

SINGLE OR DOUBLE ACTING CYLINDERS, Ø 8 to 25 mm CONFORMING WITH ISO 6432 - CETOP - AFNOR STANDARDS

ISOCLAIR - SERIES 435 - TYPES : C-AS , CC-AS

2



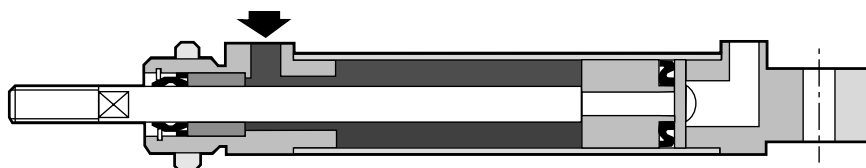
P220-GB-R5

ASCO®
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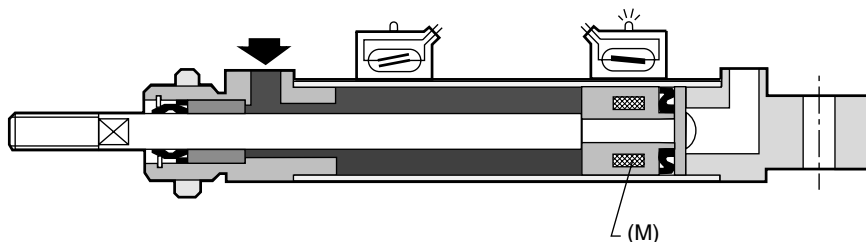
ISOCLAIR AIR CYLINDERS Ø 8 to 25 mm

OPERATIONAL DIAGRAMS (Ø12 to 25 mm)

AIR CYLINDER NOT DESIGNED TO RECEIVE MAGNETIC DETECTOR



AIR CYLINDER DESIGNED TO RECEIVE MAGNETIC DETECTORS (reed switch or magneto-resistive)



Air cylinders equipped of a magnet (M) designed to operate in combination with the magnetic position detectors (DM). These air cylinders can be equipped with one or more magnetic position detectors (without contact) attached to the tube by a clamp. They allow limit positions to be detected, as well as the intermediate piston positions.

DEFINING THE DIAMETER OF AN AIR CYLINDER - See forces defined on page P200-5

DEFINING THE PART NUMBER OF A Ø 8 to 25 mm ISOCLAIR AIR CYLINDER

	C	..	AS	...	SER	/	DM
ISOCLAIR air cylinder							
Air cylinder diameter (mm)							
Type ISOCLAIR Ø 8 to 25 mm							
Length of stroke (mm)							
For a single acting air cylinder: suffix SER = rod retracted when at rest, or SES = rod extended when at rest							
For a double acting air cylinder: no suffix							
Air cylinder designed to receive magnetic position detectors: add suffix DM							
Note : Mountings and detectors should be ordered separately.							

ORDERING

When ordering, please specify:

The air cylinder standard code or part number 435 +

The code or part number of any option(s) _____

The code or codes and quantity of any mountings _____ : **439**

The code and quantity of any magnetic detectors _____ : **881**

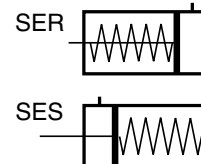
The code and quantity of detector mountings _____ : **881**

Series 435
Type : C-AS
C-AS/DM

Ø 8 - 25 mm SINGLE ACTING CYLINDERS

equipped or non-equipped for magnetic detectors
Conforming with ISO-CETOP-AFNOR standards

With elastic cushioning ISOCLAIR



SPECIFICATIONS

FLUID : air or neutral gas, filtered, lubricated or not
PRESSURE : 2 to 10 bar
TEMPERATURE : 0°C, + 70°C (Ø8-10) - -10°C, + 70°C (Ø12 to 25)
STANDARDS : ISO 6432 - 8140 - 8139

CETOP RP 52 P - RP 102 P - RP 103 P

AFNOR NF E 49-030

Minimum pressure to compress the spring : 2 bar (SER and SES)

The return of the piston rod must be without load

The dimensions of the single acting returned rod version (SER type) are identical to those of the double acting version

The length of the SES version is twice the nominal stroke.

CONSTRUCTION

Cylinder non-equipped for magnetic detectors

Cylinder equipped for magnetic detectors

Barrel	: stainless steel	: non-magnetic stainless steel	} good resistance to corrosive elements
Rod	: stainless steel	: stainless steel	
Front and rear covers	: anodized light alloy	: anodized light alloy	
Piston	: acetal resin (POM) and light alloy	: acetal resin (POM) and light alloy equipped with permanent magnet	
Piston seals	: polyurethane (PUR)	: polyurethane (PUR)	
Neck nut	: galvanized steel	: galvanized steel	
Rod nut	: galvanized steel	: galvanized steel	
Dismounting	: cannot be dismounted	: cannot be dismounted	
Cushioning	: elastic	: elastic	

CHOICE OF EQUIPMENT

Bore in mm	Stroke in mm	CODES to specify on order	References to specify on order	CODES to specify on order	References to specify on order	Connection
STANDARD SINGLE ACTING CYLINDER			ROD RETURNED at rest		ROD OUT at rest	
8	25 50	435 00 254 435 00 255	C 8 AS 25 - SER C 8 AS 50 - SER	—	—	M 5
10	25 50	435 00 256 435 00 257	C 10 AS 25 - SER C 10 AS 50 - SER	—	—	M 5
12	25 50	435 00 083 435 00 084	C 12 AS 25 - SER C 12 AS 50 - SER	435 00 218 435 00 219	C 12 AS 25 - SES C 12 AS 50 - SES	M 5
16	25 50	435 00 085 435 00 086	C 16 AS 25 - SER C 16 AS 50 - SER	435 00 220 435 00 221	C 16 AS 25 - SES C 16 AS 50 - SES	M 5
20	25 50	435 00 087 435 00 088	C 20 AS 25 - SER C 20 AS 50 - SER	435 00 222 435 00 223	C 20 AS 25 - SES C 20 AS 50 - SES	G 1/8
25	25 50	435 00 089 435 00 090	C 25 AS 25 - SER C 25 AS 50 - SER	435 00 224 435 00 225	C 25 AS 25 - SES C 25 AS 50 - SES	G 1/8
SINGLE ACTING CYLINDER EQUIPPED FOR MAGNETIC DETECTORS *						
			ROD RETURNED at rest			
8	25 50	435 00 258 435 00 259	C 8 AS 25 - SER/DM C 8 AS 50 - SER/DM	—	—	M 5
10	25 50	435 00 260 435 00 261	C 10 AS 25 - SER/DM C 10 AS 50 - SER/DM	—	—	M 5
12	25 50	435 00 262 435 00 263	C 12 AS 25 - SER/DM C 12 AS 50 - SER/DM	—	—	M 5
16	25 50	435 00 264 435 00 265	C 16 AS 25 - SER/DM C 16 AS 50 - SER/DM	—	—	M 5
20	25 50	435 00 266 435 00 267	C 20 AS 25 - SER/DM C 20 AS 50 - SER/DM	—	—	G 1/8
25	25 50	435 00 268 435 00 269	C 25 AS 25 - SER/DM C 25 AS 50 - SER/DM	—	—	G 1/8

* The magnetic position detectors must be ordered separately: UNI model, reed switch or magneto-resistive type (see P295)

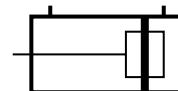
MOUNTINGS (Dimensions, see next pages)

Cylinder bore in mm	Front or rear flange MF8	High foot (per unit) MS3	CODES to specify on order			Nek nut MR3
			Rear trunnion	Female rod clevis ISO 8140 - RP102 P AP2	Spherical bearing rod end ISO 8139 - RP103 P AP6	
8	439 00 189	439 00 191	439 00 190	439 00 193	439 00 194	439 00 192
10						
12						
16	439 00 179	439 00 183	439 00 181	439 00 159	439 00 186	439 00 150
20						
25	439 00 180	439 00 184	439 00 182	439 00 161 434 00 016	439 00 187 434 00 001	439 00 151

Note: Mountings are identical to those of the double acting version shown next pages
Each cylinder is delivered with a neck nut

Series 435
Type : C-AS

DOUBLE ACTING CYLINDERS Ø 8 - 25 mm
Conforming with ISO-CETOP-AFNOR standards
With elastic cushioning
ISOCLAIR



SPECIFICATIONS

FLUID	: air or neutral gas, filtered, lubricated or not
PRESSURE	: 10 bar max.
TEMPERATURE	: 0°C, + 70°C (Ø8-10) - -10°C, + 70°C (Ø12 to 25)
STANDARDS	: ISO 6432 - 8140 - 8139 CETOP RP 52 P - RP 102 P - RP 103 P AFNOR NF E 49-030

CONSTRUCTION

Barrel	: stainless steel	} good resistance to external forces
Rod	: stainless steel	
Front and rear covers	: anodized light alloy	
Piston	: acetal resin (POM) and light alloy	
Piston seals	: polyurethane (PUR)	
Neck nut	: galvanized steel	
Rod nut	: galvanized steel	
Dismounting	: cannot be dismounted	
Cushioning	: elastic	

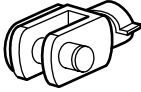
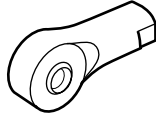


CHOICE OF EQUIPMENT

Bore in mm	Strokes in mm	CODES to specify on order	REFERENCES to specify on order	Con- nection
8	25	435 00 271	C 8 AS 25	M 5
	50	435 00 272	C 8 AS 50	
	80	435 00 273	C 8 AS 80	
	100	435 00 274	C 8 AS 100	
10	25	435 00 277	C 10 AS 25	M 5
	50	435 00 278	C 10 AS 50	
	80	435 00 279	C 10 AS 80	
	100	435 00 280	C 10 AS 100	
12	25	435 00 066	C 12 AS 25	M 5
	50	435 00 067	C 12 AS 50	
	80	435 00 283	C 12 AS 80	
	100	435 00 069	C 12 AS 100	

Bore in mm	Strokes in mm	CODES to specify on order	REFERENCES to specify on order	Con- nection
16	25	435 00 070	C 16 AS 25	M 5
	50	435 00 071	C 16 AS 50	
	80	435 00 285	C 16 AS 80	
	100	435 00 073	C 16 AS 100	
20	25	435 00 074	C 20 AS 25	G 1/8
	50	435 00 075	C 20 AS 50	
	80	435 00 287	C 20 AS 80	
	100	435 00 077	C 20 AS 100	
25	25	435 00 078	C 25 AS 25	G 1/8
	50	435 00 079	C 25 AS 50	
	80	435 00 289	C 25 AS 80	
	100	435 00 081	C 25 AS 100	
	160	435 00 290	C 25 AS 160	

MOUNTINGS

Cylinder bore in mm	CODES to specify on order					
	 Front or rear flange MF8	 High foot (per unit) MS3	 Rear trunnion	 Female rod clevis ISO 8140 - RP102 P AP2	 Spherical bearing rod end ISO 8139 - RP103 P AP6	 Nek nut MR3
8	439 00 189	439 00 191	439 00 190	439 00 193	439 00 194	439 00 192
10						
12	439 00 179	439 00 183	439 00 181	439 00 159	439 00 186	439 00 150
16						
20	439 00 180	439 00 184	439 00 182	439 00 161	439 00 187	439 00 151
25				434 00 016	434 00 001	

Each cylinder is delivered with a neck nut.

OPTIONS

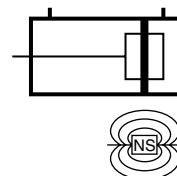
- Other strokes on request
- Double crossbar for Ø 16-20-25 mm (max. stroke 300 mm)
- Barrel in stainless steel for Ø 16-20-25 mm : specify the codes of cylinders equipped for magnetic detectors (see opposite).
- Anti-corrosive version, stainless steel type CIX (see P252)

Series 435
Type : C-AS/DM

DOUBLE ACTING CYLINDERS Ø 8 - 25 mm

equipped for magnetic position detectors
Conforming with ISO-CETOP-AFNOR standards

With elastic cushioning
ISOCLAIR/DM



SPECIFICATIONS

FLUID	: air or neutral gas, filtered, lubricated or not
PRESSURE	: 10 bar max.
TEMPERATURE	: 0°C, + 70°C (Ø8-10) - -10°C, + 70°C (Ø12 to 25)
STANDARDS	: ISO 6432 - 8140 - 8139 CETOP RP 52 P - RP 102 P - RP 103 P AFNOR NF E 49-030

CONSTRUCTION

Barrel	: non magnetic stainless steel	} good resistance to corrosive elements
Rod	: stainless steel	
Front and rear covers	: anodized light alloy	
Piston	: acetal resin (POM) and light alloy	
Piston seals	: polyurethane (PUR)	
Neck nut	: galvanized steel	
Rod nut	: galvanized steel	
Dismounting	: cannot be dismounted	
Cushioning	: elastic	



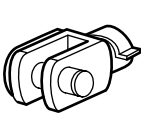
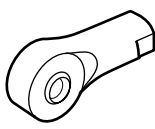
CHOICE OF EQUIPMENT

Bore in mm	Strokes in mm	CODES * to specify on order	REFERENCES to specify on order	Con-nection
8	25	435 00 291	C 8 AS 25-DM	M 5
	50	435 00 292	C 8 AS 50-DM	
	80	435 00 293	C 8 AS 80-DM	
	100	435 00 294	C 8 AS100-DM	
10	25	435 00 296	C 10 AS 25-DM	M 5
	50	435 00 297	C 10 AS 50-DM	
	80	435 00 298	C 10 AS 80-DM	
	100	435 00 299	C 10 AS100-DM	
12	25	435 00 301	C 12 AS 25-DM	M 5
	50	435 00 302	C 12 AS 50-DM	
	80	435 00 303	C 12 AS 80-DM	
	100	435 00 304	C 12 AS100-DM	

Bore in mm	Strokes in mm	CODES * to specify on order	REFERENCES to specify on order	Con-nection
16	25	435 00 305	C 16 AS 25-DM	M 5
	50	435 00 306	C 16 AS 50-DM	
	80	435 00 307	C 16 AS 80-DM	
	100	435 00 308	C 16 AS 100-DM	
20	25	435 00 309	C 20 AS 25-DM	G 1/8
	50	435 00 310	C 20 AS 50-DM	
	80	435 00 311	C 20 AS 80-DM	
	100	435 00 312	C 20 AS 100-DM	
25	25	435 00 313	C 25 AS 25-DM	G 1/8
	50	435 00 314	C 25 AS 50-DM	
	80	435 00 315	C 25 AS 80-DM	
	100	435 00 316	C 25 AS 100-DM	
	160	435 00 317	C 25 AS 160-DM	

* The magnetic position detectors are ordered separately: UNI model, reed switch or magneto-resistive type (see P295)

MOUNTINGS

Cylinder bore in mm	CODES to specify on order					
	 Front or rear flange MF8	 High foot (per unit) MS3	 Rear trunnion	 Female rod clevis ISO 8140 - RP102 P AP2	 Spherical bearing rod end ISO 8139 - RP103 P AP6	 Nek nut MR3
8	439 00 189	439 00 191	439 00 190	439 00 193	439 00 194	439 00 192
10						
12						
16	439 00 179	439 00 183	439 00 181	439 00 159	439 00 186	439 00 150
20						
25	439 00 180	439 00 184	439 00 182	439 00 161	439 00 187	439 00 151
				434 00 016	434 00 001	

Each cylinder is delivered with a neck nut.

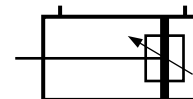
OPTIONS

- Other strokes on request
- Double crossbar Ø 16-20-25 mm (max. stroke 300 mm)

Series 435
Type : C-A
C-A/DM

DOUBLE ACTING CYLINDERS Ø 20 - 25 mm

equipped or non-equipped for magnetic detectors
Conforming with ISO-CETOP-AFNOR standards
With adjustable pneumatic cushioning
ISOCLAIR



SPECIFICATIONS

FLUID : air or neutral gas, filtered, lubricated or not
PRESSURE : 10 bar max.
TEMPERATURE : 0 °C, + 70 °C (Ø8-10) - -10°C, + 70°C (Ø12 to 25)
STANDARDS : ISO 6432 - 8140 - 8139
CETOP RP 52 P - RP 102 P - RP 103 P
AFNOR NF E 49-030

CONSTRUCTION

Cylinder non equipped for magnetic detectors

Barrel : stainless steel
Rod : stainless steel
Front or rear covers : anodized light alloy
Piston : acetal resin (POM) and light alloy
Piston seals : polyurethane (PUR)
Neck nut : galvanized steel
Rod nut : galvanized steel
Dismounting : cannot be dismounted
Cushioning : pneumatic, adjustable from both sides

Cylinder equipped for magnetic detectors

: non-magnetic stainless steel
: stainless steel
: anodized light alloy
: acetal resin (POM) and light alloy equipped with permanent magnet
: polyurethane (PUR)
: galvanized steel
: galvanized steel
: cannot be dismounted
: pneumatic, adjustable from both sides



Cushioning length:
Ø 20 mm = 8 mm
Ø 25 mm = 10 mm

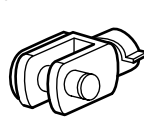
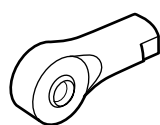
CHOICE OF EQUIPMENT



Bore in mm	Strokes in mm	CYLINDER NON EQUIPPED FOR DETECTORS		CYLINDER EQUIPPED FOR DETECTORS (-DM)		Weights (kg)	Con-nection
		CODES to specify on order	REFERENCES to specify on order	CODES * to specify on order	REFERENCES to specify on order		
20	25	435 00 419	C 20 A 25	435 00 423	C 20 A 25-DM	0,210	G 1/8
	50	435 00 420	C 20 A 50	435 00 424	C 20 A 50-DM	0,250	
	80	435 00 421	C 20 A 80	435 00 425	C 20 A 80-DM	0,300	
	100	435 00 422	C 20 A 100	435 00 426	C 20 A 100-DM	0,330	
25	25	435 00 427	C 25 A 25	435 00 432	C 25 A 25-DM	0,250	G 1/8
	50	435 00 428	C 25 A 50	435 00 433	C 25 A 50-DM	0,300	
	80	435 00 429	C 25 A 80	435 00 434	C 25 A 80-DM	0,360	
	100	435 00 430	C 25 A 100	435 00 435	C 25 A 100-DM	0,400	
	160	435 00 431	C 25 A 160	435 00 436	C 25 A 160-DM	0,520	

* Magnetic position detectors are ordered separately: UNI model, reed switch or magneto-resistive type (see P295)

MOUNTINGS

Cylinder bore in mm	CODES to specify on order					
	 Front or rear flange MF8	 High foot (per unit) MS3	 Rear trunnion	 Female rod clevis ISO 8140 - RP102 P AP2	 Spherical bearing rod end ISO 8139 - RP103 P AP6	 Nek nut MR3
20	439 00 180	439 00 184	439 00 182	439 00 161	439 00 187	439 00 151
25				434 00 016	434 00 001	

Each cylinder is delivered with a neck nut.

OPTION

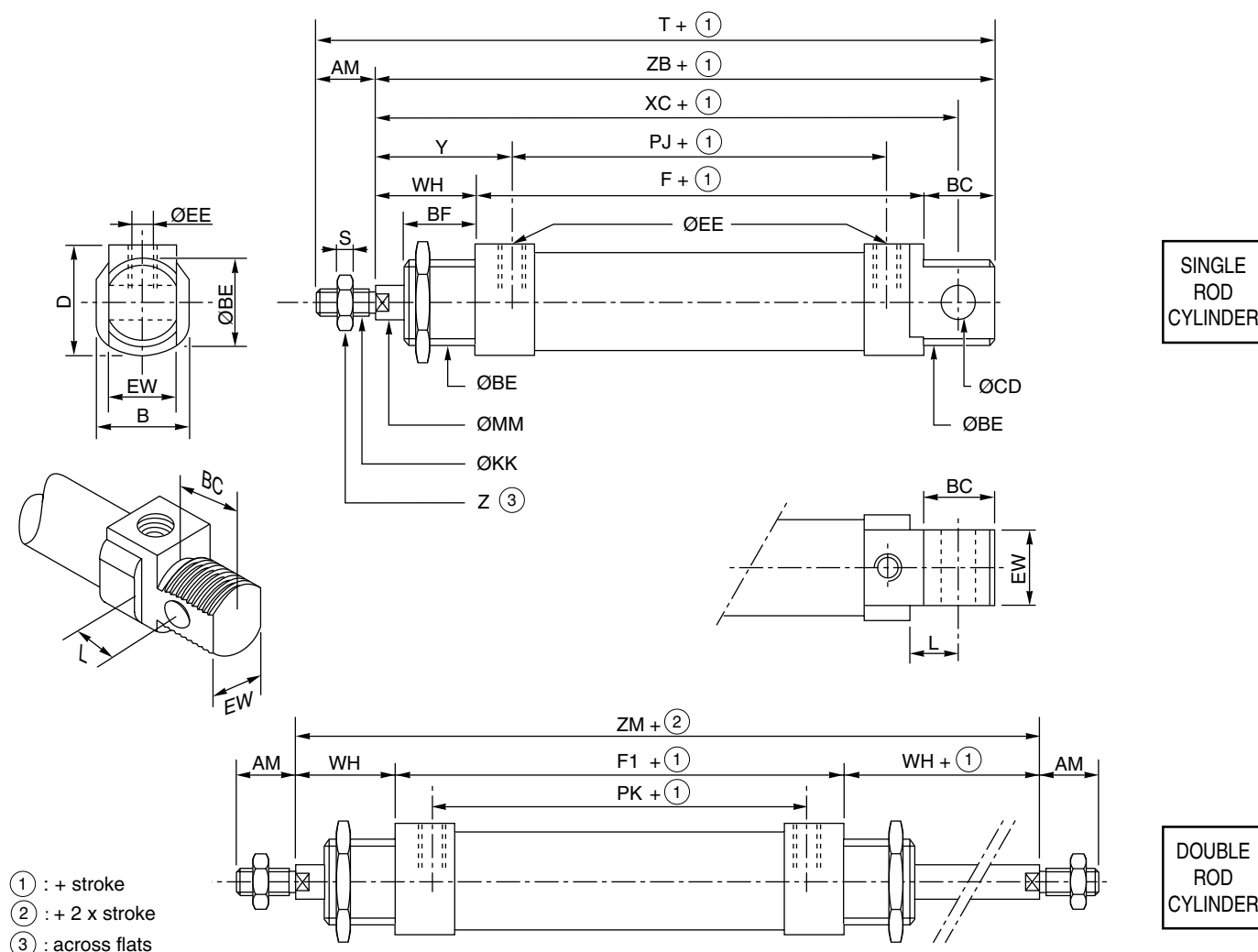
Other strokes on request

DIMENSIONS

Cylinders with pneumatic and elastic cushioning have the same dimensions, see following pages.

DIMENSIONS AND WEIGHTS

BARE CYLINDER (delivered with neck nut)



bore Ø (mm)	DIMENSIONS (mm)																		
	AM	B	BC	ØBE	BF	CD	D	EE	EW	F	F1	ØKK	L	MM	PJ	PK	S	T	WH
8	12	12	12	M12 x 1,25	12	4 H 9	18	M 5	8 d 13	46	—	M4 x 0,7	6	4	31	—	2	86	16
10	12	12	12	M12 x 1,25	12	4 H 9	18	M 5	8 d 13	46	—	M4 x 0,7	6	4	31	—	2	86	16
12	16	16	14	M16 x 1,5	14	6 H 11	20	M 5	12 d 11	48,7	48,7	M6 x 1	9	6	34,5	34,5	3	100,3	22
16	16	20	14	M16 x 1,5	14	6 H 11	21	M 5	12 d 11	55,7	52,7	M6 x 1	9	6	41,5	38,5	3	107,3	22
20	20	29	17,5	M22 x 1,5	17,5	8 H 11	29	G 1/8	16 d 11	64,2	64,2	M8 x 1,25	12	10	47,3	47,3	4	125,3	24
25	22	29	17,5	M22 x 1,5	17,5	8 H 11	30	G 1/8	16 d 11	69,5	69,5	M10 x 1,25	12	10	52,5	52,5	5	136,8	28

bore Ø (mm)	DIMENSIONS (mm)					Weights (Kg)	
	XC	Y	Z	ZB	ZM	(4)	(5)
8	64	23,5	7	74	—	0,030	0,020
10	64	23,5	7	74	—	0,030	0,040
12	75	29	10	84,5	93,4	0,070	0,090
16	81,5	29	10	91,5	97,4	0,100	0,100
20	95	32,5	13	103,5	113	0,170	0,160
25	104	36,5	17	115	126,5	0,200	0,200

(4) Cylinder weight with 0 mm stroke.

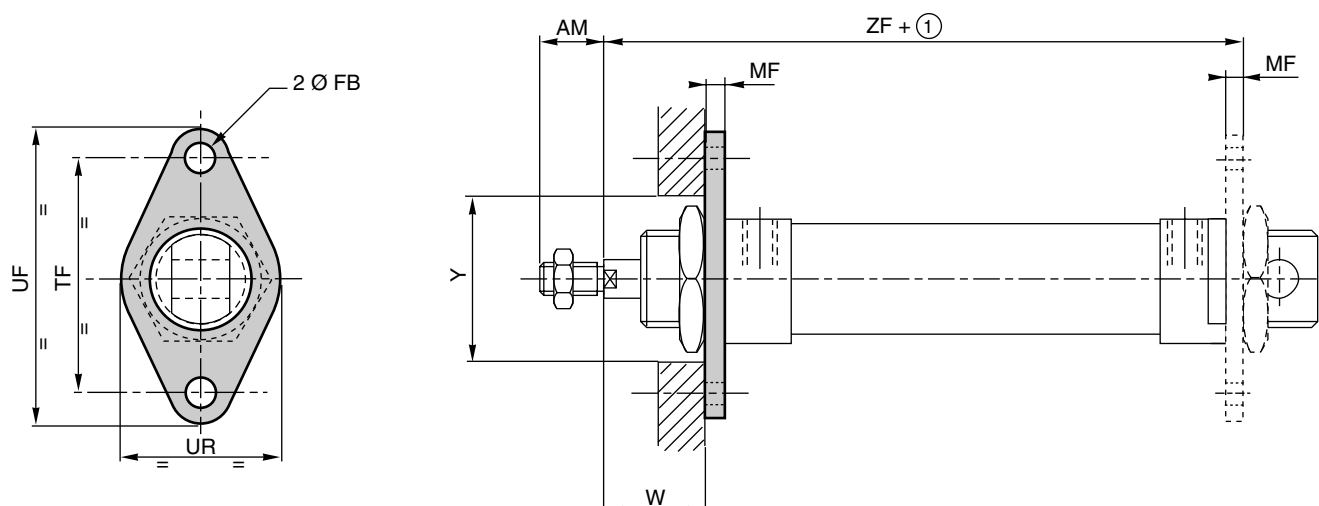
(5) Weight to be added per additional 100 mm length.

NOTE :

- Single and double acting cylinders Ø 8 to 25 mm have the same dimensions.
- The length of the SES version is **twice** the nominal stroke.
- The mountings are always delivered separately.

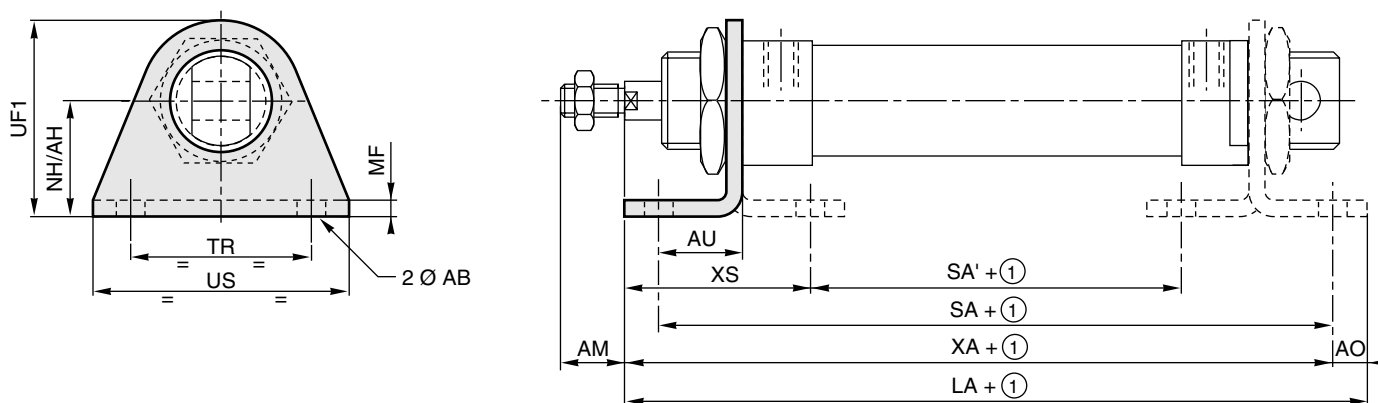
DIMENSIONS

FRONT OR REAR MOUNTING FLANGE - MF8



HIGH FOOT MOUNTING - MS3

Foot mountings are supplied in single units, not in pairs.



① : + stroke

bore Ø (mm)	DIMENSIONS (mm)																			
	AM	AO	AU	ØAB ØFB	XA	LA	MF	NH AH	SA	SA'	TF	TR	UR	UF	UF1	US	W	XS	Y	ZF
8	12	5	11	4,5	72	78	3	16	68	30	30	25	22	40	26	35	13	24	22	65
10	12	5	11	4,5	72	78	3	16	68	30	30	25	22	40	26	35	13	24	22	65
12	16	6	14	5,5	84	90	4	20	76	28	40	32	30	52	32	42	18	32	22	74
16	16	6	14	5,5	90,5	96,5	4	20	82,5	34,5	40	32	30	52	32	42	18	32	22	80,5
20	20	9	17	6,6	104,5	113,5	5	25	97,5	39,5	50	40	40	64	45	54	19	36	31	92,5
25	22	9	17	6,6	113,5	122,5	5	25	102,5	44,5	50	40	40	64	45	54	23	40	31	101,5

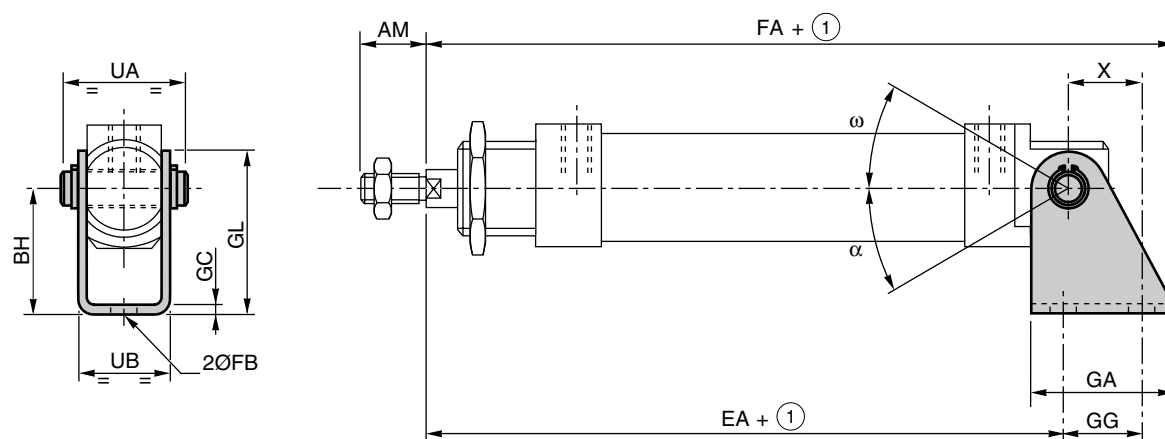
bore Ø (mm)	WEIGHTS (kg)	
	Front or rear flange	Foot
8	0,020	0,030
10	0,020	0,030
12	0,020	0,050

bore Ø (mm)	WEIGHTS (kg)	
	Front or rear flange	Foot
16	0,020	0,050
20	0,040	0,100
25	0,040	0,100

DIMENSIONS

REAR TRUNNION MOUNTING

2



① : + stroke

bore Ø (mm)	DIMENSIONS (mm)													
	AM	BH	EA	FA	FB	GA	GC	GG	GL	UA	UB	X	α	ω
8	12	24	62,7	79	4,5	20	2,5	12,5	29	18	13	11,2	7°	160°
10	12	24	62,7	79	4,5	20	2,5	12,5	29	18	13	11,2	7°	160°
12	16	27	72,5	93	5,5	25	3	16	34	25	18	13,5	50°	180°
16	16	27	79	99,5	5,5	25	3	16	34	25	18	13,5	47°	180°
20	20	30	91	117	6,6	32	4	20	40	32	24	16	8°	168°
25	22	30	100	126	6,6	32	4	20	40	32	24	16	8°	168°

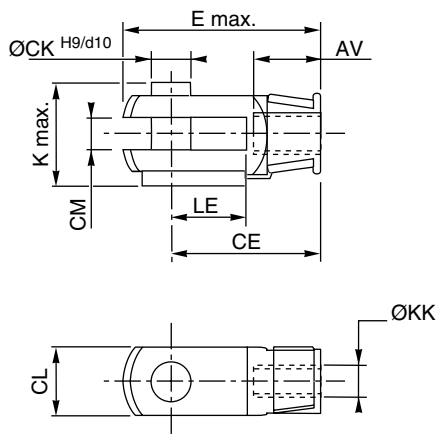
bore Ø (mm)	WEIGHTS (Kg) Rear trunnion
8	0,020
10	0,020
12	0,050

bore Ø (mm)	WEIGHTS (Kg) Rear trunnion
16	0,050
20	0,080
25	0,080

DIMENSIONS

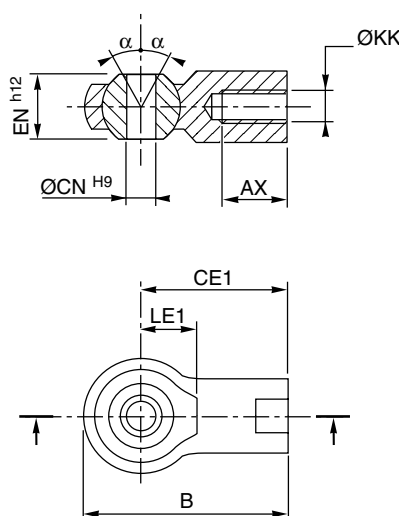
FEMALE ROD CLEVIS - AP2

ISO 8140 - RP 102 P



SPHERICAL BEARING ROD END - AP6

ISO 8139 - RP 103 P



NECK NUT - MR3



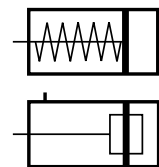
bore $\varnothing$ (mm)	DIMENSIONS (mm)															
	AV-AX	B	$\varnothing BE$	CE	CE1	$\varnothing CK$	CL	CM	$\varnothing CN$	E	EN	K	$\varnothing KK$	KV	KW	LE
8	8	36	M12 x 1,25	16	27	4	8	4 +0,4 +0,1	5	22,5	8	11	M4 x 0,7	19	6	8
10	8	36	M12 x 1,25	16	27	4	8	4 +0,1 +0,4	5	22,5	8	11	M4 x 0,7	19	6	8
12	12	40	M16 x 1,5	24	30	6	12	6 +0,1 +0,4	6	33,5	9	16,5	M6 x 1	19	4	12
16	12	40	M16 x 1,5	24	30	6	12	6 +0,1 +0,4	6	33,5	9	16,5	M6 x 1	19	4	12
20	16	48	M22 x 1,5	32	36	8	16	8 +0,15 +0,5	8	45	12	22	M8 x 1,25	27	5	16
25	20	57	M22 x 1,5	40	43	10	20	10 +0,15 +0,5	10	56	14	26	M10 x 1,25	27	5	20

bore $\varnothing$ (mm)	WEIGHTS (Kg)		
	Female clevis	Male clevis	Nut
8	0,010	0,020	0,010
10	0,010	0,020	0,010
12	0,020	0,030	0,010

bore $\varnothing$ (mm)	WEIGHTS (Kg)		
	Female clevis	Male clevis	Nut
16	0,020	0,030	0,010
20	0,050	0,050	0,010
25	0,100	0,070	0,010

Series 435
Type: CC-AS

PNEUMATIC CYLINDERS
SINGLE AND DOUBLE ACTING Ø 12 to 25 mm
conforming with ISO 6432-CETOP-AFNOR NF E 49-030 standards
Equipped or non-equipped for magnetic detectors
ISOCLAIR COMPACT



GENERAL SPECIFICATIONS

- **FLUID** : air or neutral gas,
filtered, lubricated or not
- **DIAMETER**
 - Cylinder single acting : Ø 12 to 25 mm
 - Cylinder double acting : Ø 12 to 25 mm
- **STANDARD STROKE**
 - Cylinder single acting : 25 - 50 mm
 - Cylinder double acting : 25 to 160 mm
(above : on request)
- **PRESSURE**
 - Cylinder single acting : 2 to 10 bar
 - Cylinder double acting : 10 bar
- **TEMPERATURE** : -10 °C ; + 70 °C
- **STANDARDS**
 - ISO : 6432-8139-8140
 - CETOP : RP 52 P - RP 102 P
RP 103 P
 - AFNOR : NF E 49-030-NF E 49-035
NF E 49-036
- **CONNECTION**
 - Ø 12-16 mm : M5
 - Ø 20-25 mm : G 1/8



2

DEFINING THE PART NUMBER OF A Ø 12 to 25 mm ISOCLAIR COMPACT AIR CYLINDER

	CC	..	AS	...	SER	/	DM
Type ISOCLAIR COMPACT							
Ø of cylinder (in mm)							
Standard items can be used on lubricated or non lubricated air							
Stroke (in mm)							
In case of single acting cylinders, ref. SER : rod returned at rest or SES : rod out at rest							
In case of double acting cylinders : no symbol.							
Cylinder equipped to receive magnetic position detector							

NB.: Magnetic position detectors have to be ordered separately: UNI model, reed switch or magneto-resistive type (see P295)

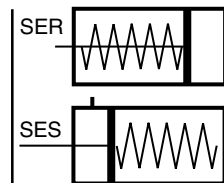
ORDERING

On your order please specify :

Code of cylinder equipped to receive detector	435	Air - 7 bar - 20 °C	439
Nature, pressure and temperature of fluid			
Reference number and description of mountings			
The code and quantity of any magnetic detectors			: 881
The code and quantity of detector mountings			: 881

Series 435
Type: CC-AS
CC-AS/DM

Ø 12 to 25 mm **SINGLE ACTING CYLINDERS** equipped or non-equipped for magnetic detectors Conforming with ISO - CETOP - AFNOR standards **With elastic cushioning** **ISOCLAIR COMPACT**



SPECIFICATIONS

FLUID : air or neutral gas, filtered, lubricated or not
PRESSURE : 2 to 10 bar
TEMPERATURE : -10 °C ; + 70 °C
STANDARDS : ISO 6432 - 8139 - 8140
CETOP RP 52 P - RP 102 P - RP 103 P
AFNOR NF E 49-030 - NF E 49-035 - NF E 49-036

Minimum pressure to compress the spring : 2 bar (SER and SES)

The return of the piston rod must be without load

The dimensions of the single acting returned rod version (SER type) are identical to those of the double acting version.

The length of the SES version is twice the nominal stroke.



CONSTRUCTION

Cylinder non equipped for magnetic detectors

Cylinder equipped for magnetic detectors

Barrel	:stainless steel	:non-magnetic stainless steel	} good resistance to corrosive elements
Rod	:stainless steel	:stainless steel	
Front and rear covers	:anodized light alloy	:anodized light alloy	
Piston	:acetal resin (POM) and light alloy	:acetal resin (POM) and light alloy	
Piston seals	:polyurethane (PUR)	:polyurethane (PUR)	
Neck nut	:galvanized steel	:galvanized steel	
Rod nut	:galvanized steel	:galvanized steel	
Dismounting	:cannot be dismantled	:cannot be dismantled	
Cushioning	:elastic	:elastic	

CHOICE OF EQUIPMENT

Bore in mm	Stroke in mm	CODES to specify on order	References to specify on order	CODES to specify on order	References to specify on order	Connection
STANDARD SINGLE ACTING CYLINDER			ROD RETURNED at rest		ROD OUT at rest	
12	25	435 00 341	CC 12 AS 25 - SER	435 00 349	CC 12 AS 25 - SES	M5
	50	435 00 342	CC 12 AS 50 - SER	435 00 350	CC 12 AS 50 - SES	
16	25	435 00 343	CC 16 AS 25 - SER	435 00 351	CC 16 AS 25 - SES	M5
	50	435 00 344	CC 16 AS 50 - SER	435 00 352	CC 16 AS 50 - SES	
20	25	435 00 345	CC 20 AS 25 - SER	435 00 353	CC 20 AS 25 - SES	G 1/8
	50	435 00 346	CC 20 AS 50 - SER	435 00 354	CC 20 AS 50 - SES	
25	25	435 00 347	CC 25 AS 25 - SER	435 00 355	CC 25 AS 25 - SES	G 1/8
	50	435 00 348	CC 25 AS 50 - SER	435 00 356	CC 25 AS 50 - SES	
SINGLE ACTING CYLINDER EQUIPPED FOR MAGNETIC DETECTORS *						
		 	ROD RETURNED at rest			
12	25	435 00 361	CC 12 AS 25 - SER/DM	-	-	M5
	50	435 00 362	CC 12 AS 50 - SER/DM	-	-	
16	25	435 00 363	CC 16 AS 25 - SER/DM	-	-	M5
	50	435 00 364	CC 16 AS 50 - SER/DM	-	-	
20	25	435 00 365	CC 20 AS 25 - SER/DM	-	-	G 1/8
	50	435 00 366	CC 20 AS 50 - SER/DM	-	-	
25	25	435 00 367	CC 25 AS 25 - SER/DM	-	-	G 1/8
	50	435 00 368	CC 25 AS 50 - SER/DM	-	-	

* The magnetic position detectors must be ordered separately: UNI model, reed switch or magneto-resistive type (see P295)

MOUNTINGS (Dimensions, see next pages)

Cylinder bore in mm	CODES to specify on order				
	Front flange MF 8	High Foot (per unit) MS3	Rod end clevis ISO 8140 - RP 102 P AP2	Spherical bearing rod end ISO 8139 - RP 103 P AP6	Neck nut MR3
12	439 00 179	439 00 183	439 00 159	439 00 186	439 00 150
16					
20	439 00 180	439 00 184	439 00 161	439 00 187	439 00 151
25			434 00 016	434 00 001	

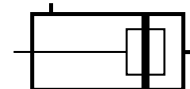
Note: Mountings are identical to those of the double acting version shown opposite
Each cylinder is delivered with a neck nut

OPTION : Other strokes on request

Series 435
Type: CC-AS

DOUBLE ACTING CYLINDERS Ø 12 - 25 mm

Conforming with ISO - CETOP - AFNOR standards
With elastic cushioning
ISOCLAIR COMPACT



SPECIFICATIONS

FLUID	: air or neutral gas, filtered, lubricated or not
PRESSURE	: 10 bar max.
TEMPERATURE	: -10 °C ; + 70 °C
STANDARDS	: ISO 6432 - 8139 - 8140 CETOP RP 52 P - RP 102 P - RP 103 P AFNOR NF E 49-030 - NF E 49-035 - NF E 49-036

CONSTRUCTION

Barrel	: stainless steel	} good resistance to corrosive elements
Rod	: stainless steel	
Front and rear covers	: anodized light alloy	
Piston	: acetal resin (POM) and light alloy	
Piston seals	: polyurethane (PUR)	
Neck nut	: galvanized steel	
Rod nut	: galvanized steel	
Dismounting	: cannot be dismounted	
Cushioning	: elastic	



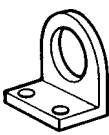
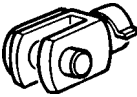
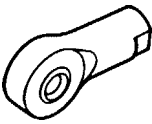
2

CHOICE OF EQUIPMENT

Bore in mm	Strokes in mm	CODES to specify on order	REFERENCES to specify on order	Con- nection
12	25	435 00 377	CC 12 AS 25	M5
	50	435 00 378	CC 12 AS 50	
	80	435 00 379	CC 12 AS 80	
	100	435 00 380	CC 12 AS 100	
16	25	435 00 381	CC 16 AS 25	M5
	50	435 00 382	CC 16 AS 50	
	80	435 00 383	CC 16 AS 80	
	100	435 00 384	CC 16 AS 100	

Bore in mm	Strokes in mm	CODES to specify on order	REFERENCES to specify on order	Con- nection
20	25	435 00 385	CC 20 AS 25	G 1/8
	50	435 00 386	CC 20 AS 50	
	80	435 00 387	CC 20 AS 80	
	100	435 00 388	CC 20 AS 100	
25	25	435 00 389	CC 25 AS 25	G 1/8
	50	435 00 390	CC 25 AS 50	
	80	435 00 391	CC 25 AS 80	
	100	435 00 392	CC 25 AS 100	
	160	435 00 393	CC 25 AS 160	

MOUNTINGS

Cylinder bore in mm	CODES to specify on order				
	 Front flange MF 8	 High Foot (per unit) MS3	 Rod end clevis ISO 8140 - RP 102 P AP2	 Spherical bearing rod end ISO 8139 - RP 103 P AP6	 Neck nut MR3
12	439 00 179	439 00 183	439 00 159	439 00 186	439 00 150
16			439 00 161	439 00 187	439 00 151
20	439 00 180	439 00 184	434 00 016	434 00 001	
25					

Each cylinder is delivered with a neck nut.

OPTION

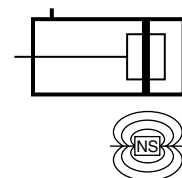
- Other strokes on request

Series 435
Type: CC-AS/DM

DOUBLE ACTING CYLINDERS Ø 12 to 25 mm

equipped for magnetic position detectors
Conforming with ISO - CETOP - AFNOR standards

With elastic cushioning ISOCLAIR COMPACT/DM



SPECIFICATIONS

FLUID : air or neutral gas, filtered, lubricated or not
PRESSURE : 10 bar max.
TEMPERATURE : -10 °C ; + 70 °C
STANDARDS : ISO 6432 - 8139 - 8140
CETOP RP 52 P - RP 102 P - RP 103 P
AFNOR NF E 49-030 - NF E 49-035 - NF E 49-036

CONSTRUCTION

Barrel : non magnetic stainless steel
Rod : stainless steel
Front and rear covers : anodized light alloy
Piston : acetal resin (POM) and light alloy
Piston seals : polyurethane (PUR)
Neck nut : galvanized steel
Rod nut : galvanized steel
Dismounting : cannot be dismounted
Cushioning : elastic

good resistance
to corrosive elements



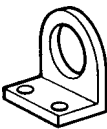
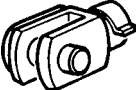
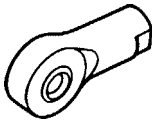
CHOICE OF EQUIPMENT

Bore in mm	Strokes in mm	CODES * to specify on order	REFERENCES to specify on order	Con- nection
12	25	435 00 402	CC 12 AS 25 - DM	M5
	50	435 00 403	CC 12 AS 50 - DM	
	80	435 00 404	CC 12 AS 80 - DM	
	100	435 00 405	CC 12 AS 100 - DM	
16	25	435 00 406	CC 16 AS 25 - DM	M5
	50	435 00 407	CC 16 AS 50 - DM	
	80	435 00 408	CC 16 AS 80 - DM	
	100	435 00 409	CC 16 AS 100 - DM	

Bore in mm	Strokes in mm	CODES * to specify on order	REFERENCES to specify on order	Con- nection
20	25	435 00 410	CC 20 AS 25 - DM	G 1/8
	50	435 00 411	CC 20 AS 50 - DM	
	80	435 00 412	CC 20 AS 80 - DM	
	100	435 00 413	CC 20 AS 100 - DM	
25	25	435 00 414	CC 25 AS 25 - DM	G 1/8
	50	435 00 415	CC 25 AS 50 - DM	
	80	435 00 416	CC 25 AS 80 - DM	
	100	435 00 417	CC 25 AS 100 - DM	
	160	435 00 418	CC 25 AS 160 - DM	

* The magnetic position detectors are ordered separately: UNI model, reed switch or magneto-resistive type (see P295)

MOUNTINGS

Cylinder bore in mm	CODES to specify on order				
	 Front flange MF 8	 High Foot (per unit) MS3	 Rod end clevis ISO 8140 - RP 102 P AP2	 Spherical bearing rod end ISO 8139 - RP 103 P AP6	 Neck nut MR3
12	439 00 179	439 00 183	439 00 159	439 00 186	439 00 150
16					
20	439 00 180	439 00 184	439 00 161	439 00 187	439 00 151
25			434 00 016	434 00 001	

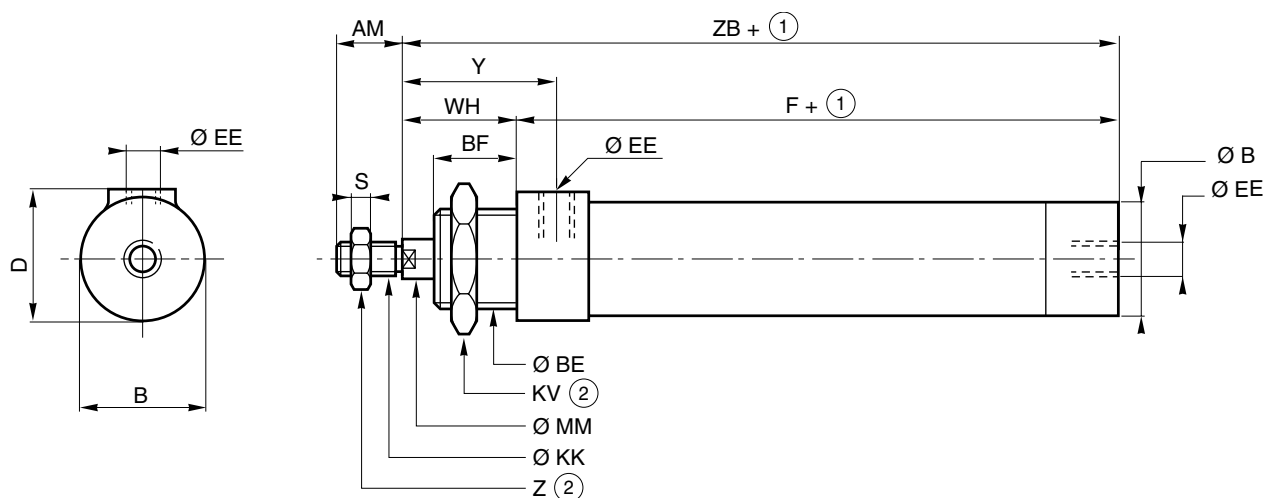
Each cylinder is delivered with a neck nut.

OPTION

• Other strokes on request

DIMENSIONS AND WEIGHTS

BARE CYLINDER (delivered with front neck nut).



Ø bore (mm)	DIMENSIONS (mm)											
	AM	B	ØBE	BF	D	EE	F	ØKK	MM	S	KV	WH
12	16	14	M16x1,5	14	20	M5	48,8	M6x1	6	3	19	22
16	16	20	M16x1,5	14	21	M5	55,8	M6x1	6	3	19	22
20	20	24	M22x1,5	17,5	29	G1/8	64,5	M8x1,25	10	4	27	24
25	22	29	M22x1,5	17,5	30	G1/8	69,6	M10x1,25	10	5	27	28

Ø bore (mm)	DIMENSIONS (mm)			WEIGHTS (Kg)	
	Y	Z	ZB	③	④
12	29	10	70,7	0,050	0,090
16	29	10	77,7	0,070	0,100
20	32,5	13	88,3	0,140	0,160
25	36,5	17	97,5	0,150	0,200

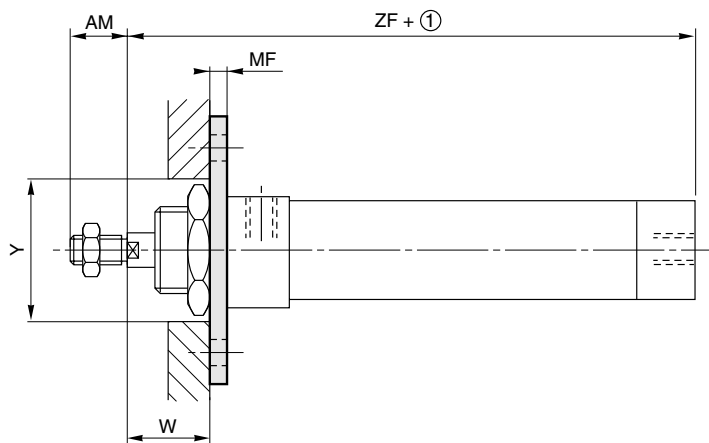
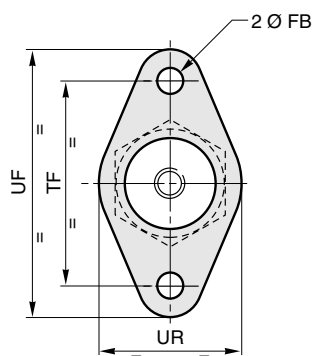
- ① Stroke
 ② across flats
 ③ Cylinder weight with 0 mm stroke.
 ④ Weight to be added per additional 100 mm length.

NOTE :

- Single and double acting cylinders Ø 12 to 25 mm have the same dimensions.
- The length of the SES version is **twice** the nominal stroke.
- The mountings are always delivered separately.

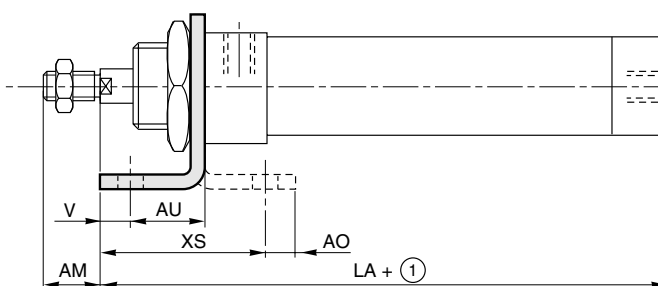
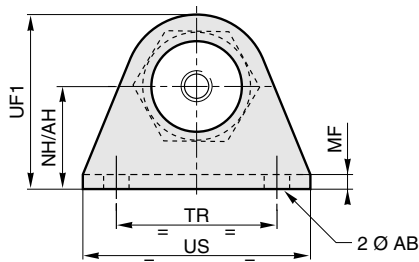
Series 435 - DIMENSIONS

FRONT MOUNTING FLANGE - MF8



Weights mounting (Kg)
 Ø 12-16 = 0,020
 Ø 20-25 = 0,040

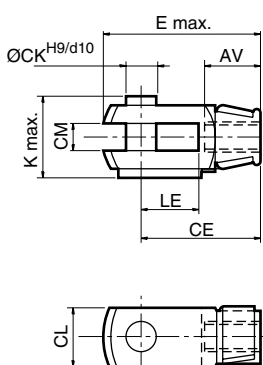
HIGH FOOT MOUNTING - MS3



Weights mounting (Kg)
 Ø 12-16 = 0,050
 Ø 20-25 = 0,100

FEMALE ROD CLEVIS - AP2

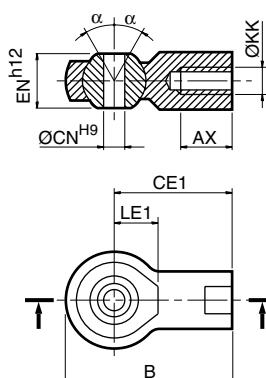
ISO 8140 - RP102 P



Weights mounting (Kg)
 Ø 12-16 = 0,020
 Ø 20 = 0,050
 Ø 25 = 0,100

SPHERICAL BEARING ROD END - AP6

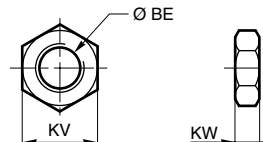
ISO 8139 - RP103 P



Weights mounting (Kg)
 Ø 12-16 = 0,030
 Ø 20 = 0,050
 Ø 25 = 0,070

NECK NUT - MR3

Weights mounting (Kg)
 Ø 12-25 = 0,010



① = Stroke

Ø bore (mm)	DIMENSIONS (mm)																	
	AM	AO	AU	ØAB ØFB	AV AX	B	ØBE	CE	CE1	ØCK	CL	CM	ØCN	E	EN	K	Ø KK	KV
12	16	6	14	5,5	12	40	M16x1,5	24	30	6	12	6 ^{+0,4 +0,1}	6	33,5	9	16,5	M6x1	19
16	16	6	14	5,5	12	40	M16x1,5	24	30	6	12	6 ^{+0,4 +0,1}	6	33,5	9	16,5	M6x1	19
20	20	9	17	6,6	16	48	M22x1,5	32	36	8	16	8 ^{+0,5 +0,15}	8	45	12	22	M8x1,25	27
25	22	9	17	6,6	20	57	M22x1,5	40	43	10	20	10 ^{+0,5 +0,15}	10	56	14	26	M10x1,25	27

Ø bore (mm)	DIMENSIONS (mm)															
	KW	LE	LE1	MF	NH AH	TF	TR	UR	UF	UF1	US	V	W	XS	Y	ZB
12	4	12	11	4	20	40	32	30	52	32	42	8	18	32	22	70
16	4	12	11	4	20	40	32	30	52	32	42	8	18	32	22	77
20	5	16	13	5	25	50	40	40	66	45	54	7	19	36	31	88
25	5	20	15	5	25	50	40	40	66	45	54	11	23	40	31	97