

# TWIN CYLINDER SLIDE WITH FIXED PLATES SERIES S12

**METAL WORK**<sup>®</sup>  
P N E U M A T I C

Two sliding systems are available:

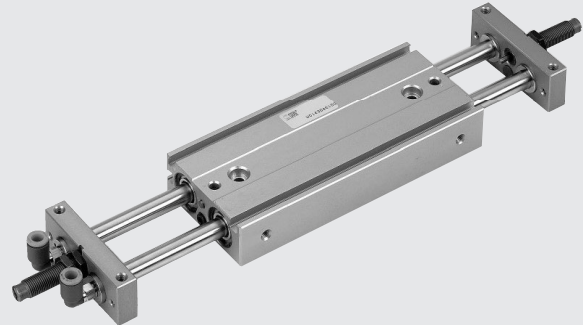
- on bushes
- on ball bearings

The structure is made up of two paired through-rod cylinders with a common anodized aluminium body with grooves for mounting the retractable sensor.

Five bores available: 2 x Ø 16; 2 x Ø 20; 2 x Ø 25; 2 x Ø 30.

The rods are joined together by means of a plate on which the mechanical limit switches or hydraulic shock absorbers can be mounted.

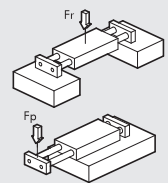
The compressed air ports are at the end of the piston rods.



ACTUATORS

TWIN CYLINDER SLIDE WITH FIXED PLATES SERIES S12

TECHNICAL DATA		S12-16	S12-20	S12-25	S12-30
Fluid		20 µm filtered air			
Pressure range	bar	1.5 to 7			
	MPa	0.15 to 0.7			
	psi	21.5 to 101			
Temperature range	°C	-10 to +80			
Piston speed	mm/s	30 to 200			
Versions		With sliding bushes / With ball bearing bushes / With stop screw / With hydraulic shock absorbers			
Bores	mm	16	20	25	30
Piston rod diameter	mm	8	10	12	16
Strokes	mm	25	25	25	25
		50	50	50	50
		75	75	75	75
		100	100	100	100
		-	125	125	125
Weight = X + (Y · C) where C = stroke	kg				
Bushes version		X = 0.25	X = 0.5	X = 0.7	X = 1.24
		Y = 0.0035	Y = 0.045	Y = 0.007	Y = 0.01
Ball bearing version		X = 0.37	X = 0.78	X = 1.04	X = 1.98
		Y = 0.0035	Y = 0.045	Y = 0.007	Y = 0.01
Maximum impact energy with buffers	J	0.15	0.20	0.30	0.5
Maximum impact energy with hydraulic decelerators	J	5	5	10	20
Theoretical thrust (P = relative pressure in bar)	N	30 x P	47 x P	75 x P	101 x P
Max. loads		(The values shown refer to the min. and max. strokes)			
Bushes version	N	Fr: 35 to 6.5 Fp: 11 to 3	Fr: 58 to 7 Fp: 18 to 5	Fr: 80 to 8 Fp: 23 to 6	Fr: 130 to 18 Fp: 50 to 8
	N	Fr: 20 to 4 Fp: 4 to 1.5	Fr: 35 to 4.5 Fp: 12 to 3	Fr: 50 to 5.4 Fp: 15 to 3.5	Fr: 80 to 12 Fp: 20 to 4.5
Ball bearing version	N				

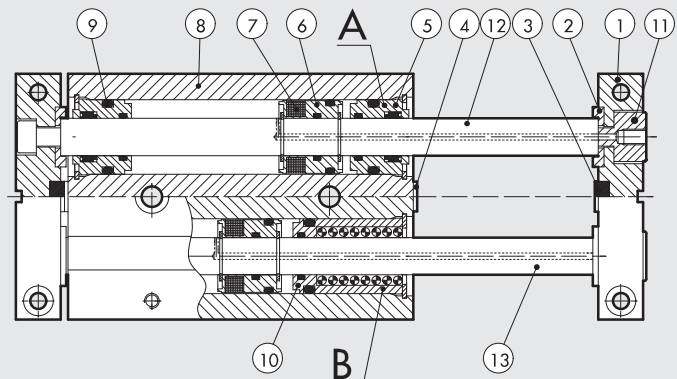


## COMPONENTS

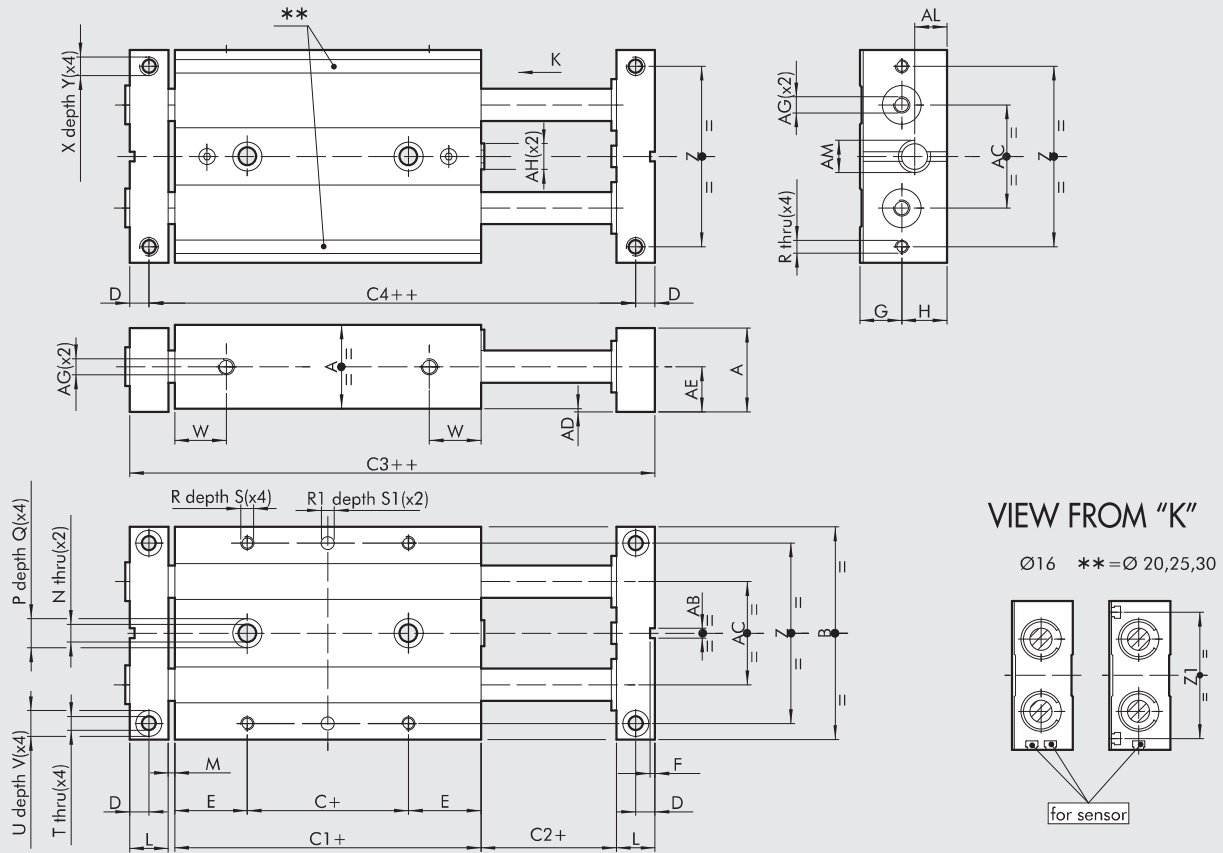
- ① FLANGE: anodized aluminium
- ② WASHER: steel
- ③ BUFFER: rubber
- ④ ADJUSTABLE STRIKER PLATE: Zinc-plated steel
- ⑤ BASE: brass
- ⑥ PISTON: brass
- ⑦ MAGNET: Plastroferrite
- ⑧ CYLINDER BODY: anodized aluminium
- ⑨ STATIC O-RINGS: NBR
- ⑩ BUSH: ball bearing
- ⑪ SCREW: pneumatically powered
- ⑫ PISTON ROD: grinded chrome stainless steel
- ⑬ PISTON ROD: tempered chrome stainless steel, grinded

VERSIONS:

- Ⓐ With sliding bush
- Ⓑ With ball bearing bush



DIMENSIONS OF TWIN-CYLINDER SLIDE SERIES S12, ON BUSHES Ø 16 to 30



+ = ADD THE STROKE  
 ++ = ADD TWICE THE STROKE

Code	Ø	A	B	C	C1	C2	C3	C4	D	E	F	G	H	L	M	N	P	Q	R	R1 <sup>17</sup>	S	S1	T
W1460162...	16	22	56	10	50	2	74	64	5	20	1.5	11	12	10	2	4.3	8	4	M4	4	6	3	4.3
W1460202...	20	26	66	10	55	2	83	71	6	22.5	1.5	13	14	12	2	5.5	9	5	M4	4	7	3	4.3
W1460252...	25	32	78	10	60	2	92	78	7	25	2.5	16	17	14	2	6.5	10.5	6	M5	4	7	3	5.2
W1460302...	30	36	98	10	70	2	106	90	8	30	2.5	18	19	16	2	8.5	14	8	M6	6	8	5	5.2

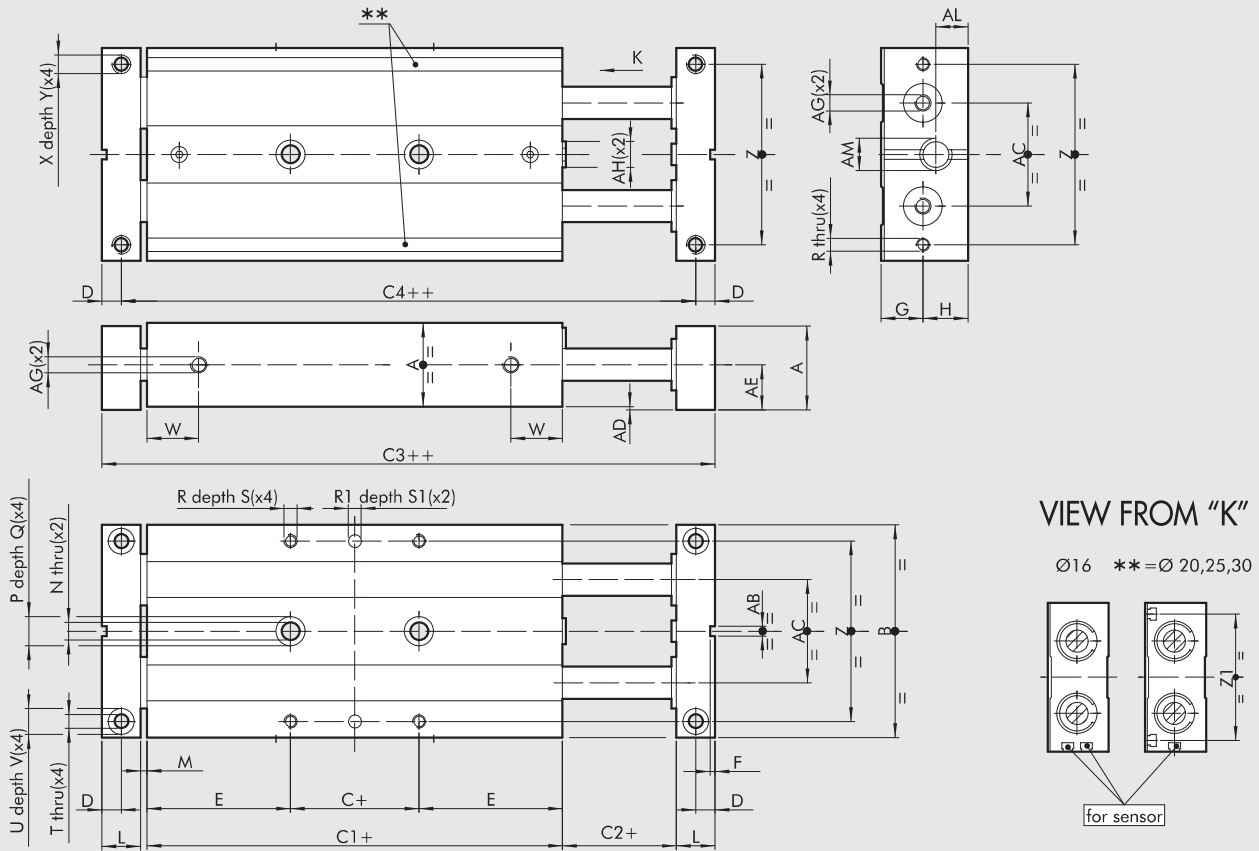
Ø	U	V	W	X	Y	Z	Z1	AB	AC	AD	AE	AF	AG	AH	AM	AL
16	8	4	15	M5	8	46	-	3	26	1	12	5	M5	M6	M10x1	8.5
20	8	4	16	M5	10	56	54	3	30	1	14	5	M5	M8	M10x1	9
25	9	5	19	M6	12	66	64	5	39	1	17	6	M5	M10	M12x1	10
30	9	5	21	M6	12	86	82	5	52	1	19	6	G 1/8	M12	M14x1.5	12

...Enter the stroke in mm (e.g. Ø 16 stroke 50 = W1450162050)  
 Strokes for bore 16 mm 25; 50; 75; 100  
 Strokes for bore 20 mm 25; 50; 75; 100; 125  
 Strokes for bore 25 mm 25; 50; 75; 100; 125; 150  
 Strokes for bore 30 mm 25; 50; 75; 100; 125; 150

**DIMENSIONS OF TWIN-CYLINDER SLIDE SERIES S12, ON BALL BEARINGS Ø 16 to 30**

**ACTUATORS**

TWIN CYLINDER SLIDE WITH FIXED PLATES SERIES S12



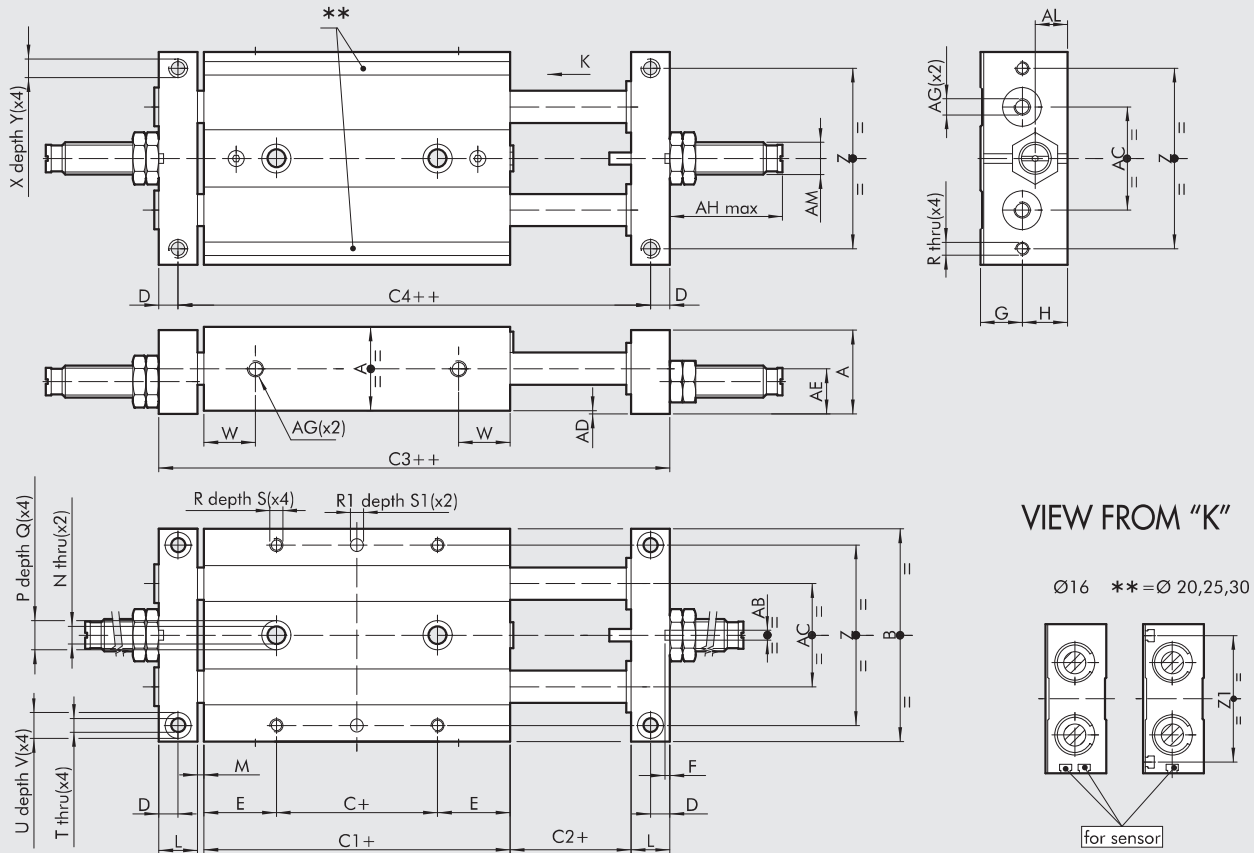
+ = ADD THE STROKE  
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Code	Ø	A	B	C	C1	C2	C3	C4	D	E	F	G	H	L	M	N	P	Q	R	R1 <sup>17</sup>	S	S1	T
W1460163...	16	22	56	10	85	2	109	99	5	37.5	1.5	11	12	10	2	4.3	8	4	M4	4	6	3	4.3
W1460203...	20	26	66	10	99	2	127	115	6	44.5	1.5	13	14	12	2	5.5	9	5	M4	4	7	3	4.3
W1460253...	25	32	78	10	105	2	137	123	7	47.5	2.5	16	17	14	2	6.5	10.5	6	M5	4	7	3	5.2
W1460303...	30	36	98	10	128	2	164	148	8	59	2.5	18	19	16	2	8.5	14	8	M6	6	8	5	5.2

Ø	U	V	W	X	Y	Z	Z1	AB	AC	AD	AE	AF	AG	AH	AM	AL
16	8	4	33	M5	8	46	-	3	26	1	12	5	M5	M6	M10x1	8.5
20	8	4	40	M5	10	56	54	3	30	1	14	5	M5	M8	M10x1	9
25	9	5	42	M6	6	66	64	5	39	1	17	6	M5	M10	M12x1	10
30	9	5	50	M6	12	86	82	5	52	1	19	6	G 1/8	M12	M14x1.5	12

...Enter the stroke in mm (e.g. Ø 16 stroke 50 = W1450163050)  
 Strokes for bore 16 mm 25; 50; 75; 100  
 Strokes for bore 20 mm 25; 50; 75; 100; 125  
 Strokes for bore 25 mm 25; 50; 75; 100; 125; 150  
 Strokes for bore 30 mm 25; 50; 75; 100; 125; 150

DIMENSIONS OF TWIN-CYLINDER SLIDE WITH SHOCK ABSORBERS SERIES S12, ON BUSHES Ø 16 to 30



+ = ADD THE STROKE  
 ++ = ADD TWICE THE STROKE

Code	Ø	A	B	C	C1	C2	C3	C4	D	E	F	G	H	L	M	N	P	Q	R	R1 <sup>17</sup>	S	S1	T
W1460164...	16	22	56	10	50	2	74	64	5	20	1.5	11	12	10	2	4.3	8	4	M4	4	6	3	4.3
W1460204...	20	26	66	10	55	2	83	71	6	22.5	1.5	13	14	12	2	5.5	9	5	M4	4	7	3	4.3
W1460254...	25	32	78	10	60	2	92	78	7	25	2.5	16	17	14	2	6.5	10.5	6	M5	4	7	3	5.2
W1460304...	30	36	98	10	70	2	106	90	8	30	2.5	18	19	16	2	8.5	14	8	M6	6	8	5	5.2

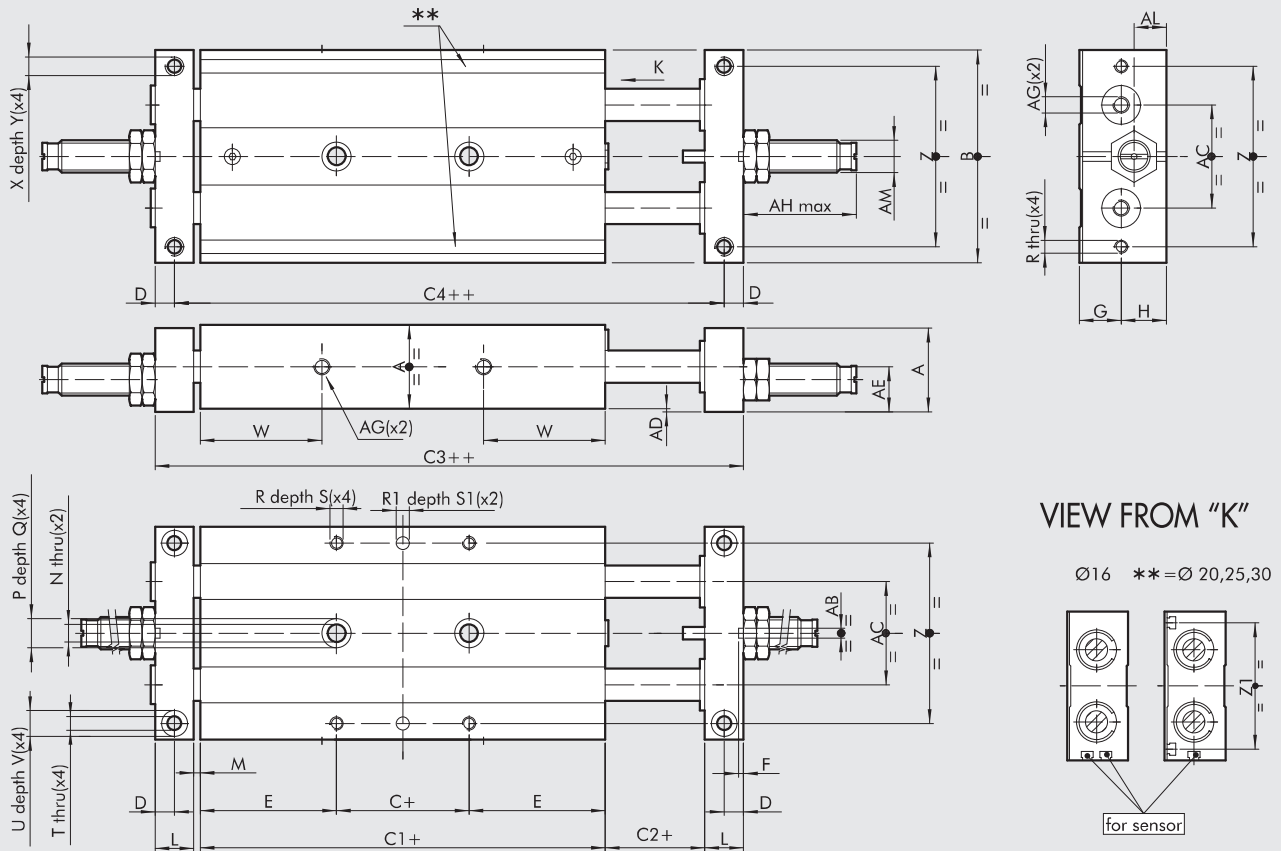
Ø	U	V	W	X	Y	Z	Z1	AB	AC	AD	AE	AF	AG	AH	AM	AL
16	8	4	15	M5	8	46	-	3	26	1	12	5	M5	35	M10x1	8.5
20	8	4	16	M5	10	56	54	3	30	1	14	5	M5	35	M10x1	9
25	9	5	19	M6	12	66	64	5	39	1	17	6	M5	36	M12x1	10
30	9	5	21	M6	12	86	82	5	52	1	19	6	G 1/8	60	M14x1.5	12

...Enter the stroke in mm (e.g. Ø 16 stroke 50 = W1450164050)  
 Strokes for bore 16 mm 25; 50; 75; 100  
 Strokes for bore 20 mm 25; 50; 75; 100; 125  
 Strokes for bore 25 mm 25; 50; 75; 100; 125; 150  
 Strokes for bore 30 mm 25; 50; 75; 100; 125; 150

**DIMENSIONS OF TWIN-CYLINDER SLIDE WITH SHOCK ABSORBERS SERIES S12, ON BALL BEARING Ø 16 to 30**

**ACTUATORS**

TWIN CYLINDER SLIDE WITH FIXED PLATES SERIES S12



+ = ADD THE STROKE  
 ++ = ADD TWICE THE STROKE

Code	Ø	A	B	C	C1	C2	C3	C4	D	E	F	G	H	L	M	N	P	Q	R	R1 <sup>17</sup>	S	S1	T
W1460165...	16	22	56	10	85	2	109	99	5	37.5	1.5	11	12	10	2	4.3	8	4	M4	4	6	3	4.3
W1460205...	20	26	66	10	99	2	127	115	6	44.5	1.5	13	14	12	2	5.5	9	5	M4	4	7	3	4.3
W1460255...	25	32	78	10	105	2	137	123	7	47.5	2.5	16	17	14	2	6.5	10.5	6	M5	4	7	3	5.2
W1460305...	30	36	98	10	128	2	164	148	8	59	2.5	18	19	16	2	8.5	14	8	M6	6	8	5	5.2

Ø	U	V	W	X	Y	Z	Z1	AB	AC	AD	AE	AF	AG	AH	AM	AL
16	8	4	33	M5	8	46	-	3	26	1	12	5	M5	35	M10x1	8.5
20	8	4	40	M5	10	56	54	3	30	1	14	5	M5	35	M10x1	9
25	9	5	42	M6	6	66	64	5	39	1	17	6	M5	36	M12x1	10
30	9	5	50	M6	12	86	82	5	52	1	19	6	G 1/8	60	M14x1	12

...Enter the stroke in mm (e.g. Ø 16 stroke 50 = W1450165050)  
 Strokes for bore 16 mm 25; 50; 75; 100  
 Strokes for bore 20 mm 25; 50; 75; 100; 125  
 Strokes for bore 25 mm 25; 50; 75; 100; 125; 150  
 Strokes for bore 30 mm 25; 50; 75; 100; 125; 150

## ACCESSORIES

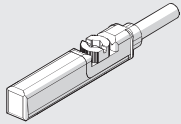
ACTUATORS

TWIN CYLINDER SLIDE WITH FIXED PLATES SERIES S12

### RETRACTABLE SENSOR

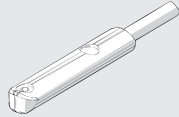
#### SENSOR, SQUARE TYPE

Latest generation,  
secure fixing



#### SENSOR, OVAL TYPE

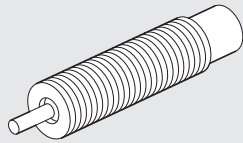
Traditional



For codes and technical data, see **chapter A6**.

### SPARES

#### SHOCK ABSORBERS



Code	Ø	Description
0950004002	16 - 20	Shock absorbers ECO 10 MF2 + nut M10x1
0950004003	25	Shock absorbers ECO 15 MF1 + nut M12x1
0950004004	30	Shock absorbers ECO 25 MC2 + nut M14x1.5

#### NOTES