

STAINLESS STEEL

compact cylinders ISO 21287



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Stainless Steel Compact Cylinders ISO 21287

Main features and certifications

Series of Stainless Steel compact cylinders conforming to ISO 21287 standards in bores from Ø 25 to 100, single or double acting, magnetic. Compatible with mounting accessories for cylinders ISO 15552. Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. Lubrication with synthetic grease long lasting for applications with low start up, granting low friction and a permanent lubrication film. Fully composed by non-toxic elements conforming to FDA Directive section 21 CFR 178 about accidental contact with food (registered NSF H1). On request, can be also supplied according to the 2014/34/EU ATEX Directive.

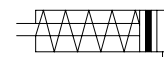


Type CIXS Ø 25 ÷ 100

from page 5.20.20



Stainless Steel compact cylinders conforming to ISO 21287 standards in bores from Ø 25 to 100, single acting, magnetic, with female thread and equipped with elastic dampers on the piston

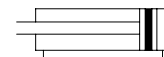


Type CIX Ø 25 ÷ 100

from page 5.20.20

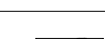


Stainless Steel compact cylinders conforming to ISO 21287 standards in bores from Ø 25 to 100, double acting, magnetic, with female thread and equipped with elastic dampers on the piston



Stainless Steel Compact Cylinders ISO 21287

Options

Description	Symbol	Suffix
Anti-rotating plate (available only for type CIX)		N
Rear spring (available only for type CIXS)		T
Male threaded rod		M
Through rod		P
FKM seals -20°C ÷ +150°C		V
FKM rod seal -20°C ÷ +80°C		V1
Low temperature seals -40°C ÷ +80°C		BT
Extended rod (indicate the requested WH dimension in mm, E.g.: WH=100; for further information please contact the sales department)		WH=..
Special thread (indicate the requested thread. E.g.: R-M 10x1,5; if combined with option M, the AM dimension of the special thread will be the same as the standard; the cylinder will be supplied without rod nut; for further information please contact the sales department).		R-M..
ATEX versions on request		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 5.20.4

Options matching

Series	Bore	Model	Standard options matching									
			N	T	M	P	V	V1	BT	WH=.. ⁽¹⁾	R-M.. ⁽²⁾	/ATEX
CIXS	Ø 25 ÷ 100	Standard	-	●	●	●	●	●	●	●	●	●
		Rear spring (T)	-		●	-	●	●	●	●	●	●
		Male threaded rod (M)	-	●		●	●	●	●	●	●	●
		Through rod (P)	-	-	●		●	●	●	●	●	●
CIX	Ø 25 ÷ 100	Standard	●	-	●	●	●	●	●	●	●	●
		Anti-rotating plate (N)		-	-	●	●	●	●	●	●	●
		Male threaded rod (M)	-	-		●	●	●	●	●	●	●
		Through rod (P)	●	-	●		●	●	●	●	●	●

Key

● matching accessory; - not matching accessory

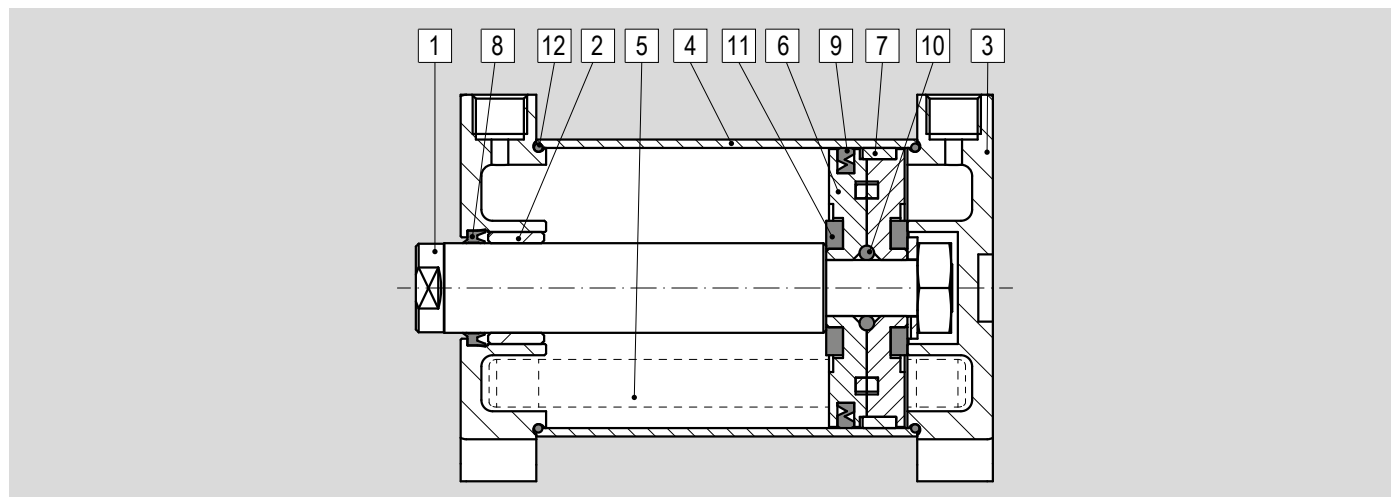
Options matching - note

- (1) Option **WH=..** require to indicate the desired dimension in mm; for models with through rod option (**P**) the extended rod option (**WH=..**) is applied only to one side of the rod. For further information please contact the sales department.
- (2) Option **R-M..** require to indicate the desired thread; for models with through rod option (**P**) the special male thread option (**R-M..**) are applied on both sides of the rod. For further information please contact the sales department.

Code key

Bore	/	Stroke	Type	Options	
40	/	80	CIX		
Ø 25, 32, 40, 50, 63, 80, 100		See page 5.20.20	CIXS Single acting Magnetic CIX Double acting Magnetic	N ⁽¹⁾	T ⁽²⁾

Standard materials



Position	Description	Material
1	Rod	Stainless Steel AISI 316L
2	Bushing	Stainless Steel with PTFE
3	Heads	Stainless Steel AISI 316L
4	Tube	Stainless Steel AISI 316L
5	Tie-rods	Stainless Steel AISI 316L
6	Piston	Aluminium
7	Guide ring	PTFE
8	Rod seal	Polyurethane (PU)
9	Piston seal	NBR
10	Semipiston O-ring	NBR
11	Elastic damper	NBR
12	Tube seal	NBR

Options				/	ATEX version	Special version
M	P			/		
M	P	V	WH=..			S
		V1				
		BT				
					ATEX	
					  II 2G Ex h IIC T5 Gb II 2D Ex h IIC T100°C Db	

How to order

Bore	Stroke	Type	Options
40	80	CIX	M P

Notes

For standard materials see the table in the next page.
 Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 5.20.3
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1
 (1) Available only for type CIX.
 (2) Available only for type CIXS.

Standard* seal kit

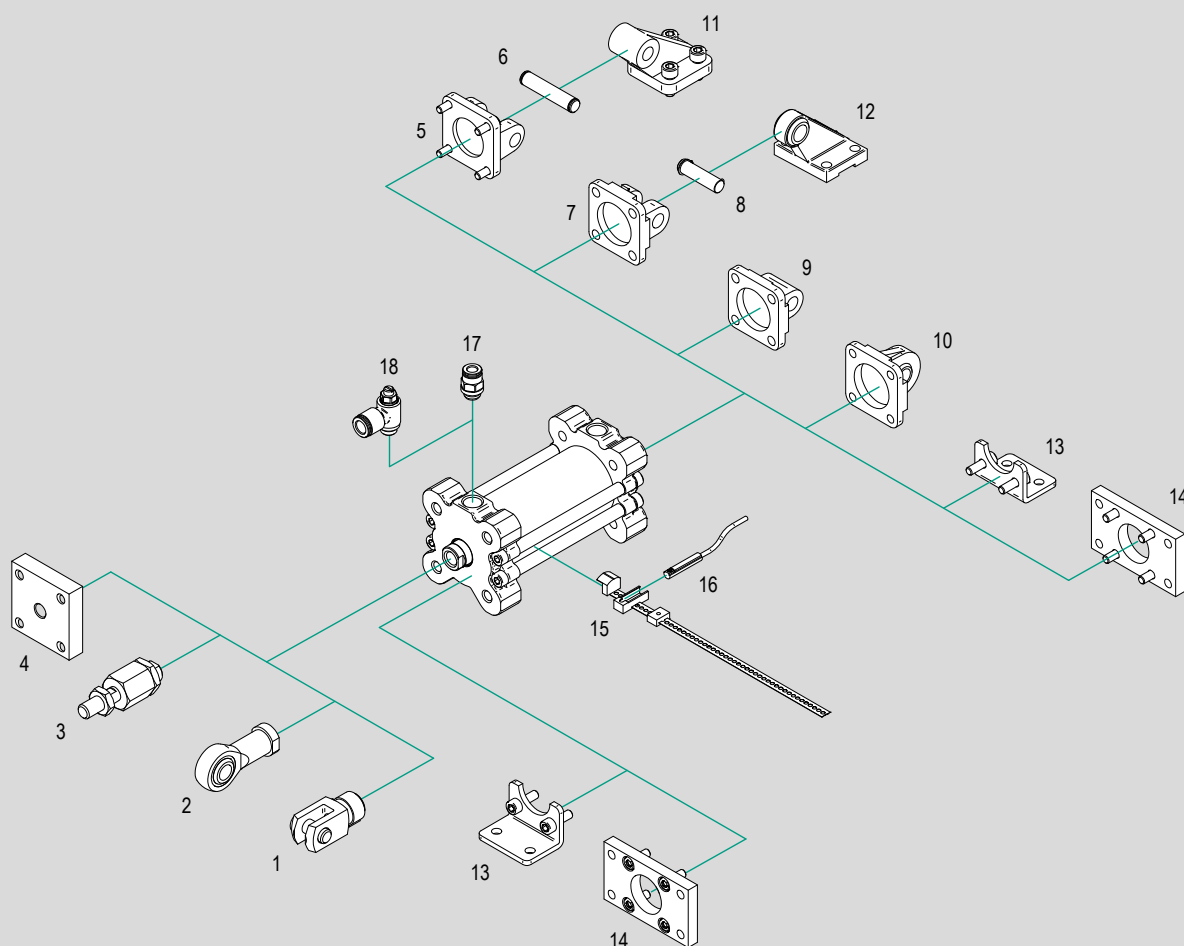
Number of components	Description
n. 1	Rod seal
n. 2	Tube seal
n. 1	Piston seal
n. 1	Semipiston O-ring
n. 1	Piston guide ring
n. 2	Elastic dampers

*For cylinders with options P, V, V1 or BT the kit include further components,

Standard seal kit code key

Cylinder bore	/	Seals kit	/	Cylinder type
40	/	SG	/	CIX
 Ø 25, 32, 40, 50, 63, 80, 100		 SG		 CIXS, CIX

Accessories



N.	Cylinder bore	Item	Description	Compliance	Matching		Code key page	Data sheet page
					CIXS	CIX		
1	Ø 25 ÷ 100	FFX..ISO	Stainless Steel ISO female clevis with pin and seeger	ISO 8140	● ⁽¹⁾	● ⁽¹⁾	5.20.90	5.52.1
2	Ø 25 ÷ 100	RFX..SE	Stainless Steel bearing heads (DIN 648K) with female thread	ISO 8139	● ⁽¹⁾	● ⁽¹⁾		5.54.1
3	Ø 25 ÷ 100	GBX..	Stainless Steel self-aligning articulated coupling	-	● ⁽¹⁾	● ⁽¹⁾		5.55.1
4	Ø 25 ÷ 100	GCX..	Stainless Steel self-aligning coupling		● ⁽¹⁾	● ⁽¹⁾		5.57.1
5	Ø 32 ÷ 100	CFX..AQIS	Stainless Steel rear clevis	ISO MP2	●	●		5.77.1
6	Ø 32 ÷ 100	SECX..AQIS	Stainless Steel pin with seeger	ISO AA4	●	●	5.20.91	5.75.5
7	Ø 32 ÷ 100	CFSX..AQIS	Stainless Steel narrow rear clevis (for DIN 648K bearing)	ISO AB6	●	●	5.20.90	5.77.1
8	Ø 32 ÷ 100	SECX..ARAQIS	Stainless Steel anti-rotating pin with seeger	ISO AA6	●	●	5.20.91	5.75.5
9	Ø 32 ÷ 100	CMX..AQIS	Stainless Steel rear eye	ISO MP4	●	●	5.20.90	5.77.2
10	Ø 32 ÷ 100	CMSX..AQIS	Stainless Steel narrow rear eye with DIN 648K bearing	ISO MP6	●	●		5.77.2
11	Ø 32 ÷ 100	ASVX..AQIS	Stainless Steel rear 90° hinge	ISO AB7 CETOP RP 107P	●	●		5.77.3
12	Ø 32 ÷ 100	ASSX..AQIS	Stainless Steel rear 90° hinge with DIN 648K spherical bearing	ISO CS7	●	●		5.77.3
13	Ø 25 ÷ 100	PBX..	Stainless Steel low foot	ISO MS1	●	●	5.20.91	5.77.4
14	Ø 32 ÷ 100	FLVX..AQIS	Stainless Steel flange	ISO VDMA MP1/MP2	●	●		5.77.4
16	Ø 25 ÷ 63	AFR..	Bracket for magnetic reed switch T groove	-	●	●		1.120.3
		ASV..	Magnetic reed switch T groove		●	●		1.110.10
		MK..	ATEX magnetic reed switch T groove	2014/34/UE	●	●		1.113.1
17	Ø 25 ÷ 100	RX	Stainless steel push-in fittings	-	●	●	5.302.1	
18	Ø 25 ÷ 100	VX..C	Stainless Steel flow controls, for cylinders		●	●	5.372.1	

Key

● matching accessory; - not matching accessory

(1) Matching with option **M** only

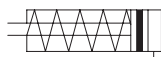
Stainless Steel Compact Cylinders ISO 21287

Series CIXS - CIX

Main features

25 ÷ 100

Bores Ø



Single acting
Magnetic
With female thread

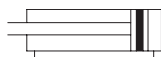
CIXS

Type



25 ÷ 100

Bores Ø



Double acting
Magnetic
With female thread

CIX

Type



Technical data

Bore Ø		25	32	40	50	63	80	100
Fluid		Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.						
Pressure range	CIXS	2 ÷ 10 bar						
	CIX	1 ÷ 10 bar						
Temperature range		-20°C ÷ +80°C (standard / V1)			-20°C ÷ +150°C (V)		-40°C ÷ +80°C (BT)	
Ports		M5	1/8"					
Strokes	CIXS*	5 ÷ 25 mm						
	CIX	5 ÷ 300 mm	5 ÷ 400 mm				5 ÷ 500 mm	
Rod thread	CIX-CIXS	M6	M8		M10		M12	
	CIXM-CIXSM	M8x1,25	M10x1,25		M12x1,25		M16x1,5	

*With option N the maximum stroke for bore Ø 25 is 200mm, for bores Ø 32÷63 is 300mm, for bores Ø 80÷100 is 400mm;

Standard strokes

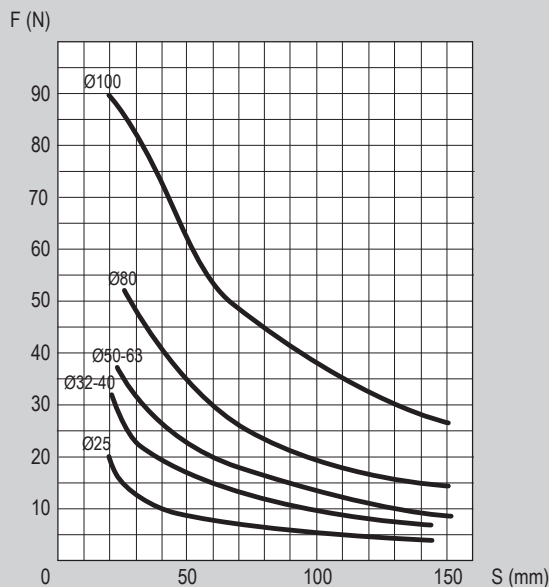
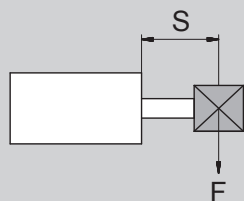
Stroke mm	CIXS Bore Ø mm						
	25	32	40	50	63	80	100
5							
10							
15							
20							
25							

Stroke mm	CIX Bore Ø mm						
	25	32	40	50	63	80	100
5							
10							
15							
20							
25							
30							
40							
50							
60							
80							
100							
160							
200							
250							
300							
350							
400							
450							
500							

Key
 Standard stroke

5.20.20

Allowable radial loads



Theoretical thrust force

Unit: N



Ø Cylinder (mm)	Pressure range (bar)
	6
25	294
32	482
40	754
50	1178
63	1869
80	3014
100	4710

Theoretical traction force

Unit: N



Ø Cylinder (mm)	Pressure range (bar)
	6
25	247
32	414
40	633
50	989
63	1681
80	2720
100	4416

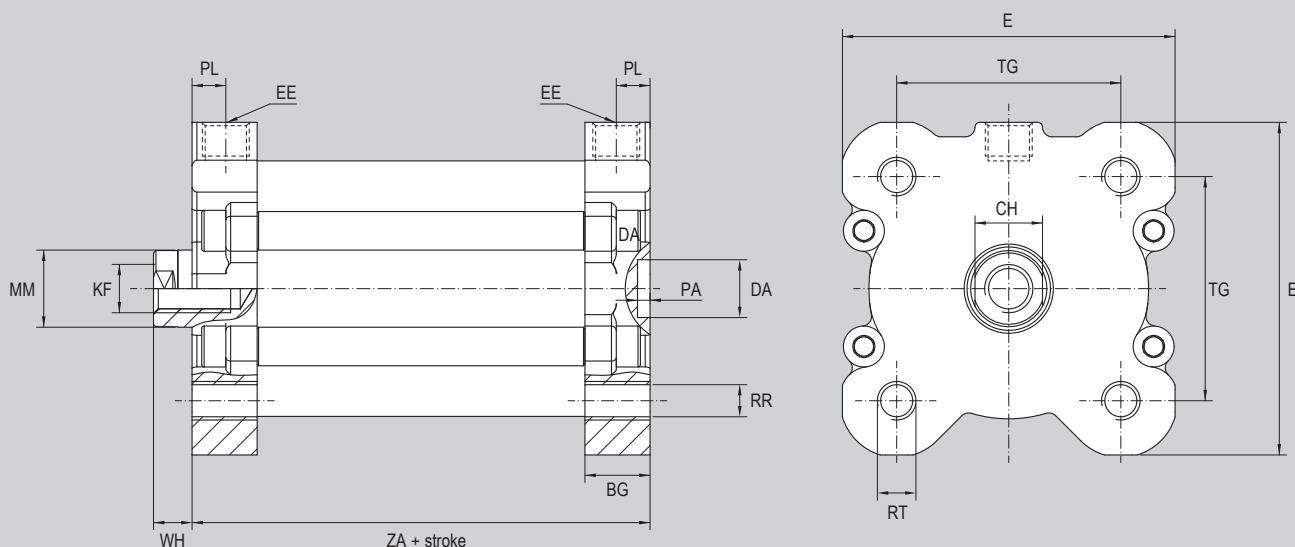
Theoretical spring force (for CIXS type only)

Unit: N

Cylinder Ø (mm)	Strokes (mm)									
	5		10		15		20		25	
	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
25	30	33	26	33	23	33	20	33	16	33
32	50	54	46	54	42	54	38	54	34	54
40	52	55	50	55	46	55	43	55	40	55
50	59	63	54	63	49	63	44	63	39	63
63	-	-	-	-	62	78	56	78	51	78
80	-	-	-	-	100	116	95	116	89	116
100	-	-	-	-	136	159	129	159	121	159

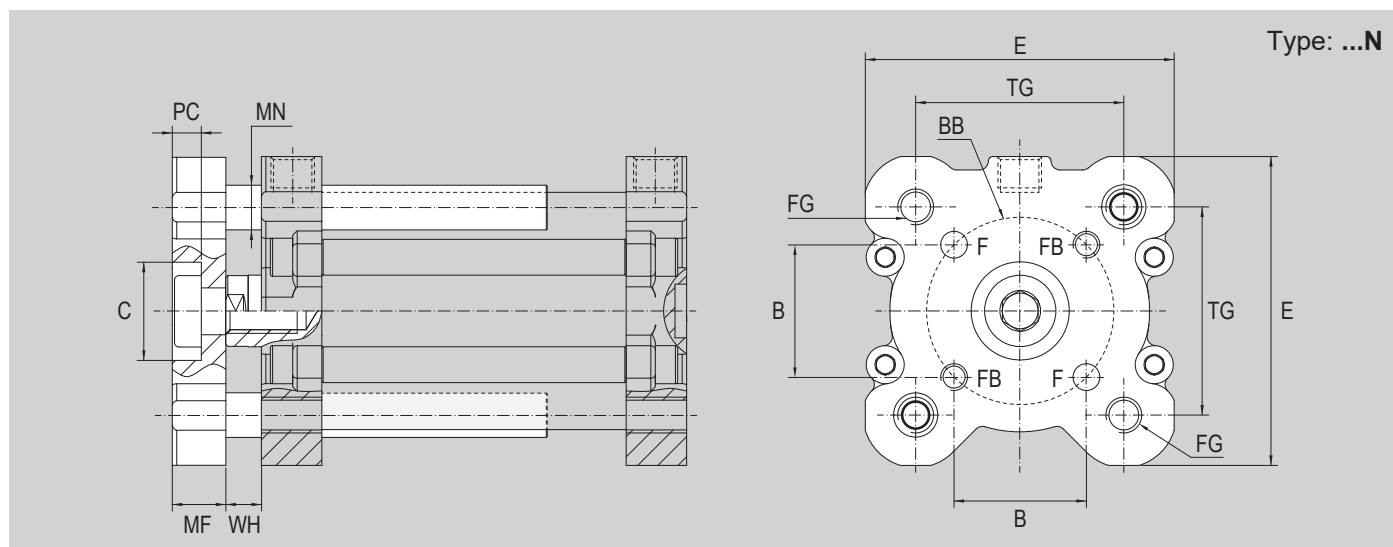
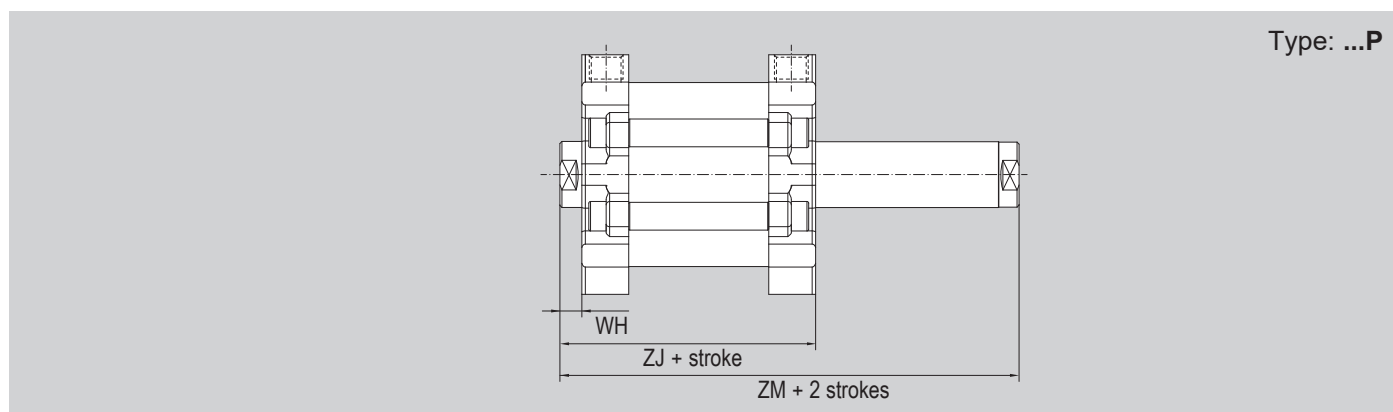
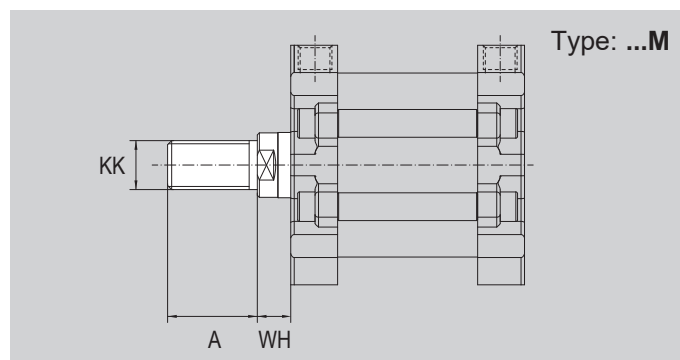
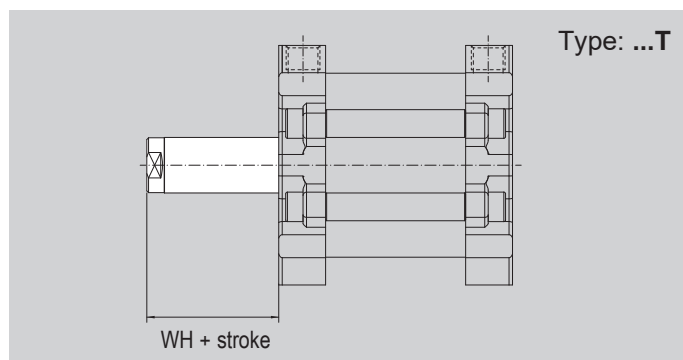
Standard dimensions

Type: CIXS-CIX



Ø (mm)	ØMM f7	WH	ZA	ZB	KF	EE	BG	RR	TG	E	RT	PL	CH	ØDA h9	PA +0,1
25	10	6	39	45	M6	M5	15	4,1	26	40	M5	5	8	9	2,1
32	12	7	44	51	M8	G 1/8"	16	-	32,5	47,5	M6	7	10	9	2,1
40	12	7	45	52	M8	G 1/8"	16	5,1	38	55	M6	7,5	10	9	2,1
50	16	8	45	53	M10	G 1/8"	16	6,4	46,5	66	M8	7,5	14	12	2,6
63	16	8	49	57	M10	G 1/8"	16	6,4	56,5	78	M8	7	14	12	2,6
80	20	10	54	64	M12	G 1/8"	17	8,4	72	96	M10	8	17	12	2,6
100	20	10	67	77	M12	G 1/8"	17	8,4	89	116	M10	8,5	17	12	2,6

Dimensions with options



Ø (mm)	A	KK	WH	ZJ	ZM	MF +0,1	E	TG	B	FG	ØBB ±0,1	ØF +0,1	ØFB	ØC H9	PC	ØMN f7
25	16	M8x1,25	6	45	51	8	40	26	15.6	M5	22	5	M5	14	4,5	6
32	19	M10x1,25	7	51	58	10	50	32,5	19.8	M6	28	5	M5	17	5,5	8
40	19	M10x1,25	7	52	59	10	55	38	23,3	M6	33	5	M5	17	5,5	8
50	22	M12x1,25	8	53	61	12	66	46,5	29,7	M8	42	6	M6	22	6,5	10
63	22	M12x1,25	8	57	65	12	78	56,5	35,4	M8	50	6	M6	22	6,5	10
80	28	M16x1,5	10	64	74	14	96	72	46	M10	65	8	M8	24	7,5	10
100	28	M16x1,5	10	77	87	14	116	89	56.6	M10	80	10	M10	24	7,5	12

Accessories for stainless steel cylinders ISO 21287

Stainless Steel female clevis* with pin and seeger FFX..ISO

	For cylinder Ø mm	Code	Item	Compliance
	25	041054	FFX08ISO	
	32-40	041055	FFX10ISO	
	50-63	041056	FFX12ISO	
	80-100	041057	FFX16ISO	

*Matching with option M only

Stainless Steel bearing heads* (DIN 648K) RFX..SE

	For cylinder Ø mm	Code	Item	Compliance
	25	041577	RFX8SE	
	32-40	040009	RFX10SE	
	50-63	041578	RFX12SE	
	80-100	040011	RFX16SE	

*Matching with option M only

Stainless Steel self-aligning articulated coupling* GBX..

	For cylinder Ø mm	Code	Item	Compliance
	25	041736	GBX020	-
	32-40	041737	GBX040	
	50-63	041738	GBX060	
	80-100	041739	GBX100	

*Matching with option M only

Stainless Steel self-aligning coupling* GCX..

	For cylinder Ø mm	Code	Item	Compliance
	32-40	041728	GCXM10x1,25	-
	50-63	041729	GCXM12x1,25	
	80-100	041730	GCXM16x1,5	

*Matching with option M only

Stainless Steel rear clevis CFX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040012	CFX032AQIS	
	40	040830	CFX040AQIS	
	50	040801	CFX050AQIS	
	63	040014	CFX063AQIS	
	80	040013	CFX080AQIS	
	100	040838	CFX100AQIS	

Pin type SECX..AQIS to be ordered separately, see page 5.20.91

Stainless Steel rear eye CMX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040805	CMX032AQIS	
	40	040806	CMX040AQIS	
	50	040802	CMX050AQIS	
	63	040808	CMX063AQIS	
	80	040016	CMX080AQIS	
	100	040799	CMX100AQIS	

Stainless Steel narrow rear clevis (for DIN 648K bearing) CFSX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040821	CFSX032AQIS	
	40	040822	CFSX040AQIS	
	50	040823	CFSX050AQIS	
	63	040824	CFSX063AQIS	
	80	040825	CFSX080AQIS	
	100	040826	CFSX100AQIS	

Anti-rotating pin type SECX..ARAQIS to be ordered separately, see page 5.20.91

Stainless Steel narrow rear eye with DIN 648K bearing CMSX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040834	CMSX032AQIS	
	40	040835	CMSX040AQIS	
	50	040836	CMSX050AQIS	
	63	040010	CMSX063AQIS	
	80	040837	CMSX080AQIS	
	100	040848	CMSX100AQIS	

Stainless Steel rear 90° hinge ASVX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040809	ASVX032AQIS	
	40	040810	ASVX040AQIS	
	50	040812	ASVX050AQIS	
	63	040813	ASVX063AQIS	
	80	040814	ASVX080AQIS	
	100	040815	ASVX100AQIS	

cetop
RP 107P

Stainless Steel rear 90°hinge with DIN 648K spherical bearing ASSX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040850	ASSX032AQIS	
	40	040851	ASSX040AQIS	
	50	040852	ASSX050AQIS	
	63	040853	ASSX063AQIS	
	80	040854	ASSX080AQIS	
	100	040855	ASSX100AQIS	

Accessories for stainless steel cylinders ISO 21287

Stainless Steel low foot* PBX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040872	PBX032AQIS	
	40	040873	PBX040AQIS	
	50	040874	PBX050AQIS	
	63	040875	PBX063AQIS	
	80	040876	PBX080AQIS	
	100	040877	PBX100AQIS	

*Supplied individually

Stainless Steel flange FLVX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040864	FLVX032AQIS	  MF1 / MF2
	40	040865	FLVX040AQIS	
	50	040840	FLVX050AQIS	
	63	040866	FLVX063AQIS	
	80	040867	FLVX080AQIS	
	100	040868	FLVX100AQIS	

Stainless Steel flat head allen screw type VBTRX to be ordered separately, see page 5.79.1

Stainless Steel pin with seeger* SECX..AQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040829	SECX032AQIS	
	40	040831	SECX040AQIS	
	50	040811	SECX050AQIS	
	63	040832	SECX063AQIS	
	80	040015	SECX080AQIS	
	100	040839	SECX100AQIS	

*Supplied with 2 seeger

Stainless Steel anti-rotating pin with seeger* SECX..ARAQIS

	For cylinder Ø mm	Code	Item	Compliance
	32	040857	SECX032ARAQIS	
	40	040858	SECX040ARAQIS	
	50	040859	SECX050ARAQIS	
	63	040860	SECX063ARAQIS	
	80	040861	SECX080ARAQIS	
	100	040862	SECX100ARAQIS	

*Supplied with 1 seeger

Magnetic reed switch T groove ASV..

	For cylinder Ø mm	Code	Item	Cylinder matching
	25 ÷ 63	070946	ASV1C525	
		071863	ASV1C550	
		071864	ASV1C51K	
		071189	ASV1C5M8	
		073639	ASV4D225	
		070246	ASV4D2M8	
		074900	ASV7N225	
		070247	ASV7N2M8	
		070372	ASV7M2M8	
		072918	ASV1H525	

ATEX magnetic reed switch T groove MK..

	For cylinder Ø mm	Code	Item	Compliance	Cylinder matching
	25 ÷ 63	071120	MK500A		
		071108	MK502A		

Bracket for magnetic reed switch T groove type AFR..

	For cylinder Ø mm	Code	Item	Compliance
	25 ÷ 63	072907	AFR1063	-