

# Series HM

## Mini cylinders ISO 6432, double acting

### Technical details

<b>Operating pressure</b>	1 ... 10 bar
<b>Temperature range</b>	-30°C ... +80°C ( 0 ... +150°C for high temperature version)
<b>Medium</b>	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
<b>Materials</b>	Cylinder tube: stainless steel End caps: Al (anodized) Piston rod: stainless steel Seals: PU, NBR
	Cylinders in accordance with 2014/34/EU (ATEX) available. (Chapter 13)



Double acting pneumatic cylinder with magnetic piston and built-in cushioning rings or adjustable cushions. Standard stroke lengths in table below, additional lengths on request.

### Versions

	HM, HMS, HMZ double acting, with magnetic piston		HMDE double acting, double end piston rod, with magnetic piston
	HMP double acting, adjustable cushioning, with magnetic piston		HMPDE double acting, double end piston rod, adjustable cushioning, with magnetic piston
	HDH double acting, high temperature version		
	HDPH double acting, adjustable cushioning, high temperature version		

### Order code

<b>H****-**-***-****</b>																						
<table border="1"> <tr><td>Series</td></tr> <tr><td>HM standard</td></tr> <tr><td>HMP*</td></tr> <tr><td>HMDE*</td></tr> <tr><td>HMPDE*</td></tr> <tr><td>HDH**</td></tr> <tr><td>HDPH*</td></tr> <tr><td>HMS* lateral air connection, rear</td></tr> <tr><td>HMZ* central air connection, rear</td></tr> </table>	Series	HM standard	HMP*	HMDE*	HMPDE*	HDH**	HDPH*	HMS* lateral air connection, rear	HMZ* central air connection, rear	<table border="1"> <tr><td>Options</td></tr> <tr><td>ATEX cylinders in accordance with 2014/34/EU (ATEX)</td></tr> <tr><td>Stroke (mm)</td></tr> <tr><td>XXX max. stroke see technical data</td></tr> <tr><td>Standard# 10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400 mm</td></tr> <tr><td>Piston Ø</td></tr> <tr><td>08 8 mm</td></tr> <tr><td>10 10 mm</td></tr> <tr><td>12 12 mm</td></tr> <tr><td>16 16 mm</td></tr> <tr><td>20 20 mm</td></tr> <tr><td>25 25 mm</td></tr> </table>	Options	ATEX cylinders in accordance with 2014/34/EU (ATEX)	Stroke (mm)	XXX max. stroke see technical data	Standard# 10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400 mm	Piston Ø	08 8 mm	10 10 mm	12 12 mm	16 16 mm	20 20 mm	25 25 mm
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\* only for Ø 16, 20 and 25 mm

\*\* not for Ø 8 mm

# only for series HM and HMP in consideration of max. stroke

## Series HM

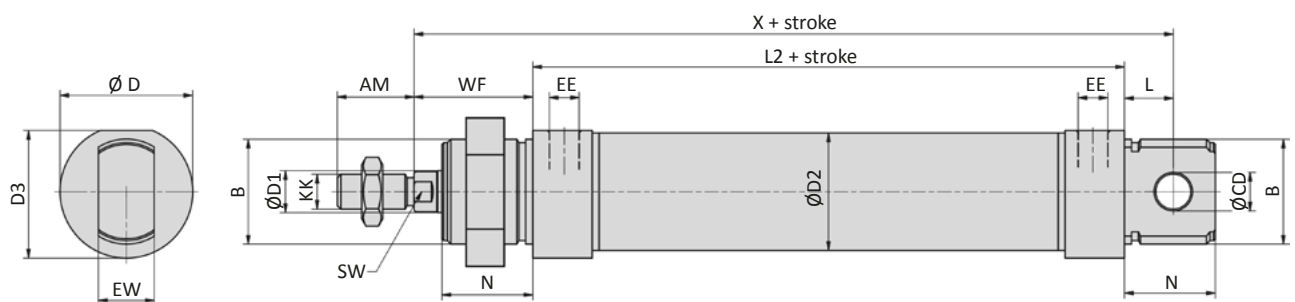
### Mini cylinders ISO 6432, double acting

#### Technical data

Model-no.:	HM-08-...	HM-10-...	HM-12-...	Hxx-16-...	Hxx-20-...	Hxx-25-...
Piston $\varnothing$ (mm)	8	10	12	16	20	25
Force at 6 bar (N)	Extension	27	42	61	109	170
	Retraction	20	36	46	93	142
Connection	M5	M5	M5	M5	G1/8	G1/8
Piston rod thread	M4	M4	M6	M6	M8	M10 x 1.25
Max. stroke (mm)	100	200	500	900	900	900
Cushioning length (mm)*	-	-	-	15.5	17	19.5

\* only for series HMP, HMPDE, HDPH

#### Dimensions series HM, HMP, HDH, HDPH



Piston $\varnothing$	AM	B	$\varnothing$ CD	$\varnothing$ D	$\varnothing$ D1	$\varnothing$ D2	D3	EE
8	12	M12 x 1.25	4	16	4	9.27	15	M5
10	12	M12 x 1.25	4	16	4	11.27	15	M5
12	16	M16 x 1.5	6	19	6	13.27	18	M5
16	16	M16 x 1.5	6	19*	6	17.27	18	M5
20	20	M22 x 1.5	8	27	8	21.27	25.5	G1/8
25	22	M22 x 1.5	8	30	10	26.5	28.5	G1/8

\* 21 mm for HMP, HMPDE, HDPH

Piston $\varnothing$	EW	KK	L	L2	N	SW	WF	X
8	8	M4	6	46	12	-	16	64
10	8	M4	6	46	12	-	16	64
12	12	M6	9	48	18	5	22	75
16	12	M6	9	53	18*	5	22	82
20	16	M8	12	67	20	7	24	95
25	16	M10 x 1.25	12	68	22	9	28	104

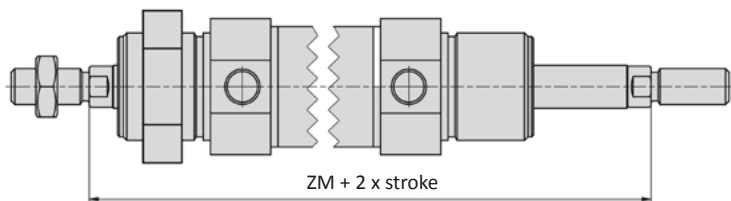
\* 17 mm for HMP, HMPDE, HDPH

## Series HM

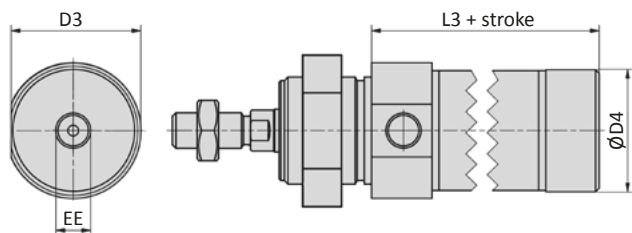
Mini cylinders ISO 6432, double acting

### Additional dimensions Series HMDE, HMPDE, HMZ, HMS

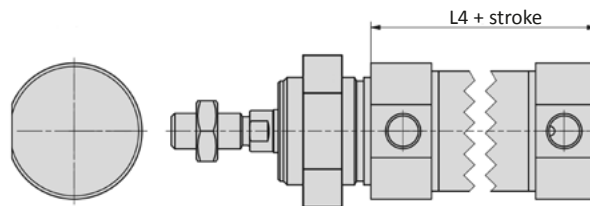
double end piston rod



#### Series HMZ

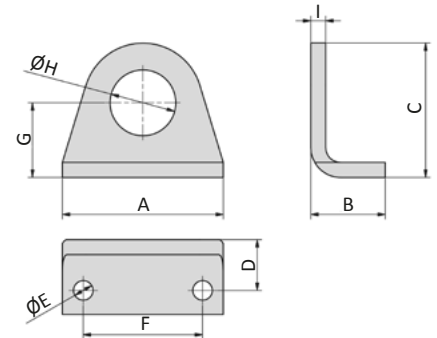


#### Series HMS



Piston $\varnothing$	ZM	EE	$\varnothing D$	$\varnothing D4$	L3	L4
16	97	M5	19	17.2	52	52.5
20	115	G1/8	27	22.2	65	67
25	124	G1/8	30	27	66	68

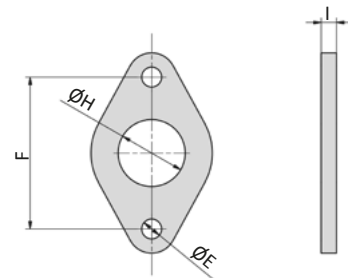
**RA-xx Foot mount**



Model-no.:	for cylinder $\varnothing$	A	B	C	D	$\varnothing E$	F	G	$\varnothing H$	I
RA-10	8, 10	35	16	26	11	4.5	25	16	12	3
RA-16	12, 16	42	20	32.5	14	5.5	32	20	16	4
RA-25	20, 25	54	25	45	17	6.6	40	25	22	5

Material: steel, zinc plated

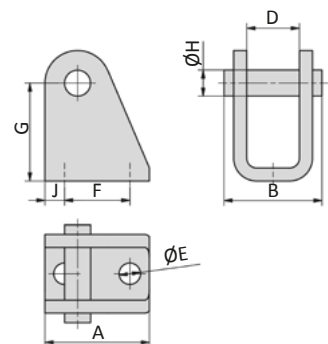
**RB-xx Flange mount**



Model-no.:	for cylinder $\varnothing$	$\varnothing E$	F	$\varnothing H$	I
RB-10	8, 10	4.5	30	12	3
RB-16	12, 16	5.5	40	16	4
RB-25	20, 25	6.6	50	22	5

Material: steel, zinc plated

**RC-xx Clevis mount**



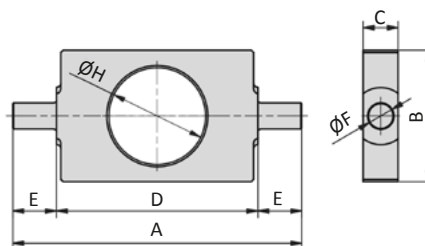
Model-no.:	for cylinder $\varnothing$	A	B	D	$\varnothing E$	F	G	$\varnothing H$	J
RC-10	8, 10	20	17	8.1	4.5	12.5	24	4	5
RC-16	12, 16	25	23	12.1	5.5	15	27	6	5
RC-30	20, 25	32	30	16.1	6.6	20	30	8	6

Material: steel, zinc plated, 2 snap rings are included.

## Series HM

### Mounting accessories

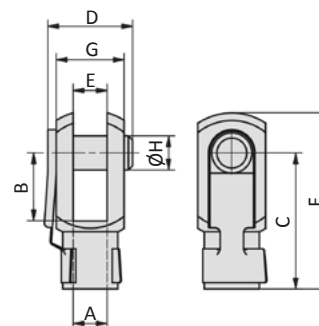
#### RH-xx Trunnion mount



Model-no.:	for cylinder Ø	A	B	C	D	E	Ø F	Ø H
RH-10	8, 10	38	20	6	26	6	4	12
RH-16	12, 16	58	25	8	38	10	6	16
RH-25	20, 25	66	30	8	46	10	6	22

Material: steel, zinc plated

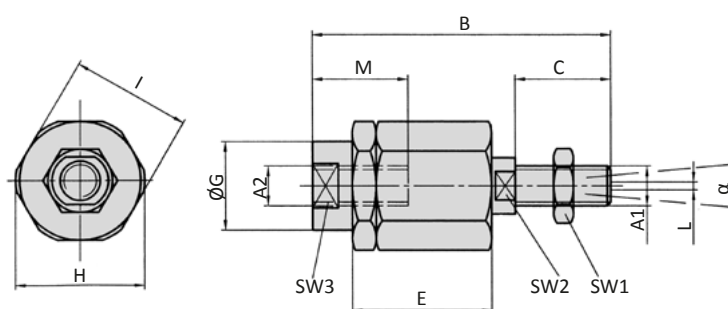
#### RD-xx Rod clevis



Model-no.:	for cylinder Ø	A	B	C	D	E	F	G	Ø H
RD-10	8, 10	M4	8	16	11.5	4	21	8	4
RD-16	12, 16	M6	12	24	16	6	31	12	6
RD-20	20	M8	16	32	22	8	42	16	8
RD-25	25	M10 x 1.25	20	40	26	10	52	20	10

Material: steel, zinc plated

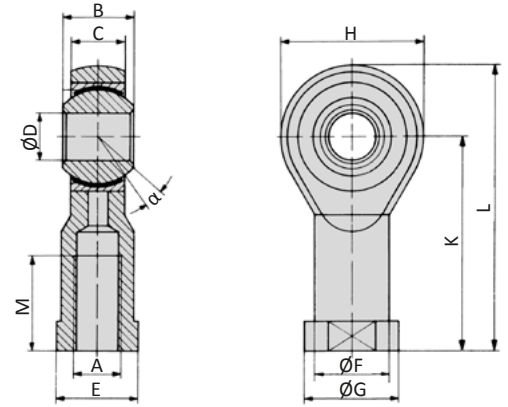
#### FK-xx Flexible coupling



Model-no.:	for cylinder Ø	A1, A2	B	C	D	E	Ø G	H	I	L	M	SW1	SW2	SW3	α
FK-16	12, 16	M6	35	11	2.5	17.5	8.5	14.5	13	1	12.5	10	5	7	6°
FK-20	20	M8	57	21	5	26	12.5	19	17	2	16	13	7	11	8°
FK-32	25	M10 x 1.25	71.5	20	7.5	35	22	32	30	2	22	17	12	19	8°

Material: steel, zinc plated

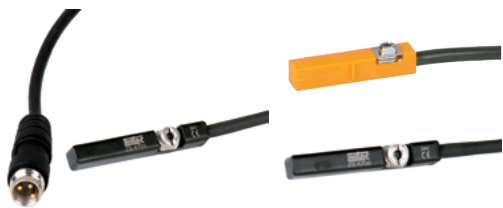
**RO-xx Rod eye**



Model-no.:	for cylinder Ø	A	B	C	Ø D	E	Ø F	Ø G	H	K	L	M	α
RO-16	12, 16	M6	9	6.75	6	11	10	13	20	30	40	12	13°
RO-20	20	M8	12	9	8	14	12.5	16	24	36	48	16	14°
RO-25	25	M10 x 1.25	14	10.5	10	17	15	19	28	43	57	20	13°

Materials: steel, zinc plated, bearing steel, bronze bushing

**Proximity sensors**



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For piston Ø 8, 10 and 12 mm only electronic switches (ZS-6700, ZS-6701, ZS-7300 or ZS-7302) can be used.