

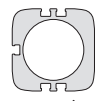
**B**

**MAGNETIC POSITION DETECTOR**



Reed-switch type or magneto-resistive type (MR)  
Installation into the T-slot grooves (see page P291)

**T-SLOT GROOVES**



Grooves in 3 sides

**EASY MOUNTING**

Wide choice of standard mountings and rod ends

**STURDY DESIGN**

Rod in hard chrome steel tapped or threaded

**PRECISE ROD GUIDANCE**

With high-performance self-lubricating bearing and non-abrasive scraper seal

**EASY MAINTENANCE**

Series 449 cylinders do not require lubrication.

**ESTHETIC DESIGN**

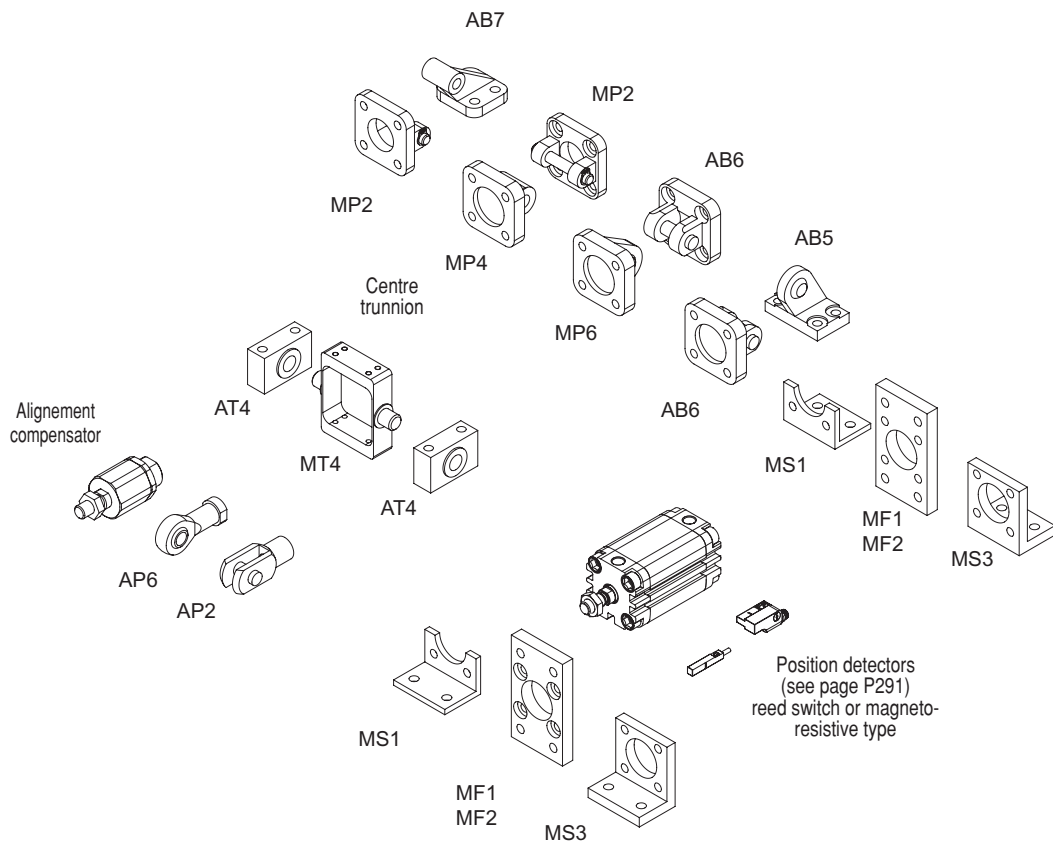
Cylinders with profiled barrel in hard anodised aluminium

**STANDARD SWIVEL TRUNNION MOUNT**

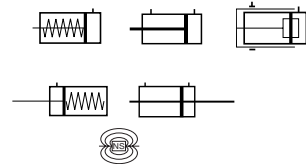


As a fastening option, this trunnion slides on the barrel for on-site positioning.

**STANDARD MOUNTINGS** (see page P235)



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**GENERAL**

**Detection** Equipped for magnetic position detectors  
**Fluid** Air or inert gas, filtered, lubricated or not  
**Operating pressure** 10 bar, max. [1 bar = 100 kPa]  
**Ambient temperature** -20°C to +70°C (for higher temperature, see HTP option)  
**Max. speed rate** 0,5 m/s  
**Standards** 449 series comply with ISO 21287  
 Diameters 32-100 are also compatible with ISO 15552 (distances between the centres of the mounting holes)  
**Minimum pressure to compress the spring** (single acting version)  
 Ø20-50 = 1 bar  
 Ø63-100 = 0,65 bar  
**The return of the piston rod must be without load** (single acting version)



**CONSTRUCTION**

<b>Barrel</b>	Hard anodized aluminium alloy	
<b>Front and rear ends</b>	Aluminium alloy	
<b>Bearing</b>	Self-lubricating metal	
<b>Rod</b>	Ø 20-25: stainless steel Ø 32-100: Hard chrome plated steel	
<b>Rod end</b>	Tapped or threaded	
<b>Piston</b>	POM (polyacetal) or light alloy	
<b>Piston seals</b>	PUR (polyurethane)	
<b>Version with antirotation device</b>	<b>Load carrying plate</b>	Aluminium alloy
	<b>Guide rod</b>	Ø 20-25: stainless steel Ø 32-100: Hard chrome plated steel
	<b>Bearing guide rod</b>	Self-lubricating metal

2D/3D CAD models - *In 3D*

**15-DIGIT PRODUCT CODE**

**G 449 A - S K - - - - A00**

**Thread connection**  
G = ISO 16030

**Product series**  
449

**Revision letter**  
A = Initial release

**Diameter (mm)**  
 L = 20<sup>(3)</sup>      5 = 50  
 M = 25<sup>(3)</sup>      6 = 63  
 3 = 32          8 = 80  
 4 = 40          1 = 100

<sup>(3)</sup> Available in stainless steel rod end only.

**Rod options 1**

**S** = Double acting  
**1** = Single acting rod in  
**2** = Through rod  
**3** = Single acting rod out  
**4** = Rod antirotation device

**Rod options 2<sup>(4)</sup>**

**K** = Hard chromed female thread rod end  
**M** = Hard chromed male thread rod end  
**G** = Stainless steel female thread rod end  
**N** = Stainless steel male thread rod end

<sup>(4)</sup> K and M = No use with the 20/25 mm diameters.  
 Stainless steel male thread rod nuts delivered with Rod option N.

**Options**

**A00** = Without  
**MT4** = Non fixed centre trunnion (MT4 axis perpendicular to the ports)<sup>(1) (3)</sup>  
**MS4** = Non fixed centre trunnion (MT4 axis parallel to the ports)<sup>(1) (3)</sup>  
**AT1** = ATEX zones 1/21  
**AT2** = ATEX zones 2/22  
**HTP** = High temperature (up to 120°C)<sup>(2)</sup>  
**NPC** = Anticorrosion treatment on covers & high-quality rod seals  
<sup>(1)</sup> For fixed supplied centre trunnion, consult our Dynamic Product Modeling Tool on [www.asconumatics.eu](http://www.asconumatics.eu) and indicate XV dimension.  
<sup>(2)</sup> Non equipped for magnetic position detectors  
<sup>(3)</sup> Ø32 to 100 mm only.

**Recommended standard strokes (mm)<sup>(5)</sup>**

Ø mm	connect. Ø (G)	5	10	15	20	25	50	80	100	max. stroke	Rod antirotation device max. stroke
20	M5	SD	SD	SD	D	D	D			60	60
25		SD	SD	SD	SD	D	D			60	60
32	G1/8	SD	SD	SD	SD	SD	D	D		400	100
40		SD	SD	SD	SD	SD	D	D	D	400	100
50		SD	SD	SD	SD	SD	D	D	D	400	100
60		SD	SD	SD	SD	SD	D	D	D	400	100
80		SD	SD	SD	SD	SD	D	D	D	400	100
100		SD	SD	SD	SD	SD	D	D	D	400	100

Strokes range available up to "max. stroke" column on the right.  
 Please note strokes marked in grey exceed the maximum recommended.

<sup>(5)</sup> Other strokes on request. / Min. stroke: 5 mm  
 D = Double acting only / SD = Single & Double acting

**POSITION DETECTORS**

Magnetic position detectors must be ordered separately: modèles "T" (see page P291), reed switch or magneto-resistive type

**MOUNTINGS**

Mountings must be ordered separately: see page P235

**INSTALLATION**

- For a longer lifetime, it is recommended to use external stoppers

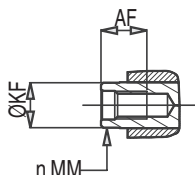
### DIMENSIONS (mm), WEIGHT (kg)

#### SINGLE-ROD TYPE CYLINDER Ø 20-25

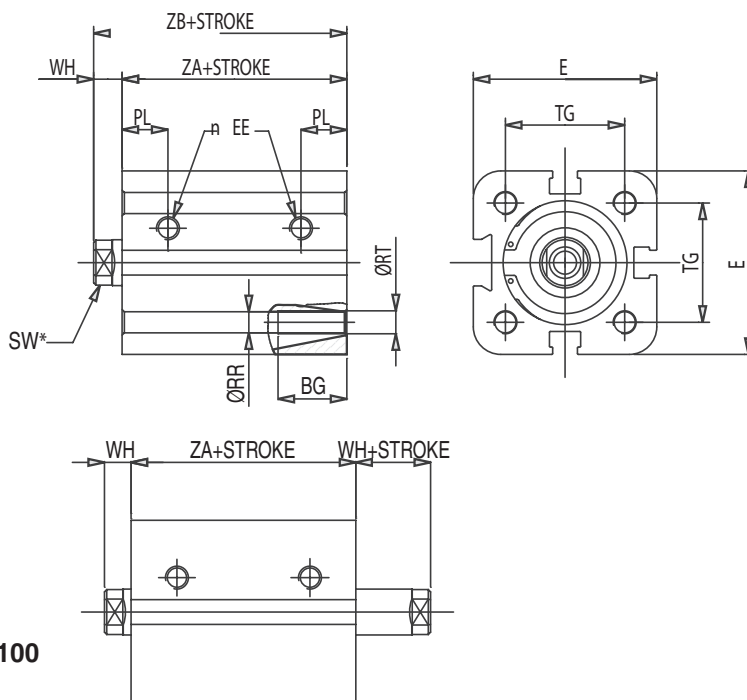
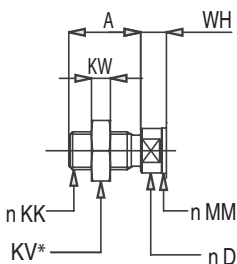
Bare cylinder  
ISO 21287



tapped rod end



threaded rod end

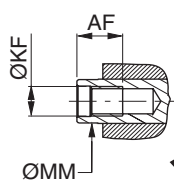


#### SINGLE-ROD TYPE CYLINDER Ø 32-100

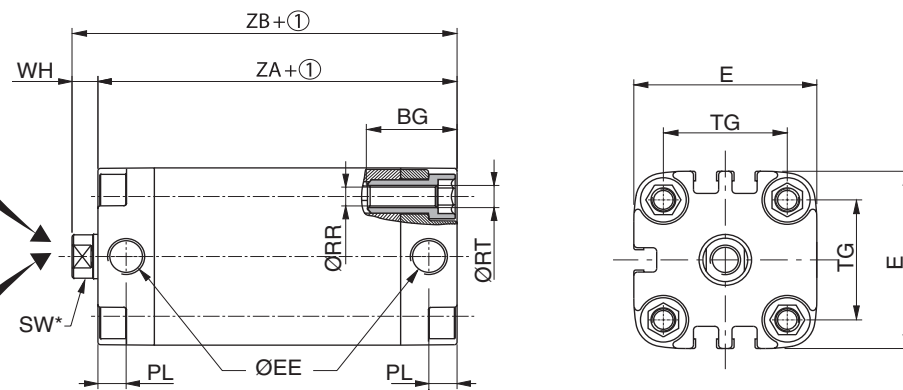
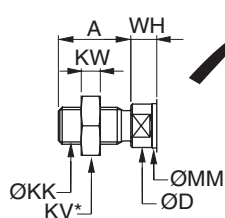
Bare cylinder  
ISO 21287



tapped rod end

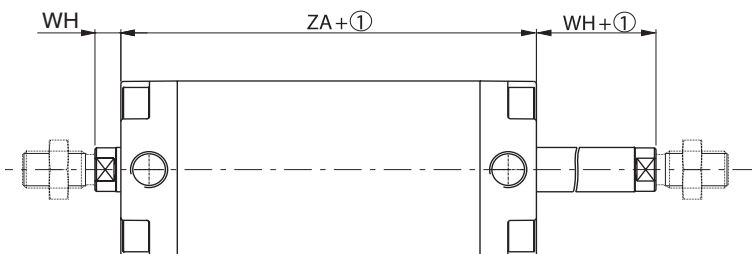


threaded rod end



#### THROUGH-ROD TYPE CYLINDER

Bare cylinder  
ISO 21287



① Stroke

\* Width across flats


Ø	weight	
	(2)	(3)
20	0,125	0,0026
25	0,15	0,003
32	0,228	0,0029
40	0,282	0,0033
50	0,421	0,0048
63	0,553	0,0053
80	0,991	0,0078
100	1,818	0,0099

(2) Cylinder weight at 0 mm stroke.

(3) Weight to be added per additional mm length.

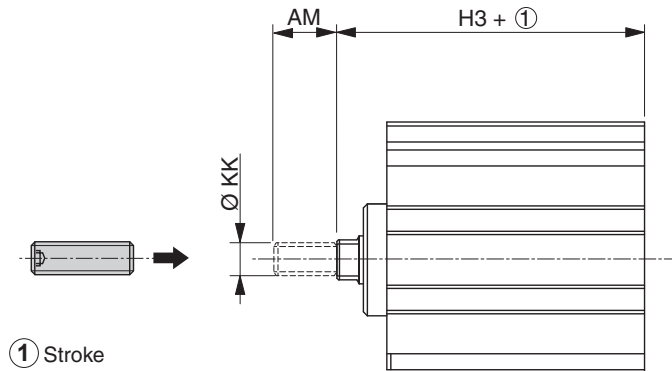
Ø	A	AF	BG	ØD	E	EE	ØKF	ØKK	KV	KW	ØMM	PL	ØRR	ØRT	SW	TG	WH	ZA	ZB
20	16	10	15	9,8	36	M5	M6	M8x1,25	13	4	10	10	4,2	M5	8	22	6	37	43
25	16	10	15	9,8	40	M5	M6	M8x1,25	13	4	10	10	4,2	M5	8	26	6	39	45
32	19	12	23,5	11,8	48	G 1/8	M8	M10x1,25	16	5	12	7,5	5,1	M6	10	32,5	7	44	51
40	19	12	23,5	11,8	54	G 1/8	M8	M10x1,25	16	5	12	7,5	5,1	M6	10	38	7	45	52
50	22	16	24	15,8	66	G 1/8	M10	M12x1,25	18	6	16	7,5	6,7	M8	13	46,5	8	45	53
63	22	16	24	15,8	78	G 1/8	M10	M12x1,25	18	6	16	7,5	6,7	M8	13	56,5	8	49	57
80	28	20	28,5	19,8	96	G 1/8	M12	M16x1,50	24	8	20	8,5	8,4	M10	16	72	10	54	64
100	28	20	28,5	24,8	115	G 1/8	M12	M16x1,50	24	8	25	10	8,4	M10	21	89	10	67	77

**B**

**DIMENSIONS (mm), WEIGHT (kg)** 

**Threaded end piece**

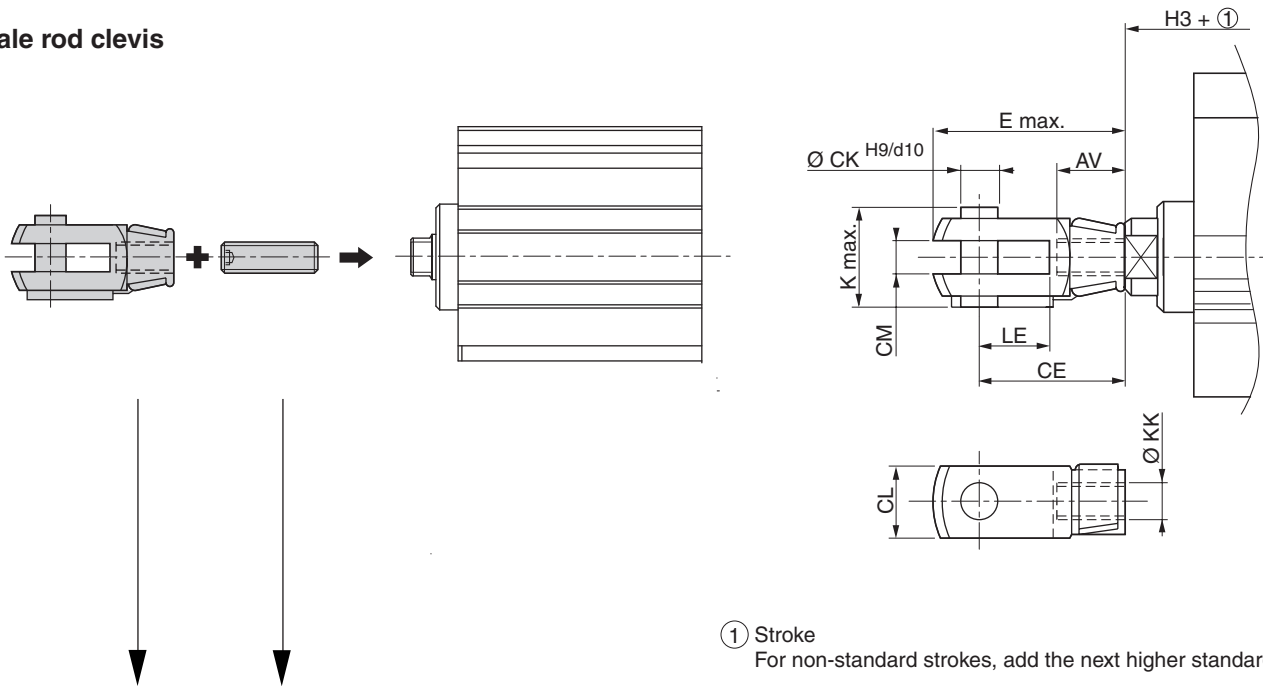
Threaded rod endfitting for the tapped rod end of standard 16 to 100 mm bore cylinders.



Ø (mm)	catalogue number threaded end piece	AM	H3 +	Ø KK
20	P493A3135000A00	12	50,5	M6
25			52	
32	P493A5135000A00	15	53	M8
40			57,5	
50	P493A8135000A00	M10	64	M10
63				
80	P493A1135000A00	M12	76,5	M12
100				

In your order, indicate the code of the end piece, which is supplied separately.

**Female rod clevis**

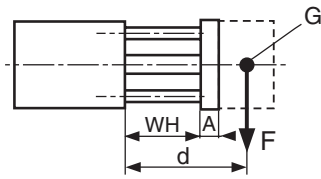


① Stroke  
For non-standard strokes, add the next higher standard one.

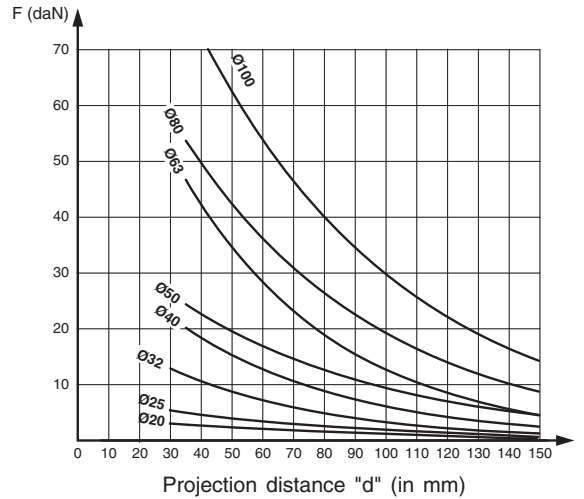
Ø (mm)	catalogue number female end piece	catalogue number threaded end piece	AV	CE	Ø CK	CL	CM	E	K	Ø KK	LE	H3	clevis weight
20	P493AJ431000A00	P493A3135000A00	12	24	6	12	6 <sup>+0,4</sup> <sub>+0,1</sub>	33,5	16,5	M6	12	36,5	0,020
25												44	
32	P493AL431000A00	P493A5135000A00	16	32	8	16	6 <sup>+0,4</sup> <sub>+0,1</sub>	45	22	M8	16	53	0,050
40												57,5	
50	P493A3431000A00	P493A8135000A00	20	40	10	20	10 <sup>+0,5</sup> <sub>+0,15</sub>	56	26	M10	20	64	0,100
63													
80	P493A4431000A00	P493A1135000A00	22	48	12	24	10 <sup>+0,5</sup> <sub>+0,15</sub>	67	32	M12	24	76,5	0,150
100													

Please indicate the threaded and clevis end piece code in your order.

**MAX. ADMISSIBLE LOAD "F" ON THE ROD END**



d = the projection distance (in mm) corresponds to the dimensions WH + A + the stroke length + the distance from the centre of gravity (G) of the load to the front mating surface of the load carrying plate.

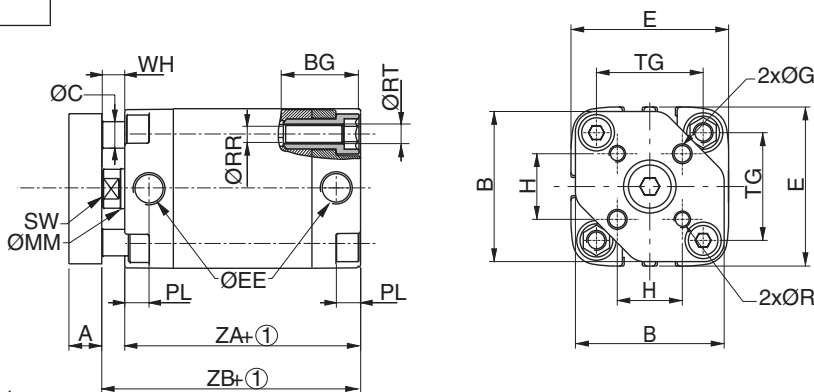


**DIMENSIONS (mm), WEIGHT (kg)**



**CYLINDER WITH ANTIROTATION DEVICE**

Bare cylinder  
ISO 21287



Ø	weight	
	(3)	(4)
20	0,150	0,0029
25	0,1901	0,0034
32	0,328	0,0037
40	0,392	0,0041
50	0,601	0,0061
63	0,773	0,0065
80	1,381	0,0096
100	2,348	0,0116

(3) Cylinder weight at 0 mm stroke.  
(4) Weight to be added per additional mm length.

- ① Stroke
- ② Mounting holes (see page P226-3)

Ø	A	B	BG	ØC	E	EE	ØG	H	ØMM	PL	ØR	ØRT	ØRR	SW	TG	WH	ZA	ZB
20	8	30,5	15	5	36	M5	4	12	10	10	M4	M5	4,5	8	22	6	37	43
25	8	36,5	15	6	40	M5	5	15,6	10	10	M5	M5	4,5	8	26	6	39	45
32	10	45,3	23,5	8	48	G1/8	5	19,8	12	7,5	M5	M6	5,1	10	32,5	7	44	51
40	10	51	23,5	8	54	G1/8	5	23,3	12	7,5	M5	M6	5,1	10	38	7	45	52
50	12	62	27,5	10	66	G1/8	6	29,7	16	7,5	M6	M8	6,7	13	46,5	8	45	53
63	12	73	27,5	10	78	G1/8	6	35,4	16	7,5	M6	M8	6,7	13	56,5	8	49	57
80	14	91	28,5	12	96	G1/8	8	46	20	8,5	M8	M10	8,5	16	72	10	54	64
100	16	111	28,5	12	115	G1/8	10	56,6	25	10	M10	M10	8,5	21	89	10	67	77

**SPARE PARTS KITS CODE**

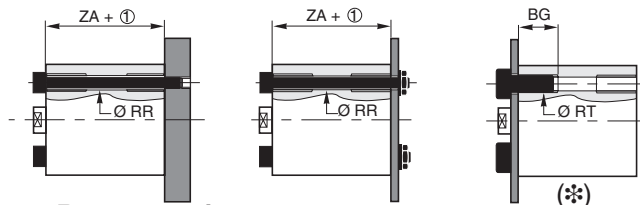
Ø (mm)	1 + 2 + 3 <sup>(1)</sup>
20	97802870
25	97802871
32	97802872
40	97802873
50	97802874
63	97802875
80	97802876
100	97802877

<sup>(1)</sup> For best results, use grease supplied in each kit. Supplementary tube (11 cm<sup>3</sup>) available on request, catalogue number: 97802100

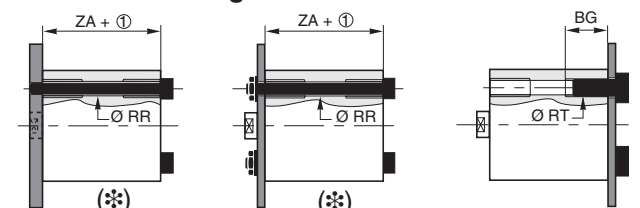
**DIRECT MOUNTING OPTIONS**

The threaded mounting holes and the four unthreaded through holes (ØRR) ensure compatibility with a wide choice of screws and other fasteners recommended for short-stroke cylinders.

• **Front mounting**



• **Rear mounting**



(\*) Type of mounting not suitable with anti-rotation device

