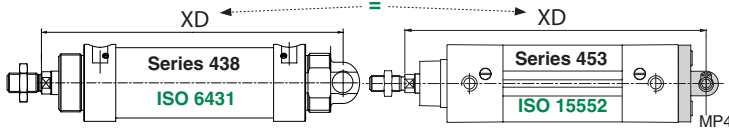


**FEATURES**

- 438 series comply with ISO 6431 specifications, making it interchangeable with ISO 15552 cylinders assembled with a rear trunnion mounting.



XD dimension (distance between the beginning of the rod thread and the center of the trunnion) is identical on ISO 6431 and ISO 15552 cylinders equipped with an MP4.

**GENERAL**

- Detection** Equipped for magnetic position detectors
- Fluid** Air or inert gas, filtered, lubricated or not
- Operating pressure** [1 bar = 100 kPa]  
 single acting 1 to 10 bar  
 double acting 10 bar, max.
- Ambient temperature** -20°C to +70°C
- Max. speed rate** 2 m/s (for higher and lower speed rate, see LFS option)
- Standards** ISO 6431

**CONSTRUCTION**

<b>Barrel</b>	Anodised aluminium alloy
<b>Front and rear ends</b>	Anodised light alloy
<b>Bearing</b>	Self-lubricating metal
<b>Cushioning seals</b>	PUR (polyurethane)
<b>Cushioning</b>	Pneumatic, adjustable from both sides with captive screw
<b>Rod</b>	Hard chromed steel (stainless steel option)
<b>Rod nut</b>	Galvanised steel
<b>Piston</b>	POM (polyacetal) fitted with an annular permanent magnet
<b>Piston seals</b>	PUR (polyurethane)



**B**

2D/3D CAD models - In 3D

**HOW TO ORDER**

**15-DIGIT PRODUCT CODE**

**G 438 B - S K - - - - A00**

**Thread connection**  
G = ISO 16030

**Product series**  
438

**Revision letter**  
B = Release version

**Diameter (mm)**  
3 = 32      5 = 50  
4 = 40      6 = 63

**Rod options 1**

- S** = Double acting, single rod
- 1** = Single acting rod in<sup>(3)</sup>
- 2** = Through rod (double acting)
- 3** = Double acting-Stainless steel rod
- 4** = Double acting-Stainless steel rod-Through rod
- 5** = Single acting rod in - Stainless steel rod<sup>(3)</sup>

<sup>(3)</sup> Single acting cylinders have no pneumatic cushion.

All cylinders delivered with rod nut, in stainless steel for options 3, 4 and 5.

**Double acting cushioning length:**

Ø32 mm = 16 mm / Ø40 mm = 20 mm  
 Ø50 mm = 26 mm / Ø63 mm = 30 mm

**POSITION DETECTORS (double acting)**

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

- Options**  
**A00** = Without  
**LFS** = Low friction piston seals<sup>(2)</sup>

**Recommended standard strokes (mm)<sup>(1)</sup>**

Ø mm	connect. Ø	Strokes (mm)										max. stroke			
		25	50	80	100	125	160	200	250	320	400	500	S	D	
32	G1/8	SD	SD	D	D	D	D	D	D	D				50	1000
40	G1/4	SD	SD	D	D	D	D	D	D	D	D	D		50	1000
50	G1/4	SD	SD	D	D	D	D	D	D	D	D	D		50	1000
63	G3/8	SD	SD	D	D	D	D	D	D	D	D	D	D	50	1000

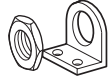
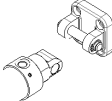


Strokes range available up to "max. stroke" column on the right.  
 Please note strokes marked in grey exceed the maximum recommended.

<sup>(1)</sup> Other strokes on request. / Min. stroke: 5 mm  
 D = Double acting only / SD = Single & Double acting

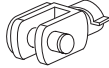


<sup>(2)</sup> Special characteristics for this option:  
 . piston material: light alloy  
 . max. speed rate: 3 m/s

**INSTALLATION**

- The cylinders can be mounted in any position without affecting operation
- 438B cylinders are not repairable
- The mountings are always delivered separately
- Mountings: **catalogue number**

Ø (mm)	 Foot mounting (2 neck nuts) <b>MS3</b>	 Rear male trunnion <b>MP4</b>	 Complete trunnion <b>MP2</b>	 Rear trunnion (not standardised)
32	<b>P493A3325000A00</b>	integrated (with the cylinder rear cover)	<b>P493A3121110A00</b>	<b>P493A332C000A00</b>
40	<b>P493A4325000A00</b>		<b>P493A4121110A00</b>	<b>P493A432C000A00</b>
50	<b>P493A5325000A00</b>		<b>P493A5121110A00</b>	<b>P493A532C000A00</b>
63	<b>P493A6325000A00</b>		<b>P493A6121110A00</b>	<b>P493A632C000A00</b>

Ø (mm)	 Female rod clevis ISO 8140 - RP 102 P <b>AP2</b>	 Spherical rod end ISO 8139 - RP 103 P <b>AP6</b>	 Front neck nut <b>MR3</b>
32	<b>P493A3131000A00</b>	<b>P493A3132000A00</b>	<b>P493A332F000A00</b>
40	<b>P493A4131000A00</b>	<b>P493A4132000A00</b>	<b>P493A432F000A00</b>
50	<b>P493A5131000A00</b>	<b>P493A5132000A00</b>	<b>P493A532F000A00</b>
63			

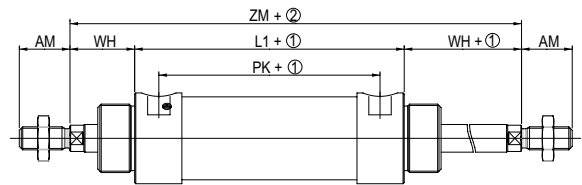
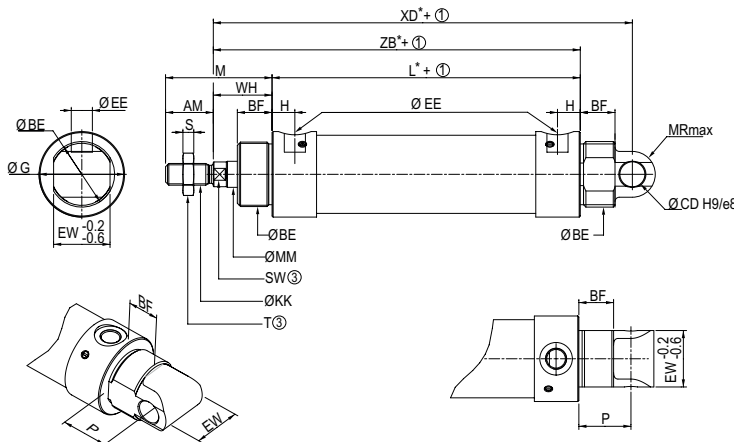
**DIMENSIONS (mm), WEIGHT (kg)**



**SINGLE-ROD TYPE CYLINDER**  
 Round cylinder, single and double acting  
 Supplied with front cover nut  
 ISO 6431 - 8139 - 8140



**THROUGH-ROD TYPE CYLINDER**  
 Round cylinder, double acting  
 Supplied with front cover nut  
 ISO 6431 - 8139 - 8140



- ① Stroke
- ② Stroke x 2
- ③ Width across flats

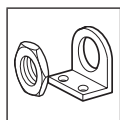
Double acting cushioning length:  
 Ø32 mm = 16 mm / Ø40 mm = 20 mm  
 Ø50 mm = 26 mm / Ø63 mm = 30 mm

Ø	AM	ØBE	BF	ØCD	ØEE	EW	ØG	H	ØKK	L*	L1	M	ØMM	MR	P	PK	S
32	22	M30 x 1,5	16	10	G1/8	26	39,4	10,5	M10 x 1,25	92	92	49	12	10,5	24	71	5
40	24	M36 x 1,5	19	12	G1/4	28	46,5	12,5	M12 x 1,25	107	108	53	16	13	24,3	81	6
50	32	M45 x 1,5	23,5/18,5	12	G1/4	32	56,8	12,8	M16 x 1,5	110	110	67	20	13	25,5	84,5	8
63	32	M45 x 1,5	23	16	G3/8	40	70	16,5	M16 x 1,5	125	125	67	20	17	31	92	8

Ø	SW	T	WH	XD*	ZB*	ZM	weight	
							(4)	(5)
32	10	17	27	143	119	147	0,367	0,0017
40	13	19	29	160	136	167	0,639	0,0024
50	17	24	35	170	145	181	1,017	0,0033
63	17	24	35	191	160	196	1,506	0,0038

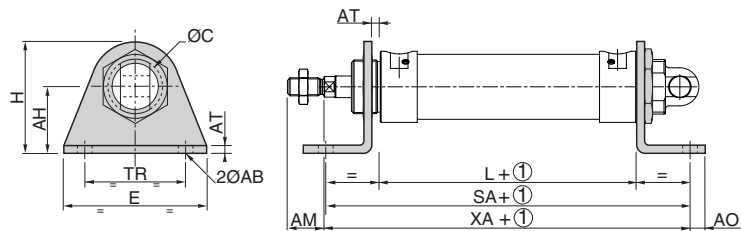
\* Single acting cylinders dimension:  
 - stroke 25 = Double acting  
 - stroke 50 = Double acting + 25 mm  
 (4) Cylinder weight at 0 mm stroke.  
 (5) Weight to be added per additional 1 mm length.

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



#### MOUNTING

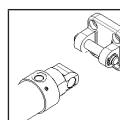
Foot mounting  
 Feet mounting are supplied in batch of two with  
 2 neck nuts.  
 MS3



Ø	ØAB	AH	AM	AO	AT	ØC	E	H	L*	SA*	TR	XA*	weight
32	7	32	22	6,5	3	30	45	51	92	142	32	144	0,16
40	9	36	24	8	3	36	52	60	107	161	36	163	0,23
50	9	45	32	10	4	45	75	73	110	170	45	175	0,54
63	9	50	32	10	4	45	75	85	125	185	50	190	0,64

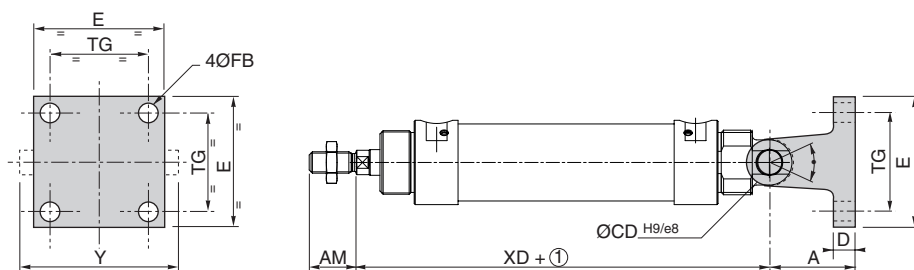
① Stroke

\*+25 mm for single-acting cylinders with 50 mm stroke.



#### MOUNTING

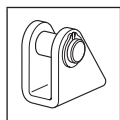
Complete trunnion  
 MP2 + MP4  
 MP4 fixing being integral with the cylinder rear cover, only MP2 mounting needs to be ordered.



Ø	A	AM	ØCD	D	E	FB	TG	XD*	Y	α max.	weight (complete trunnion)
32	20	22	10	8	45	7	33	143	53	76°	0,042
40	23	24	12	8	52	7	40	160	60	61°	0,060
50	25	32	12	10	65	9	49	171	68	58°	0,108
63	30	32	16	10	75	9	50	191	78	76°	0,155

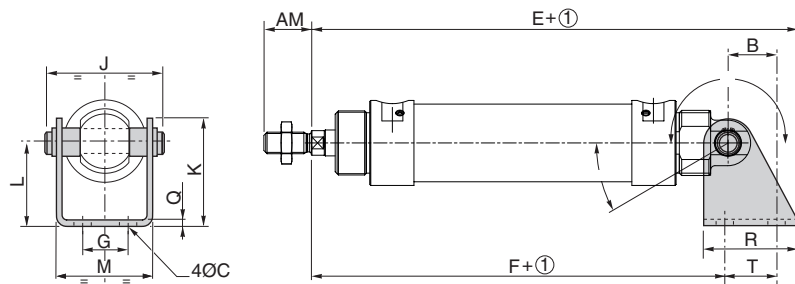
① Stroke

\*+25 mm for single-acting cylinders with 50 mm stroke.



#### MOUNTING

Rear trunnion  
 (The rear trunnion mounting is delivered separately)

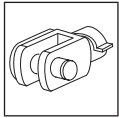


Ø	AM	B	ØC	E	F	G	J	K	L	M	Q	R	T	α	ω	weight
32	22	20	7	171	139	20	52	47	35	46	4	40	24	35°	180°	0,14
40	24	27	9	197	157	28	62	53	40	56	5	50	30	30°	170°	0,25
50	32	30	9	210	166	36	75	59	45	69	6	54	34	20°	165°	0,36
63	32	38	9	243	193	42	89	66	50	82	6	65	35	20°	160°	0,52

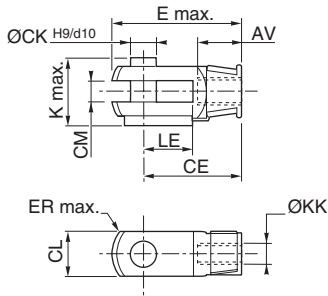
① Stroke

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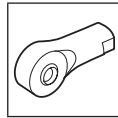
B



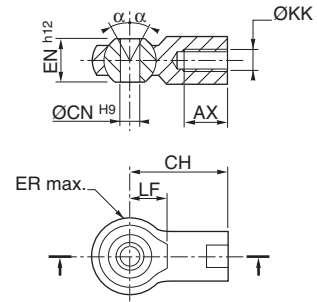
**MOUNTING**  
Female rod clevis  
ISO 8140  
AP2



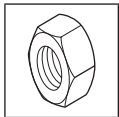
Ø	AV	CE	ØCK	CL	CM	E	ER	K	ØKK	LE	weight
32	20	40	10	20	10 <sup>+0,5</sup> <sub>+0,15</sub>	57	14	26	M10x1,25	20	0,10
40	22	48	12	24	12 <sup>+0,5</sup> <sub>+0,15</sub>	67	16	32	M12x1,25	24	0,15
50	28	64	16	32	16 <sup>+0,5</sup> <sub>+0,15</sub>	89	21	41	M16x1,5	32	0,33
63	28	64	16	32	16 <sup>+0,5</sup> <sub>+0,15</sub>	89	21	41	M16x1,5	32	0,33



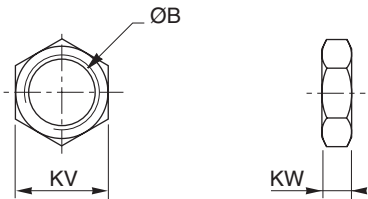
**MOUNTING**  
Spherical rod end  
ISO 8139  
AP6



Ø	AX	CH	ØCN	EN	ER	ØKK	LF	α max.	weight
32	20	43	10	14	14	M10x1,25	15	4°	0,07
40	22	50	12	16	16	M12x1,25	17	4°	0,12
50	28	64	16	21	21	M16x1,5	22	4°	0,22
63	28	64	16	21	21	M16x1,5	22	4°	0,22



**MOUNTING**  
Front neck nut  
MR3



Ø	ØB	KV	KW	weight
32	M30x1,5	35	10	0,03
40	M36x1,5	42	10	0,04
50	M45x1,5	60	12	0,14
63	M45x1,5	60	12	0,14