



TRL parallel gripper long stroke series

FOUK-TRL

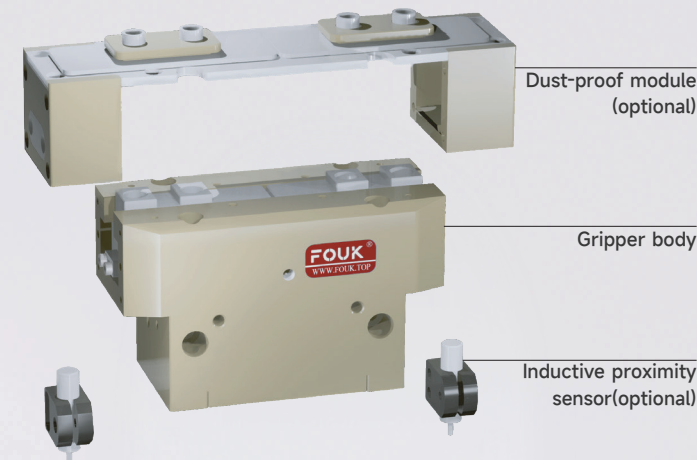
The long-stroke pneumatic two-finger parallel gripper, with T-shaped bearing structure, non-standard customization, strong power, high efficiency, good durability, optional dust-proof module, and dust-proof level up to IP64, is compatible with the products of many manufacturers.



Usage Video of TRL Series Products

Higher possibility of workpiece compatibility

Compared with FR series products with the same specification, it has larger opening and closing stroke, and it is more suitable for gripping workpieces with multiple specifications.



Structural Design of T-shaped Guide Rail

With the classic T-shaped guide rail structure, the hard rail surface has excellent bearing capacity

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.



Single-finger stroke
15..32mm



Gripping force
55P..326P



Workpiece weight
1.2..8kg



Product weight
0.6..3.8kg



Specification
Quantity: 4

Product Code	Single stroke/mm	Open Gripping Force: N	Close Gripping Force: N	Workpiece weight/kg	Product weight/kg	Page
TR30-95-L	15	55 × P	49 × P	1.2	0.6	34
TR46-114-L	19	130 × P	118 × P	3.2	1.1	36
TR57-166-L	24	200 × P	184 × P	5	2.1	38
TR73-194-L	32	326 × P	300 × P	8	3.8	40

P: Compressed air pressure [bar]

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

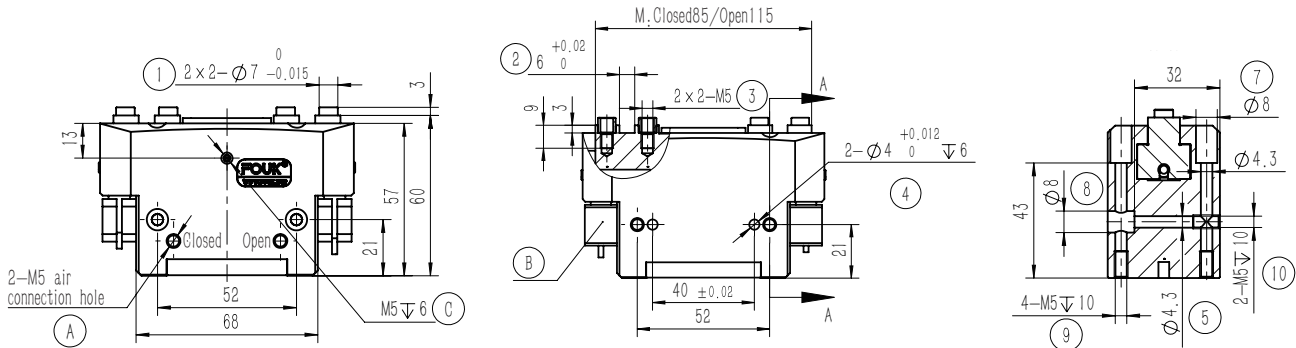
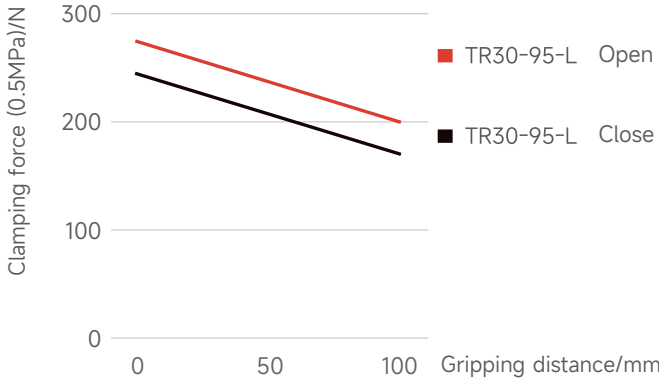
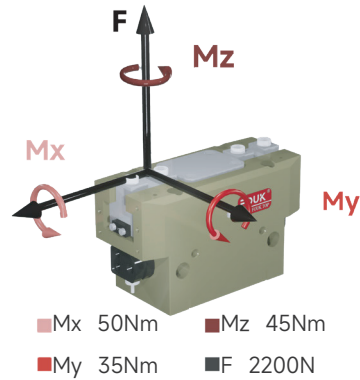
Parallel gripper long stroke series FOUK-TRL

TR30-95-L

TR30-95-L

Static load-bearing torque

Gripping force curve



TR

30

-

95

-

L

-

B

-

P

-

H

Serial No.
TR T-shaped parallel gripper

Cylinder bore

Shell length

Stroke extension

Ventilation at bottom
/ Ventilation on the side

Dust cover IP64
/ Without dust cover

High temperature resistance
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

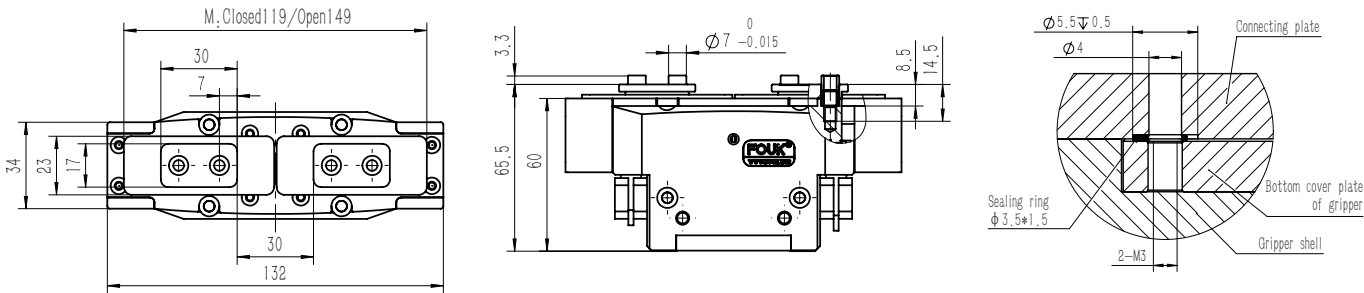
*Two sensors are required for each gripper. For the detailed monitoring of two positions, see the sensor appendix.

Product attributes	TR30-95-L		Unit
Single stroke	15		mm
Product weight	0.6		kg
Maximum allowable gripping distance	100		mm
Theoretical maximum gripping force: opening/closing	55P/49P		N
Opening/closing time	1.2		kg
Workpiece weight	0.07/0.07		s
Gas consumption of single opening and closing cycle	0.25		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	3~7	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	0.15

TR30-95-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

TR30-95-L-B Ventilation at bottom



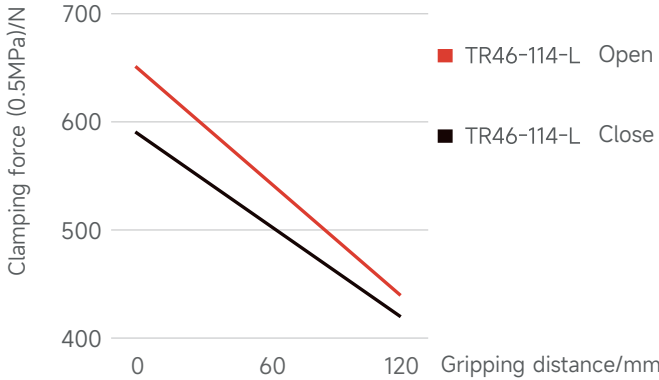
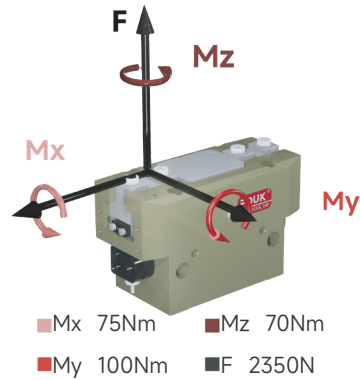
Parallel gripper long stroke series FOUK-TRL

TR46-114-L

TR46-114-L

Static load-bearing torque

Gripping force curve



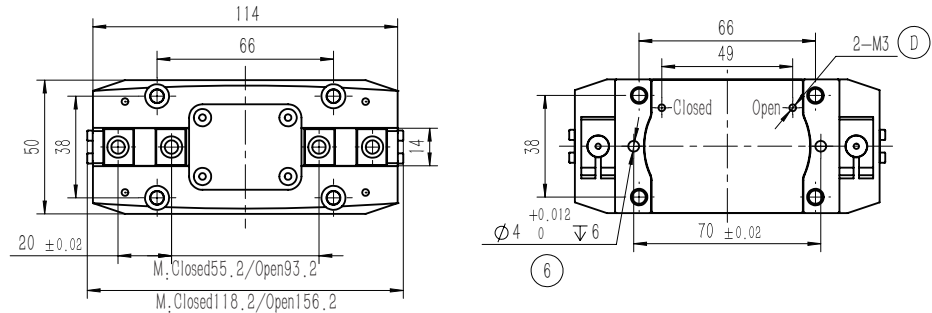
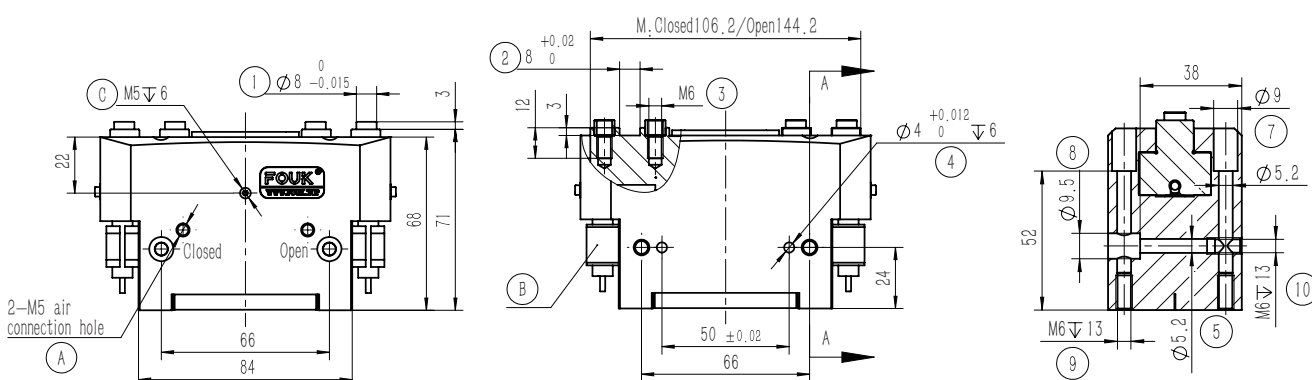
TR 46 - 114 - L - B - P - H

Serial No.	Cylinder bore	Shell length	Stroke extension	Ventilation at bottom	Dust cover IP64	High temperature resistance
TR T-shaped parallel gripper				/ Ventilation on the side	/ Without dust cover	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

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



- ① Gripping finger location pin bushing (standard)
- ② Gripping finger positioning groove
- ③ Mounting hole of gripping finger
- ⑤ ⑦ ⑧ ⑨ ⑩ Gripper mounting hole
- ④ ⑥ Gripper positioning hole
- A Compressed air connection port
- B Location of inductive proximity sensor
- C Positive-pressure air blowing hole/grease injection hole
- D Bottom ventilation hole (version-B)

Product attributes	TR46-114-L	Unit
Single stroke	19	mm
Product weight	1.1	kg
Maximum allowable gripping distance	120	mm
Theoretical maximum gripping force: opening/closing	130P/118P	N
Opening/closing time	3.2	kg
Workpiece weight	0.12/0.12	s
Gas consumption of single opening and closing cycle	0.48	L

P: Compressed air pressure [bar]

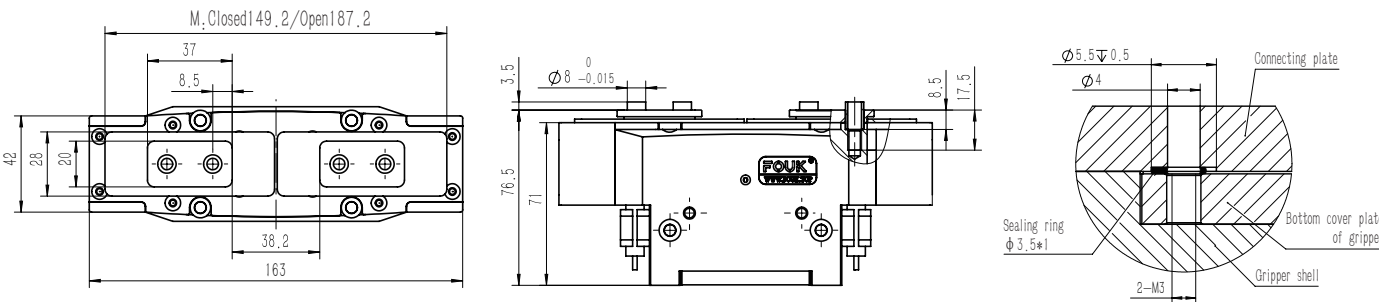
Gas consumption: volume of gas consumed at normal pressure (0.5MPa)

Repeated gripping accuracy/mm	± 0.02	Specification of air connection port	M5
Operating air pressure range/bar	3~7	Temperature range of application/°C	-5~60
IP rating	40	Maximum allowable single-finger gripping weight/kg	0.35

TR46-114-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

TR46-114-L-B Ventilation at bottom



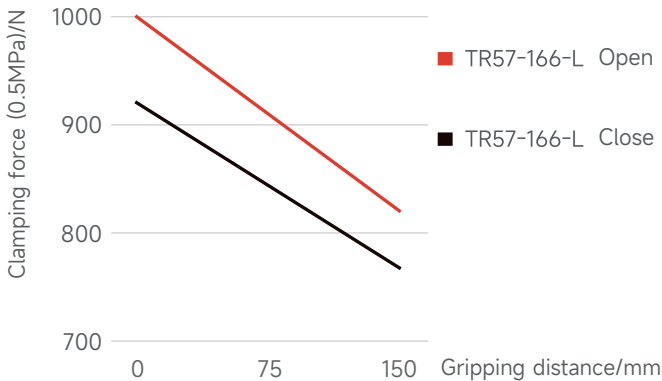
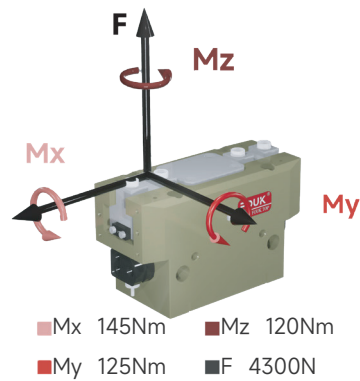
Parallel gripper long stroke series FOUK-TRL

TR57-166-L

TR57-166-L

Static load-bearing torque

Gripping force curve



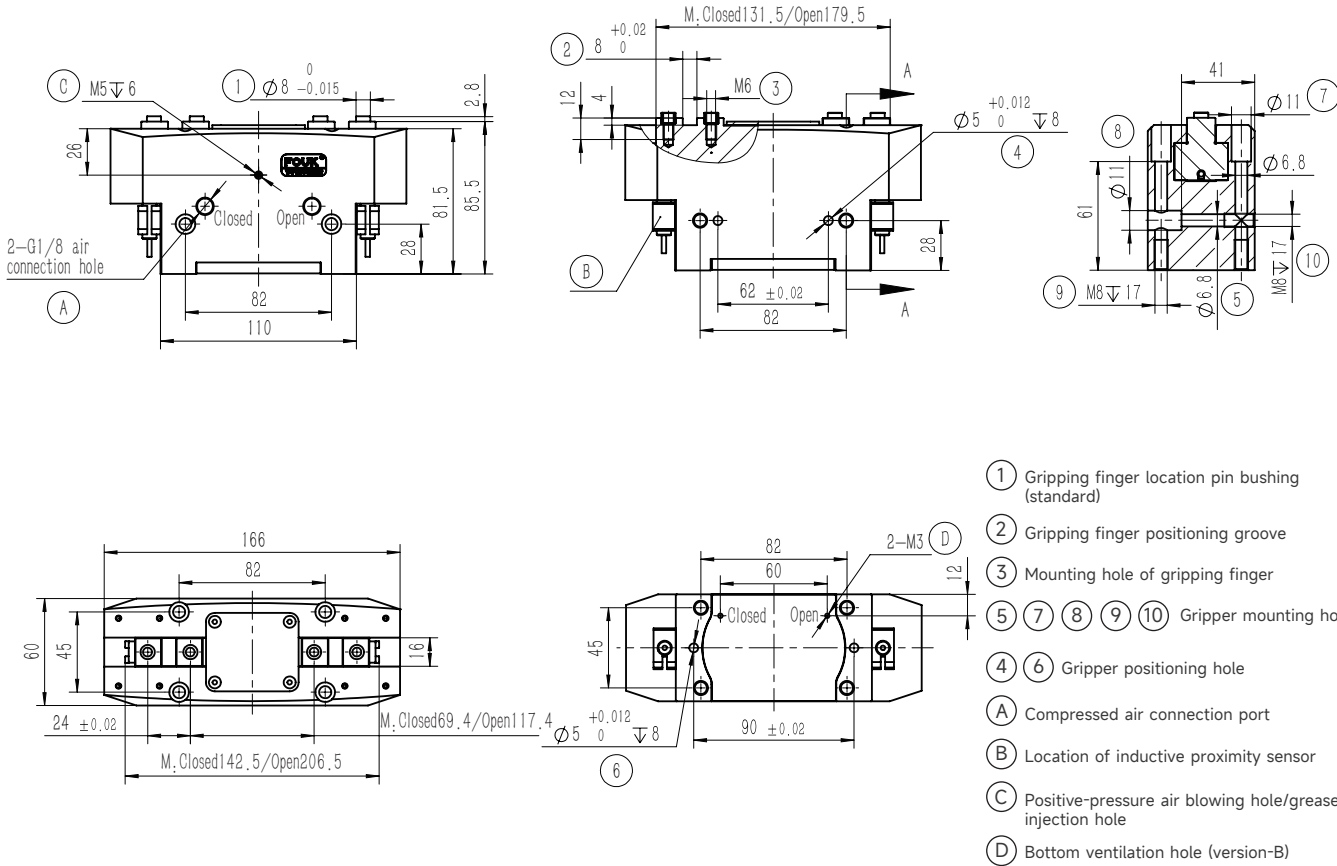
TR 57 - 116 - L - B - P - H

Serial No.	Cylinder bore	Shell length	Stroke extension	Ventilation at bottom	Dust cover IP64	High temperature resistance
TR T-shaped parallel gripper				/ Ventilation on the side	/ Without dust cover	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

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

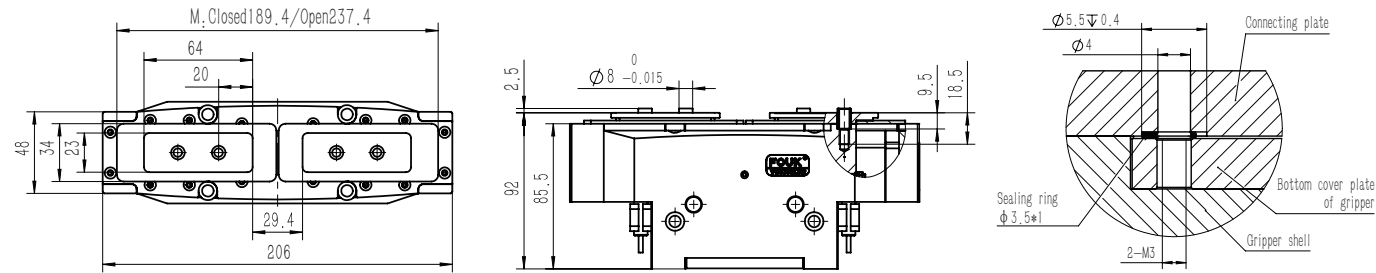


Product attributes	TR57-166-L	Unit
Single stroke	24	mm
Product weight	2.1	kg
Maximum allowable gripping distance	150	mm
Theoretical maximum gripping force: opening/closing	200P/184P	N
Opening/closing time	5	kg
Workpiece weight	0.18/0.18	s
Gas consumption of single opening and closing cycle	0.74	L
P: 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
Operating air pressure range/bar	3~7	Temperature range of application/°C
IP rating	40	Maximum allowable single-finger gripping weight/kg

TR57-166-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

TR57-166-L-B Ventilation at bottom



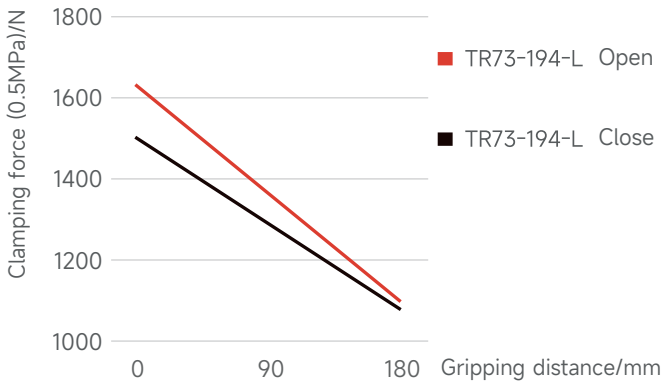
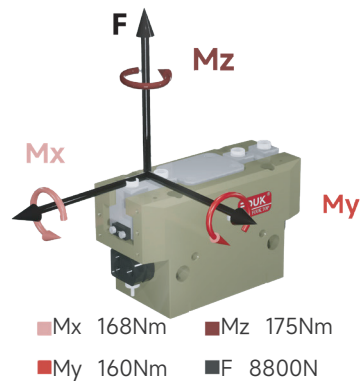
Parallel gripper long stroke series FOUK-TRL

TR73-194-L

TR73-194-L

Static load-bearing torque

Gripping force curve



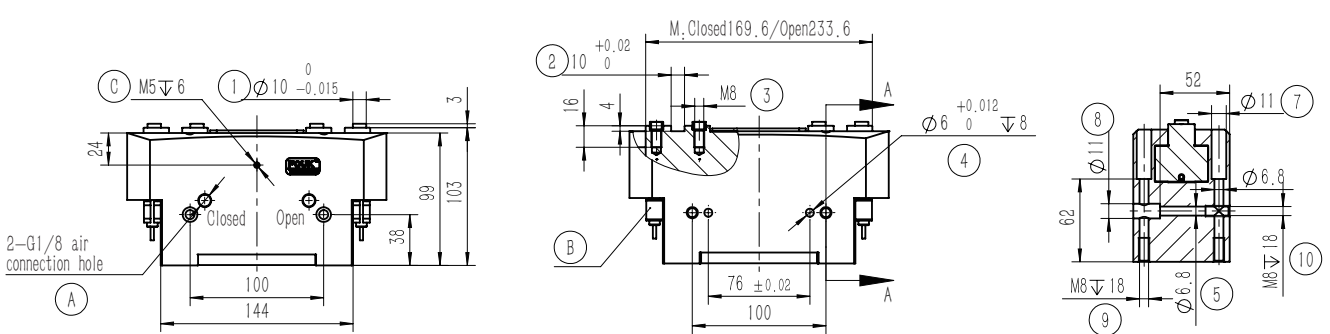
TR 73 - 194 - L - B - P - H

Serial No.	Cylinder bore	Shell length	Stroke extension	Ventilation at bottom	Dust cover IP64	High temperature resistance
TR T-shaped parallel gripper				/ Ventilation on the side	/ Without dust cover	H -5~240°C / 0~60°C

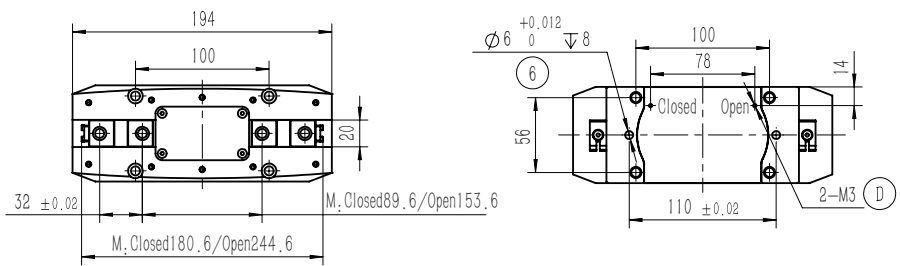
Inductive proximity sensor

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

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



- ① Gripping finger location pin bushing (standard)
- ② Gripping finger positioning groove
- ③ Mounting hole of gripping finger
- ⑤ ⑦ ⑧ ⑨ ⑩ Gripper mounting hole
- ④ ⑥ Gripper positioning hole
- A Compressed air connection port
- B Location of inductive proximity sensor
- C Positive-pressure air blowing hole/grease injection hole
- D Bottom ventilation hole (version-B)



Product attributes	TR73-194-L	Unit
Single stroke	32	mm
Product weight	3.8	kg
Maximum allowable gripping distance	180	mm
Theoretical maximum gripping force: opening/closing	326P/300P	N
Opening/closing time	8	kg
Workpiece weight	0.25/0.25	s
Gas consumption of single opening and closing cycle	1.5	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
Operating air pressure range/bar	3~7	Temperature range of application/°C
IP rating	40	Maximum allowable single-finger gripping weight/kg

TR73-194-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

TR73-194-L-B Ventilation at bottom

