



FR toothed parallel gripper series

FOUK-FR

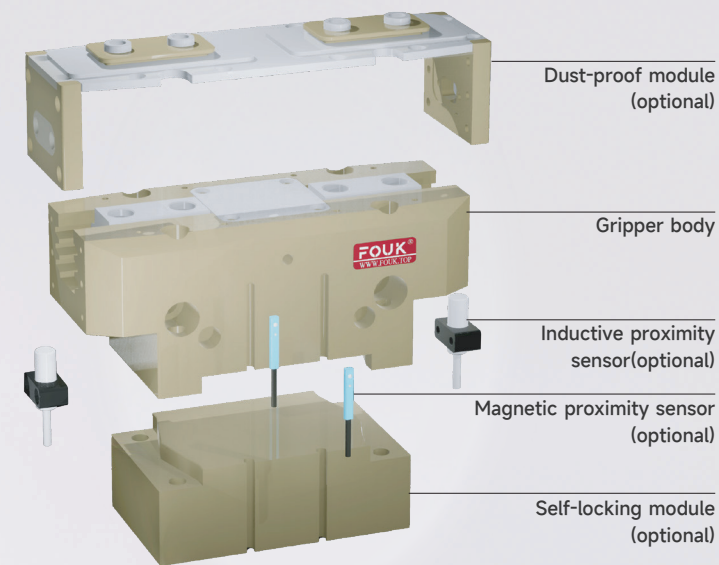
For the standard pneumatic two-finger gripper, FOUK adopts high-strength materials and the surface treatment process of strong wear resistance, which ensures the reliability and service life of the product in use. Meanwhile, it has abundant optional interfaces to adapt to the complex working conditions of various industries.



Usage Video of FR Series Products

Extensive range of optional modules

It can be matched with various optional modules to meet the requirements of dust prevention, self-locking, high temperature resistance, etc. according to the special use conditions of different industries.



Structure Design of Multi-tooth Guide Rail

Referring to the chuck structure, the three-tooth guide rail has higher bearing capacity and longer service life than the conventional guide rail with a T-shaped groove

Wedge drive mode

Thanks to excellent drive structure, it has the characteristics of high load and high centering accuracy

Anodized aviation aluminum housing

By adopting the high-quality aviation aluminum housing, the gripper is ensured to have the characteristics of high load while minimizing the weight.

S	F	m
Single-finger stroke 3..70mm	Gripping force 60P..1900P	Workpiece weight 1.5..90kg
m	m	
Product weight 0.3..52kg	Specification Quantity: 10	

Product Code		Single stroke/mm	Open Gripping Force: N	Close Gripping Force: N	Workpiece weight/kg	Product weight/kg	Page
FR28-76	M	6	60 × P	55 × P	1.5	0.3	12
	S	3	120 × P	110 × P	3.2	0.3	12
FR36-96	M	8	100 × P	92 × P	2.5	0.5	14
	S	4	200 × P	184 × P	5	0.5	14
FR45-120	M	10	138 × P	124 × P	4	0.9	16
	S	5	266 × P	238 × P	7	0.9	16
FR57-151	M	13	214 × P	198 × P	6.5	1.45	18
	S	6	466 × P	430 × P	14	1.5	18
FR72-192	M	16	340 × P	316 × P	10	2.75	20
	S	8	670 × P	624 × P	20	2.8	20
FR99-234	M	25	560 × P	524 × P	20	5.6	22
	S	14	965 × P	905 × P	33	5.7	22
FR117-270	M	30	754 × P	714 × P	25	8.5	24
	S	17	1300 × P	1230 × P	43	8.7	24
FR136-320	M	35	1015 × P	960 × P	32	13.8	26
	S	20	1750 × P	1655 × P	55	14.2	26
FR175-410	M	45	1690 × P	1610 × P	55	27.5	28
	S	26	2900 × P	2760 × P	95	28	28
FR191-525-L	M	70	1900 × P	1820 × P	90	52	30
	NC	70	/	1820 × P	110	62	30

P: Compressed air pressure [bar]

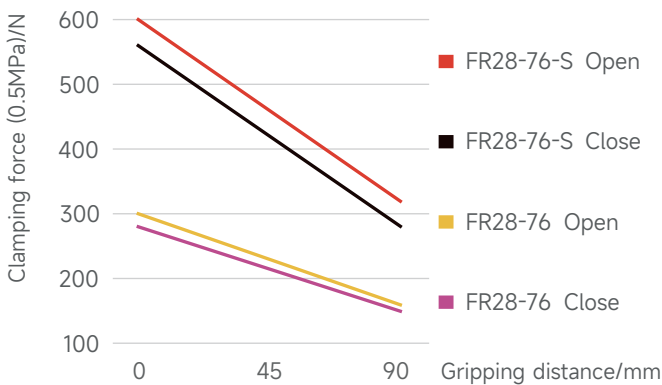
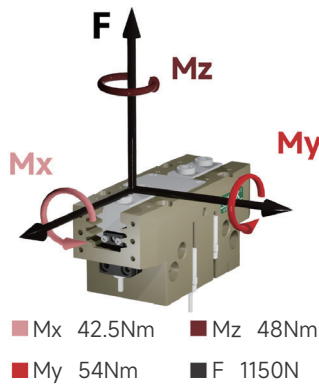
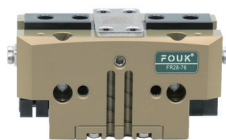
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Toothed parallel gripper series FOUK-FR

FR28-76

Static load-bearing torque

Gripping force curve



FR 28 - 76 - S - B - P - NO - H

Serial No.	Cylinder bore	Shell length	Short stroke	Ventilation at bottom	Dust cover IP64	Self-locking form	High temperature resistance
FR Toothed parallel gripper			S Increased gripping force Standard version M	/ Ventilation on the side	/ Without dust cover	NO Self-locking by opening NC Self-locking by closing / Without self-locking	H -5~240°C / 0~60°C

Inductive proximity sensor

IPSD-2NS-0818-L3	Inductive, NPN, 3-core3m
IPSD-2PS-0818-L3	Inductive, PNP, 3-core3m

Magnetic proximity sensor

MZC2-1V7NS-FU0	Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0	Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

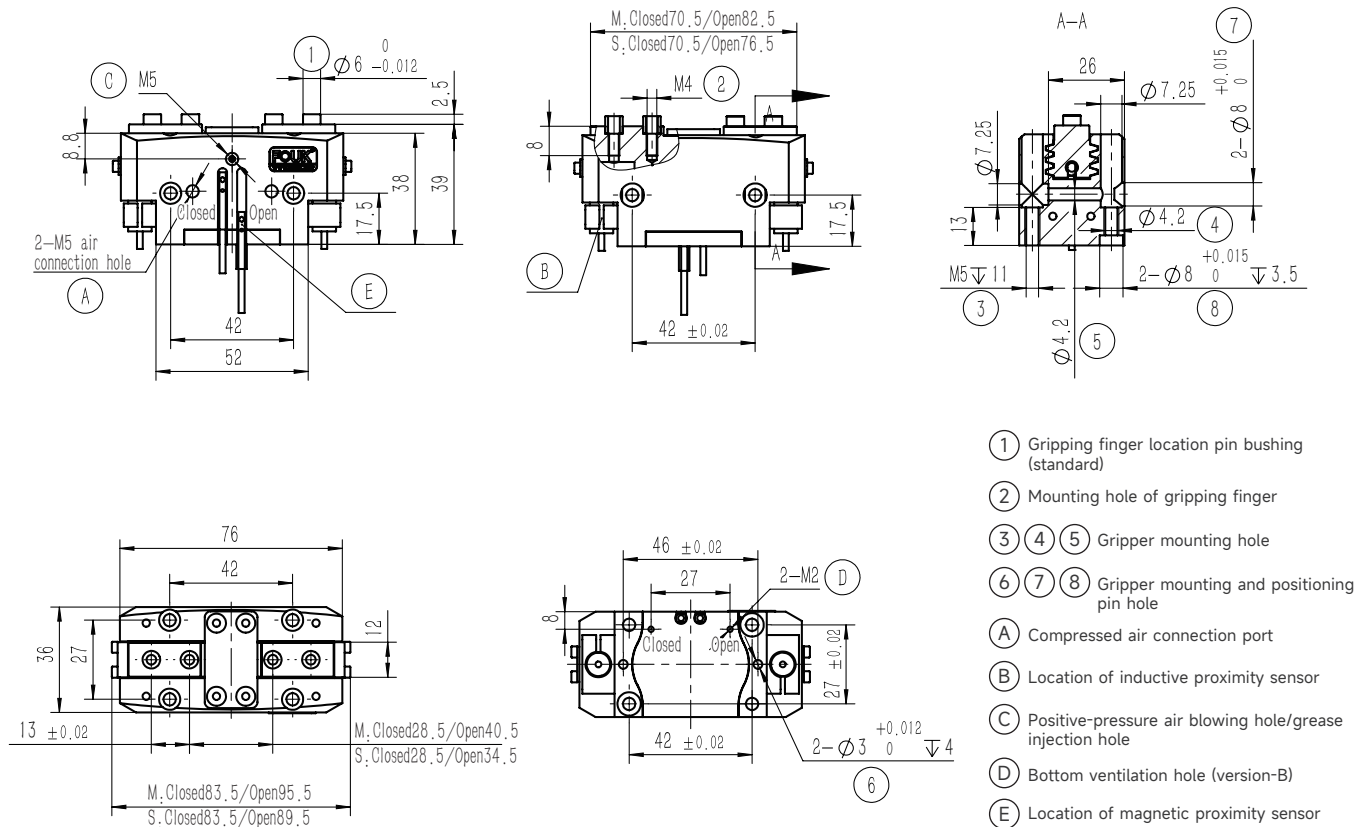
Product attributes	FR28-76	FR28-76-NO	FR28-76-NC	FR28-76-S	FR28-76-S-NO	FR28-76-S-NC	Unit
Single stroke	6	6	6	3	3	3	mm
Product weight	0.3	0.35	0.35	0.3	0.35	0.35	kg
Maximum allowable gripping distance	90	90	90	80	80	80	mm
Theoretical maximum gripping force: opening/closing	60P/55P	60P/-	-/55P	120P/110P	120P/-	-/110P	N
Minimum Spring Locking Force		120	120		240	240	N
Workpiece weight	1.5	1.5	1.5	3.2	3.2	3.2	kg
Opening/closing time	0.02/0.02	0.02/0.04	0.04/0.02	0.02/0.02	0.02/0.04	0.04/0.02	s
Gas consumption of single opening and closing cycle	0.056	0.095	0.095	0.056	0.095	0.095	L

P: Compressed air pressure [bar]

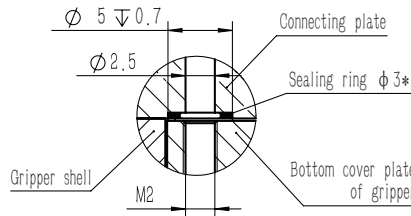
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.02	Specification of air connection port	M5
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	0.4

FR28-76-M/S

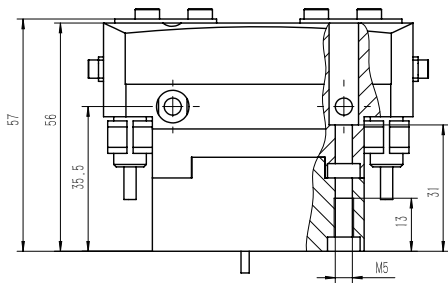


FR28-76-B Ventilation at bottom



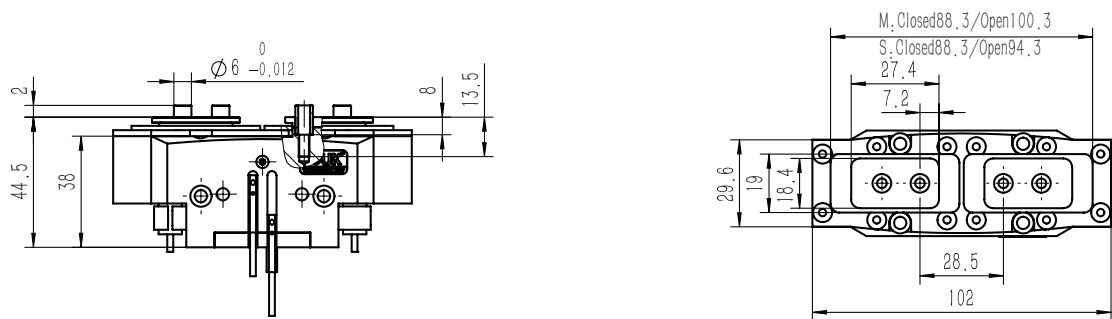
FR28-76-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR28-76-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

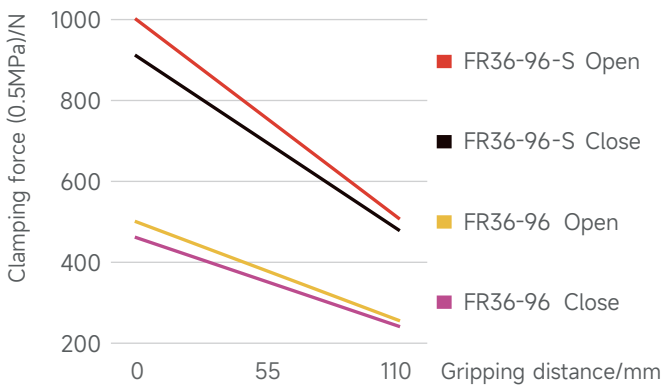
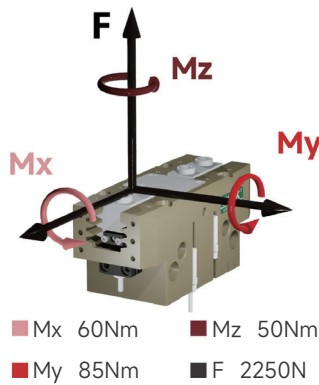


Toothed parallel gripper series FOUK-FR

FR36-96

Static load-bearing torque

Gripping force curve



FR 36 - 96 - S - B - P - NO - H

Serial No.	Cylinder bore	Shell length	Short stroke	Ventilation at bottom	Dust cover IP64	Self-locking form	High temperature resistance
FR Toothed parallel gripper			S Increased gripping force Standard version M	/ Ventilation on the side	/ Without dust cover	NO Self-locking by opening NC Self-locking by closing / Without self-locking	H -5~240°C / 0~60°C

Inductive proximity sensor

IPSD-2NS-0823-L3	Inductive, NPN, 3-core3m
IPSD-2PS-0823-L3	Inductive, PNP, 3-core3m

Magnetic proximity sensor

MZC2-1V7NS-FU0	Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0	Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

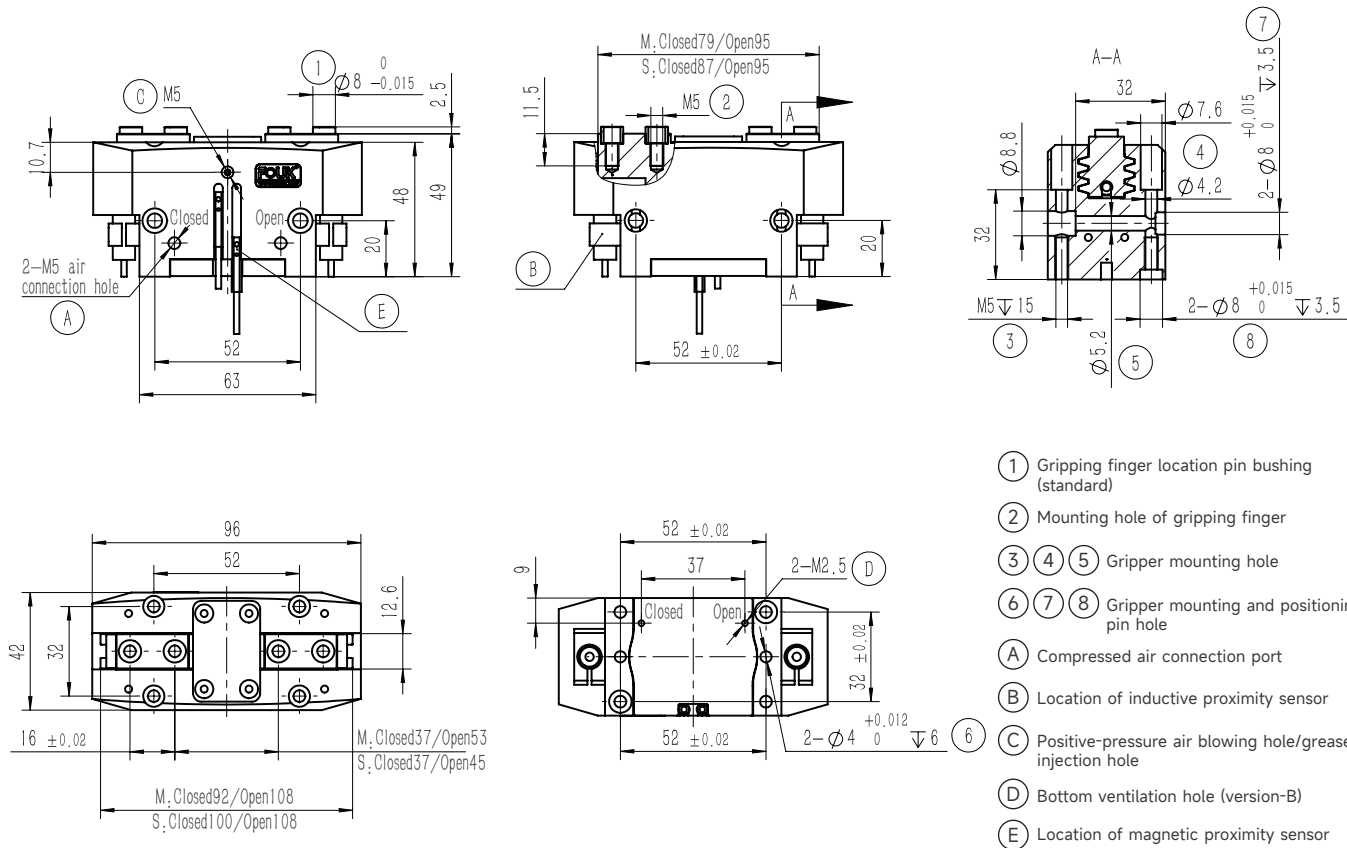
Product attributes	FR36-96	FR36-96-NO	FR36-96-NC	FR36-96-S	FR36-96-S-NO	FR36-96-S-NC	Unit
Single stroke	8	8	8	4	4	4	mm
Product weight	0.5	0.6	0.6	0.5	0.6	0.6	kg
Maximum allowable gripping distance	110	110	110	105	105	105	mm
Theoretical maximum gripping force: opening/closing	100P/92P	100P/-	-/92P	200P/184P	200P/-	-/184P	N
Minimum Spring Locking Force		180	180		360	360	N
Workpiece weight	2.5	2.5	2.5	5	5	5	kg
Opening/closing time	0.035/0.035	0.03/0.05	0.05/0.03	0.035/0.035	0.03/0.05	0.05/0.03	s
Gas consumption of single opening and closing cycle	0.124	0.188	0.188	0.124	0.188	0.188	L

P: Compressed air pressure [bar]

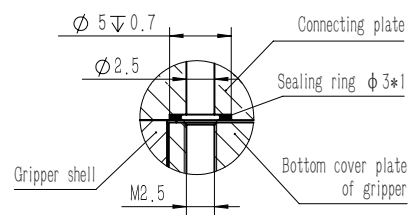
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.02	Specification of air connection port	M5
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	0.7

FR36-96-M/S

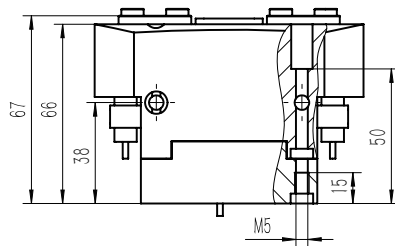


FR36-96-B Ventilation at bottom



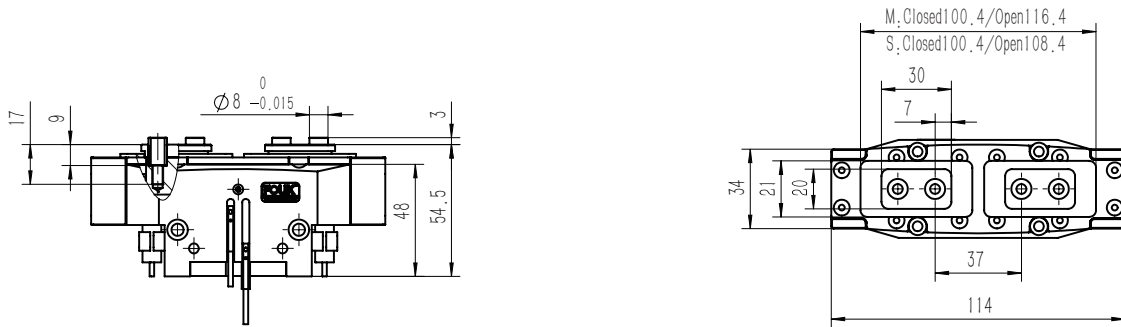
FR36-96-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR36-96-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

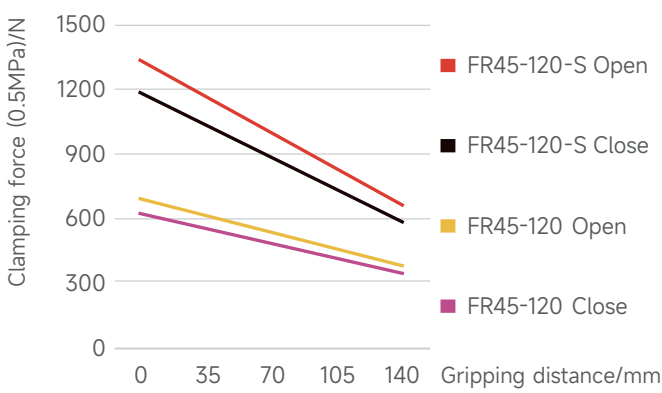
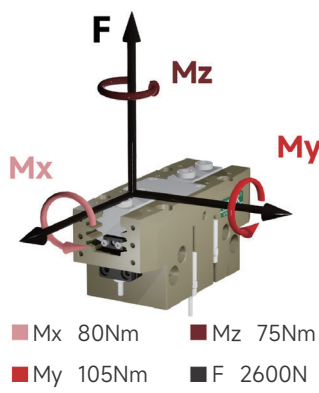
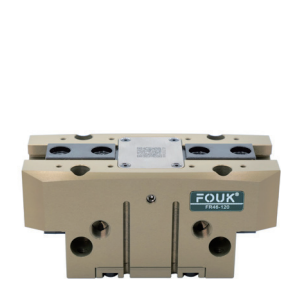


Toothed parallel gripper series FOUK-FR

FR45-120

Static load-bearing torque

Gripping force curve



FR 45 - 120 - S - B - P - NO - H

Serial No. Cylinder bore Shell length Short stroke Ventilation at bottom Dust cover IP64 Self-locking form High temperature resistance

FR Toothed parallel gripper S Increased gripping force Standard version M / Ventilation on the side / Without dust cover NO Self-locking by opening NC Self-locking by closing / Without self-locking H -5~240°C / 0~60°C

Inductive proximity sensor

IPSD-2NS-0823-L3 Inductive, NPN, 3-core3m
IPSD-2PS-0823-L3 Inductive, PNP, 3-core3m

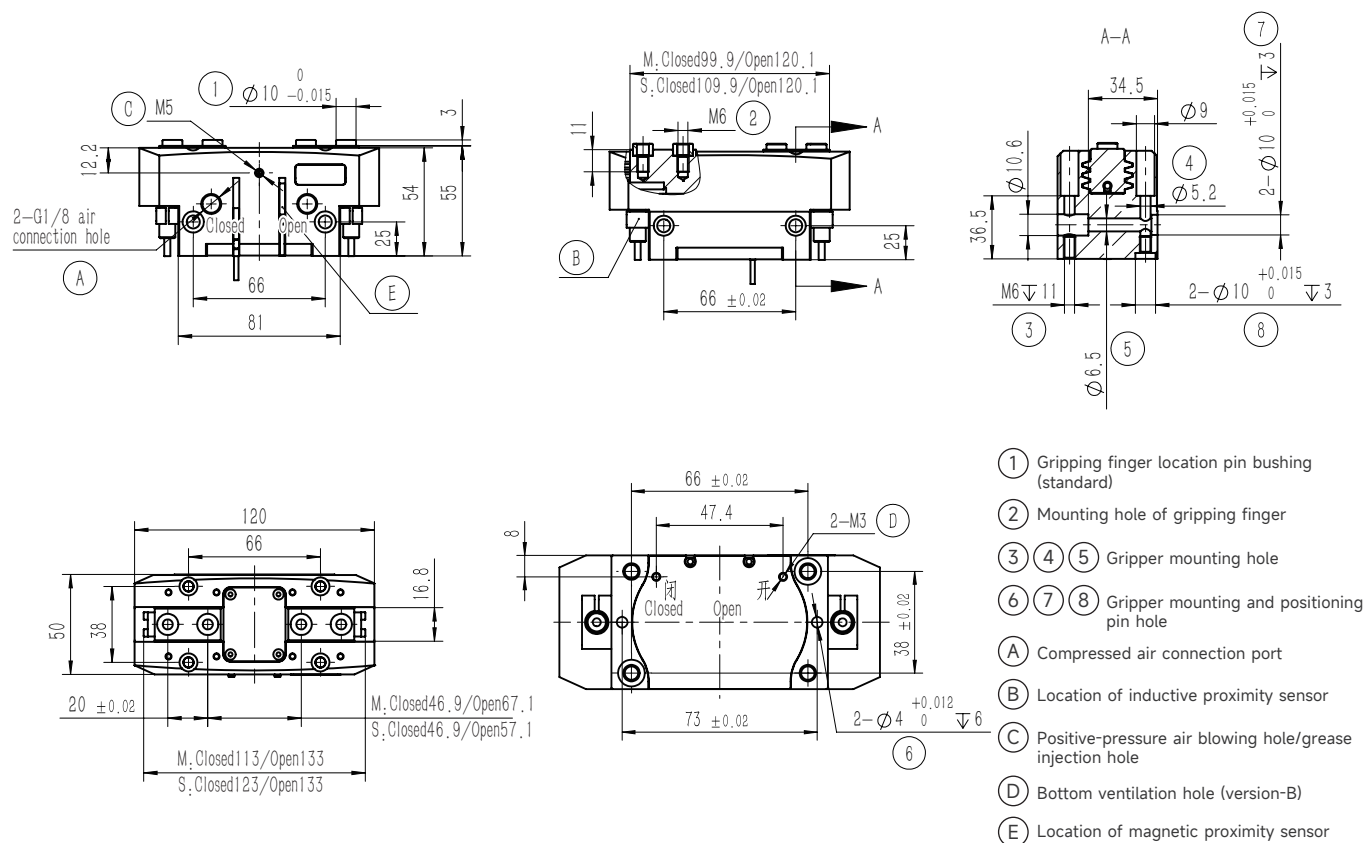
Magnetic proximity sensor

MZC2-1V7NS-FU0 Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0 Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

Product attributes	FR45-120	FR45-120-NO	FR45-120-NC	FR45-120-S	FR45-120-S-NO	FR45-120-S-NC	Unit
Single stroke	10	10	10	5	5	5	mm
Product weight	0.9	1.15	1.15	0.9	1.15	1.15	kg
Maximum allowable gripping distance	140	140	140	140	140	140	mm
Theoretical maximum gripping force: opening/closing	138P/124P	138P/-	-/124P	266P/238P	266P/-	-/238P	N
Minimum Spring Locking Force		280	280		540	540	N
Workpiece weight	4	4	4	7	7	7	kg
Opening/closing time	0.06/0.06	0.05/0.09	0.09/0.05	0.06/0.06	0.05/0.09	0.09/0.05	s
Gas consumption of single opening and closing cycle	0.25	0.41	0.38	0.25	0.41	0.38	L
P: Compressed air pressure [bar] Gas consumption: volume of gas consumed at normal pressure (0.5MPa)							
Repeated gripping accuracy/mm	± 0.02		Specification of air connection port		G1/8		
Operating air pressure range/bar	3~8		Temperature range of application/°C		-5~60		
IP rating	40		Maximum allowable single-finger gripping weight/kg		1.2		

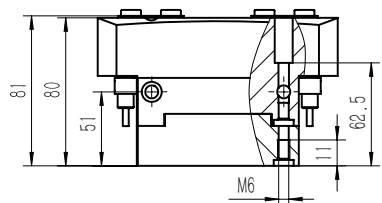
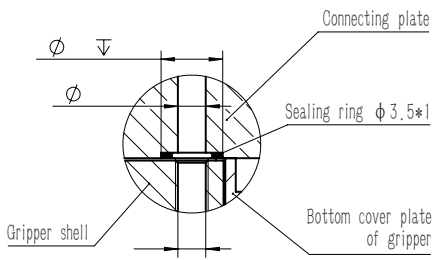
FR45-120-M/S



FR45-120-B Ventilation at bottom

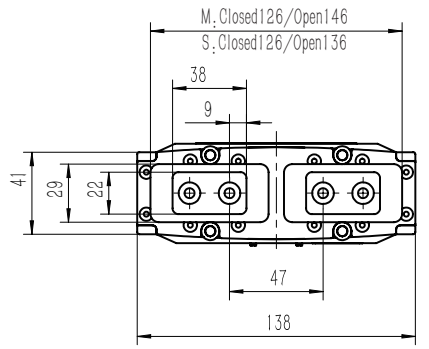
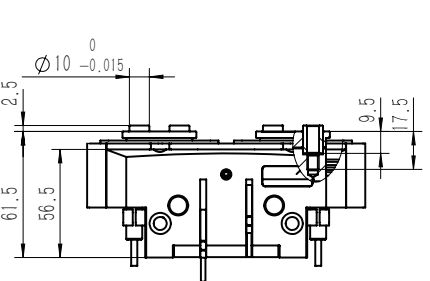
FR45-120-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR45-120-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

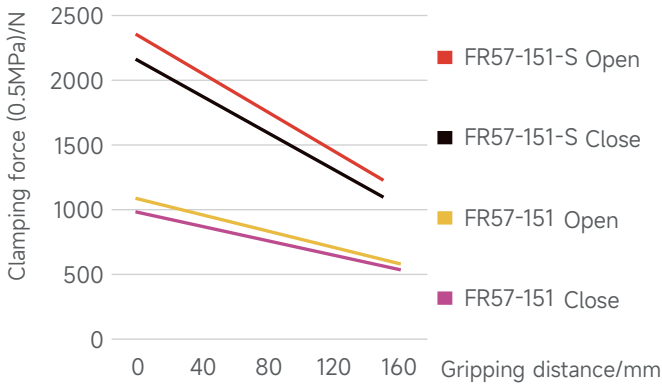
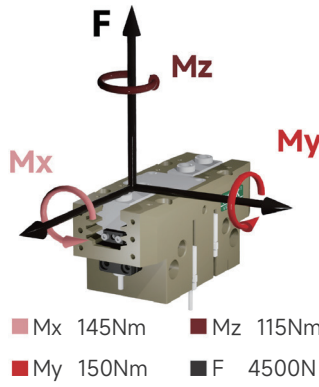


Toothed parallel gripper series FOUK-FR

FR57-151

Static load-bearing torque

Gripping force curve



FR 57 - 151 - S - B - P - NO - H

- Serial No. FR Toothed parallel gripper
- Cylinder bore
- Shell length
- Short stroke S Increased gripping force Standard version M
- Ventilation at bottom I Ventilation on the side
- Dust cover IP64 I Without dust cover
- Self-locking form NO Self-locking by opening NC Self-locking by closing I Without self-locking
- High temperature resistance H -5~240°C I 0~60°C

Inductive proximity sensor

- IPSD-2NS-0823-L3 Inductive, NPN, 3-core3m
- IPSD-2PS-0823-L3 Inductive, PNP, 3-core3m

Magnetic proximity sensor

- MZC2-1V7NS-FU0 Magnetic, NPN, 3-core3m
- MZC2-1V7PS-FU0 Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

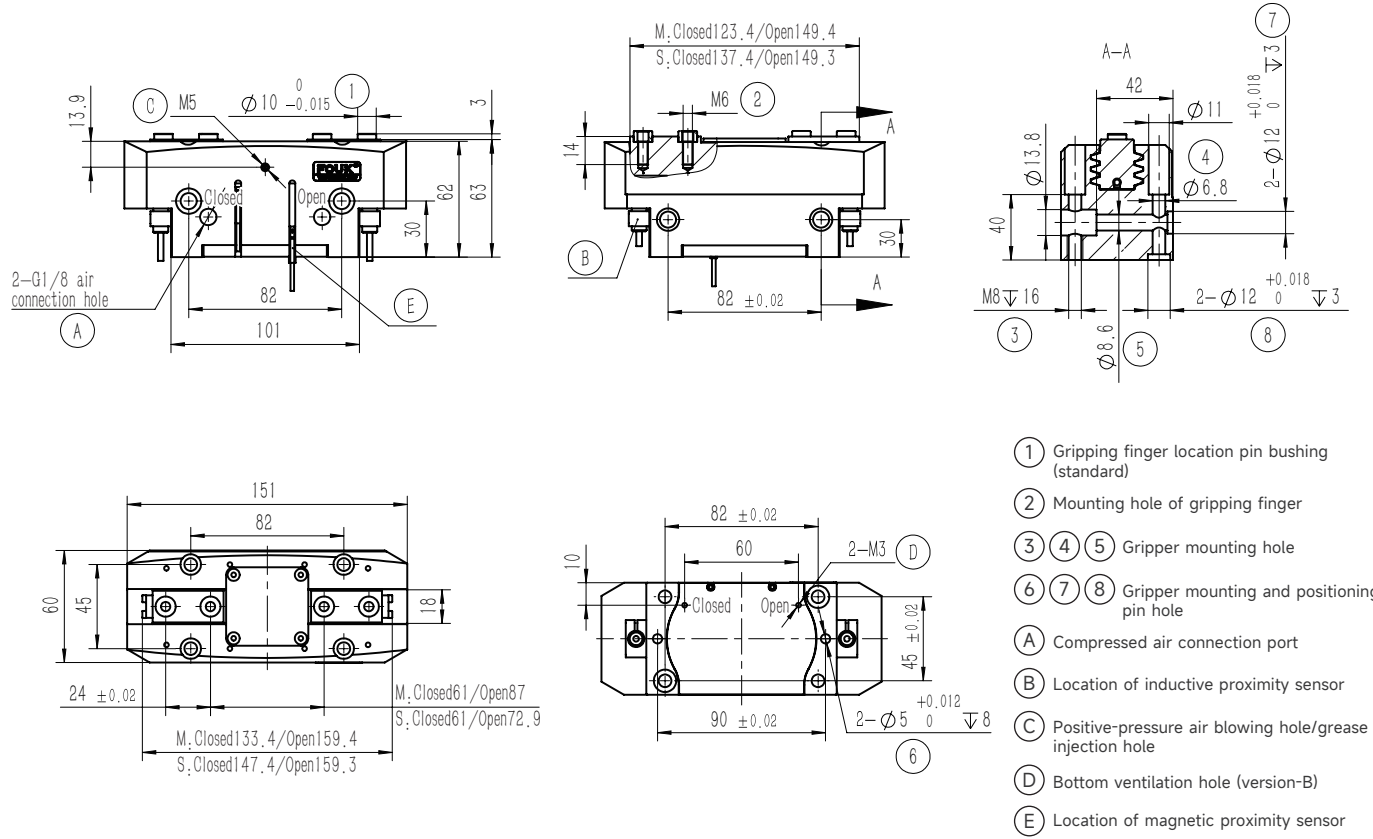
Product attributes	FR57-151	FR57-151-NO	FR57-151-NC	FR57-151-S	FR57-151-S-NO	FR57-151-S-NC	Unit
Single stroke	13	13	13	6	6	6	mm
Product weight	1.45	1.8	1.85	1.5	1.85	1.9	kg
Maximum allowable gripping distance	160	160	160	150	150	150	mm
Theoretical maximum gripping force: opening/closing	214P/198P	214P/-	-/198P	466P/430P	466P/-	-/430P	N
Minimum Spring Locking Force		450	450		980	980	N
Workpiece weight	6.5	6.5	6.5	14	14	14	kg
Opening/closing time	0.09/0.09	0.08/0.12	0.12/0.08	0.09/0.09	0.08/0.12	0.12/0.08	s
Gas consumption of single opening and closing cycle	0.5	0.85	0.8	0.5	0.85	0.8	L

P: Compressed air pressure [bar]

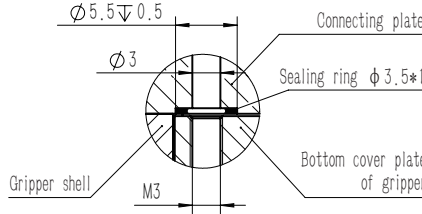
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.02	Specification of air connection port	G1/8
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	2.2

FR57-151-M/S

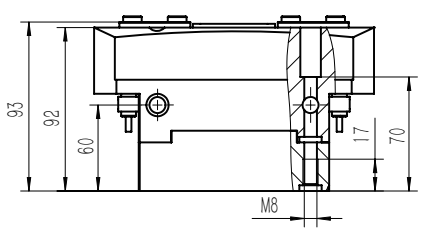


FR57-151-B Ventilation at bottom



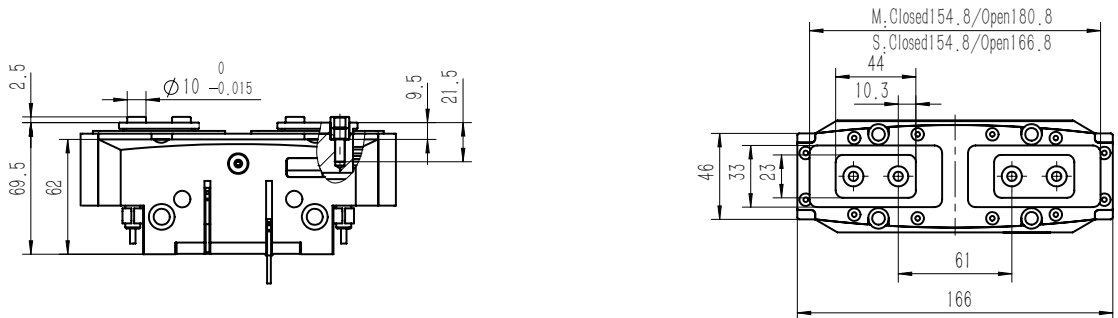
FR57-151-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR57-151-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

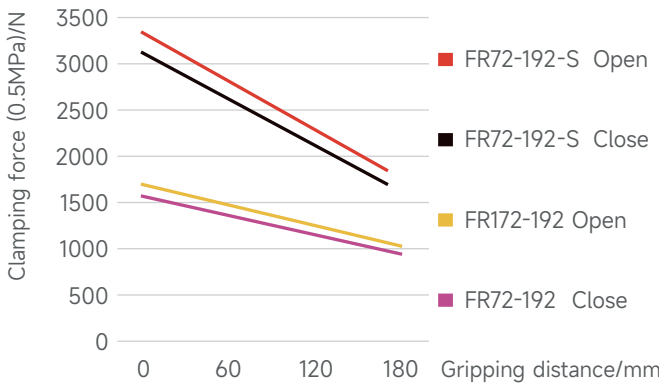
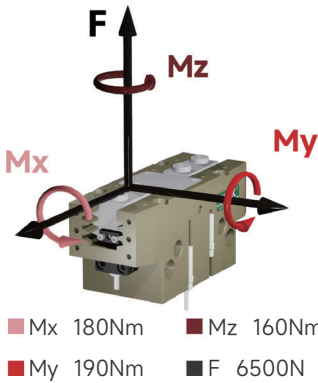


Toothed parallel gripper series FOUK-FR

FR72-192

Static load-bearing torque

Gripping force curve



FR 72 - 192 - S - B - P - NO - H

Serial No.	Cylinder bore	Shell length	Short stroke	Ventilation at bottom	Dust cover IP64	Self-locking form	High temperature resistance
FR Toothed parallel gripper			S Increased gripping force / Standard version M	/ Ventilation on the side	/ Without dust cover	NO Self-locking by opening NC Self-locking by closing / Without self-locking	H -5~240°C / 0~60°C

Inductive proximity sensor

IPSD-2NS-0823-L3	Inductive, NPN, 3-core3m
IPSD-2PS-0823-L3	Inductive, PNP, 3-core3m

Magnetic proximity sensor

MZC2-1V7NS-FU0	Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0	Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

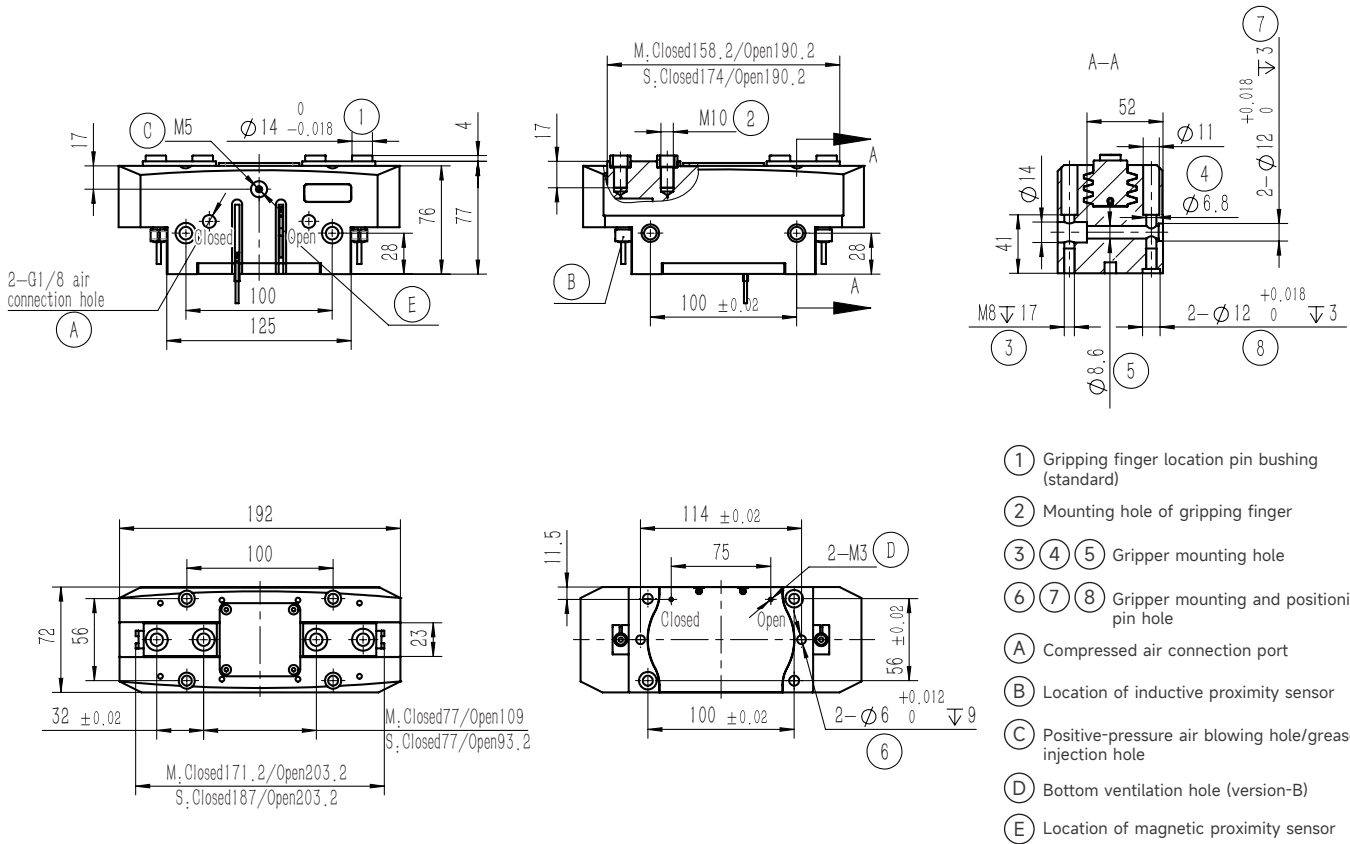
Product attributes	FR72-192	FR72-192-NO	FR72-192-NC	FR72-192-S	FR72-192-S-NO	FR72-192-S-NC	Unit
Single stroke	16	16	16	8	8	8	mm
Product weight	2.75	3.45	3.5	2.8	3.5	3.55	kg
Maximum allowable gripping distance	180	180	180	170	170	170	mm
Theoretical maximum gripping force: opening/closing	340P/316P	340P/-	-/316P	670P/624P	670P/-	-/624P	N
Minimum Spring Locking Force		720	720		1400	1400	N
Workpiece weight	10	10	10	20	20	20	kg
Opening/closing time	0.1/0.1	0.1/0.2	0.2/0.1	0.1/0.1	0.1/0.2	0.2/0.1	s
Gas consumption of single opening and closing cycle	0.95	1.7	1.55	0.95	1.7	1.55	L

P: Compressed air pressure [bar]

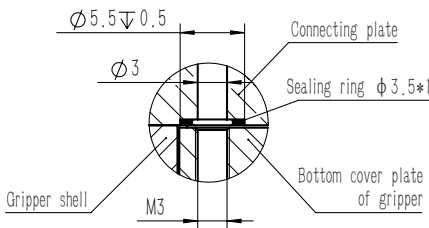
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.03	Specification of air connection port	G1/8
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	3.6

FR72-192-M/S

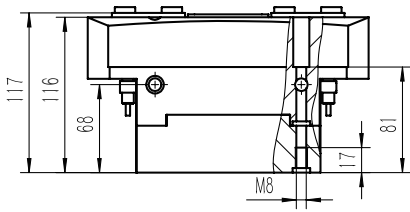


FR72-192-B Ventilation at bottom



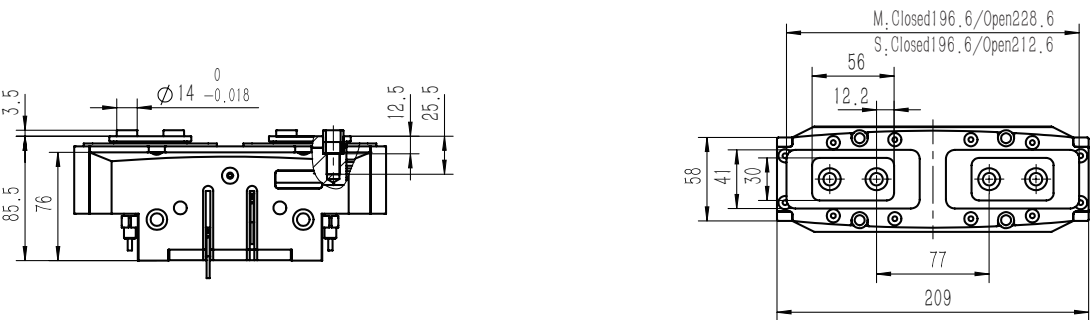
FR72-192-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR72-192-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

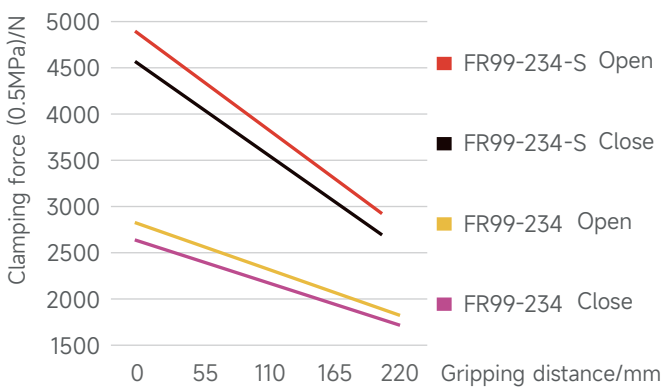
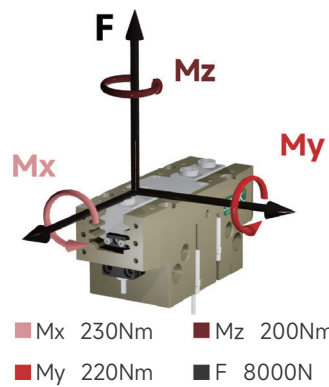


Toothed parallel gripper series FOUK-FR

FR99-234

Static load-bearing torque

Gripping force curve



FR 99 - 234 - S - B - P - NO - H

Serial No.	Cylinder bore	Shell length	Short stroke	Ventilation at bottom	Dust cover IP64	Self-locking form	High temperature resistance
FR Toothed parallel gripper			S Increased gripping force / Standard version M	/ Ventilation on the side	/ Without dust cover	NO Self-locking by opening NC Self-locking by closing / Without self-locking	H -5~240°C / 0~60°C

Inductive proximity sensor

IPSD-2NS-0831-L3	Inductive, NPN, 3-core3m
IPSD-2PS-0831-L3	Inductive, PNP, 3-core3m

Magnetic proximity sensor

MZC2-1V7NS-FU0	Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0	Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

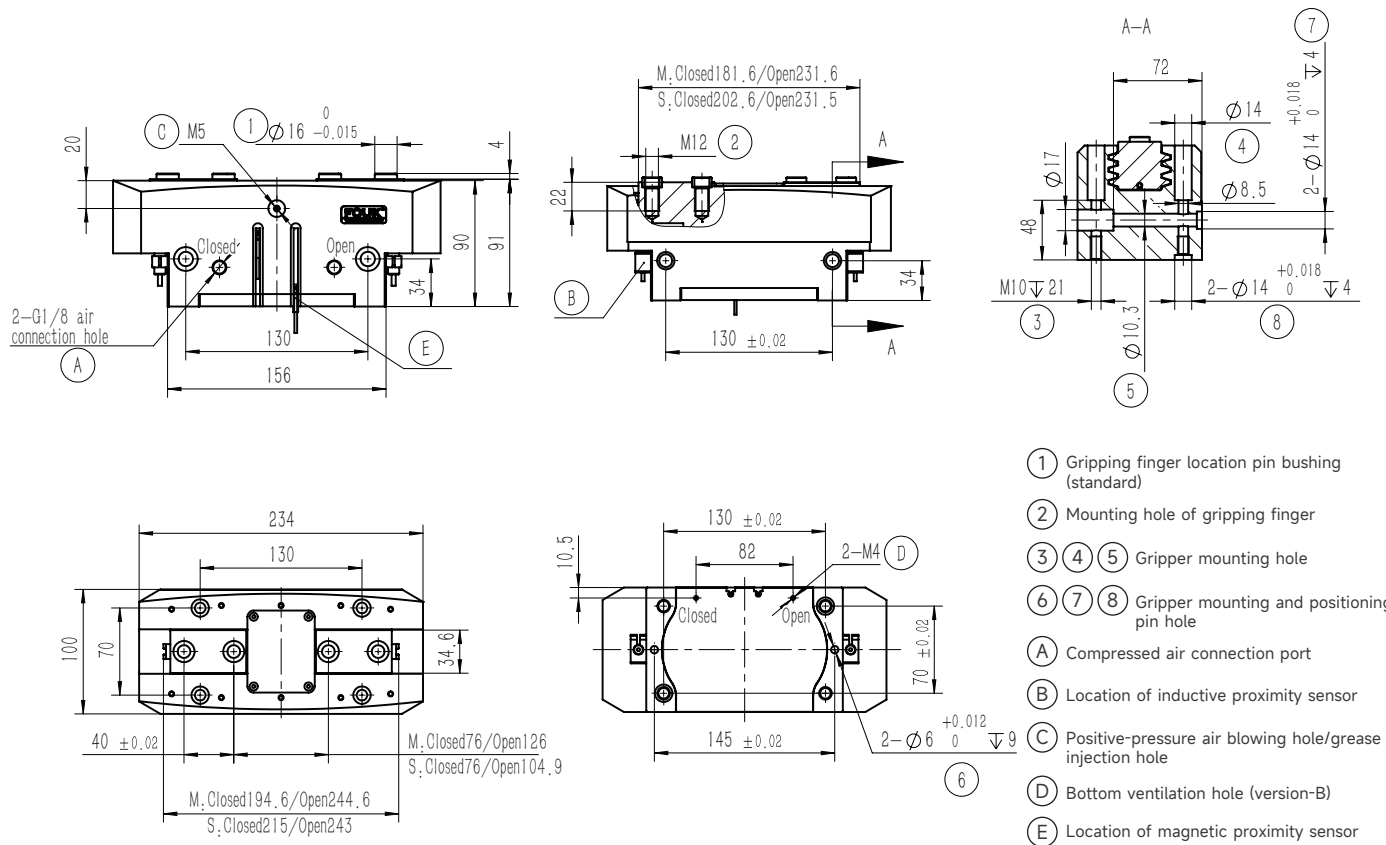
Product attributes	FR99-234	FR99-234-NO	FR99-234-NC	FR99-234-S	FR99-234-S-NO	FR99-234-S-NC	Unit
Single stroke	25	25	25	14	14	14	mm
Product weight	5.6	7	6.8	5.7	7.1	6.9	kg
Maximum allowable gripping distance	220	220	220	200	200	200	mm
Theoretical maximum gripping force: opening/closing	560P/524P	560P/-	-/524P	965P/905P	965P/-	-/905P	N
Minimum Spring Locking Force		1100	1100		1900	1900	N
Workpiece weight	20	20	20	33	33	33	kg
Opening/closing time	0.28/0.28	0.24/0.55	0.55/0.24	0.28/0.28	0.24/0.55	0.55/0.24	s
Gas consumption of single opening and closing cycle	2.4	4.1	3.9	2.4	4.1	3.9	L

P: Compressed air pressure [bar]

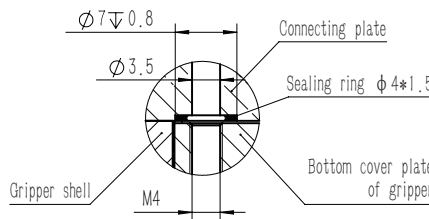
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.03	Specification of air connection port	G1/8
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	7

FR99-234-M/S

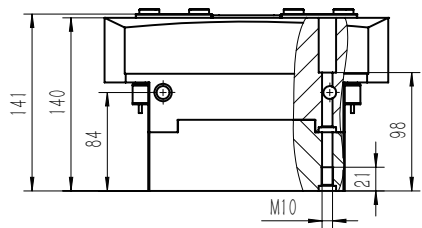


FR99-234-B Ventilation at bottom



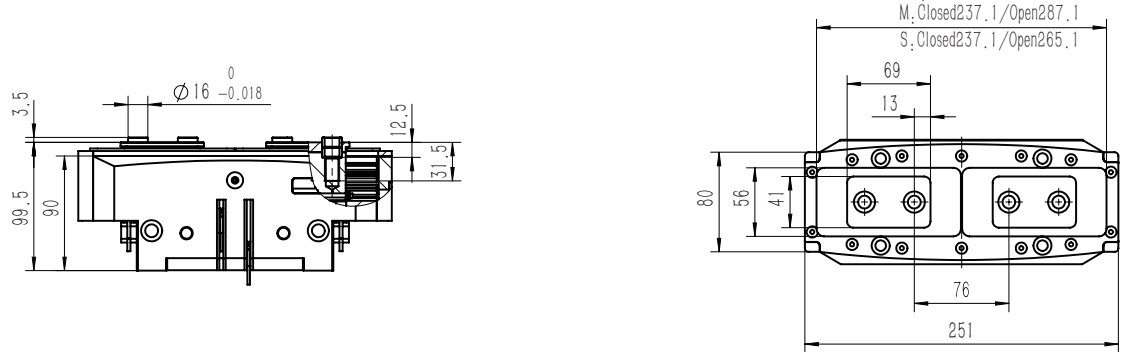
FR99-234-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR99-234-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50



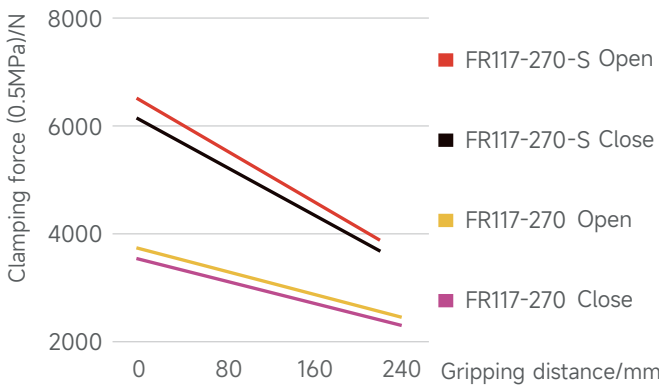
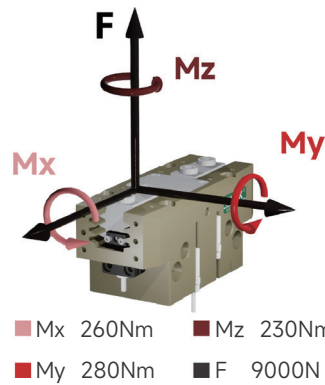
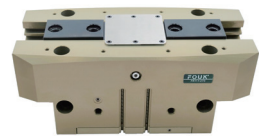
Toothed parallel gripper series FOUK-FR

FR117-270-M/S

FR117-270

Static load-bearing torque

Gripping force curve



FR 117 - 270 - S - B - P - NO - H

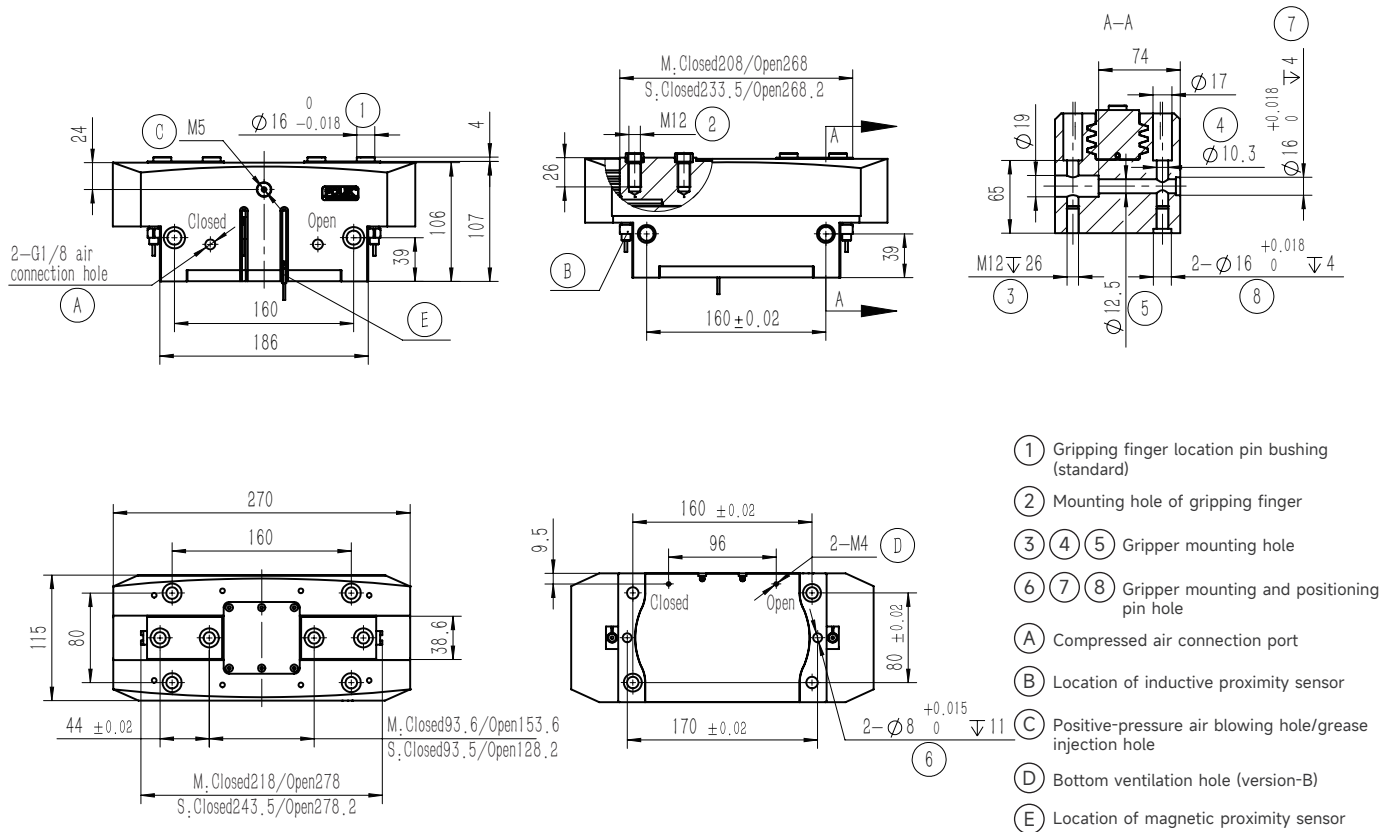
Serial No.	Cylinder bore	Shell length	Short stroke	Ventilation at bottom	Dust cover IP64	Self-locking form	High temperature resistance
FR Toothed parallel gripper			S Increased gripping force Standard version M	I Ventilation on the side	I Without dust cover	NO Self-locking by opening NC Self-locking by closing I Without self-locking	H -5~240°C I 0~60°C

Inductive proximity sensor		Magnetic proximity sensor	
IPSD-2NS-0831-L3	Inductive, NPN, 3-core3m	MZC2-1V7NS-FU0	Magnetic, NPN, 3-core3m
IPSD-2PS-0831-L3	Inductive, PNP, 3-core3m	MZC2-1V7PS-FU0	Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

Product attributes	FR117-270	FR117-270-NO	FR117-270-NC	FR117-270-S	FR117-270-S-NO	FR117-270-S-NC	Unit
Single stroke	30	30	30	17	17	17	mm
Product weight	8.5	10.4	10.2	8.7	10.6	10.4	kg
Maximum allowable gripping distance	240	240	240	220	220	220	mm
Theoretical maximum gripping force: opening/closing	754P/714P	754P/-	-/714P	1300P/1230P	1300P/-	-/1230P	N
Minimum Spring Locking Force		1300	1300		2200	2200	N
Workpiece weight	25	25	25	43	43	43	kg
Opening/closing time	0.5/0.5	0.45/0.9	0.9/0.45	0.5/0.5	0.45/0.9	0.9/0.45	s
Gas consumption of single opening and closing cycle	4	6.6	6.4	4	6.6	6.4	L

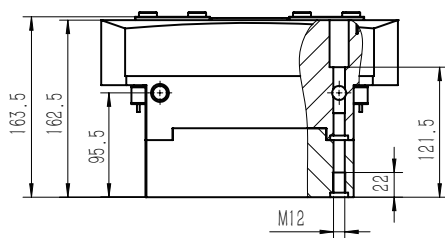
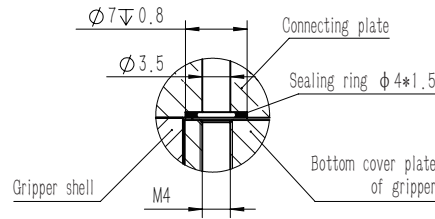
Repeated gripping accuracy/mm	± 0.04	Specification of air connection port	G1/8
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	9



FR117-270-B Ventilation at bottom

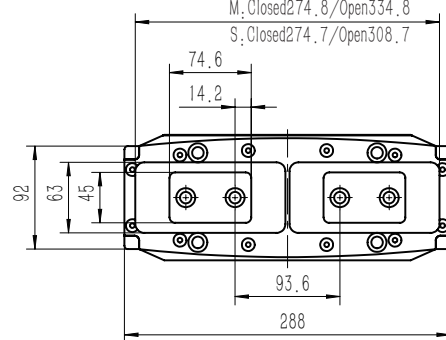
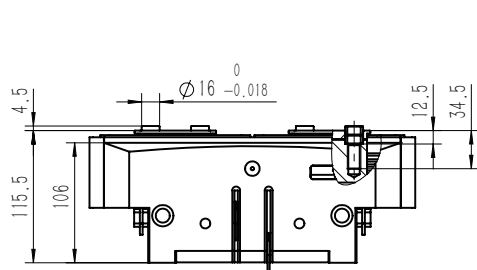
FR117-270-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR117-270-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

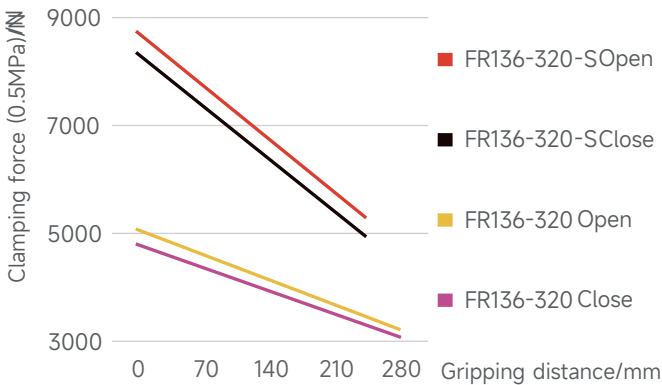
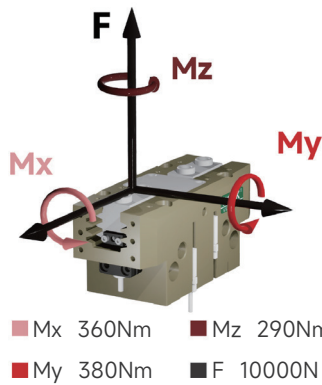


Toothed parallel gripper series FOUK-FR

FR136-320

Static load-bearing torque

Gripping force curve



FR 136-320-S-B-P-NO-H

Serial No.

FR Toothed parallel gripper

Cylinder bore

Shell length

Short stroke

S Increased gripping force
Standard version M

Ventilation at bottom

/ Ventilation on the side

Dust cover IP64

/ Without dust cover

Self-locking form

NO Self-locking by opening
NC Self-locking by closing
/ Without self-locking

High temperature resistance

H ~5~240°C
/ 0~60°C

Inductive proximity sensor

IPSD-2NS-0831-L3 Inductive, NPN, 3-core3m
IPSD-2PS-0831-L3 Inductive, PNP, 3-core3m

Magnetic proximity sensor

MZC2-1V7NS-FU0 Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0 Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

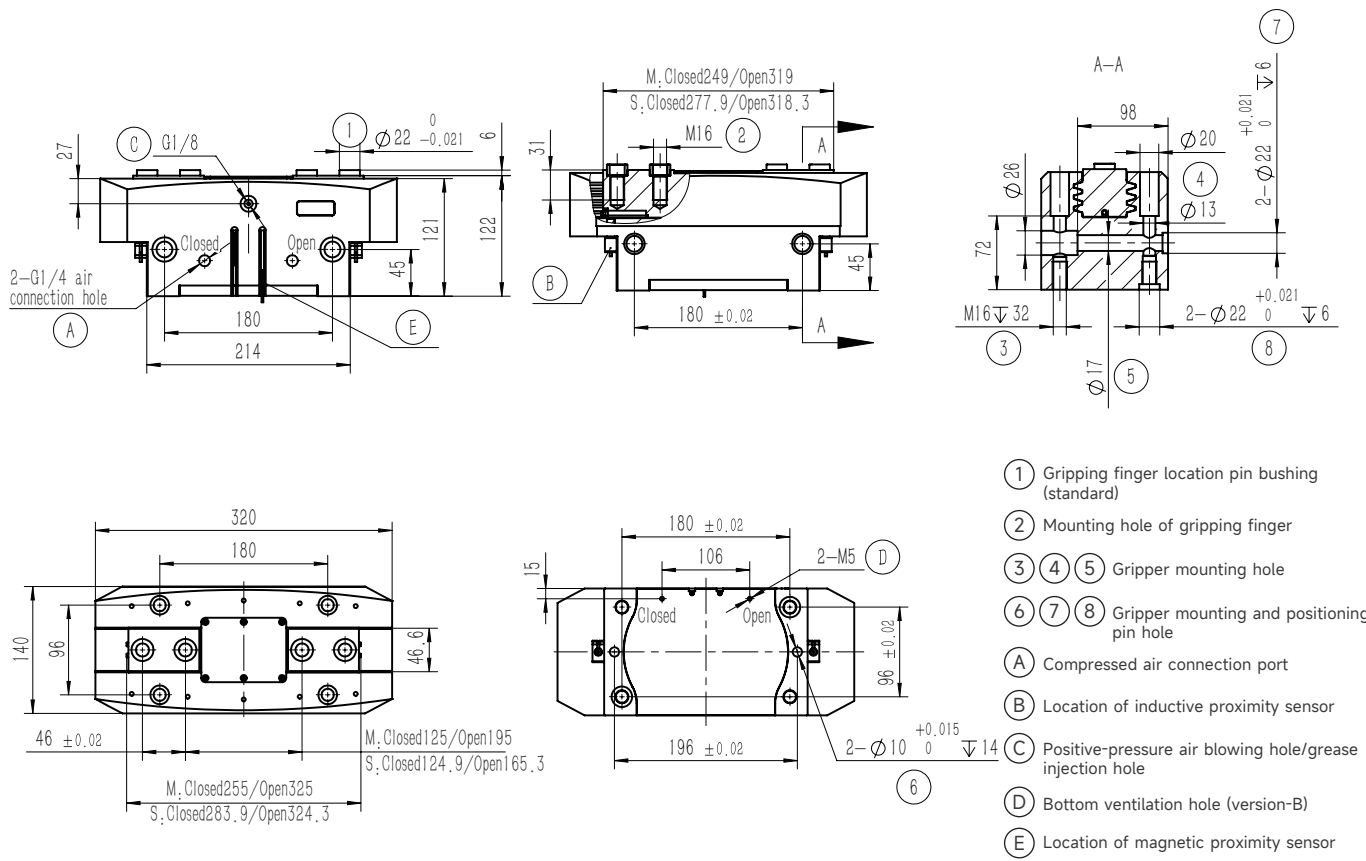
Product attributes	FR136-320	FR136-320-NO	FR136-320-NC	FR136-320-S	FR136-320-S-NO	FR136-320-S-NC	Unit
Single stroke	35	35	35	20	20	20	mm
Product weight	13.8	16.8	17	14.2	17.2	17.4	kg
Maximum allowable gripping distance	280	280	280	250	250	250	mm
Theoretical maximum gripping force: opening/closing	1015P/960P	1015P/-	-/960P	1750P/1655P	1750P/-	-/1655P	N
Minimum Spring Locking Force		1700	1700		2900	2900	N
Workpiece weight	32	32	32	55	55	55	kg
Opening/closing time	0.5/0.5	0.4/0.7	0.7/0.4	0.5/0.5	0.4/0.7	0.7/0.4	s
Gas consumption of single opening and closing cycle	6.3	9.4	7.8	6.3	9.4	7.8	L

P: Compressed air pressure [bar]

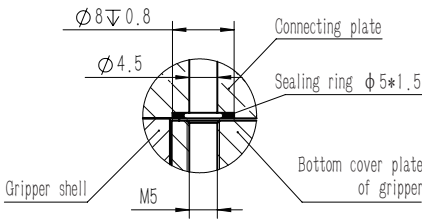
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.04	Specification of air connection port	G1/4
Operating air pressure range/bar	3 ~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	12

FR136-320-M/S

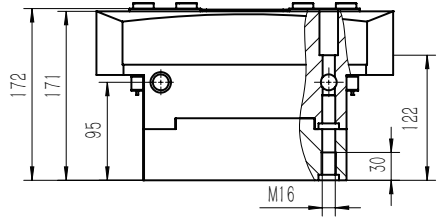


FR136-320-B Ventilation at bottom



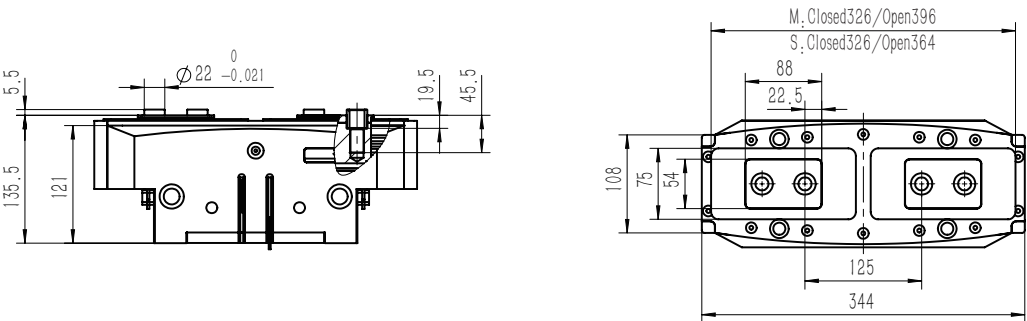
FR136-320-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR136-320-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

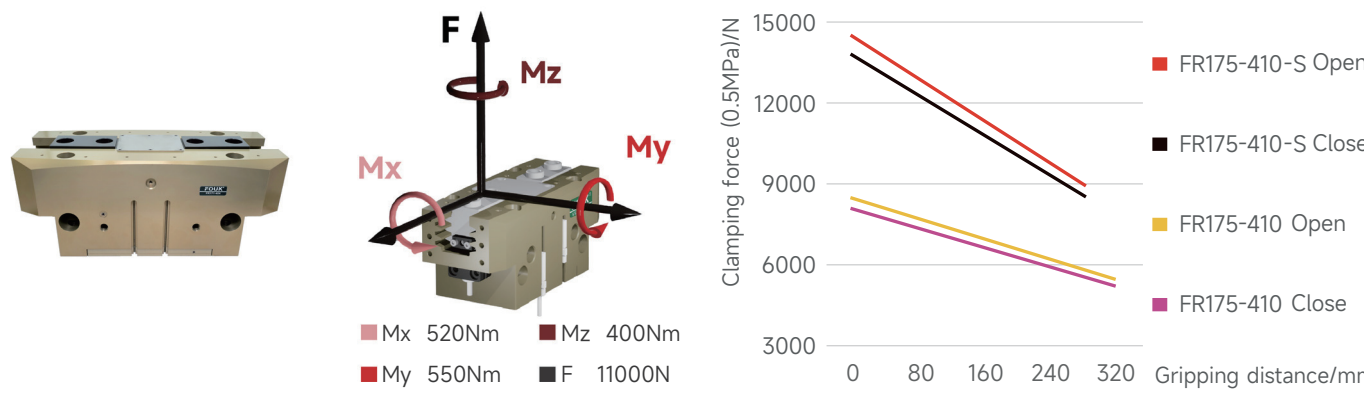


Toothed parallel gripper series FOUK-FR

FR175-410

Static load-bearing torque

Gripping force curve



FR 175 - 410 - S - B - P - NO - H

Serial No. Cylinder bore Shell length Short stroke Ventilation at bottom Dust cover IP64 Self-locking form High temperature resistance

IPSD-2NS-0848-L3 Inductive, NPN, 3-core3m
IPSD-2PS-0848-L3 Inductive, PNP, 3-core3m

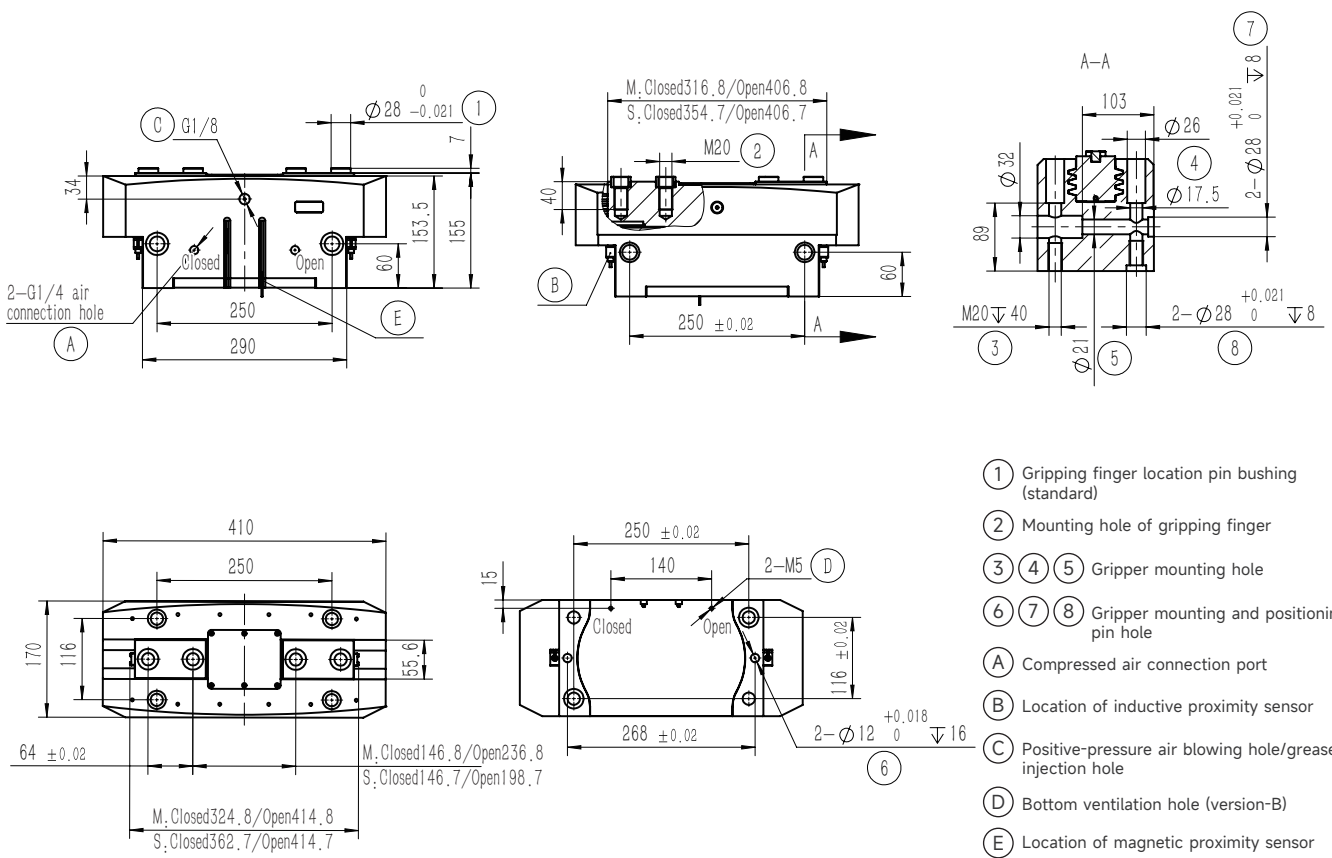
MZC2-1V7NS-FU0 Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0 Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

Product attributes	FR175-410	FR175-410-NO	FR175-410-NC	FR175-410-S	FR175-410-S-NO	FR175-410-S-NC	Unit
Single stroke	45	45	45	26	26	26	mm
Product weight	27.5	35.5	36	28	36	36.5	kg
Maximum allowable gripping distance	320	320	320	280	280	280	mm
Theoretical maximum gripping force: opening/closing	1690P/1610P	1690P/-	-/1610P	2900P/2760P	2900P/-	-/2760P	N
Minimum Spring Locking Force		2700	2700		4500	4500	N
Workpiece weight	55	55	55	95	95	95	kg
Opening/closing time	0.6/0.6	0.5/0.8	0.8/0.5	0.6/0.6	0.5/0.8	0.8/0.5	s
Gas consumption of single opening and closing cycle	13	18	14.5	13	18	14.5	L

Repeated gripping accuracy/mm	± 0.04	Specification of air connection port	G1/4
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	18

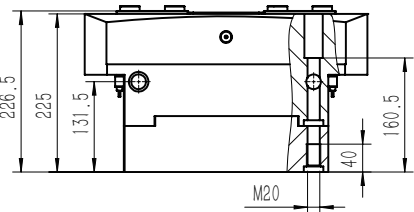
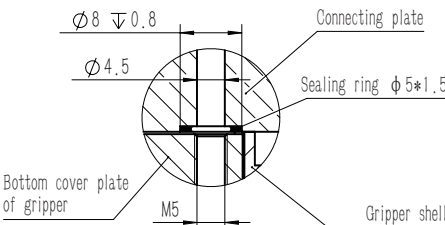
FR175-410-M/S



FR175-410-B Ventilation at bottom

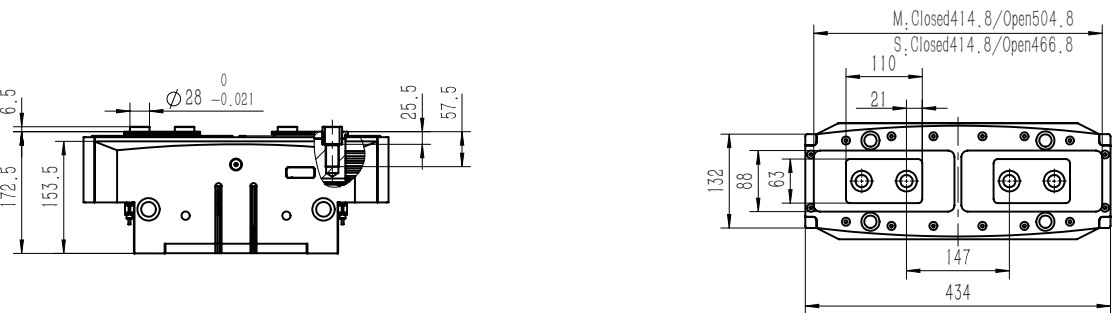
FR175-410-NC/NO Self-locking

Built-in spring, mechanical self-locking



FR175-410-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50



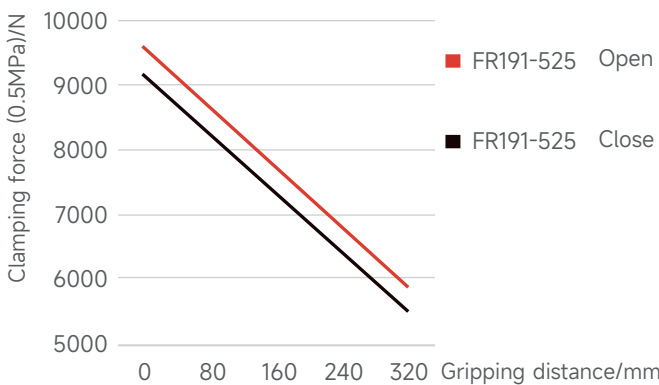
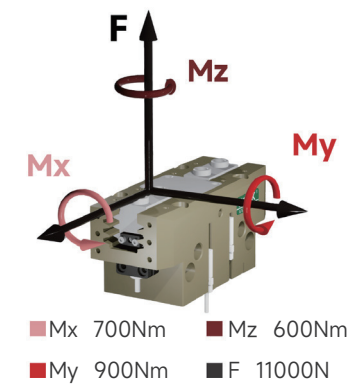
Toothed parallel gripper series FOUK-FR

FR191-525-L

FR191-525-L

Static load-bearing torque

Gripping force curve



FR 191 - 525 - S - B - P - NO - H

Serial No.	Cylinder bore	Shell length	Short stroke	Ventilation at bottom	Dust cover IP64	Self-locking form	High temperature resistance
FR Toothed parallel gripper			S Increased gripping force Standard version M	/ Ventilation on the side	/ Without dust cover	NC Self-locking by closing / Without self-locking	H -5~240°C / 0~60°C

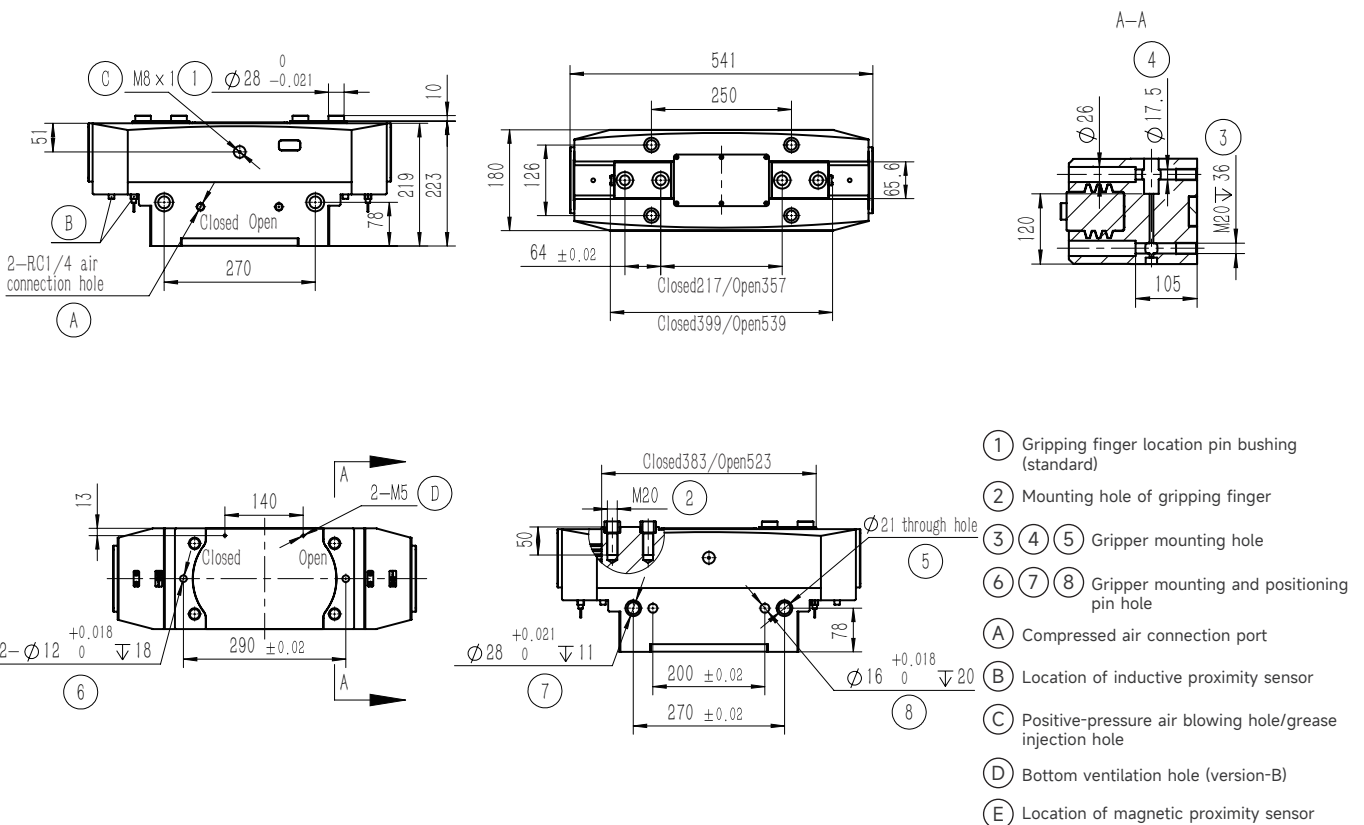
Inductive proximity sensor

IPSD-2NS-0848-L3	Inductive, NPN, 3-core3m
IPSD-2PS-0848-L3	Inductive, PNP, 3-core3m

Magnetic proximity sensor

MZC2-1V7NS-FU0	Magnetic, NPN, 3-core3m
MZC2-1V7PS-FU0	Magnetic, PNP, 3-core3m

*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.



FR191-525-L-B Ventilation at bottom

FR191-525-L-NC/NO Self-locking

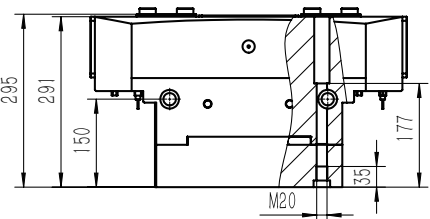
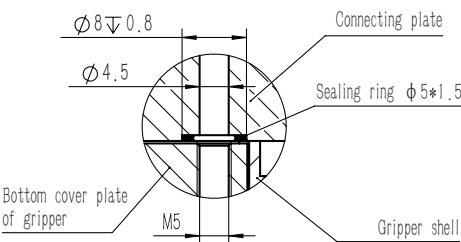
Built-in spring, mechanical self-locking

Product attributes	FR191-525-L	FR191-525-L-NC	Unit
Single stroke	70	70	mm
Product weight	52	62	kg
Maximum allowable gripping distance	320	320	mm
Theoretical maximum gripping force: opening/closing	1900P/1820P	-/1820P	N
Minimum Spring Locking Force		2300	N
Workpiece weight	90	110	kg
Opening/closing time	1/1	0.8/1.5	s
Gas consumption of single opening and closing cycle	22.5	25.5	L

P: Compressed air pressure [bar]

Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.07	Specification of air connection port	Rc1/4
Operating air pressure range/bar	3~8	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	20



FR191-525-L-P Dust-proof

Dust-proof module, IP64 for the positive-pressure air blowing hole after it, is connected to the compressed air of 0.05-0.10MPa, otherwise, IP50

