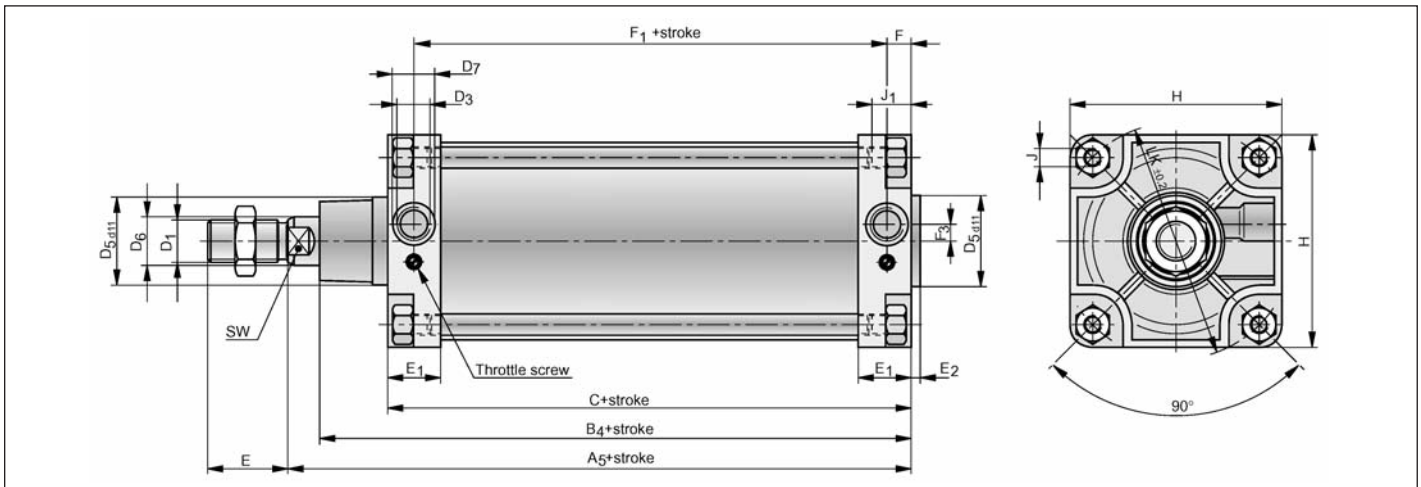
\*2 = Weight for every additional 10mm stroke length

# DZ Cylinder



## Dimensional Data

### Basic Cylinder

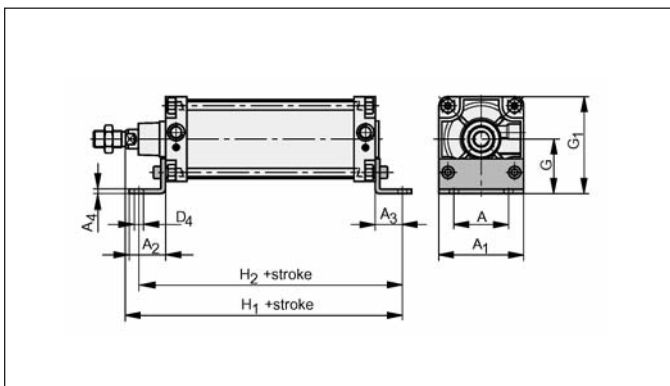


Dimension Table (mm) for Basic Cylinder

Cyl. Ø	A <sub>5</sub> +stroke	B <sub>4</sub> +stroke	C+stroke	D <sub>1</sub>	D <sub>3</sub>	ØD <sub>5</sub>	ØD <sub>6</sub>	ØD <sub>7</sub>	E	E <sub>1</sub>	E <sub>2</sub>	F	F <sub>1</sub> +stroke	F <sub>3</sub>	J	J <sub>1</sub> max.	H	ØLK	SW
125	225	205	160	M27x2*	G1/2	60	32	28	54	35	6	19	122	11	M12	18	140	156	27
160	260	230	180	M36x2	G3/4	65	40	33	72	45	6	25	130	11	M16	23	180	198	36
200	275	240	180	M36x2	G3/4	75	40	33	72	45	6	25	130	11	M16	23	220	248	36
250	305	270	200	M42x2	G1	90	50	40	84	53	10	32	136	21	M20	27	280	311	48

\*Standard piston rod thread M27x2 - on request M24x2 to CETOP RP53P can also be delivered.

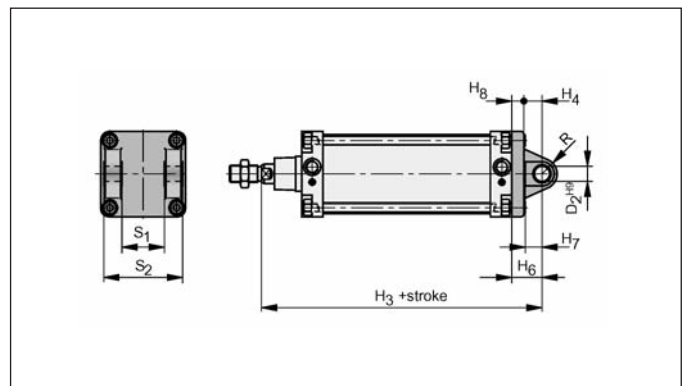
### Foot Bracket - Type A



Dimension Table (mm) for Mounting A

Cyl. Ø	A	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	ØD <sub>4</sub>	G	G <sub>1</sub>	H <sub>1</sub> +stroke	H <sub>2</sub> +stroke
125	90	140	60	45	8	16	90	160	270	250
160	115	180	80	60	8	18	115	205	320	300
200	135	220	100	70	9	22	135	245	345	320
250	165	280	110	75	12	26	165	305	380	360

### Rear Double Clevis - Type B



Dimension Table (mm) for Mounting B

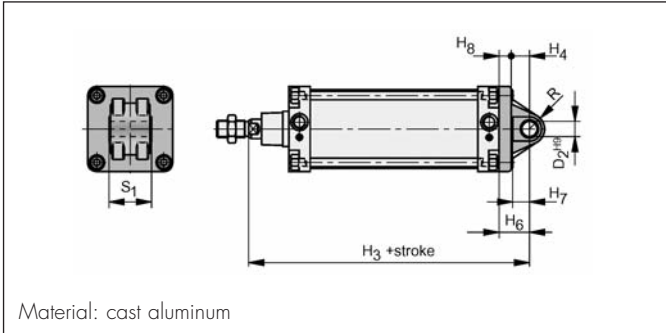
Cyl. Ø	D <sub>2</sub> <sup>H9</sup>	H <sub>3</sub> +stroke	H <sub>4</sub>	H <sub>6</sub>	H <sub>7</sub>	H <sub>8</sub>	R	S <sub>1</sub>	S <sub>2</sub>
125	25	275	30	50	29	20	25	70	130
160	30	315	35	55	34	20	30	90	170
200	30	335	35	60	35	25	31	90	170
250	40	375	45	70	44	25	41	110	200

# DZ Cylinder



## Cylinder Mounts

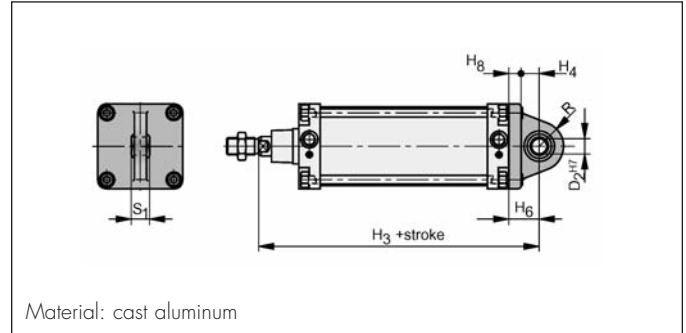
### Rear Single Clevis - Type BA



Dimension Table (mm) for Mounting BA

Cyl. Ø	ØD <sub>2</sub> <sup>H9</sup>	H <sub>3</sub> +stroke	H <sub>4</sub>	H <sub>6</sub>	H <sub>7</sub>	H <sub>8</sub>	R	S <sub>1</sub>
125	25	275	30	50	29	20	25	70
160	30	315	35	55	34	20	30	90
200	30	335	35	60	35	25	31	90
250	40	375	45	70	44	25	41	110

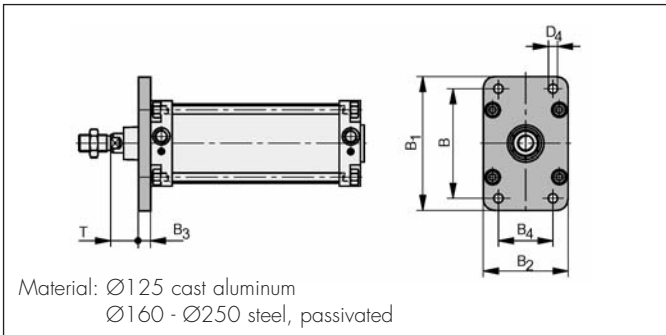
### Rear Single Clevis - Type BAS



Dimension Table (mm) for Mounting BAS

Cyl. Ø	ØD <sub>2</sub> <sup>H7</sup>	H <sub>3</sub> +stroke	H <sub>4</sub>	H <sub>6</sub>	H <sub>8</sub>	R	S <sub>1</sub>
125	25	275	30	50	20	40	31
160	30	315	35	55	20	48	37
200	on request						
250	on request						

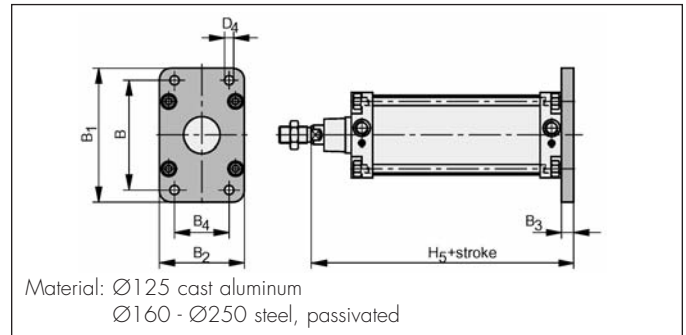
### Front Flange - Type C



Dimension Table (mm) for Mounting C

Cyl. Ø	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	ØD <sub>4</sub>	T
125	180	220	140	20	90	16	45
160	230	280	180	20	115	18	60
200	270	315	220	25	135	22	70
250	330	380	280	25	165	26	80

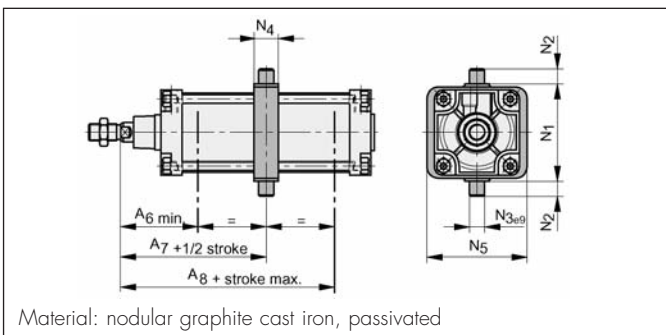
### Rear Flange - Type D



Dimension Table (mm) for Mounting BA

Cyl. Ø	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	ØD <sub>4</sub>	H <sub>5</sub> +stroke
125	180	220	140	20	90	16	245
160	230	280	180	20	115	18	280
200	270	315	220	25	135	22	300
250	330	380	280	25	165	26	330

### Adjustable Trunnion - Type EN



Dimension Table (mm) for Mounting EN

Cyl. Ø	A <sub>6</sub> min	A <sub>7</sub> +1/2 stroke	A <sub>8</sub> +stroke	N <sub>1</sub>	N <sub>2</sub>	N <sub>3eg</sub>	N <sub>4</sub>	N <sub>5</sub>
125	125	145	165	160	25	25	40	165
160	150	170	190	200	32	32	45	210
200	165	185	205	250	32	32	50	260
250	195	205	210	320	40	40	55	320

Note:  
When ordering please give exact dimension A<sub>7</sub>.  
Mounting is assembled when delivered.

### Instructions for mounting EN:

In order to avoid faulty operation of the reed switches, a min. distance of 10 to 20mm has to be kept between switch and EN-mounting when fastening them to the cylinder.

# DZ Cylinder



## Ordering Information

Basic Cylinder (Without Mounting)					
Series	Symbol	Standard	Bore Ø	Order Instructions	
				Type #	Order #
Double acting with adjustable end cushioning		ISO	125	DZ1125/...	PA 53530-...
		CETOP	125	DZ1125/...	PA 53500-...
		ISO	160	DZ1160/...	PA 54000-...
		ISO	200	DZ1200/...	PA 54500-...
		ISO	250	DZ1250/...	PA 55000-...
Double acting with adjustable end cushioning, for contactless position sensing		ISO	125	DZ5125/...	PA 53540-...
		CETOP	125	DZ5125/...	PA 53510-...
		ISO	160	DZ5160/...	PA 54010-...
		ISO	200	DZ5200/...	PA 54510-...
		ISO	250	DZ5250/...	PA 55010-...

Complete type designation and order no. with stroke length in mm (4 digits)

Standard stroke length: 0025, 0050, 0080, 0100, 0125, 0160, 0200, 0250, 0320, 0400, 0500

Cylinder with Mounting EN					
Series	Symbol	Standard	Bore Ø	Order Instructions	
				Type #	Order #
Double acting with adjustable end cushioning		ISO	125	DZ1125EN/.../...	PA 53536-...
		CETOP	125	DZ1125EN/.../...	PA 53506-...
		ISO	160	DZ1160EN/.../...	PA 54006-.../...
		ISO	200	DZ1200EN/.../...	PA 54506-.../...
		ISO	250	DZ1250EN/.../...	PA 55006-.../...
Double acting with adjustable end cushioning, for contactless position sensing		ISO	125	DZ5125EN/.../...	PA 53546-.../...
		CETOP	125	DZ5125EN/.../...	PA 53516-.../...
		ISO	160	DZ5160EN/.../...	PA 54016-.../...
		ISO	200	DZ5200EN/.../...	PA 54516-.../...
		ISO	250	DZ5250EN/.../...	PA 55016-.../...

Complete type designation and order no. with stroke length in mm (3 digits)

Give dimension A<sub>7</sub> with type designation and order no.

Description	Order #			
	Ø125	Ø160	Ø200	Ø250
Foot Bracket - Type A	PD 22026	PD 22027	PD 24792	PD 25758
Rear Double Clevis - Type B	PD 22034	PD 22035	PD 24990	PD 25710
Rear Single Clevis - Type BA	PD 23418	PD 22628	PD 24999	PD 25759
Rear Single Clevis - Type BAS	PD 23849	PD 23850	PD 25766	PD 25760
Front Flange - Type C	PD 23409	PD 23410	PD 24924	PD 25761
Rear Flange - Type D	PD 23409	PD 23410	PD 24924	PD 25761
Center Trunnion - Type EN	PD 23591	PD 23592	PD 24923	PD 25762

Proximity Sensors/Brackets: See Page 73