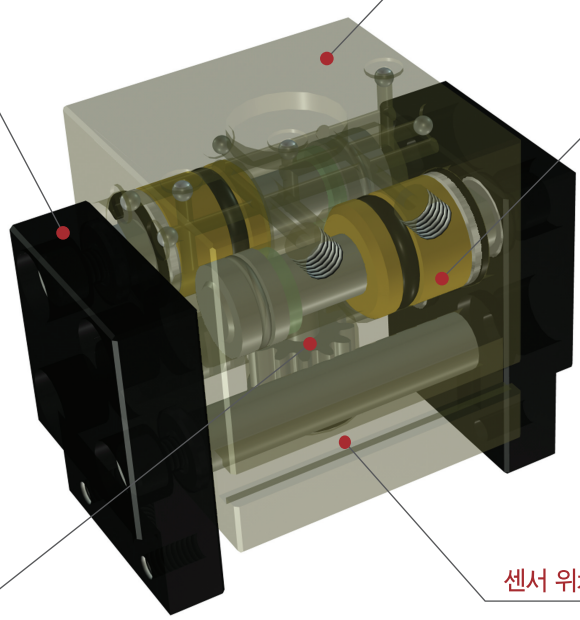
AF101-10, 12

특징 (Character)

- 랙 & 피니언에 의한 평행 개폐 방식
  Parallel Open-Close type of Rack & pinion
- 두 개의 실린더 내장형으로 강력한 파지력
  High gripping forces by the structure of synchronized dual piston
- 개폐검출 확인용 센서 부착가능
  Magnetic sensor is attachable for open-close sensing

랙 & 피니언 방식 (Rack & Pinion type)



몸체 (Body)
경질 처리된 경량의 알루미늄 합금
high-tensile aluminum body with lightest possible because of hard anodizing

조 (Jaws)
파지부
for gripping

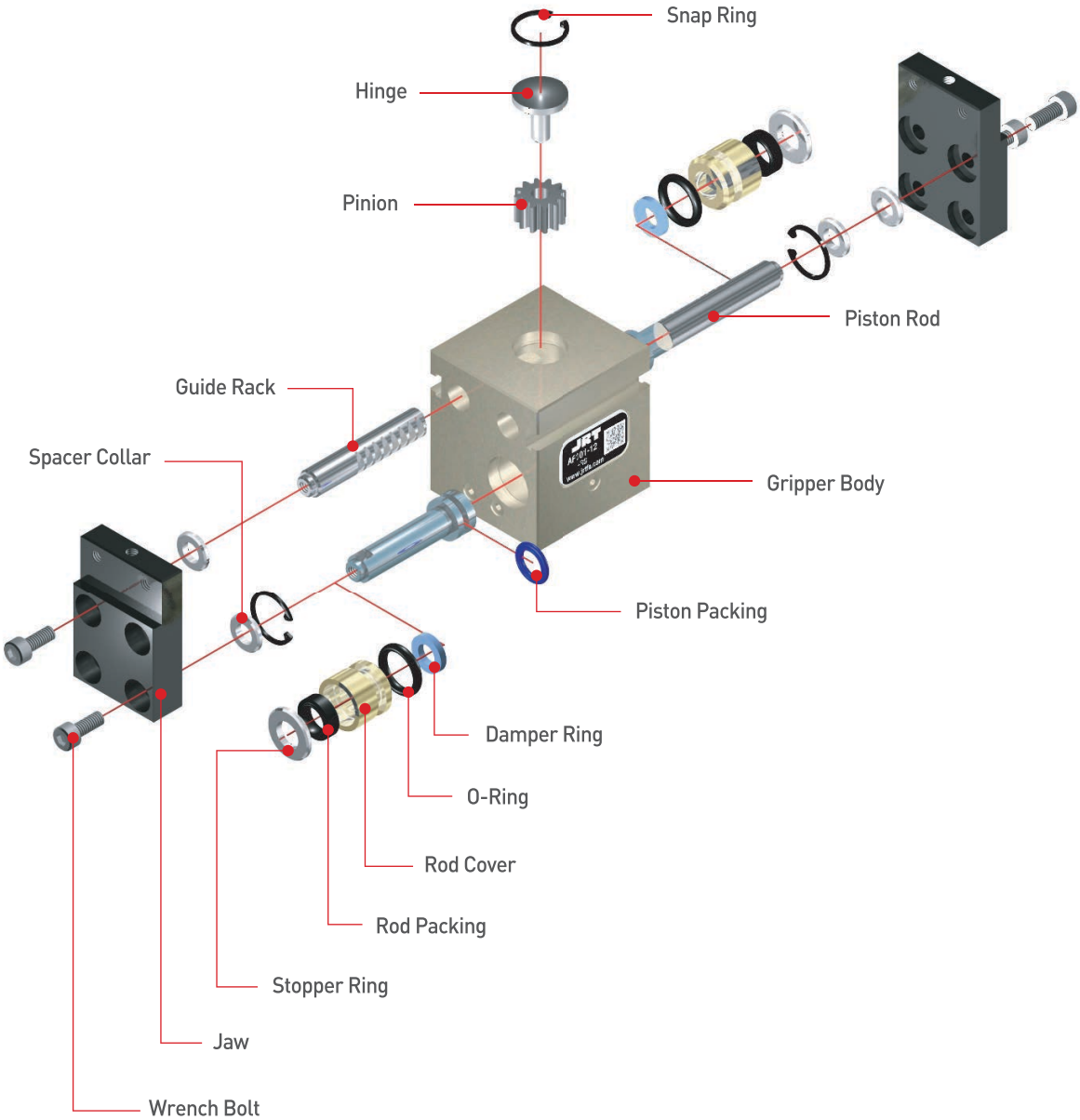
구동부 (Drive)
복동식
double acting pneumatic cylinder

작동 방식 (Kinetics)
랙 & 피니언 방식
pinion and toothed rack system, centric gripping

센서 위치 (Positioning of sensor)
마그네틱 센서 부착가능
for magnetic sensor

부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명
Product Name

실린더직경
Bore Size
10, 12

JAW형태
JAW Type
A - 수직형
B - 수평형
A - Vertical type
B - Horizontal type

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF101 | A | - | 10 | - | A | - | RS | 1 | - | 3M

버전
Version
무기호
A
⋮
Nil
A
⋮

센서명칭
Sensor Type
무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.
* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.
* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length
무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

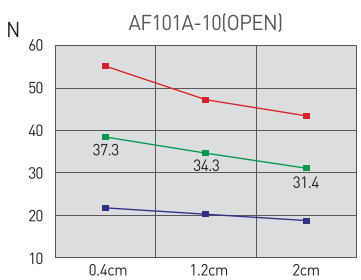
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

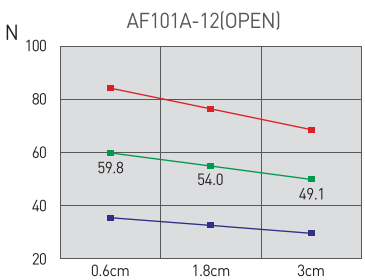
제품명칭 Products Name	AF101A-10	AF101A-12	단위 Unit
개폐범위 Stroke	10	20	mm
제품중량 Weight	0.14	0.29	kg
최대치구길이 Max. length attach	20	30	mm
배관접속구 Fitting size	M5	M5	
파지력 : 열림시 Gripping force : Open	7.85P/(1+0.013L)	12.75P/(1+0.01L)	N
파지력 : 닫힘시 Gripping force : Close	4.91P/(1+0.013L)	6.86P/(1+0.01L)	N
1사이클당 공기소모량 Air consumption per cycle	0.8	3.5	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01		sec
반복정밀도 Repeat accuracy	0.1		mm
연속사용회수 Continuation usage amount	60		cpm
사용압력 Operating pressure	3~7		bar
주위온도 Ambient temperature	-5 to 60		℃
윤활 Lubrication	불필요 Needless		

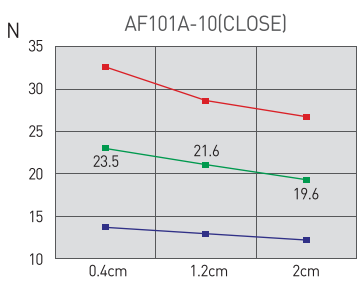
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

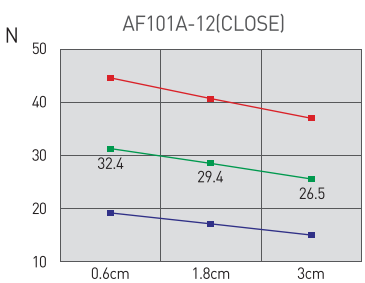
작용점에서의 파지력 (Gripping Force From a Point of Action)

범례 (Legend) : 7[bar] 5[bar] 3[bar]

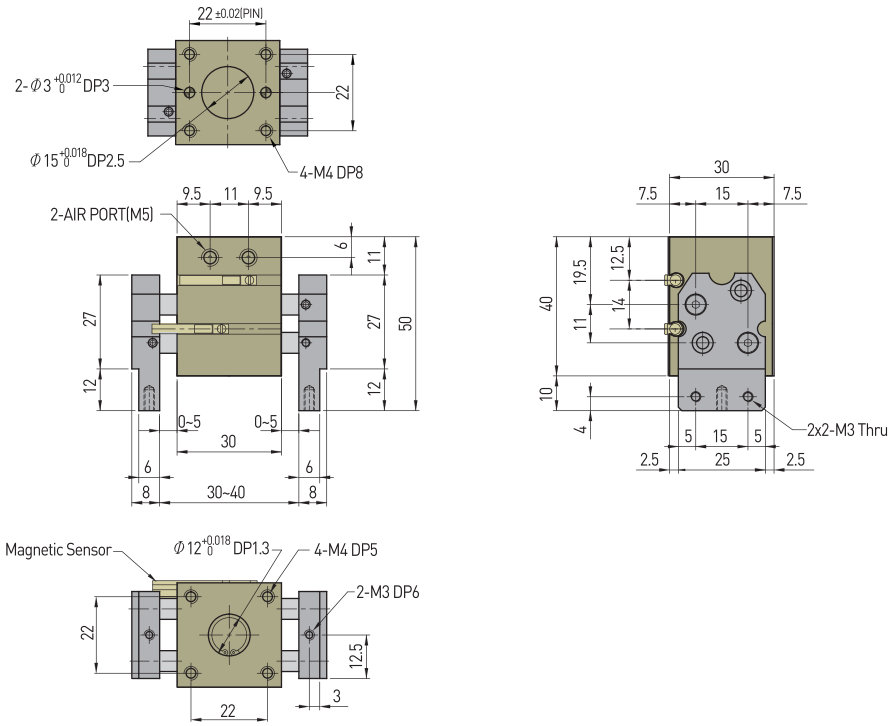




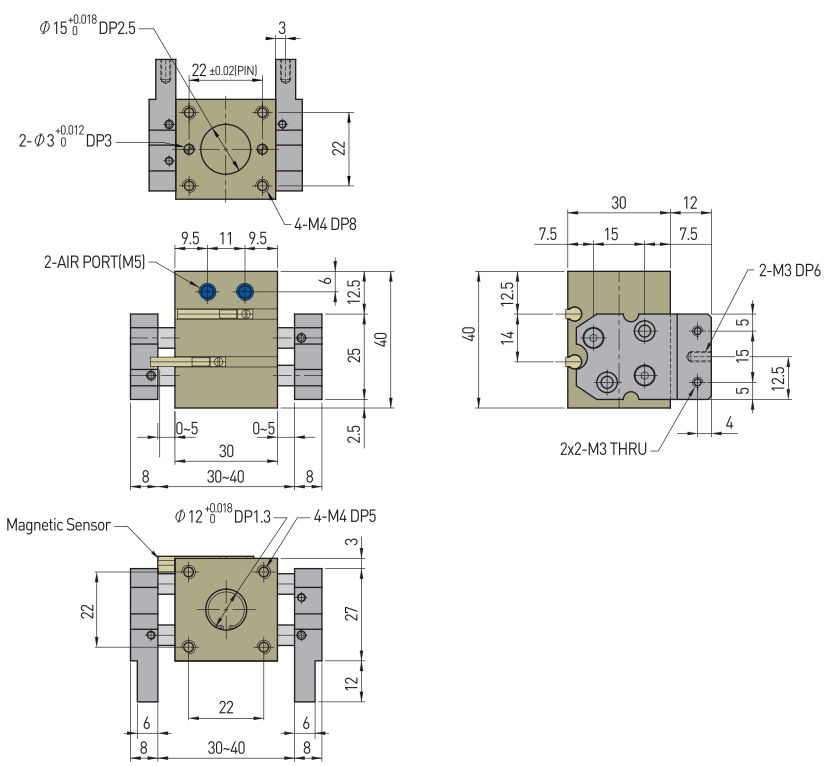




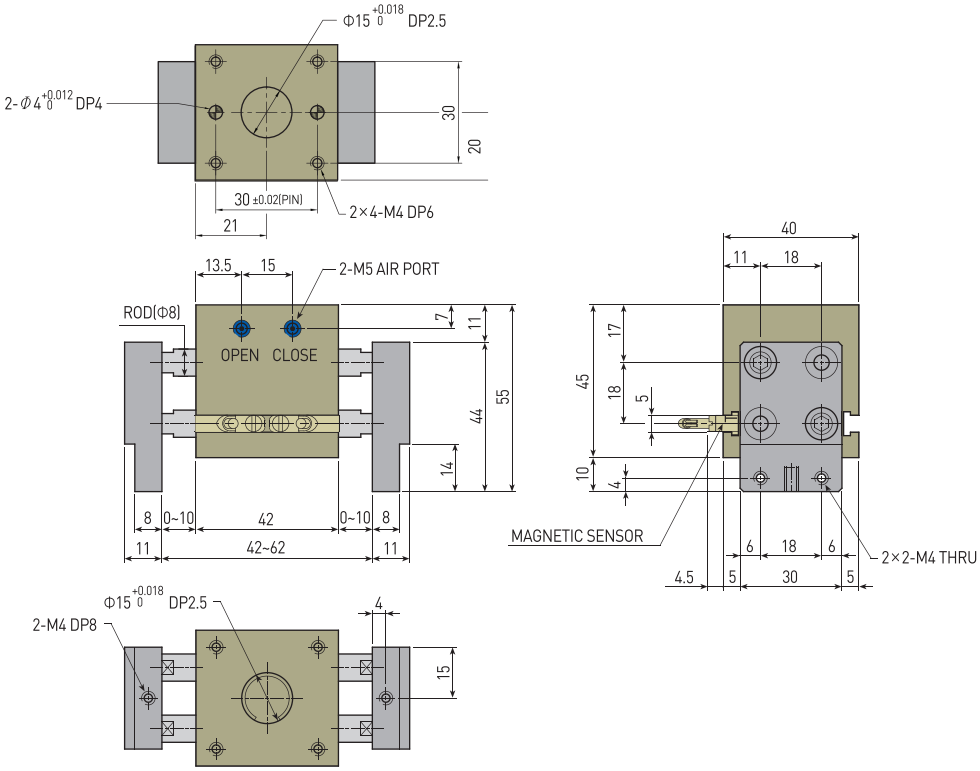
AF101A-10-A



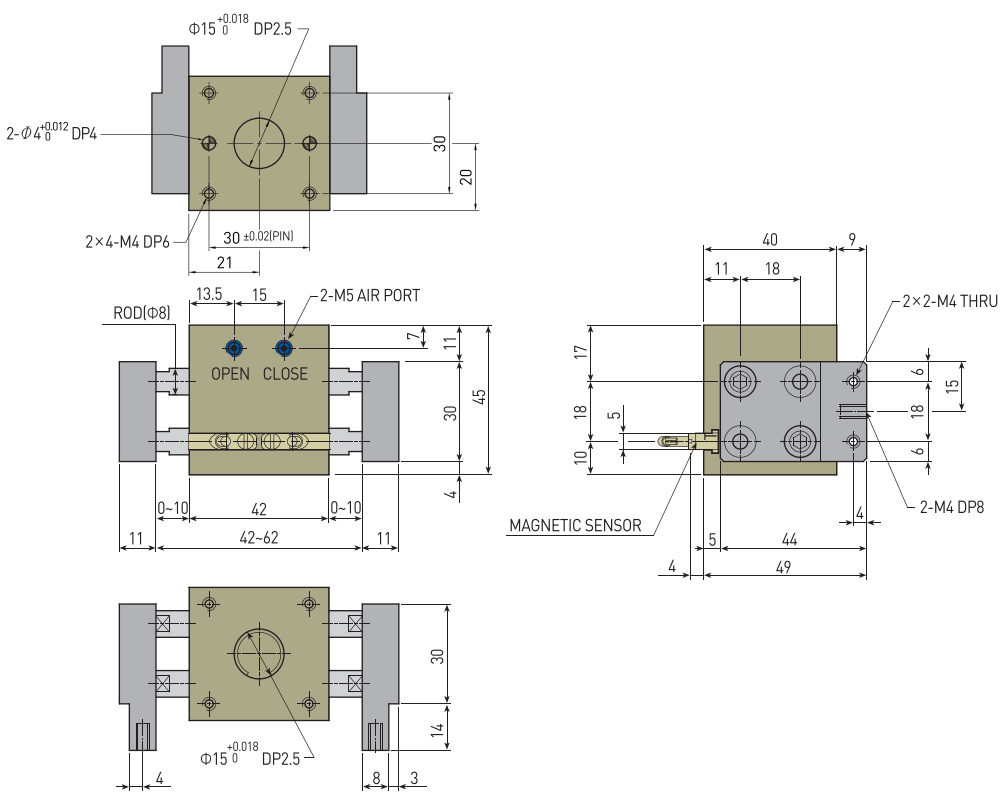
AF101A-10-B



AF101A-12-A



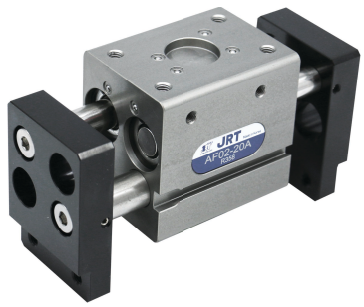
AF101A-12-B



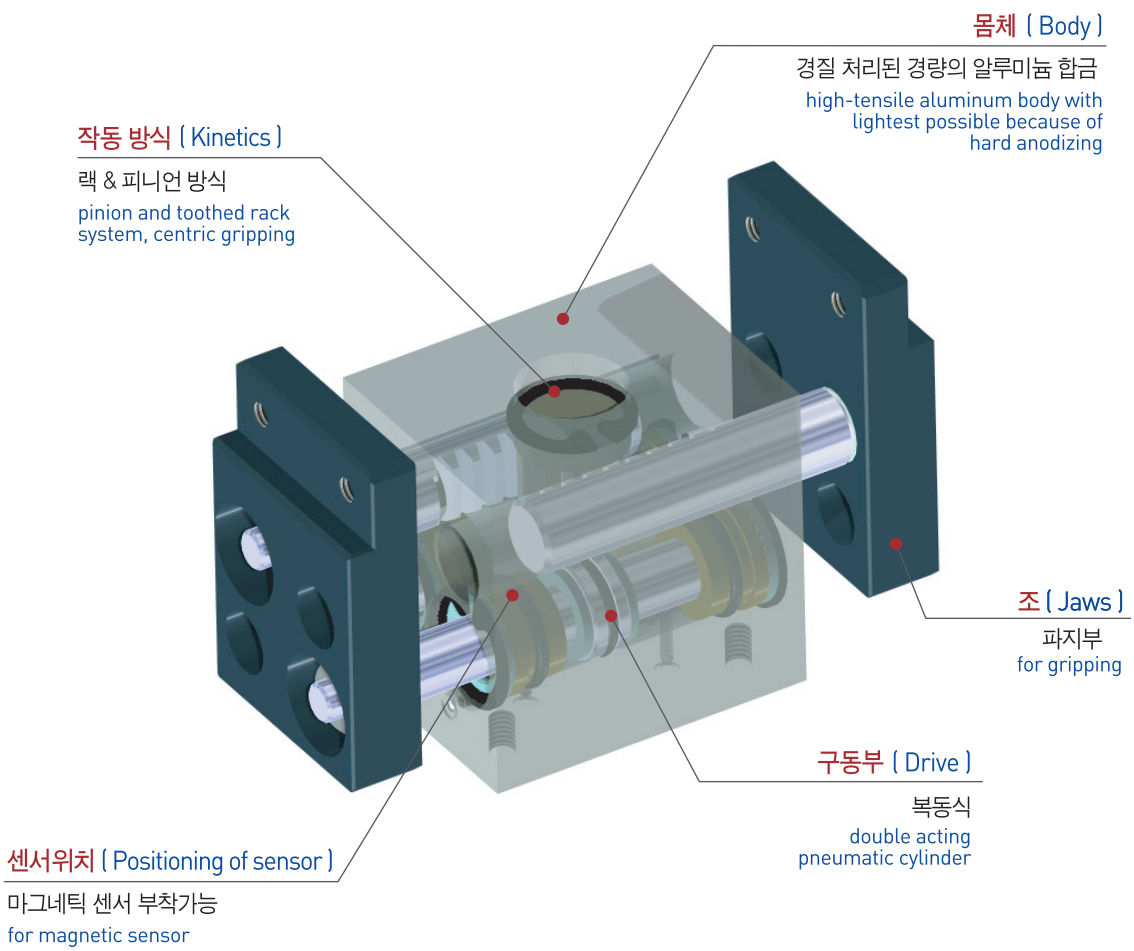
AF02 -16, 20, 30, 40, 50, 63

특징 (Character)

- RACK & PINION에 의한 평행 개폐방식
  Parallel Open-Close type of Rack & pinion
- 두 개의 실린더 내장형으로 강력한 파지력
  High gripping forces by the structure of synchronized dual piston
- 개폐검출 확인용 센서 부착가능
  Magnetic sensor is available for open-close sensing

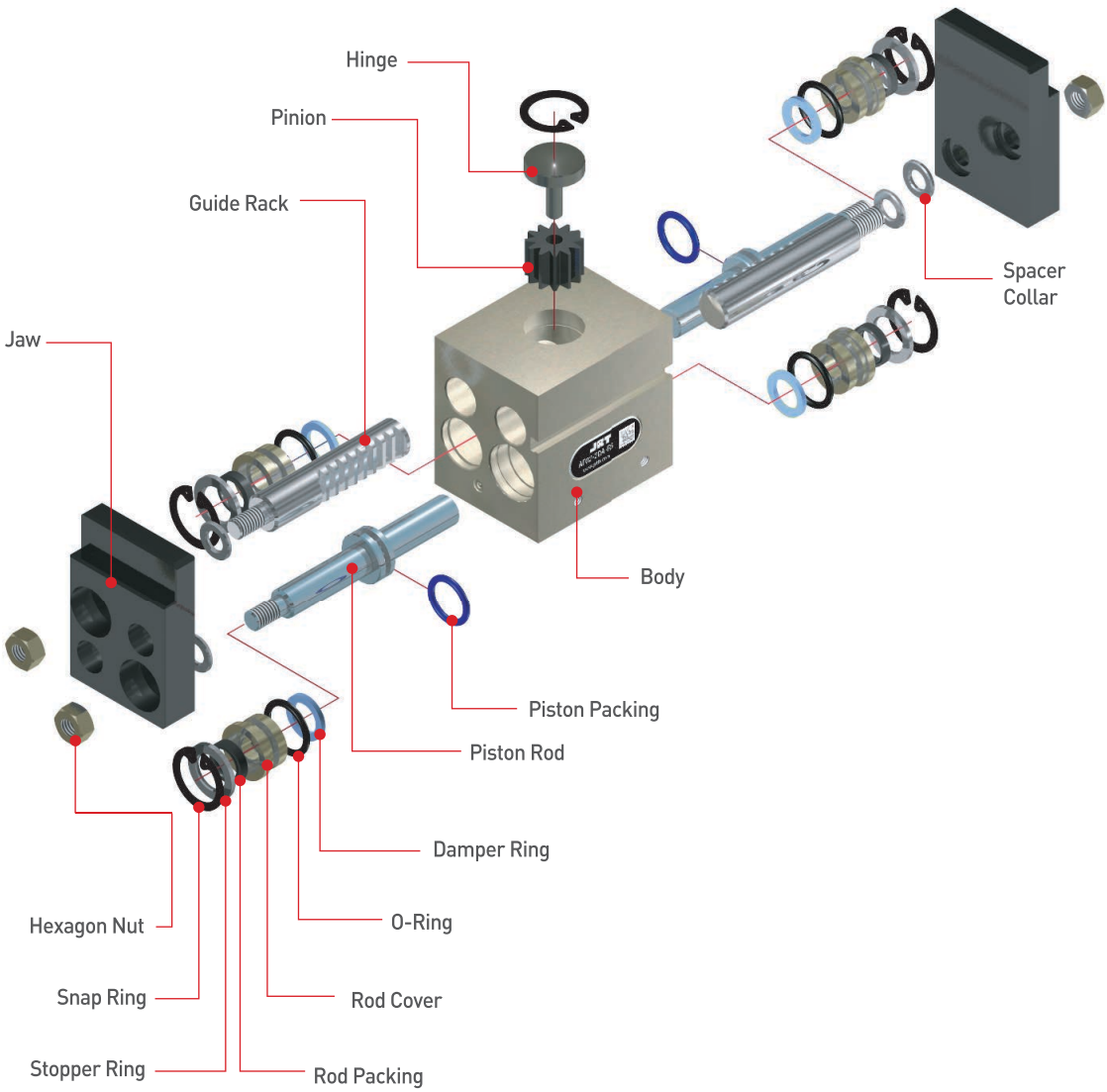


랙 & 피니언 방식 (Rack & pinion type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models



주문기호 (How to Order)

제품명
Product Name

버전
Version
무기호
A
⋮
Nil
A
⋮

실린더직경
Bore Size
16, 20, 30
40, 50, 63

JAW형태
JAW Type
A - 수직형
B - 수평형
A - Vertical type
B - Horizontal type

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF02 | A | - | 30 | - | A | - | RS | 1 | - | 3M | - | S □□

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다.
RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

STROKE 옵션
Stroke Option

무기호 - 표준 STROKE
Nil - Standard Stroke

S□□ - 옵션 STROKE
S□□ - Option Stroke

*표준 STROKE를 축소하는 옵션은 가능합니다.
*STROKE 확장 사용시 가격상승 및 납기가 지연될 수 있습니다.

* Option that reduces the standard stroke is allowed.
* When using the extended stroke, it may increase the price and delay the delivery time.

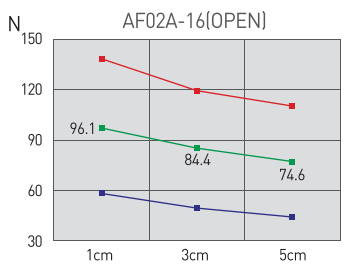
제품사양 (Specification)

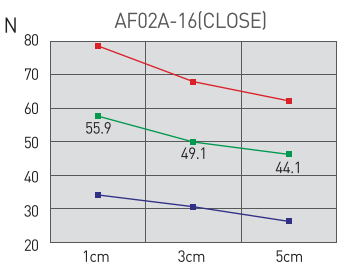
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

제품명칭 Products Name	AF02A-16-(S□□)	AF02A-20-(S□□)	AF02A-30-(S□□)	AF02A-40-(S□□)	AF02A-50	AF02A-63	단위 Unit
개폐범위 Stroke	30 (40)	40 (80, 100)	60 (120, 160)	100 (150, 180)	120	130	mm
제품중량 Weight	0.55 (0.6)	1.05 (1.25, 1.35)	2.88 (3.37, 3.7)	6.2 (6.7, 7.1)	12.3	18.2	kg
최대치구길이 Max. length attach	50	90	100	160	180	200	mm
배관접속구 Fitting size	M5	M5	M5	PF(G) 1/8	PF(G) 1/4	PF(G) 1/4	
파지력 : 열림시 Gripping force : Open	20.6P/(1+0.0075L)	20.6P/(1+0.005L)	49.05P/(1+0.0025L)	148.13P/(1+0.002L)	192.57P/(1+0.002L)	296.26P/(1+0.002L)	N
파지력 : 닫힘시 Gripping force : Close	12.07P/(1+0.0075L)	20.6P/(1+0.005L)	49.05P/(1+0.0025L)	148.13P/(1+0.002L)	192.57P/(1+0.002L)	296.26P/(1+0.002L)	N
1사이클당 공기소모량 Air consumption per cycle	9.7 (12.9)	11.0 (22, 27.5)	60.7 (121, 161)	188.5 (282, 339)	353.4	626.7	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.2	0.2~0.4	0.4~0.8	0.4~0.9	0.8	0.8	sec
반복정밀도 Repeat accuracy	0.1	0.1	0.1	0.1	0.1	0.1	mm
연속사용회수 Continuation usage amount	40	40	30	30	20	20	cpm
사용압력 Operating pressure	3~7						bar
주위온도 Ambient temperature	-5 to 60						℃
윤활 Lubrication	불필요 Needless						

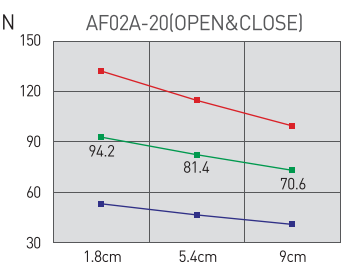
작용점에서의 파지력 (Gripping Force From a Point of Action)

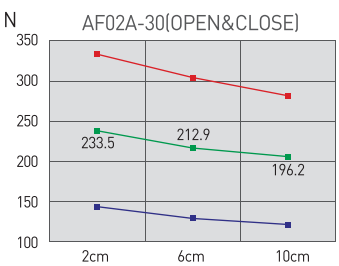
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

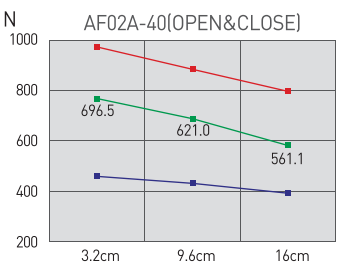


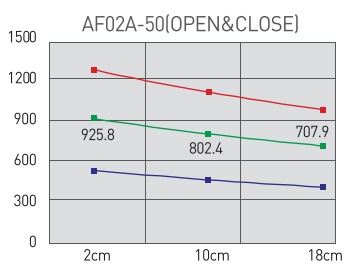


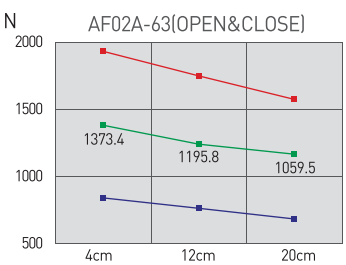
범례 (Legend)
7[bar] 5[bar] 3[bar]



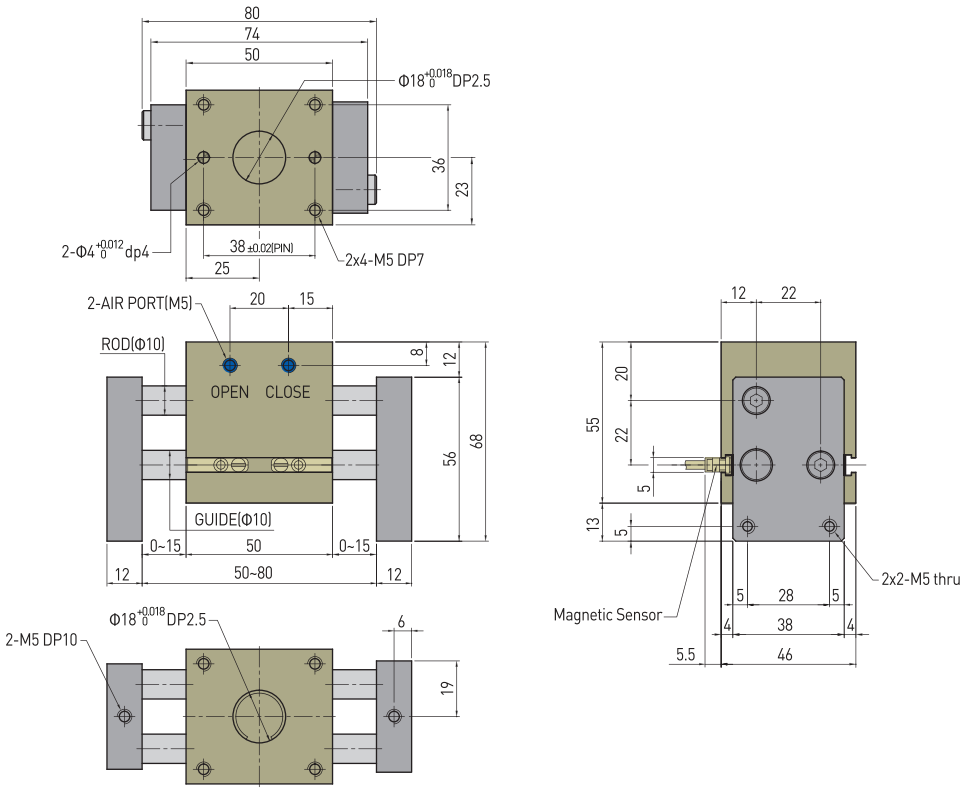




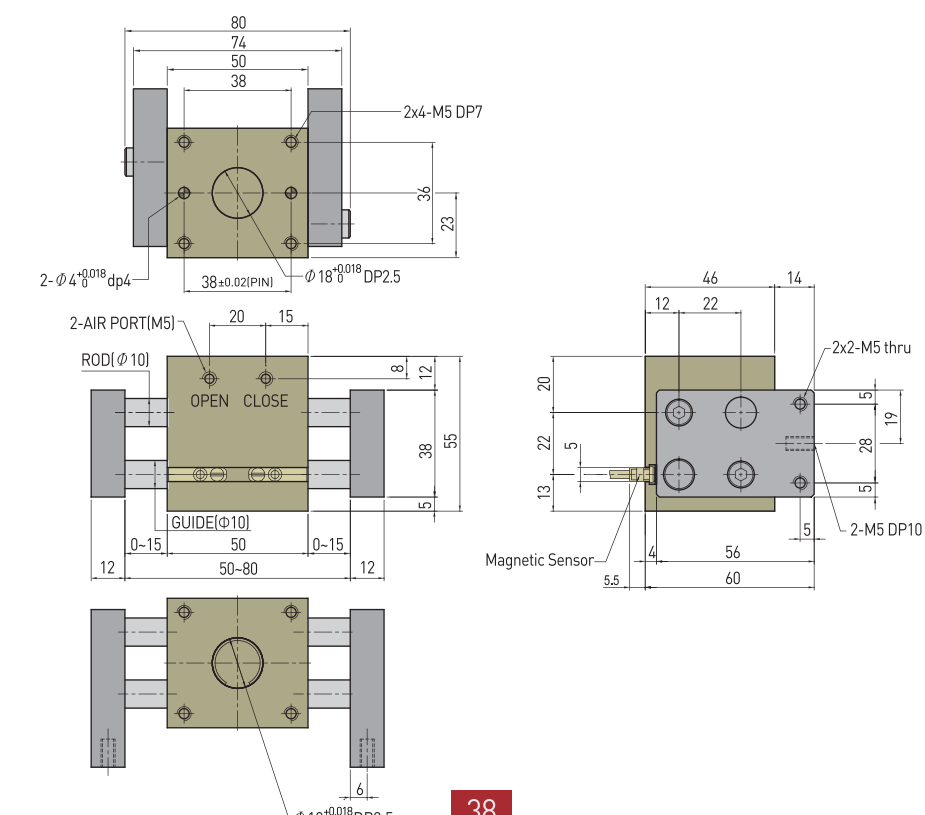




AF02A-16-A

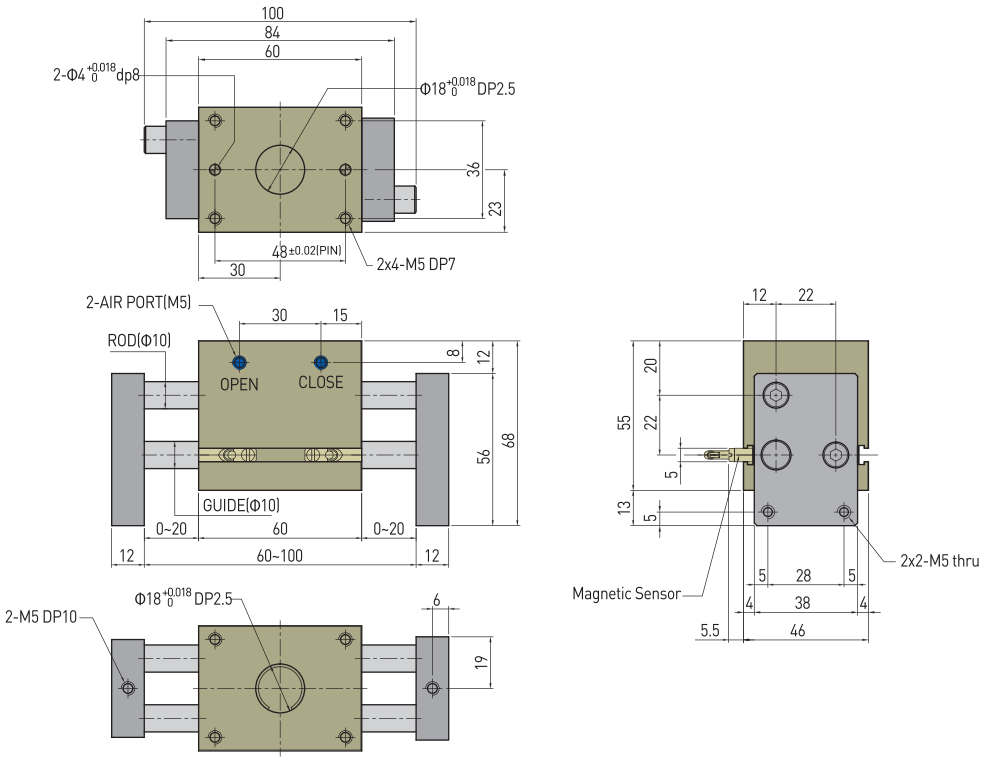


AF02A-16-B

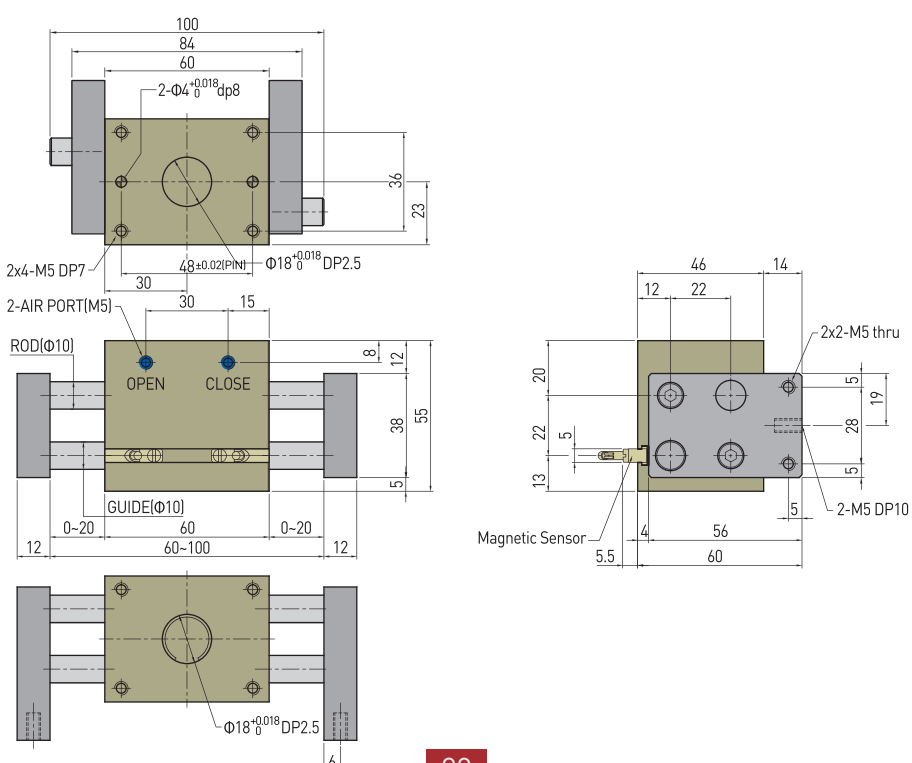


※ 표기되지 않은 치수는 표준품과 동일 합니다. 납기, 가격 등을 사전 확인 바랍니다.
※ All the dimensions not indicated are the same as those of the standard product.
Please confirm delivery, price, etc. in advance.

AF02A-16-A...S40

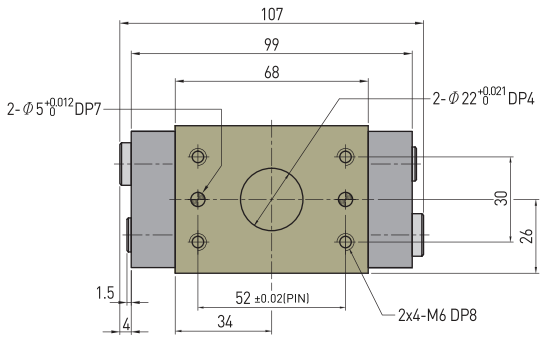


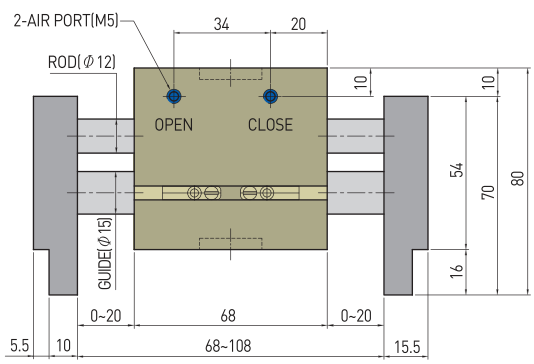
AF02A-16-B...S40

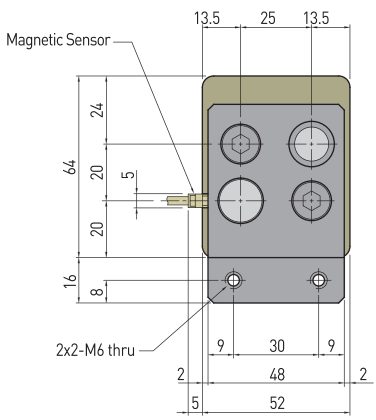


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

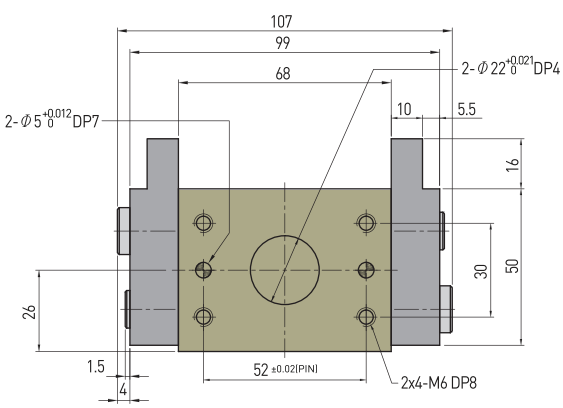
AF02A-20-A

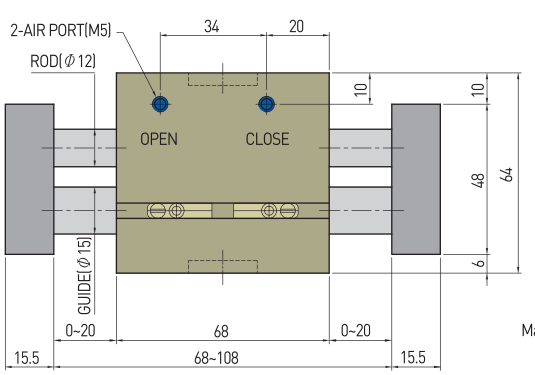


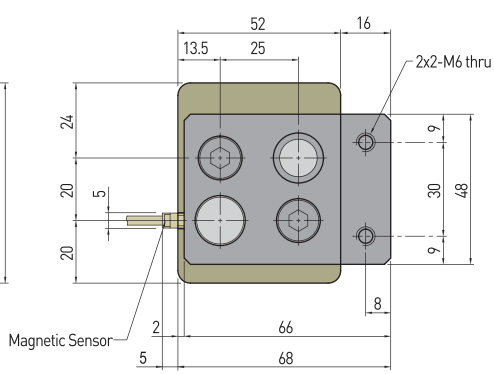




AF02A-20-B







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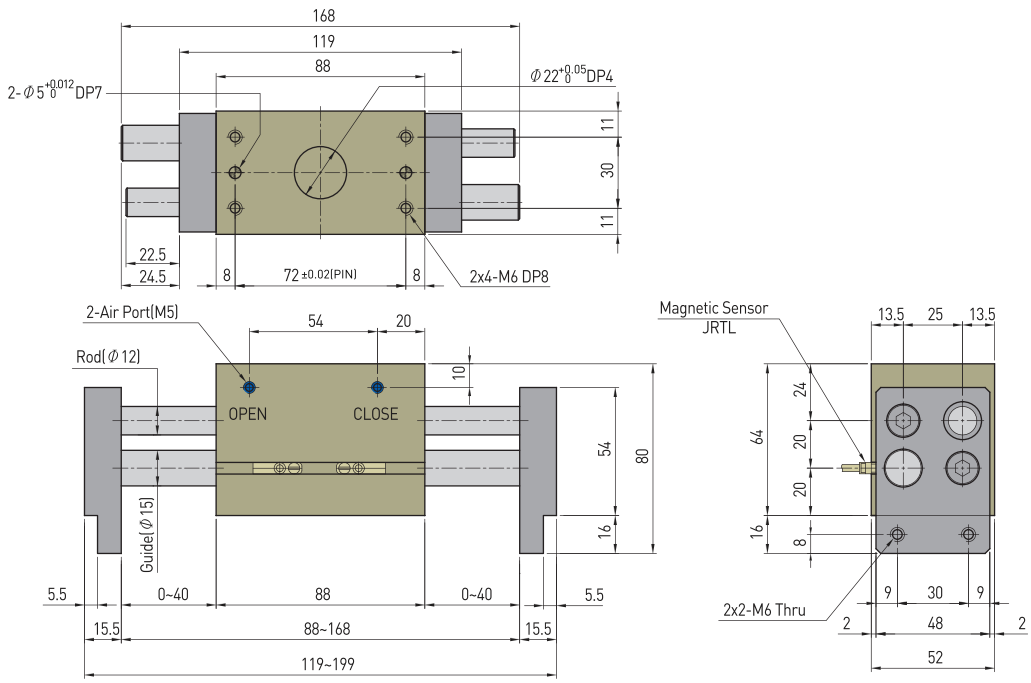
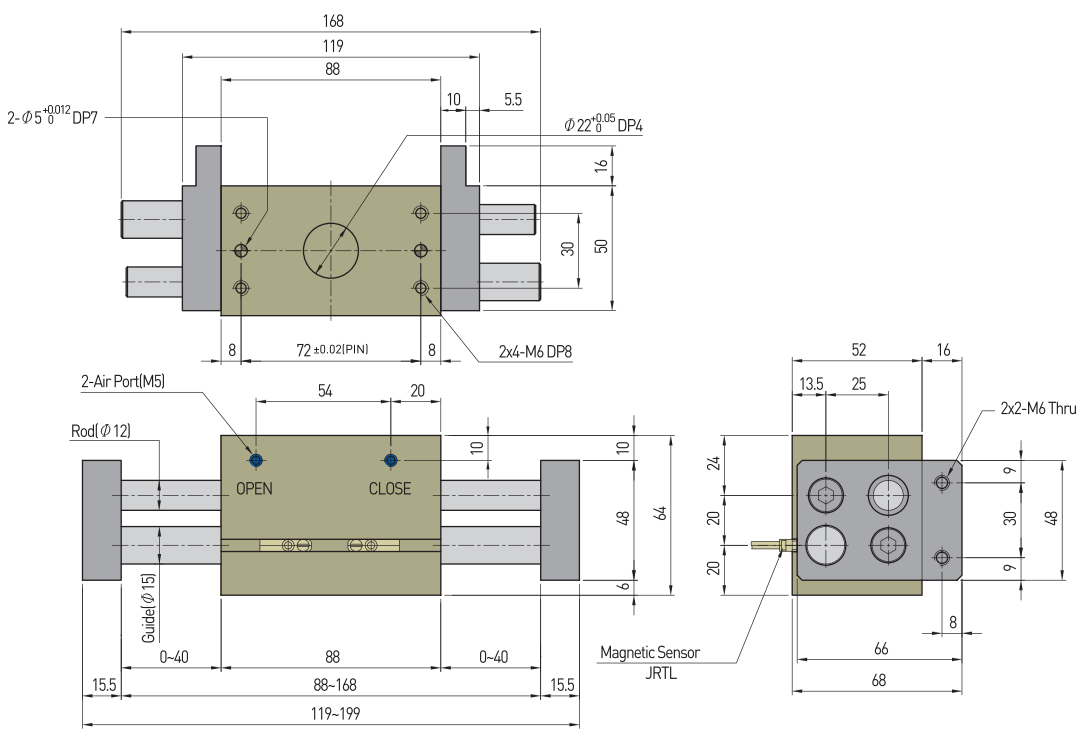
AF02A-20-A...S80



AF02A-20-B...S80



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

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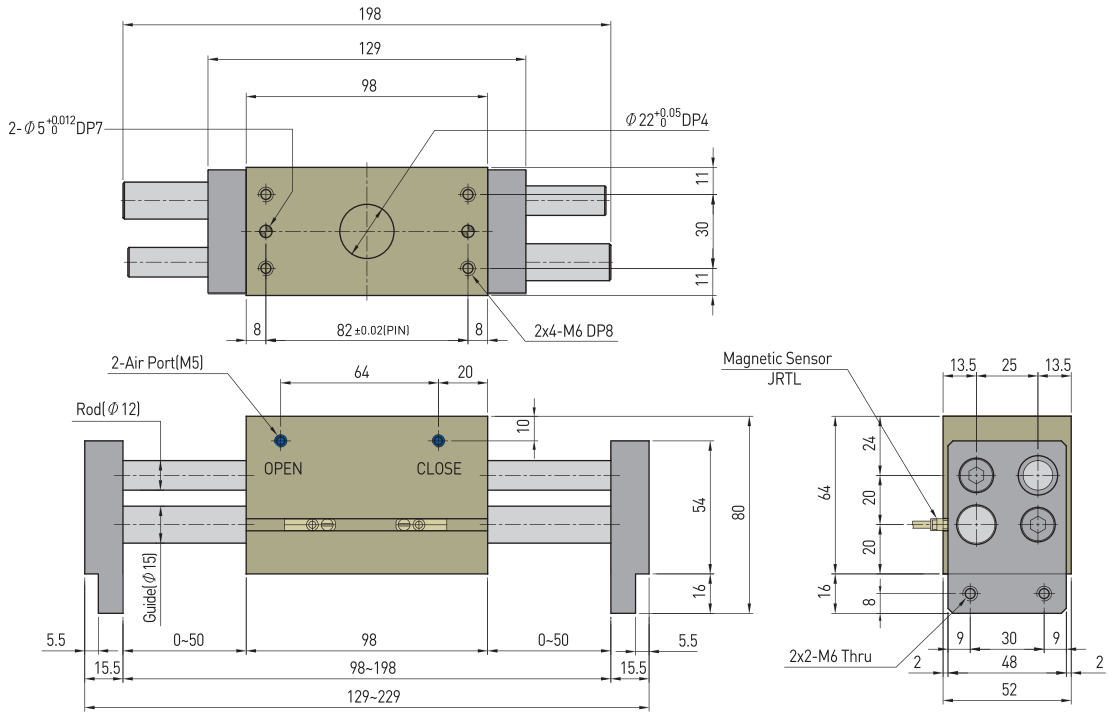
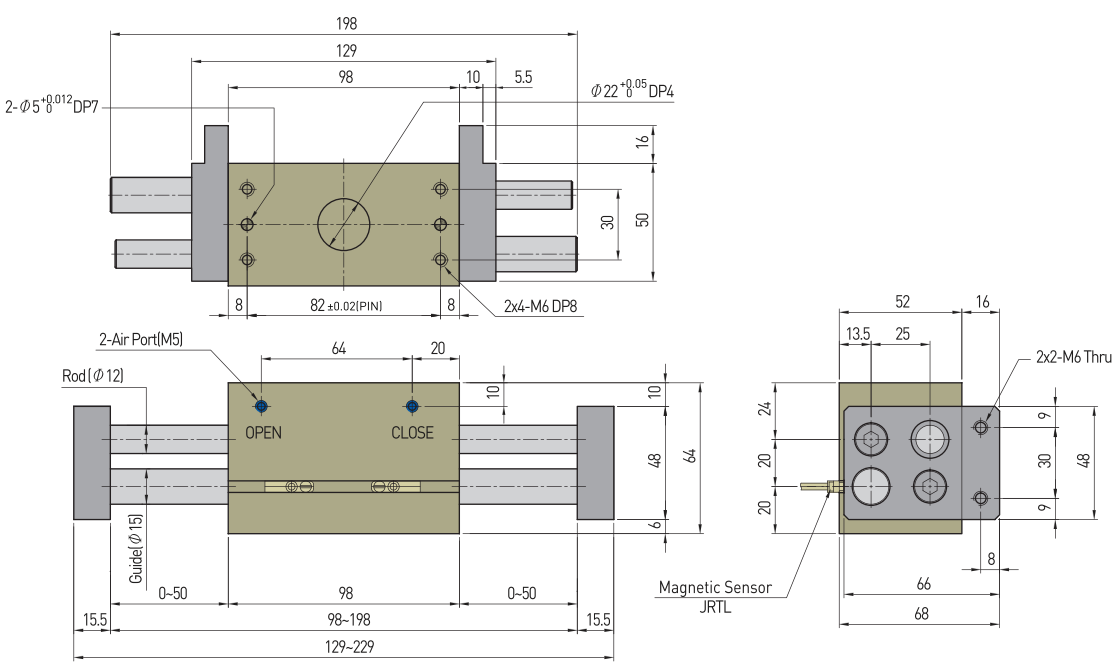
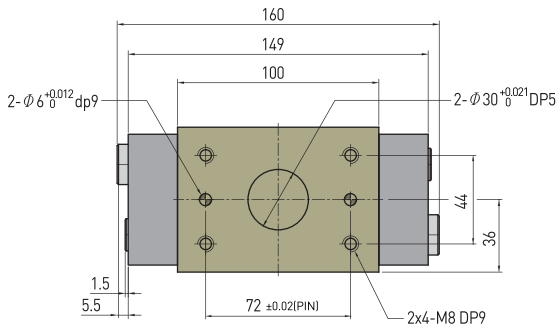
AF02A-20-A...S100

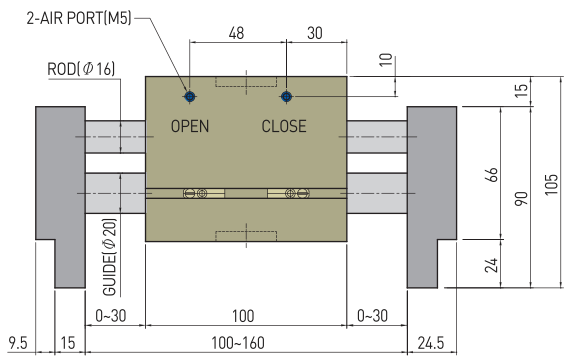


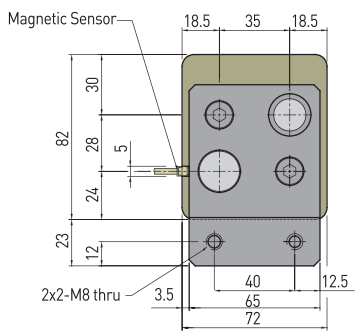
AF02A-20-B...S100



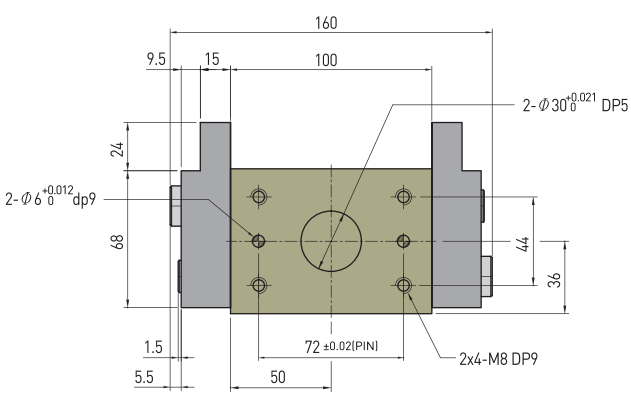
AF02A-30-A

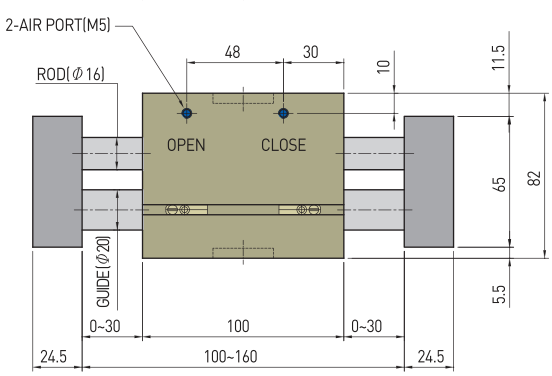


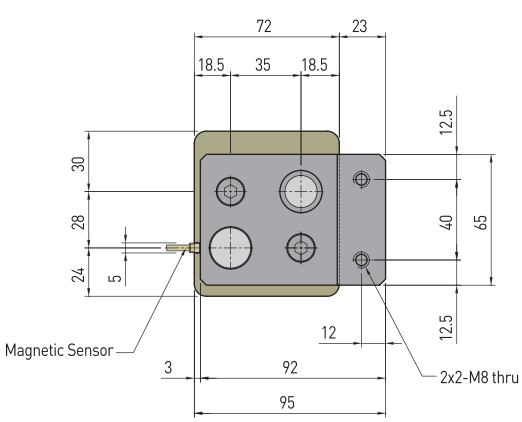




AF02A-30-B







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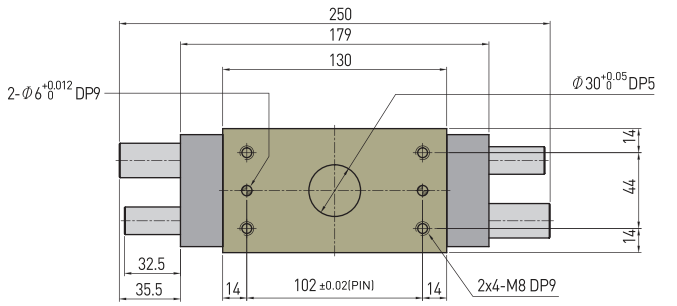
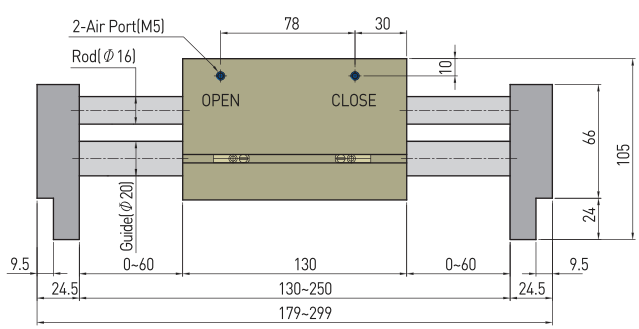
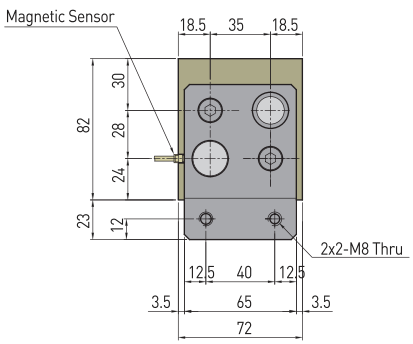
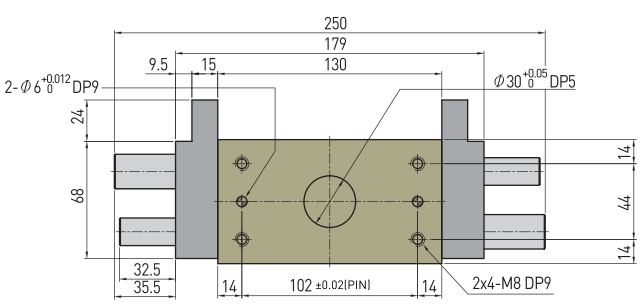
AF02A-30-A...S120

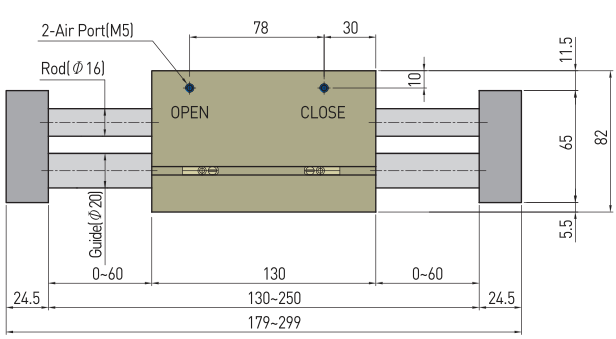


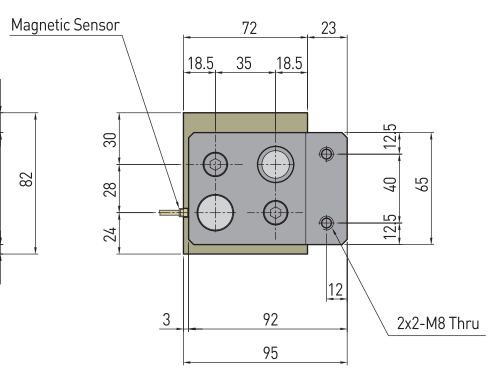




AF02A-30-B...S120







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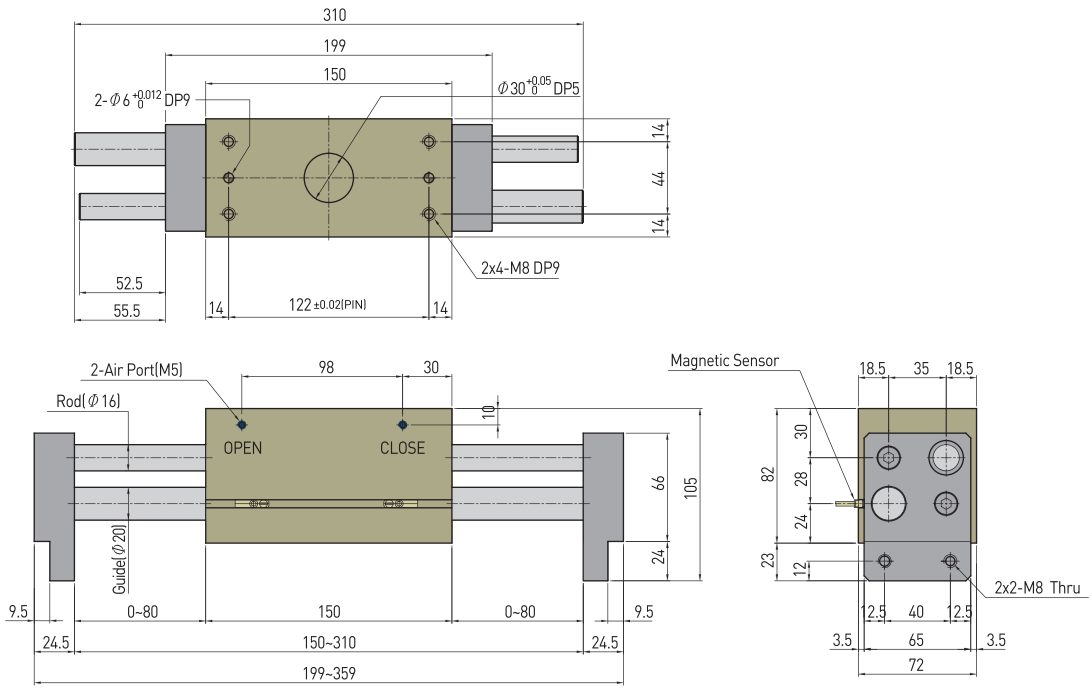
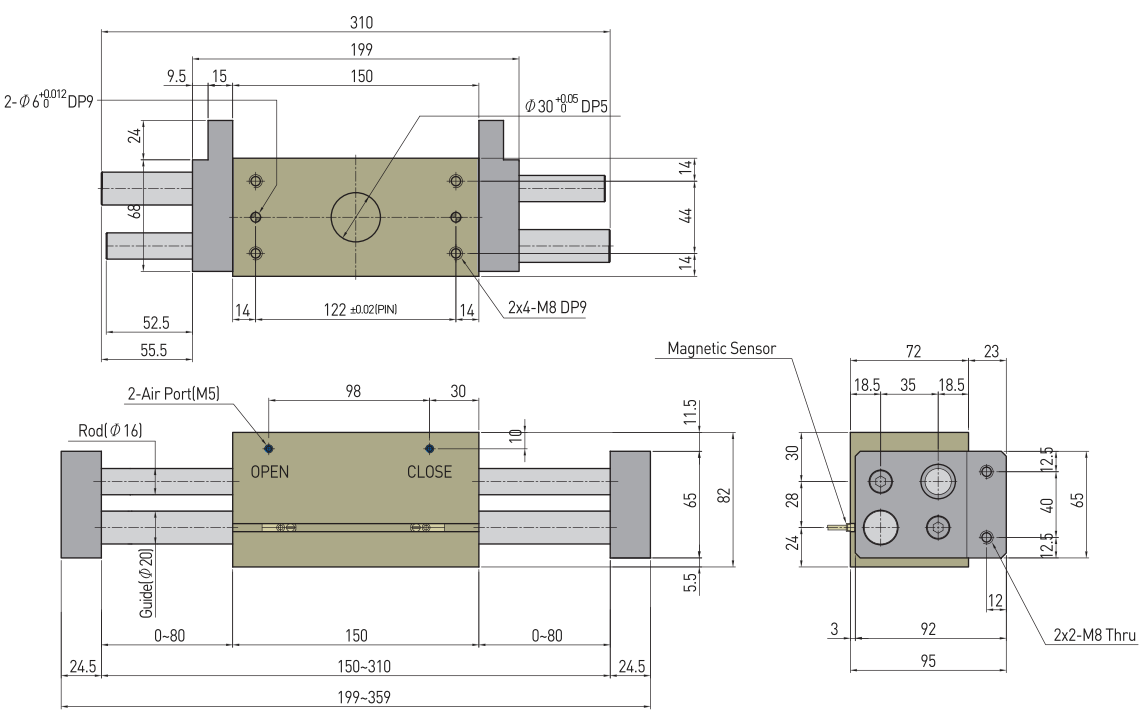
AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

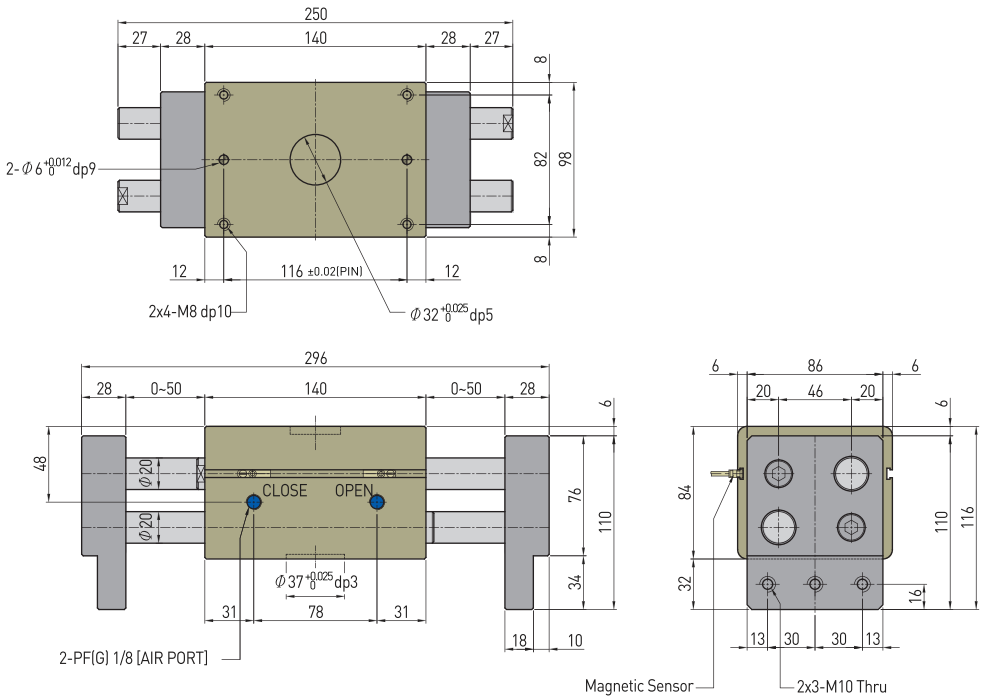
AF02A-30-A...S160



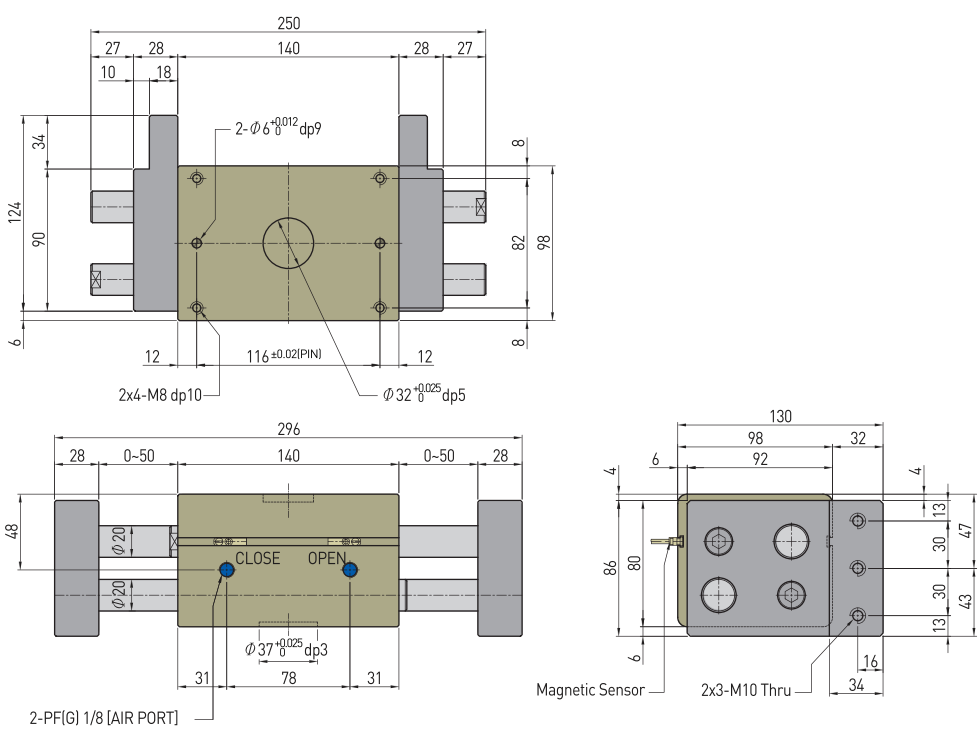
AF02A-30-B...S160



AF02A-40-A



AF02A-40-B



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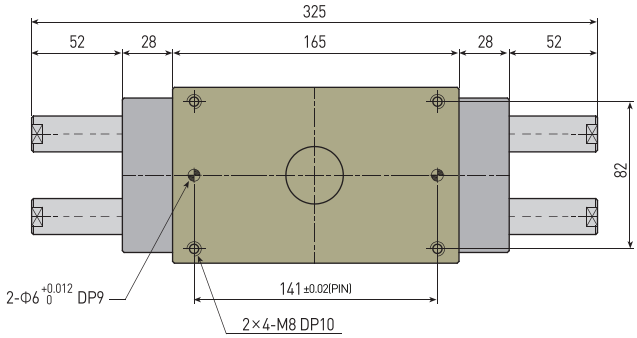
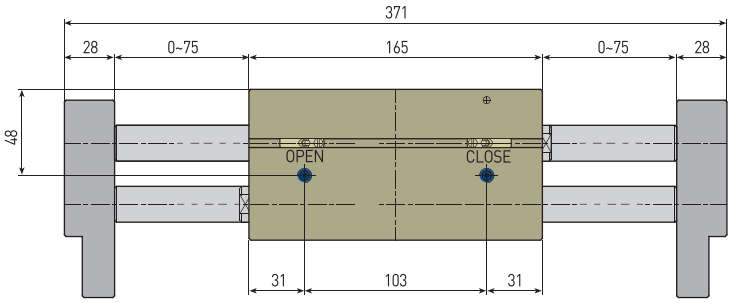
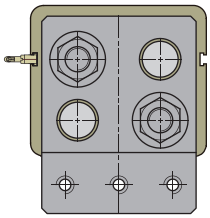
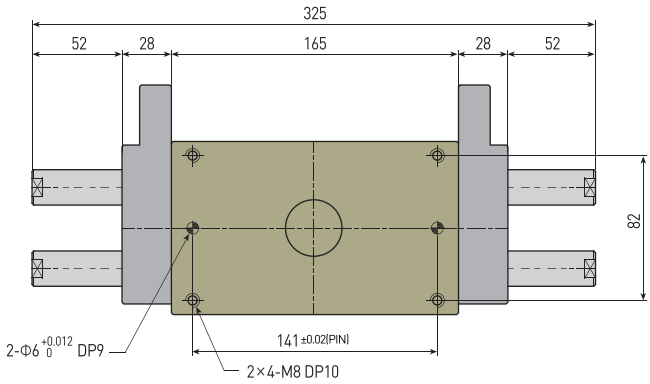
AF02A-40-A...S150

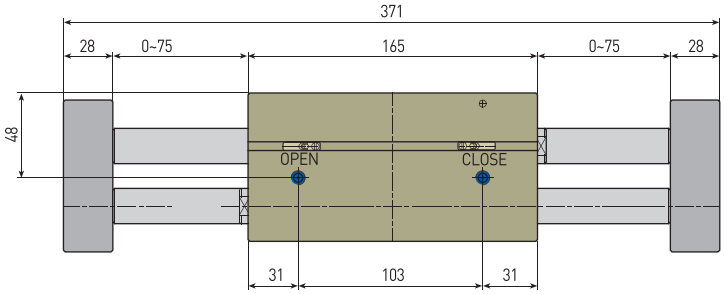


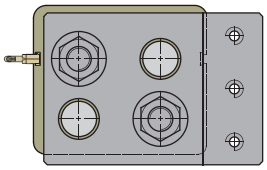




AF02A-40-B...S150







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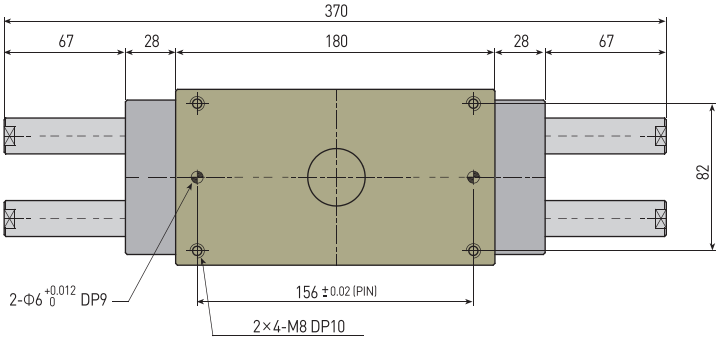
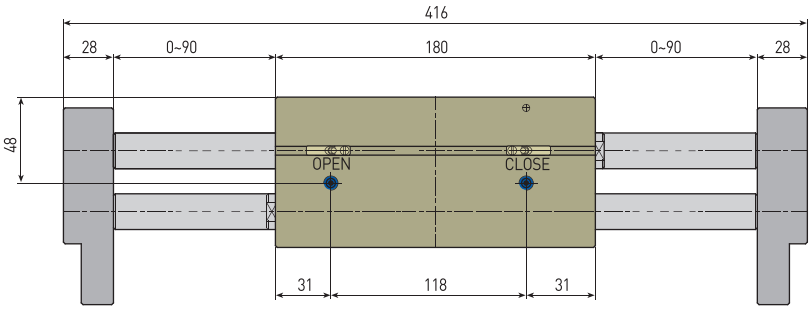
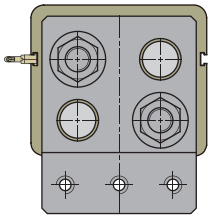
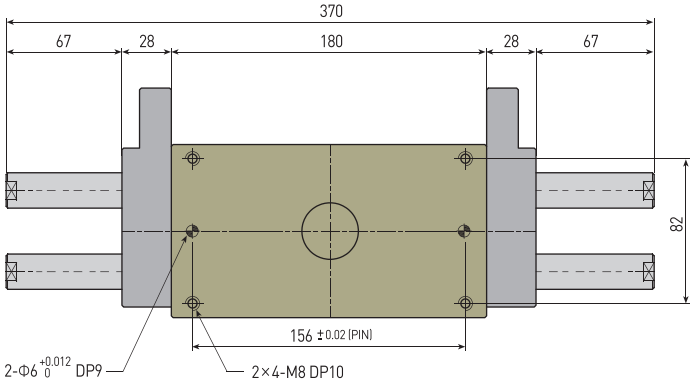
AF02A-40-A...S180

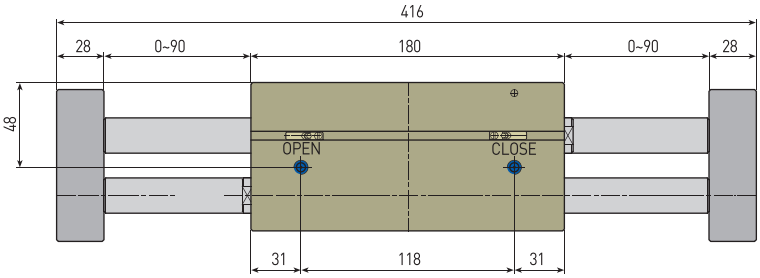


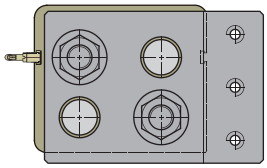




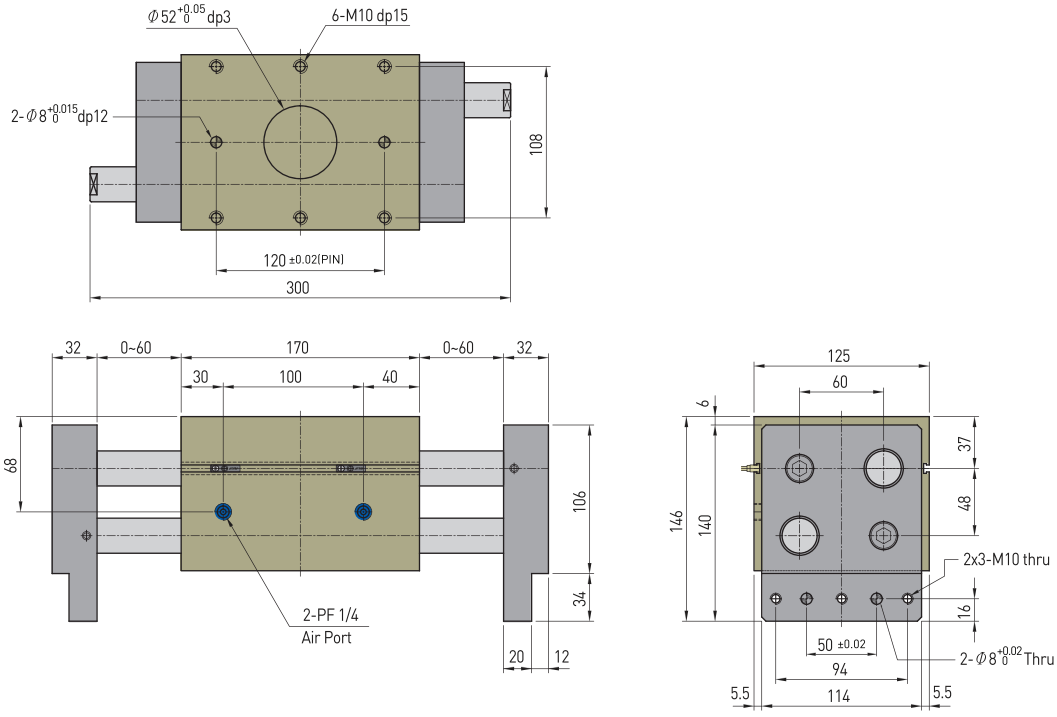
AF02A-40-B...S180



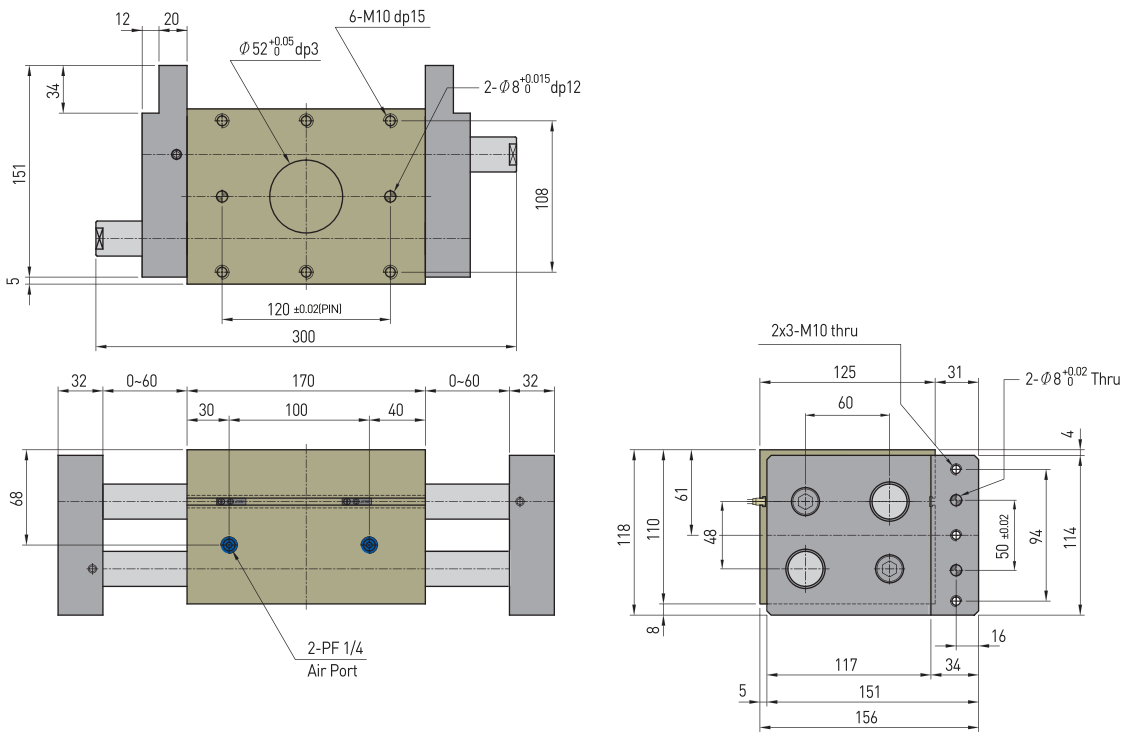




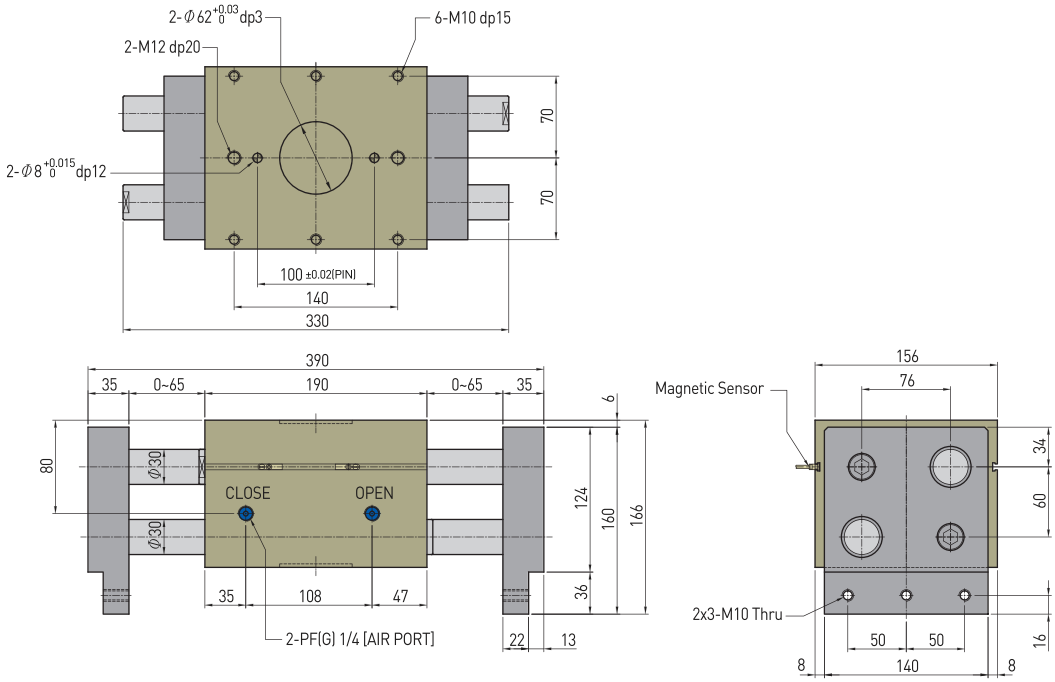
AF02A-50-A



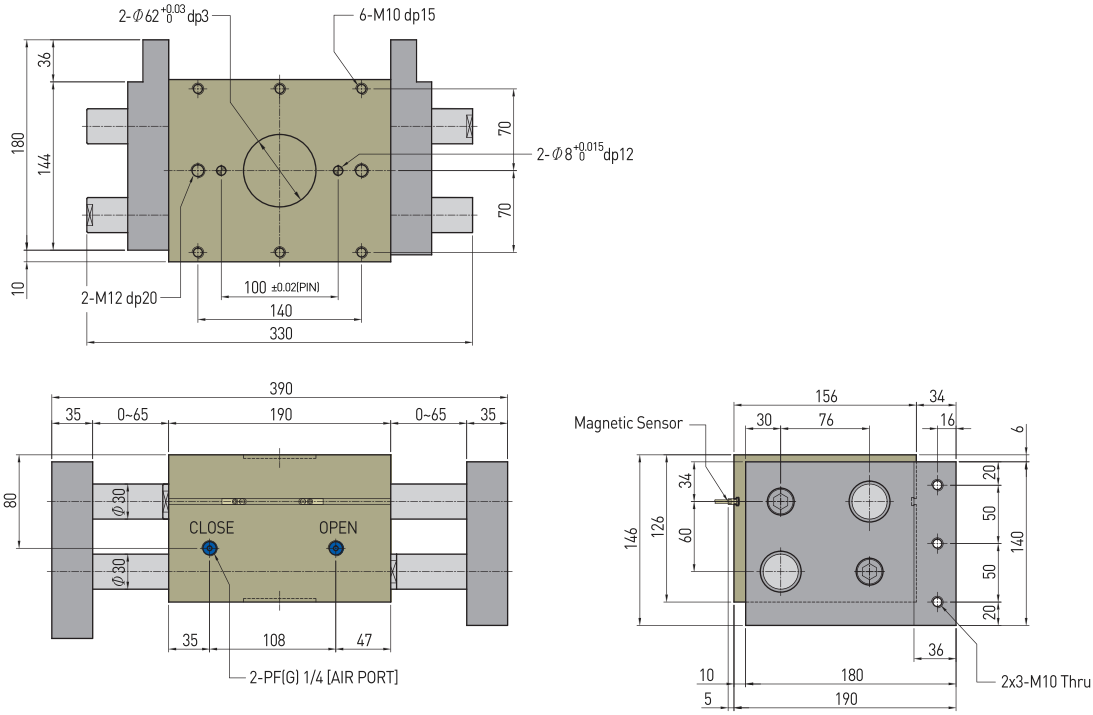
AF02A-50-B



AF02A-63-A



AF02A-63-B

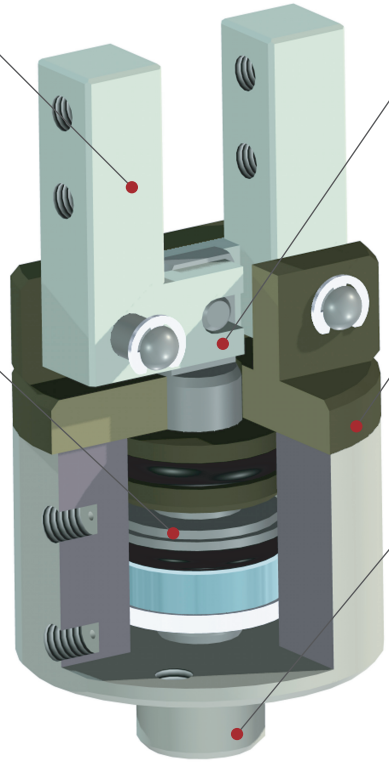


AF03-20, 30, 40

특징 (Character)

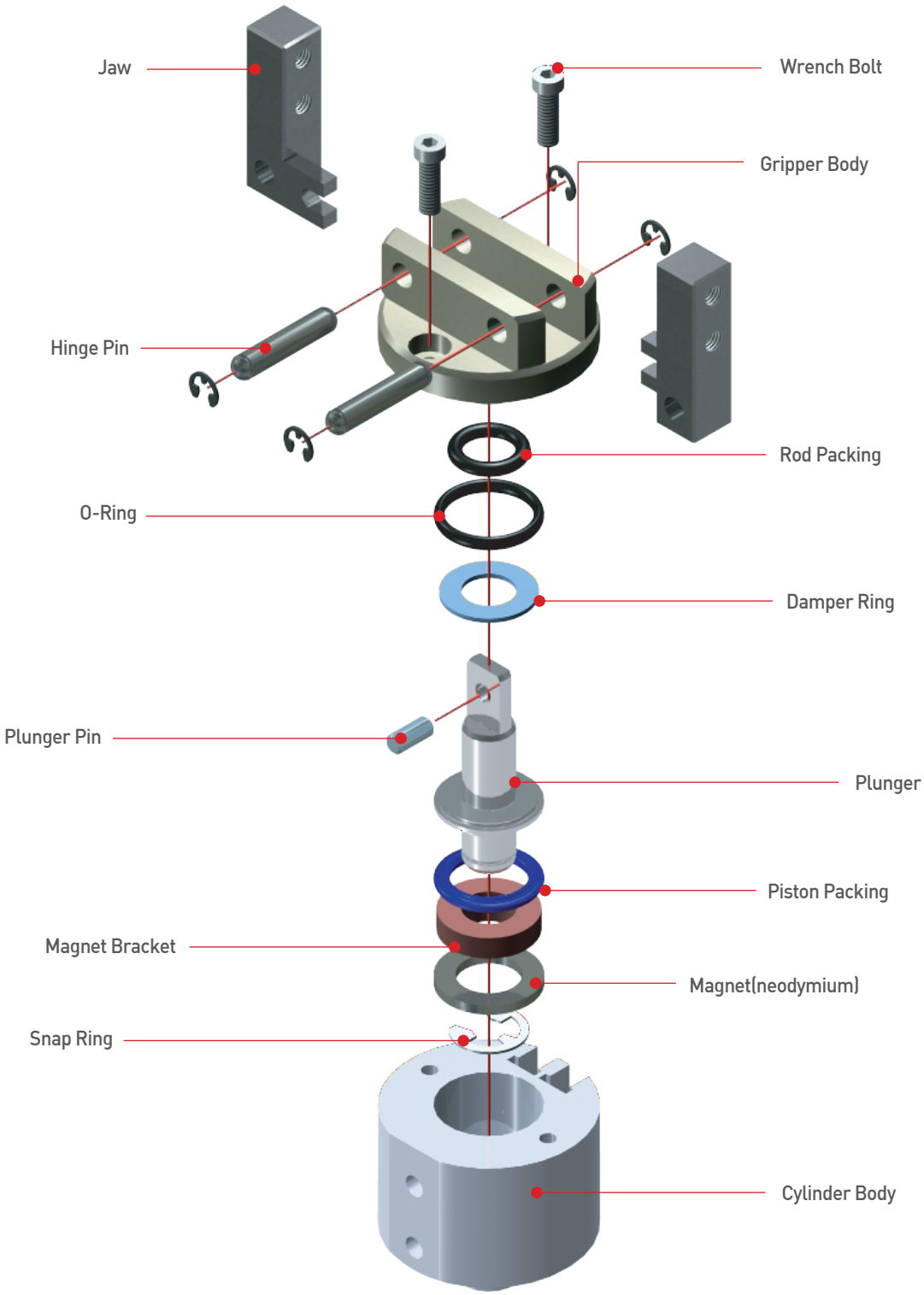
- 링크레버에 의한 각도개폐 방식
  Angular type by link lever driving unit
- 일반적인 구조의 광범위한 용도
  Extensive utility in general structure
- 개폐검출 확인용 센서 부착가능
  Magnetic sensor is available for open-close sensing

링크레버 방식 (Link lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (Ordering Code)

AF101
AF02
AF03
AF04P
AF105P
AF06
AF10
AF13
AF13C
AF14
AF15
AF316
AF17
AF117
AF19
AF24
AF26
AF28D
AF30
AF30L
AF30SP
AF40
AF46
AF56N
RAF56N
MF16

제품명
Product Name

실린더직경
Bore Size
20, 30, 40

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF03 - 20 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

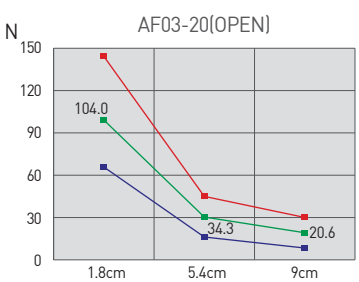
P=공기압력(bar) , L=작용점까지의 거리(mm)
P=Air Pressure(bar) , L=Exertion length(mm)

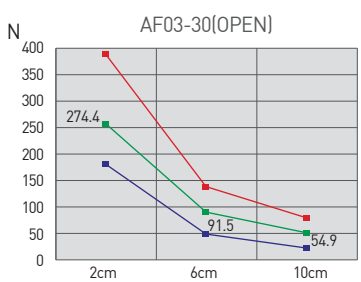
제품명칭 Products Name	AF03-20	AF03-30	AF03-40	단위 Unit
개폐범위 Stroke	-4 to 19	-5 to 20	-5 to 25	degree
제품중량 Weight	0.19	0.41	0.79	kg
최대치구길이 Max. length attach	90	100	120	mm
배관접속구 Fitting size	M5	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	37.28P/0.1L	109.87P/0.1L	233.48P/0.1L	N
파지력 : 닫힘시 Gripping force : Close	27.47P/0.1L	87.31P/0.1L	186.39P/0.1L	N
1사이클당 공기소모량 Air consumption per cycle	1.1	3.6	8.8	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.01/0.01	sec
반복정밀도 Repeat accuracy	0.05	0.05	0.05	mm
연속사용회수 Continuation usage amount	60	40	40	cpm
사용압력 Operating pressure	3~7			bar
주위온도 Ambient temperature	-5 to 60			℃
윤활 Lubrication	불필요 Needless			

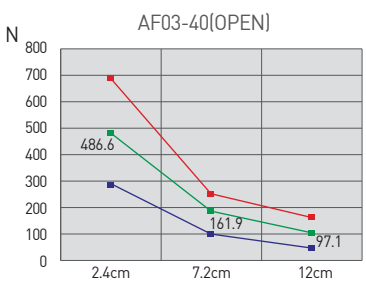
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

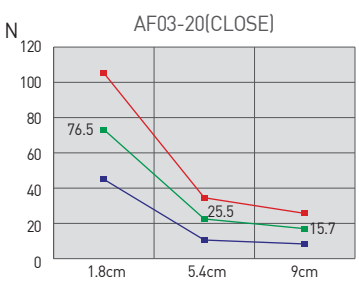
작용점에서의 파지력 (Gripping Force From a Point of Action)

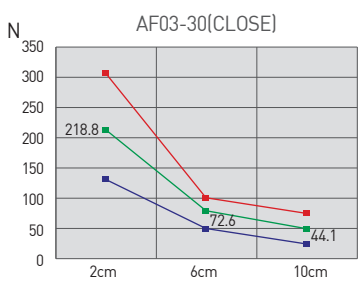
범례(Legend) : 7[bar] 5[bar] 3[bar]

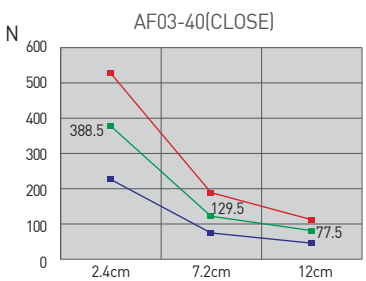




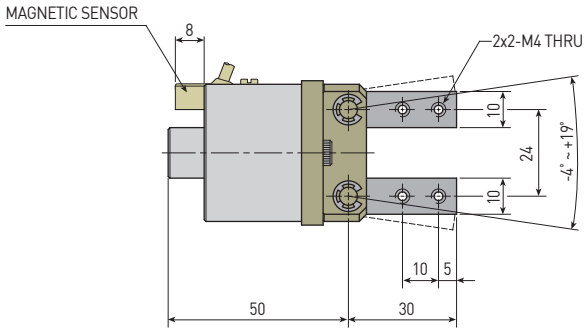


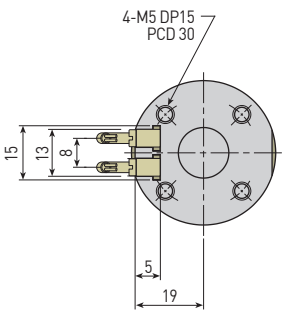


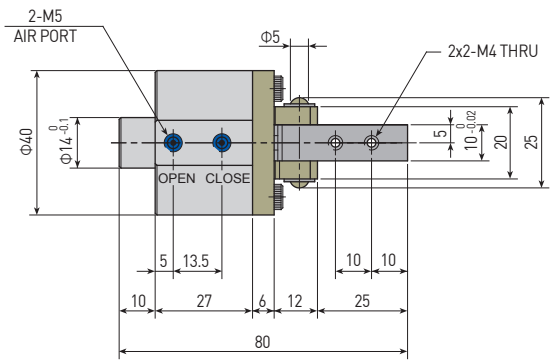




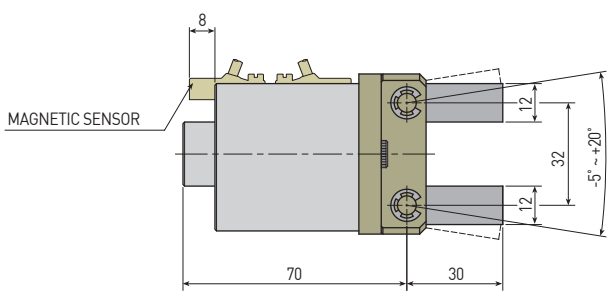
AF03-20

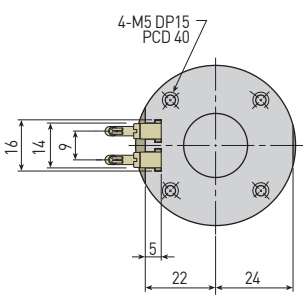


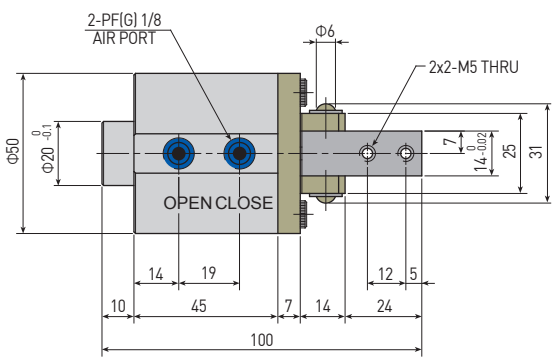




AF03-30

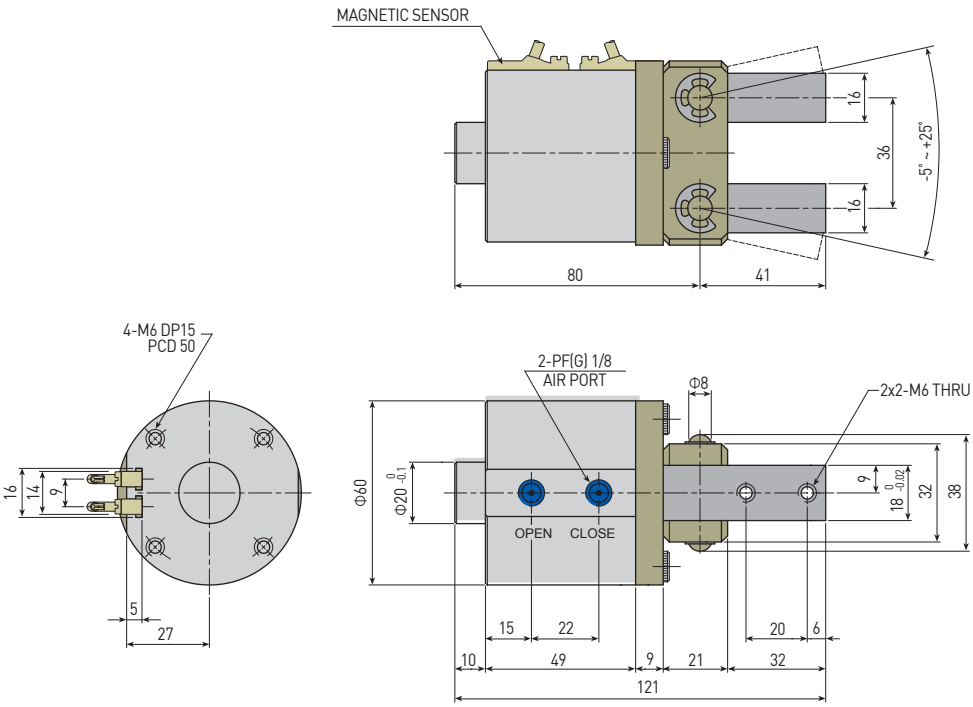






AF101
AF02
AF03
AF04P
AF105P
AF06
AF10
AF13
AF13C
AF14
AF15
AF316
AF17
AF117
AF19
AF24
AF26
AF28D
AF30
AF30L
AF30SP
AF40
AF46
AF56N
RAF56N
MF16

AF03-40


MAGNETIC SENSOR
16
36
16
-5° ~ +25°
80
41
4-M6 DP15
PCD 50
16
14
9
5
27
2-PF(G) 1/8
AIR PORT
Φ8
2x2-M6 THRU
Φ60
Φ20 0 -0.1
OPEN
CLOSE
9
18 0 -0.02
32
38
15
22
20
6
10
49
9
21
32
121

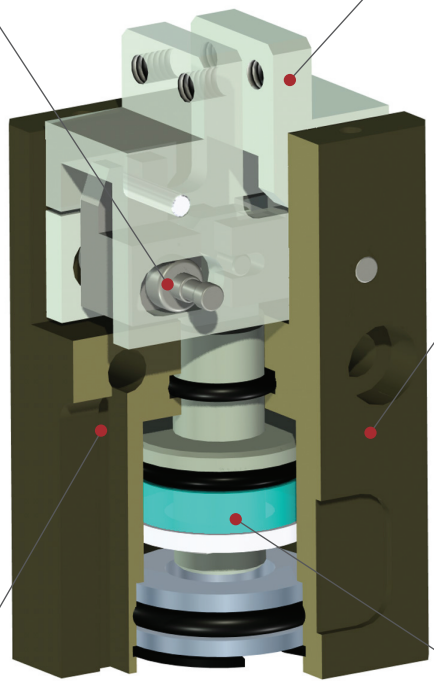
NOTE

AF04P-12, 16, 20

특징 (Character)

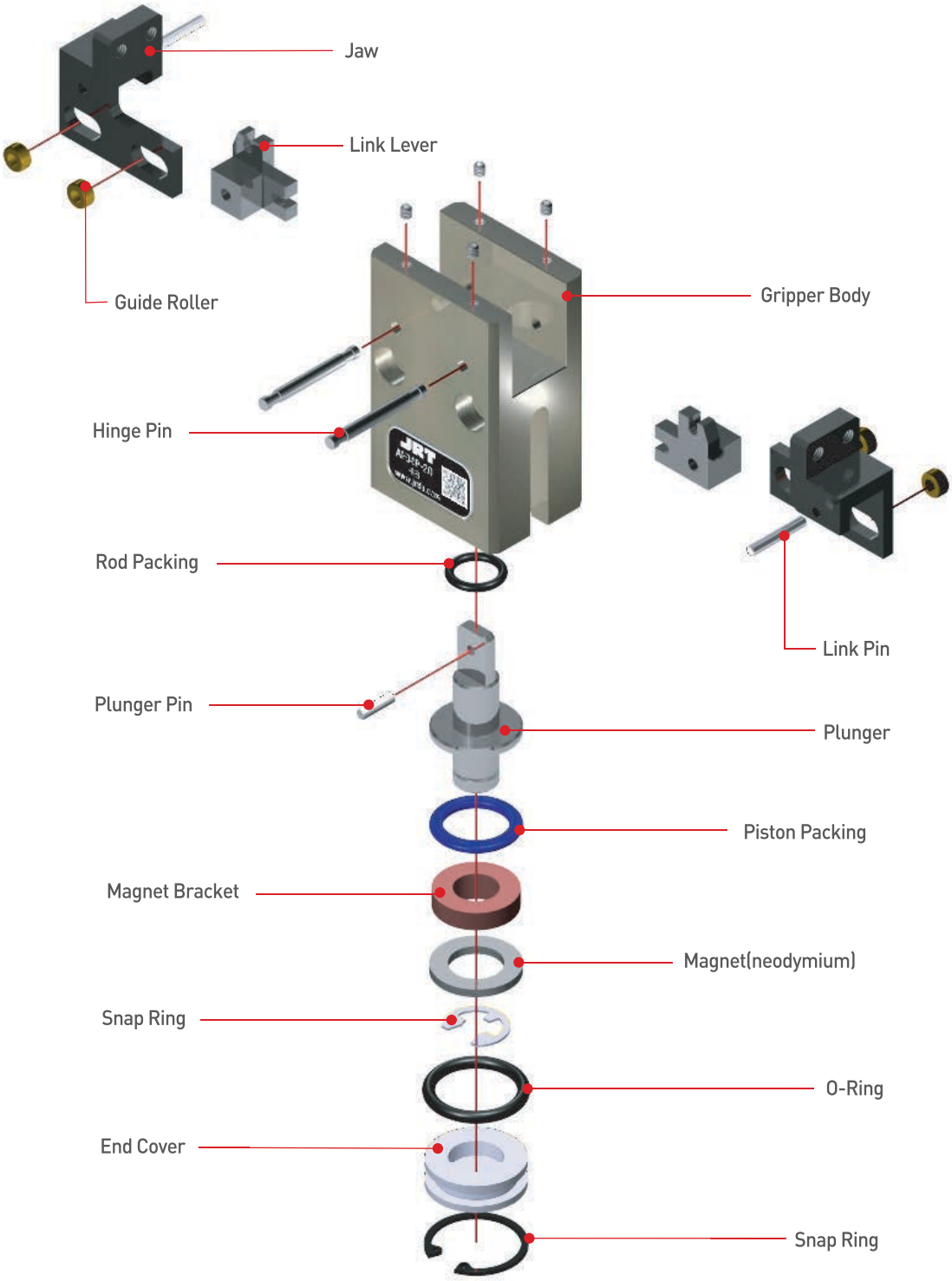
- 개폐 검출 확인용 센서 부착 가능
  Magnetic sensor is available for open-close sensing
- 소형, 경량제품 취급에 적합
  Suitable to grip a small and light workpiece
- 취부 형태의 다양화(3방향 취부 가능)
  Mounting possible from 3 sides
- 직접 배치가 가능한 박형 제품
  Thin profile product which possible to integrated layout

링크레버 방식 (Rink Lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명 Product Name		실린더직경 Bore Size		센서명칭 Sensor Type	센서수량 Number of Sensor		센서 선 길이 Sensor Cable Length
AF04P	-	16	-	RS	1	-	3M

제품명 / Product Name

AF04P

실린더직경 / Bore Size

12N, 16, 20

센서명칭 / Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서수량 / Number of Sensor

1 - 1개
무기호 - 2개

1 - 1pc.
Nil - 2pcs.

센서 선 길이 / Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

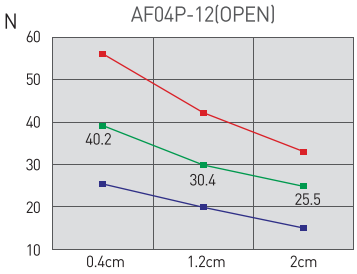
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

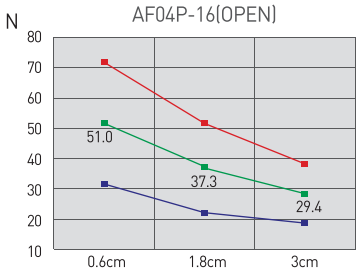
제품명칭 Products Name	AF04P-12	AF04P-16	AF04P-20	단위 Unit
개폐범위 Stroke	5	5	8	mm
제품중량 Weight	0.08	0.15	0.2	kg
최대치구길이 Max. length attach	20	30	40	mm
배관접속구 Fitting size	M5	M5	M5	
파지력 : 열림시 Gripping force : Open	9.52P/(1+0.045L)	12.75P/(1+0.04L)	31.39P/(1+0.035L)	N
파지력 : 닫힘시 Gripping force : Close	8.24P/(1+0.046L)	14.22P/(1+0.04L)	23.54P/(1+0.035L)	N
1사이클당 공기소모량 Air consumption per cycle	1.0	1.8	4.4	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01			sec
반복정밀도 Repeat accuracy	0.03			mm
연속사용회수 Continuation usage amount	20			cpm
사용압력 Operating pressure	3~7			bar
주위온도 Ambient temperature	-5 to 60			℃
윤활 Lubrication	불필요 Needless			

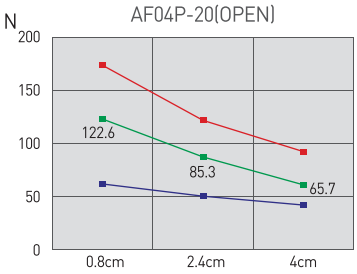
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

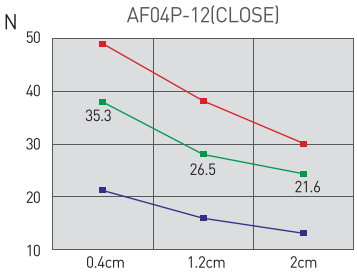
작용점에서의 파지력 (Gripping Force From a Point of Action)

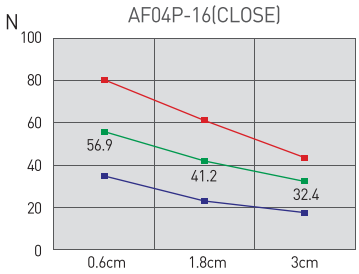
범례(Legend) : 7[bar] 5[bar] 3[bar]

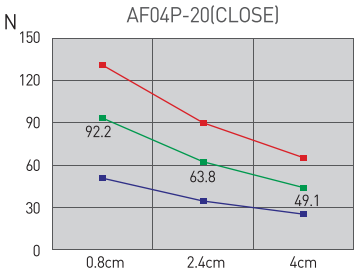




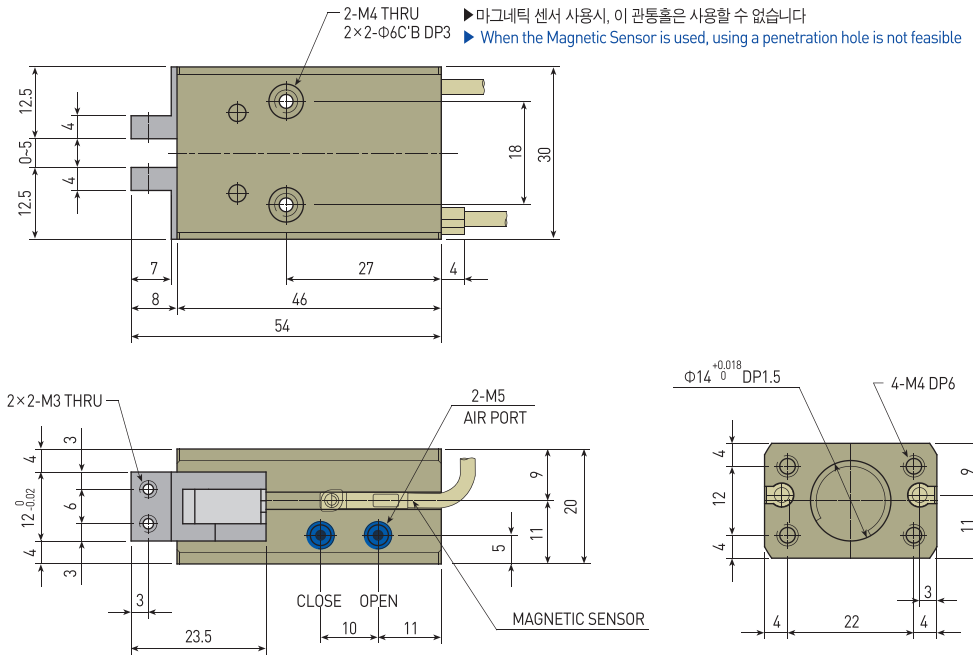




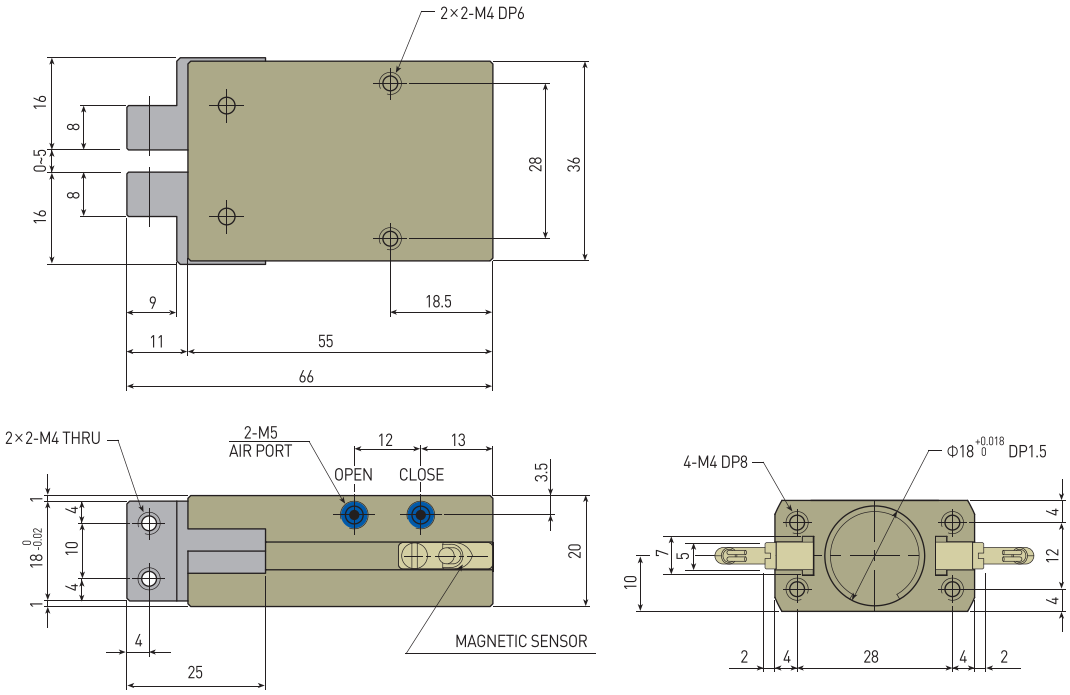




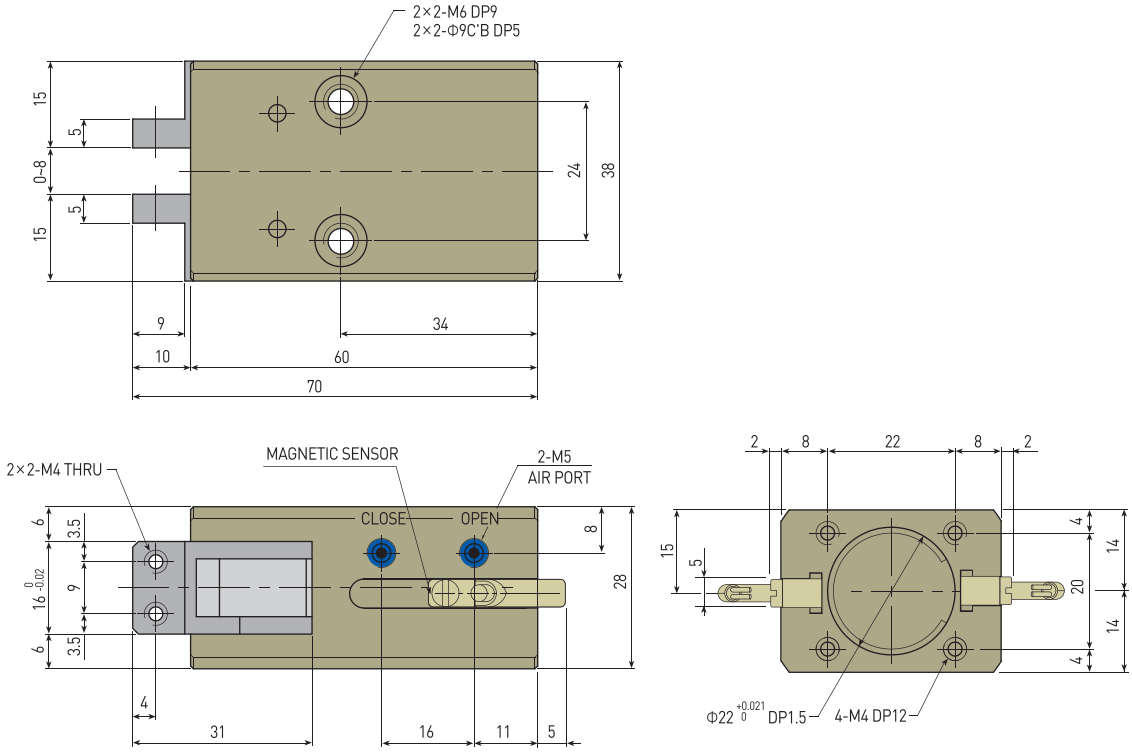
AF04P-12



AF04P-16



AF04P-20



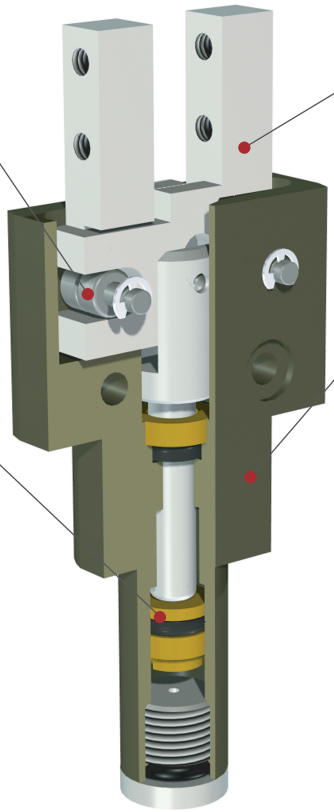
NOTE

AF105P-08, 10, 16

특징 (Character)

- AF105P 전제품은 배압센서만을 사용할 수 있습니다.
  Back pressure sensor is available only.
- 고정도, 고강성의 구조로 강력하고 안정된 파지력
  Strong and stable grip force by high-precision and high stiffness structure
- 웨지 & 롤러가이드에 의한 정밀 개폐방식
  Precise open-close type by wedge & roller guide
- 초박형 구조로 몸체 후반부의 원형부위를 이용 취부 시 방향을 자유롭게 조정가능
  Adjustable gripper to directions freely in case of using and mounting body`s circle part in thin profile structure

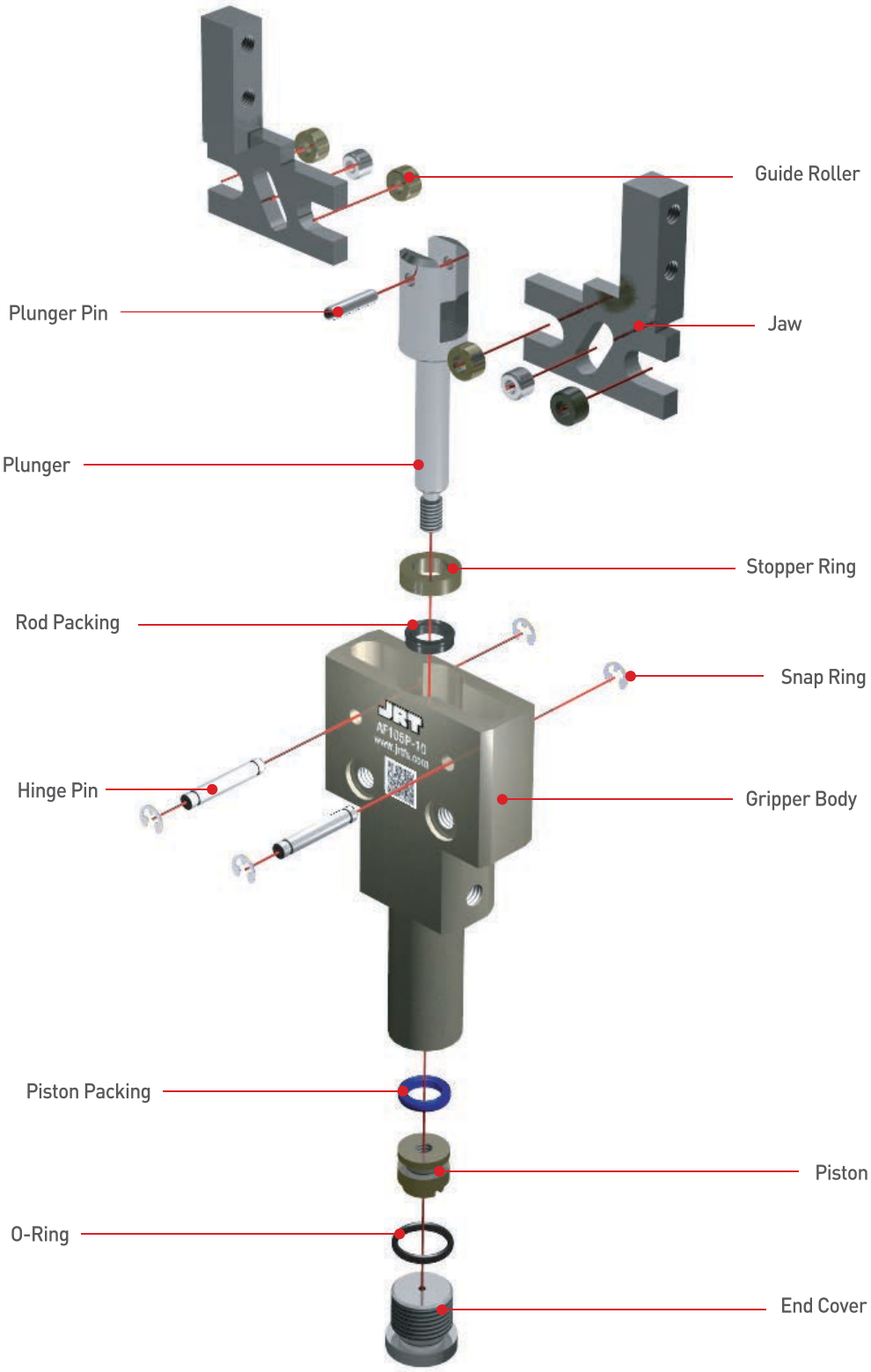
테이퍼 슬라이딩 & 롤러 가이드 방식 (Taper sliding & Roller guide type)



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명 Product Name		실린더직경 Bore Size 08, 10, 16
AF105P	-	16

본 제품은 배압 센서만 사용가능
This is product sensor is only back pressure sensor.

AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

제품사양 (Specification)

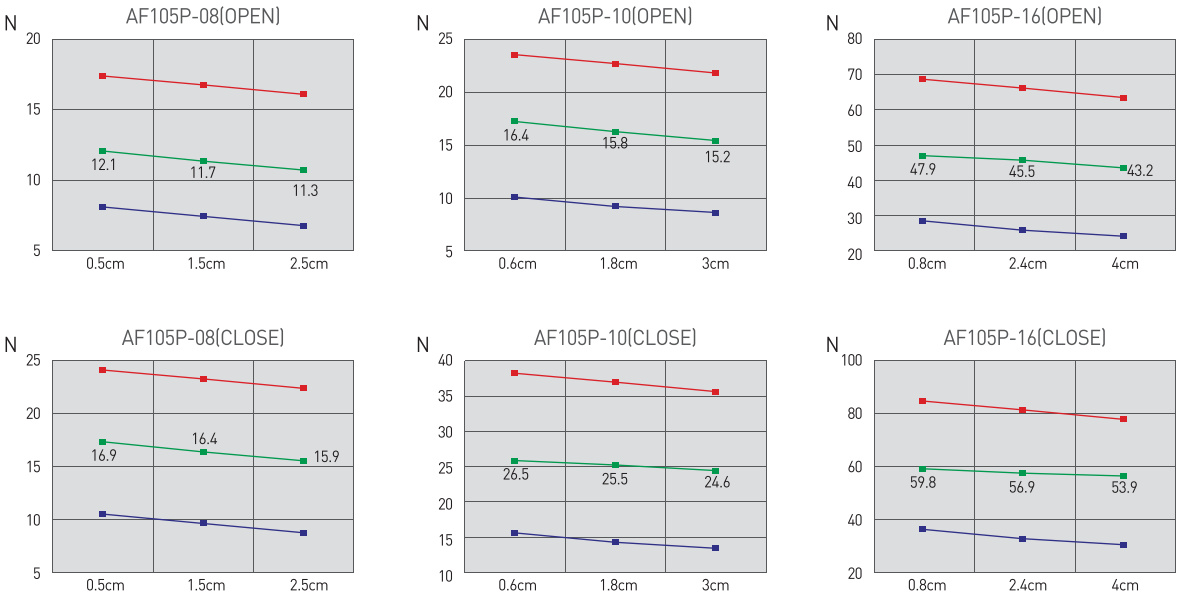
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

제품명칭 Products Name	AF105P-08	AF105P-10	AF105P-16	단위 Unit
개폐범위 Stroke	4	5	8	mm
제품중량 Weight	0.06	0.11	0.27	kg
최대치구길이 Max. length attach	25	30	40	mm
배관접속구 Fitting size	M5	M5	M5	
파지력 : 열림시 Gripping force : Open	2.45(P-0.015L)	3.34(P-0.015L)	9.81(P-0.015L)	N
파지력 : 닫힘시 Gripping force : Close	3.43(P-0.015L)	5.40(P-0.015L)	12.26(P-0.015L)	N
1사이클당 공기소모량 Air consumption per cycle	0.2	0.3	1.4	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.1 / 0.1			sec
반복정밀도 Repeat accuracy	± 0.03			mm
연속사용회수 Continuation usage amount	60			cpm
사용압력 Operating pressure	3~7			bar
주위온도 Ambient temperature	-5 to 60			℃
윤활 Lubrication	불필요 Needless			

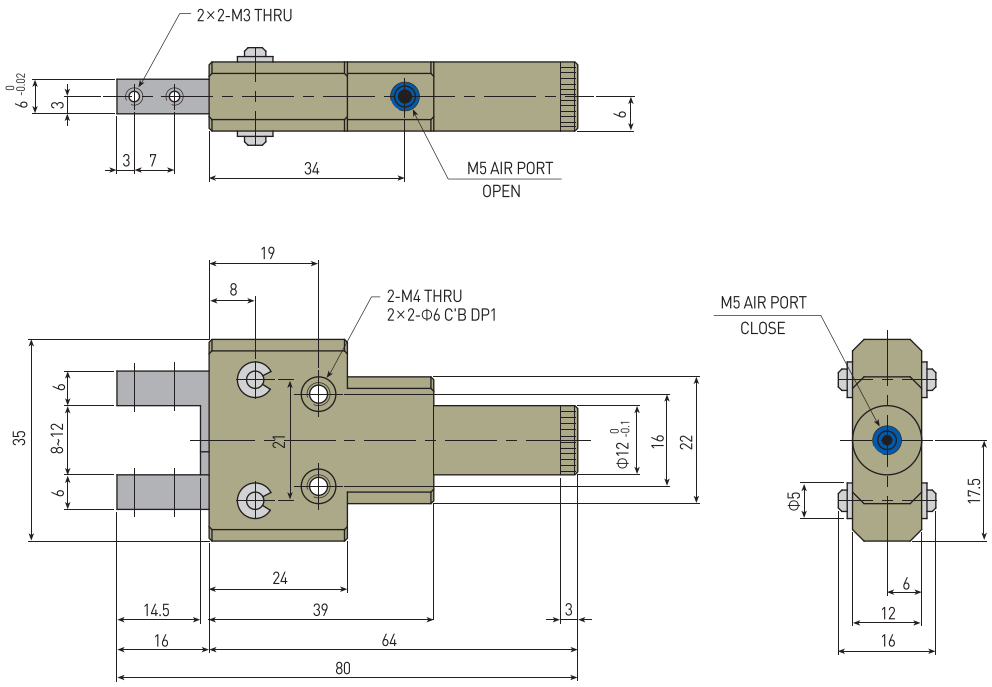
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

작용점에서의 파지력 (Gripping Force From a Point of Action)

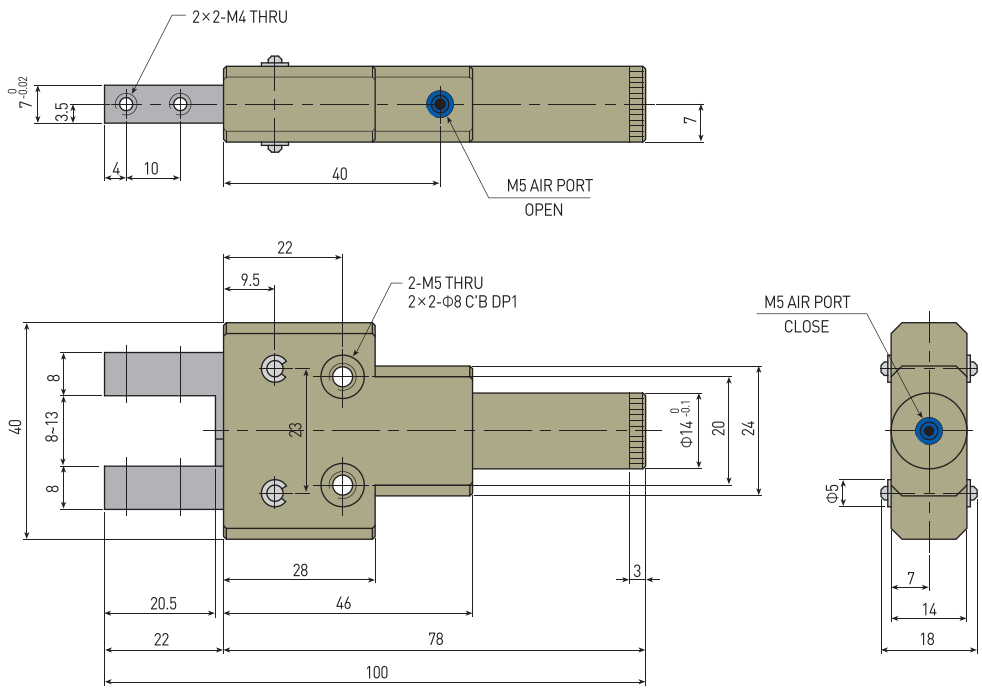
범례 (Legend) : 7[bar] 5[bar] 3[bar]



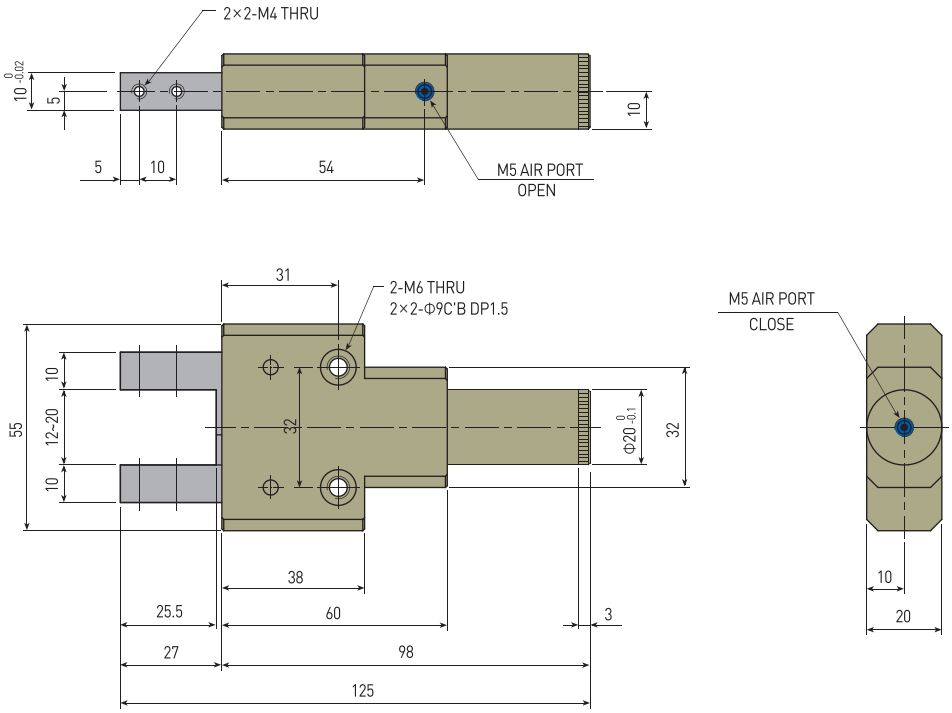
AF105P-08



AF105P-10



AF105P-16



NOTE

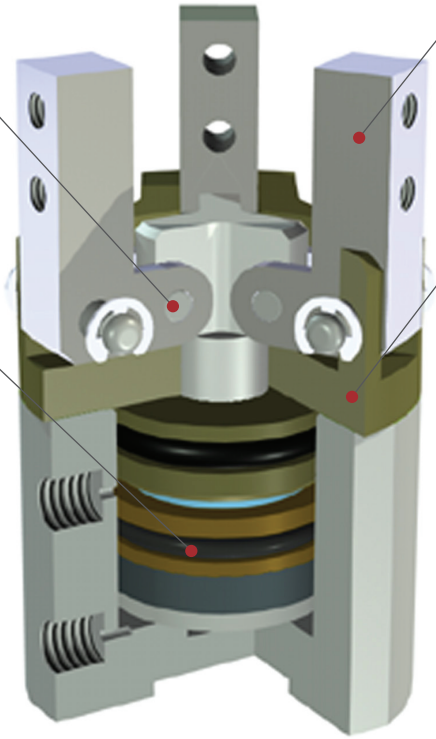
AF06-30, 40

특징 (Character)

- 링크레버 타입의 3-JAW 각도개폐 방식
  Angular type by link lever driving unit
- 원형,구 등의 둥근 물체 핸들링에 적합
  Suitable to grip for cylindrical & global workpiece
- 개폐검출 확인용 센서 부착가능
  Magnetic sensor is available for open-close sensing

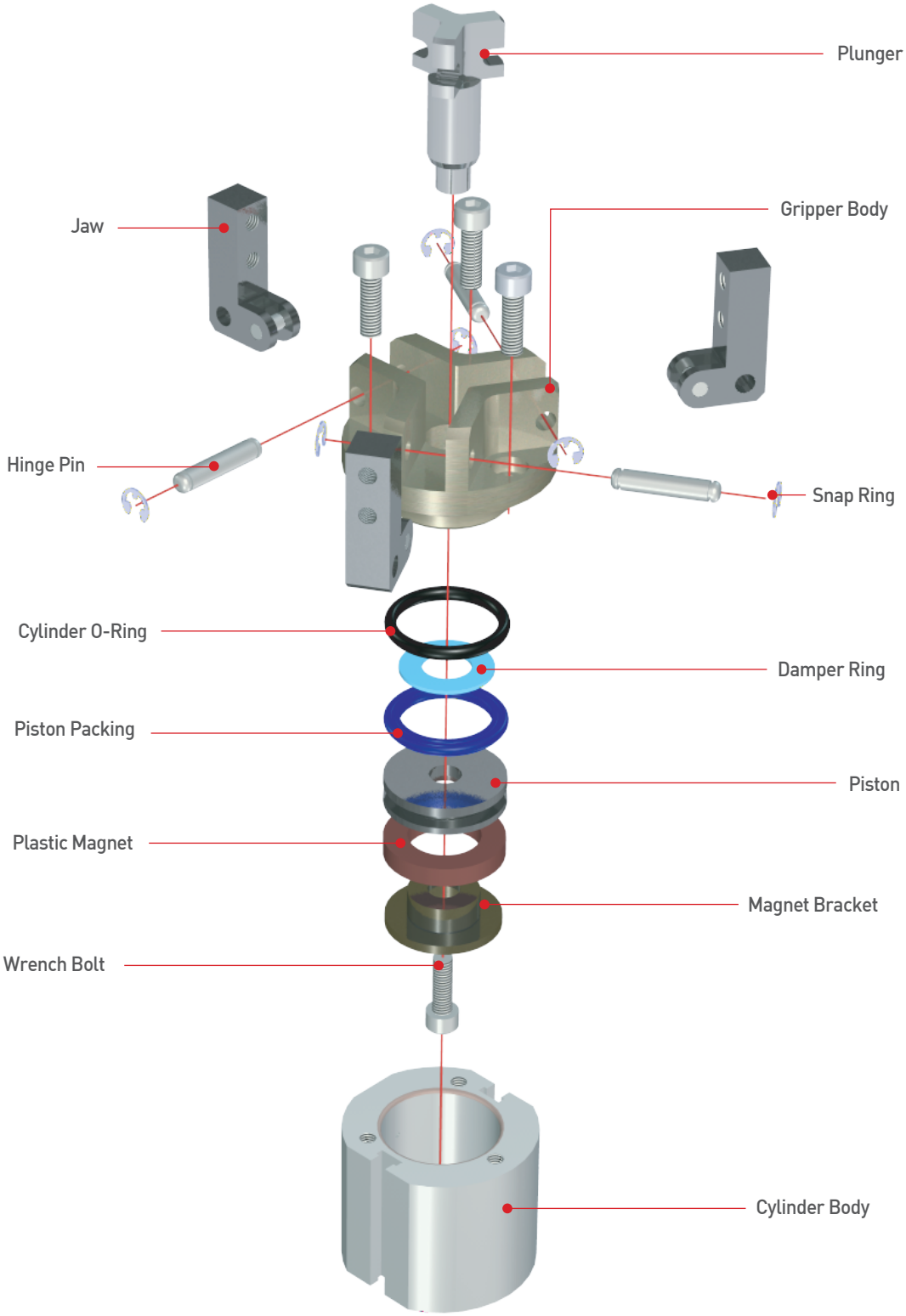
AF101
AF02
AF03
AF04P
AF105P
AF06
AF10
AF13
AF13C
AF14
AF15
AF316
AF17
AF117
AF19
AF24
AF26
AF28D
AF30
AF30L
AF30SP
AF40
AF46
AF56N
RAF56N
MF16

링크레버 방식 (Link lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (Ordering Code)

AF101
AF02
AF03
AF04P
AF105P
AF06
AF10
AF13
AF13C
AF14
AF15
AF316
AF17
AF117
AF19
AF24
AF26
AF28D
AF30
AF30L
AF30SP
AF40
AF46
AF56N
RAF56N
MF16

제품명
Product Name

실린더직경
Bore Size
30, 40

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF06 - 30 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다.
RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

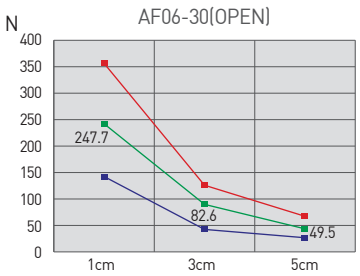
P=공기압력(bar) , L=작용점까지의 거리(mm)
P=Air Pressure(bar) , L=Exertion length(mm)

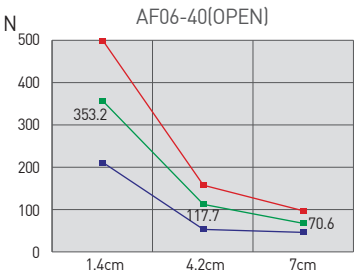
제품명칭 Products Name	AF06-30	AF06-40	단위 Unit
개폐범위 Stroke	-5 to 20	-5 to 20	degree
제품중량 Weight	0.39	0.64	kg
최대치구길이 Max. length attach	50	70	mm
배관접속구 Fitting size	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	9.81((5.65P-3)/0.1L)	9.81((10.4P-1.6)/0.1L)	N
파지력 : 닫힘시 Gripping force : Close	9.81((4.72P-9)/0.1L)	9.81((7.2P-8)/0.1L)	N
1사이클당 공기소모량 Air consumption per cycle	2.6	5.8	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01		sec
반복정밀도 Repeat accuracy	0.03		mm
연속사용회수 Continuation usage amount	30		cpm
사용압력 Operating pressure	3~7		bar
주위온도 Ambient temperature	-5 to 60		℃
윤활 Lubrication	불필요 Needless		

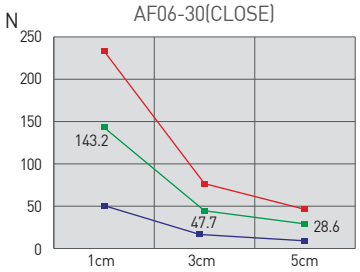
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

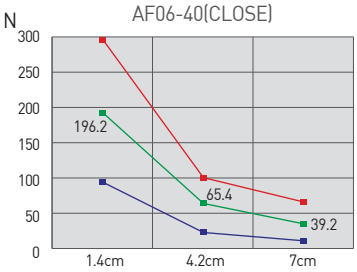
작용점에서의 파지력 (Gripping Force From a Point of Action)

범례(Legend) : 7[bar] 5[bar] 3[bar]

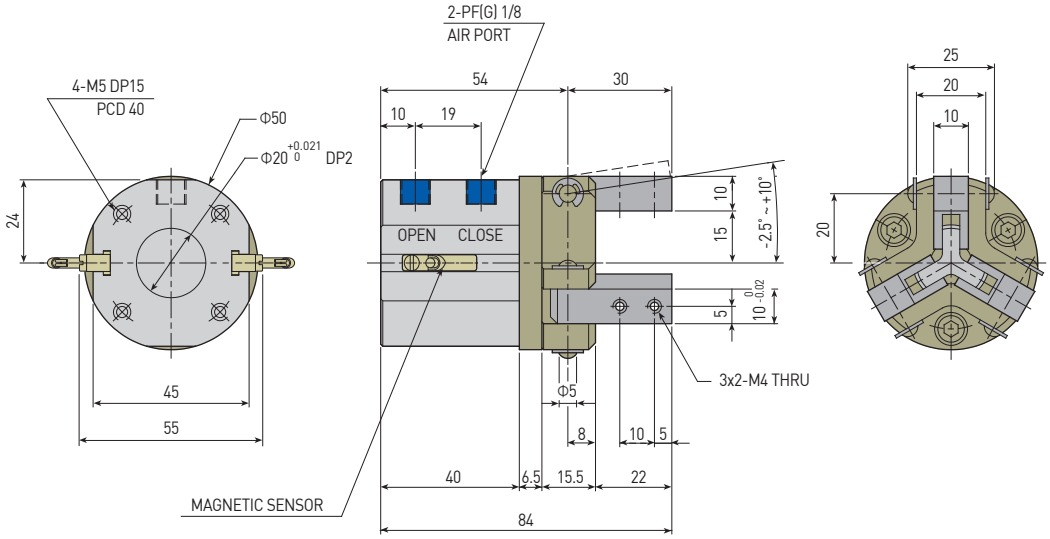




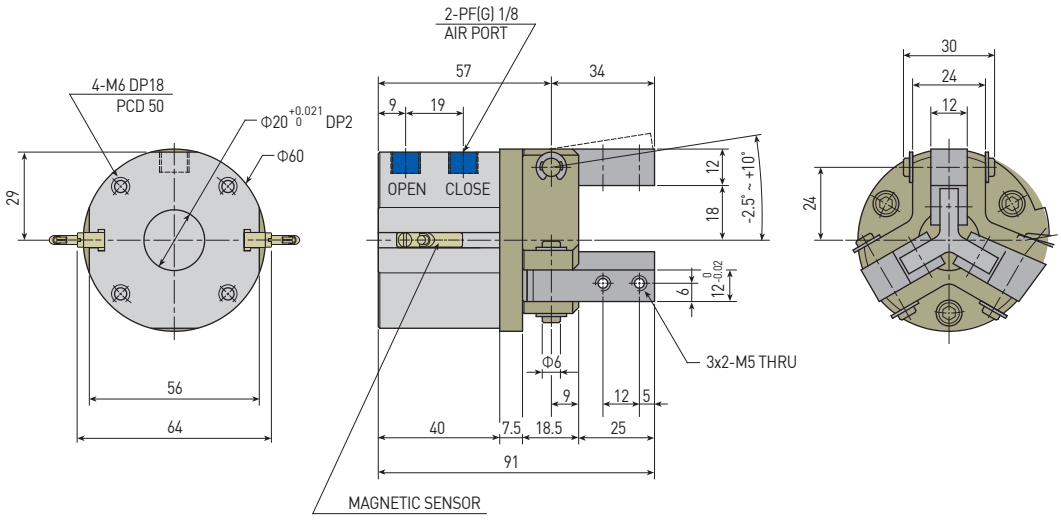




AF06-30



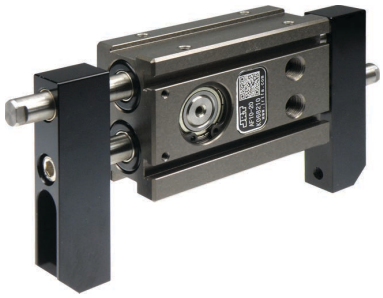
AF06-40



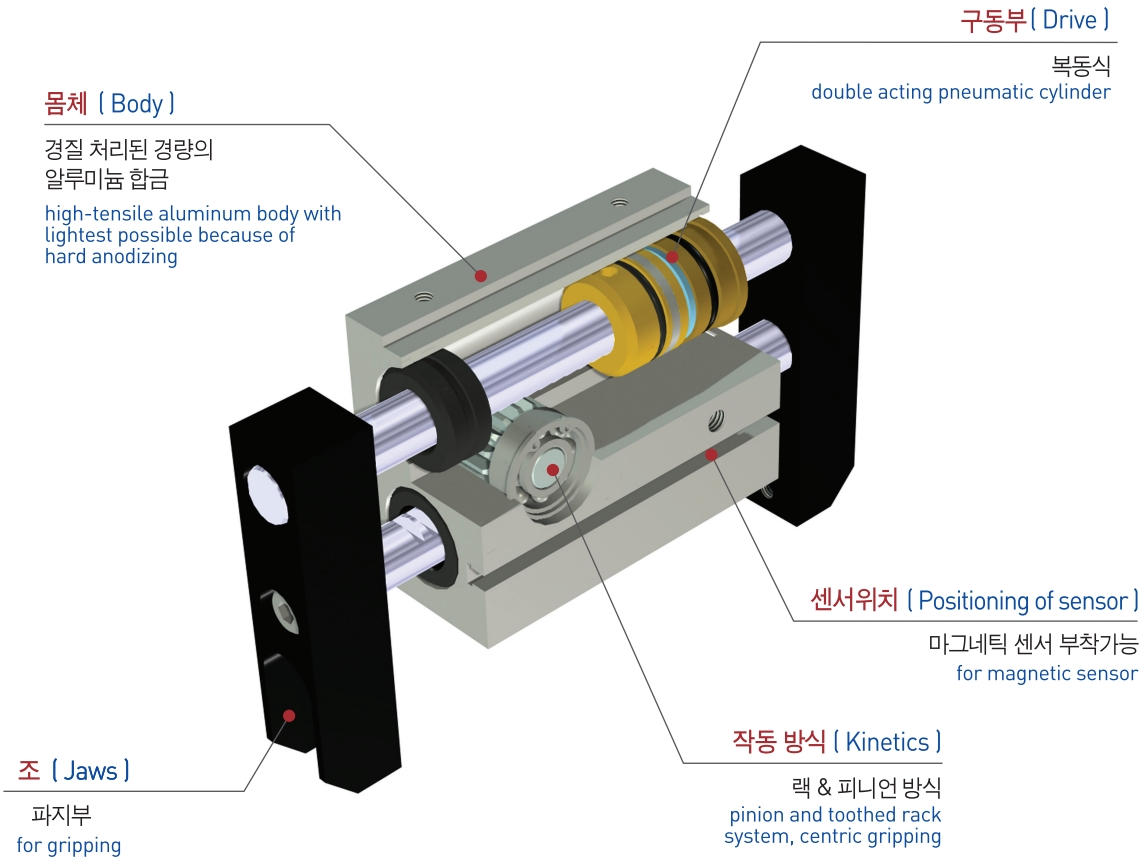
AF101
AF02
AF03
AF04P
AF105P
AF06
AF10
AF13
AF13C
AF14
AF15
AF316
AF17
AF117
AF19
AF24
AF26
AF28D
AF30
AF30L
AF30SP
AF40
AF46
AF56N
RAF56N
MF16

특징 (Character)

- RACK & PINION에 의한 광폭형 개폐방식
  Rack & pinion type
- SLIM TYPE BODY의 횡형 개폐방식으로 광범위한 제품파지에 적합한 구조
  Suitable structure for extensive gripping work by slim type body`s horizontal opening type
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing
  - ▸ AF10 TYPE은 닫힐때 가이드 로드가 돌출됩니다.
  - ▸ Guide rod protrudes when AF10 type is closed

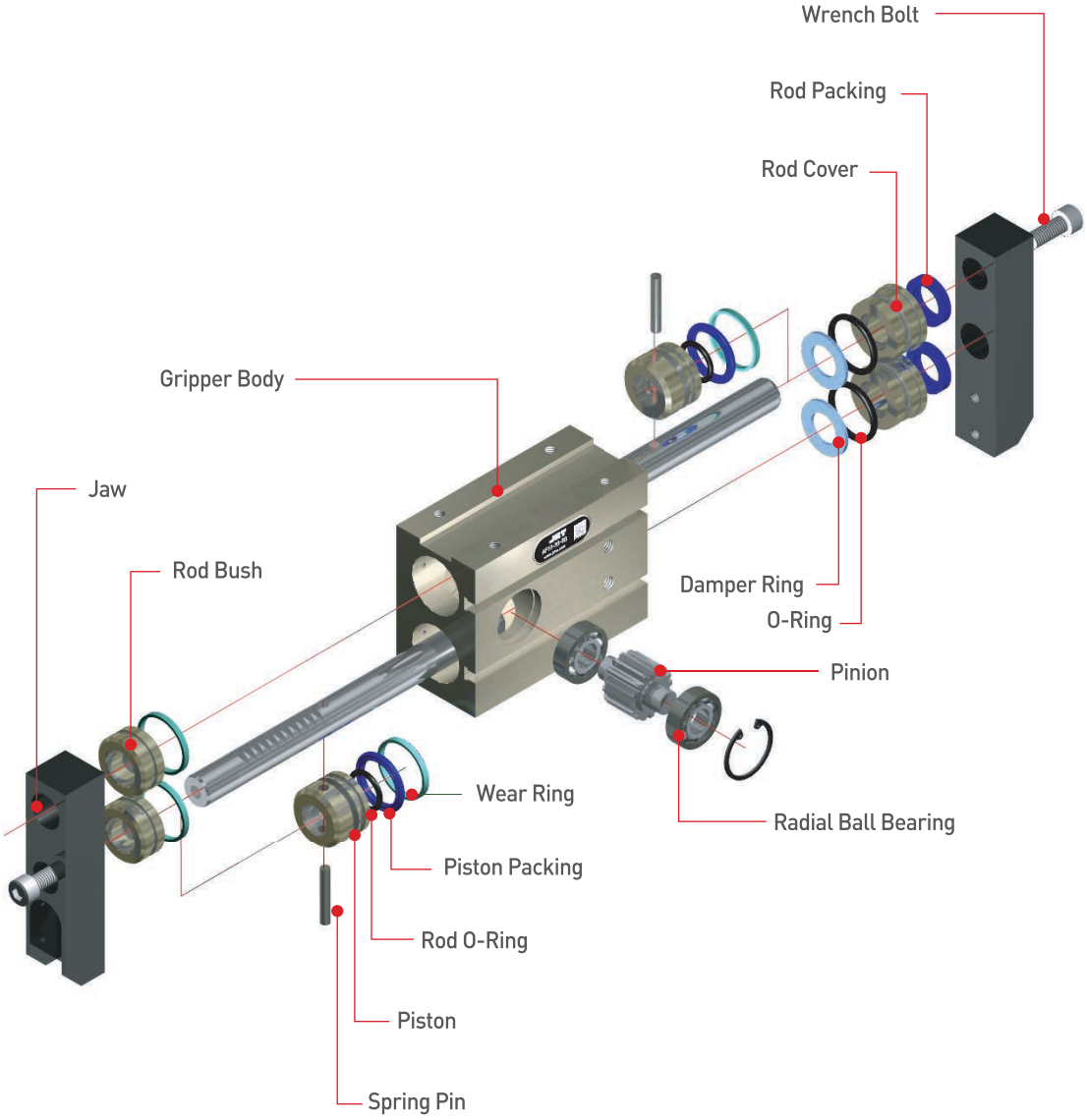


랙 & 피니언 방식 (Rack & Pinion type)

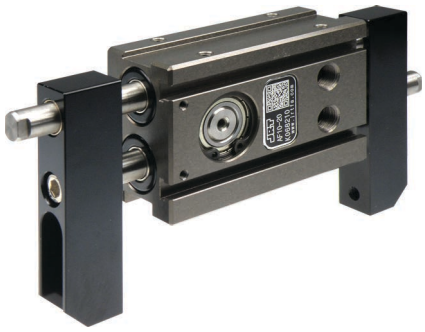


부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)



제품명
Product Name

실린더직경
Bore Size
20, 30, 40, 50

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF10 - 30 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

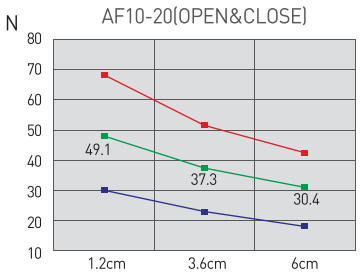
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

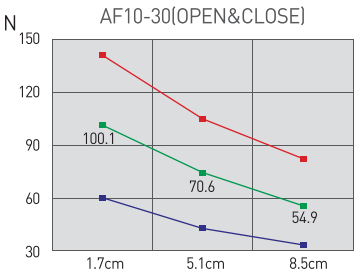
제품명칭 Products Name	AF10-20	AF10-30	AF10-40	AF10-50	단위 Unit
개폐범위 Stroke	30	40	60	100	mm
제품중량 Weight	0.67	1.9	4.6	9.22	kg
최대치구길이 Max. length attach	60	85	120	160	mm
배관접속구 Fitting size	PF(G) 1/8	PF(G) 1/8	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	11.48P/(1+0.015L)	25.02P/(1+0.015L)	41.2P/(1+0.015L)	63.77P/(1+0.015L)	N
파지력 : 닫힘시 Gripping force : Close	11.48P/(1+0.015L)	25.02P/(1+0.015L)	41.2P/(1+0.015L)	63.77P/(1+0.015L)	N
1사이클당 공기소모량 Air consumption per cycle	8.2	24.3	66.0	171.8	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.03/0.03	0.09/0.09	sec
반복정밀도 Repeat accuracy	0.1				mm
연속사용회수 Continuation usage amount	60				cpm
사용압력 Operating pressure	3~7				bar
주위온도 Ambient temperature	-5 to 60				℃
윤활 Lubrication	불필요 Needless				

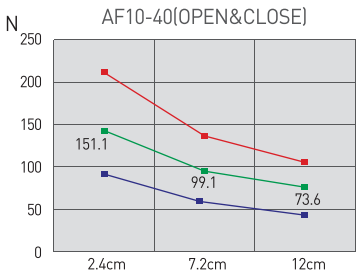
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

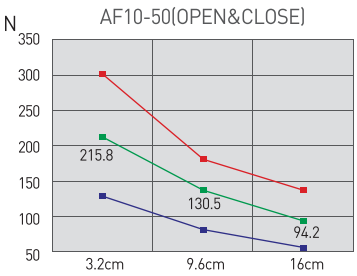
작용점에서의 파지력 (Gripping Force From a Point of Action)

범례(Legend) : 7[bar] 5[bar] 3[bar]

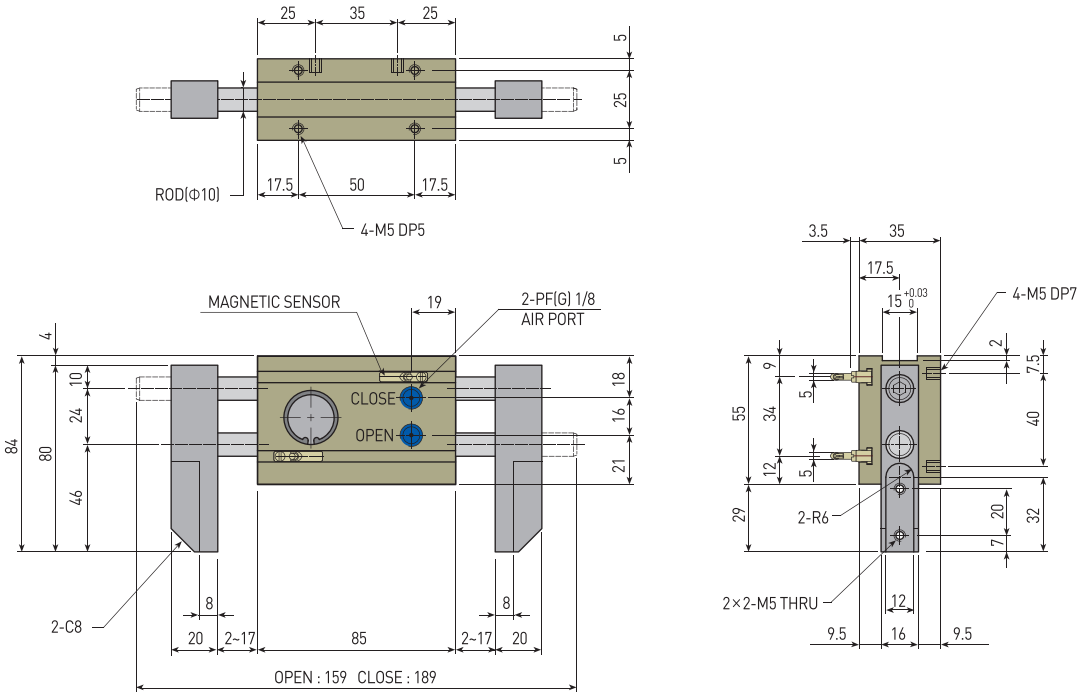




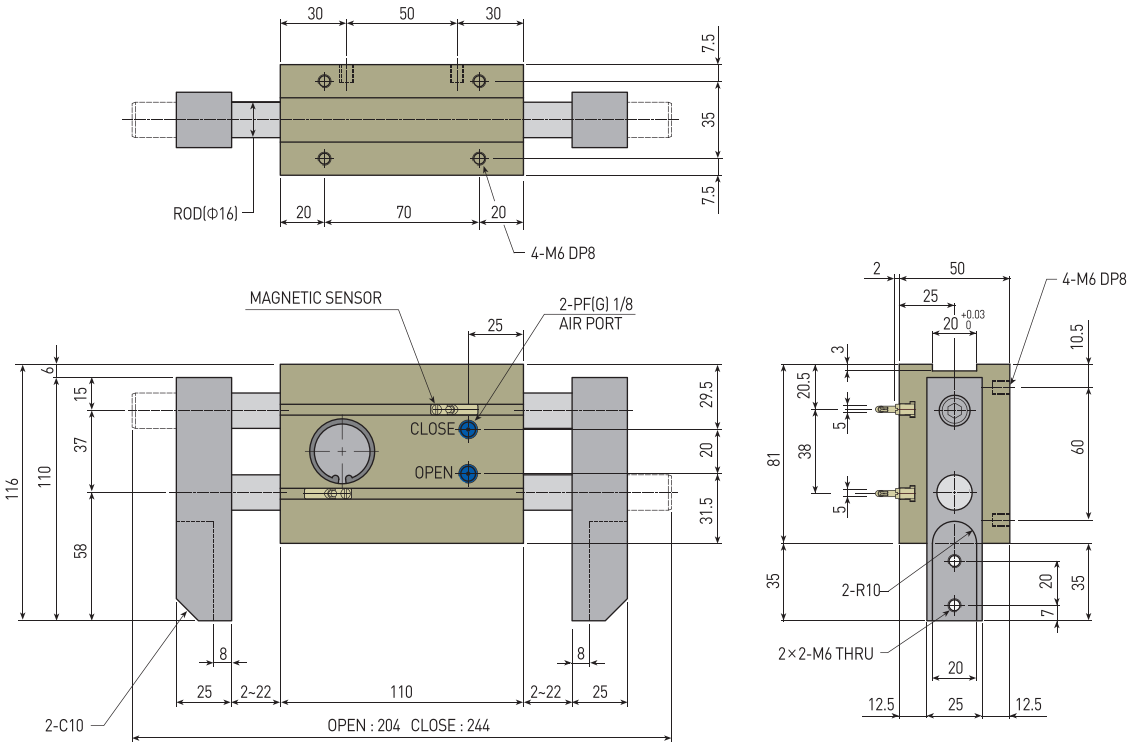




AF10-20

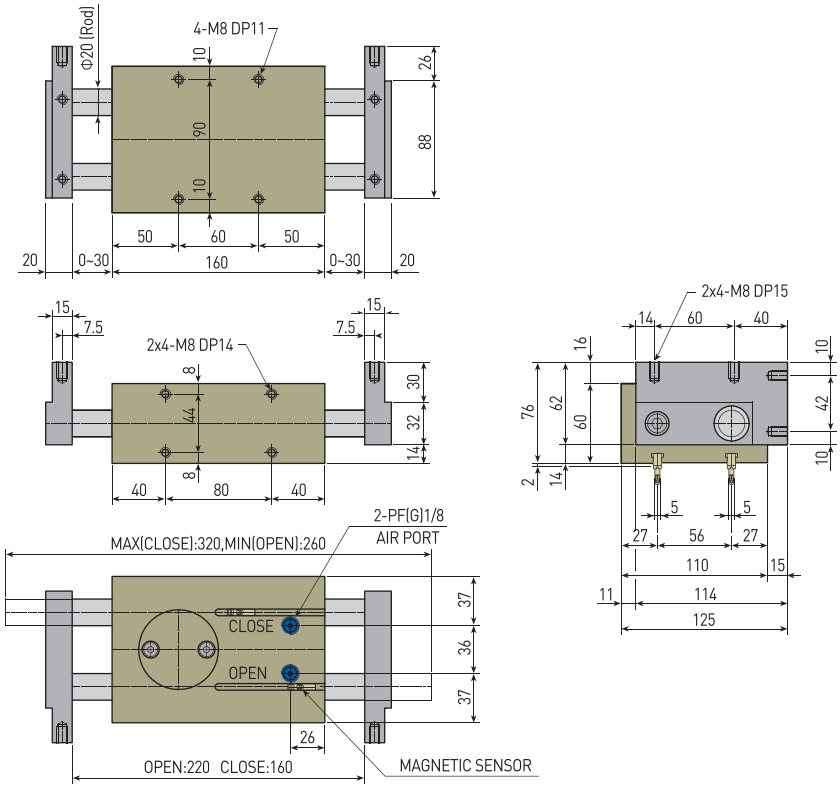


AF10-30

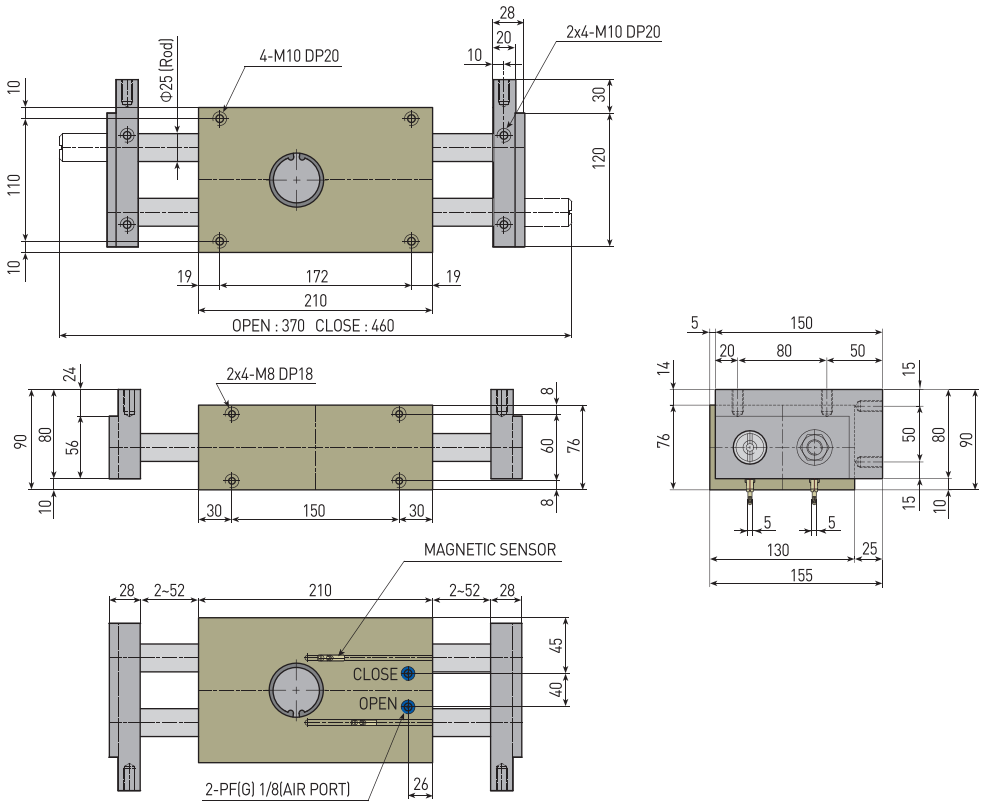


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

AF10-40



AF10-50

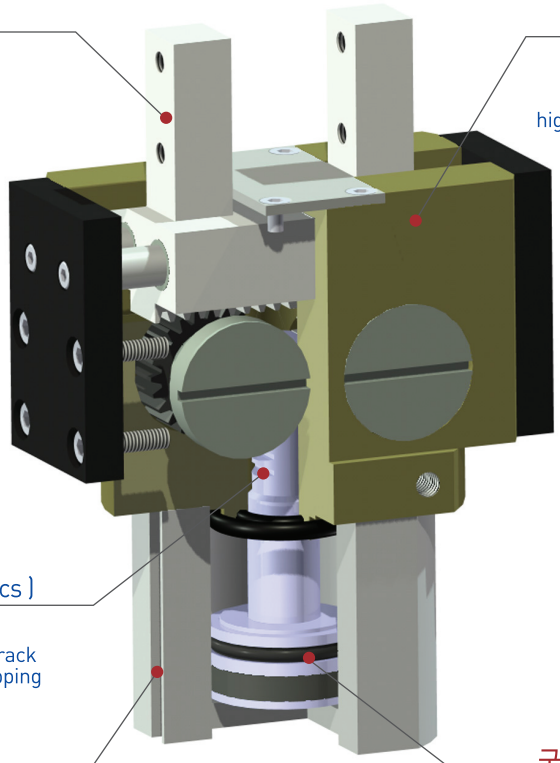


AF13-20, 30, 40, 50, 63, 80, 100

특징 (Character)

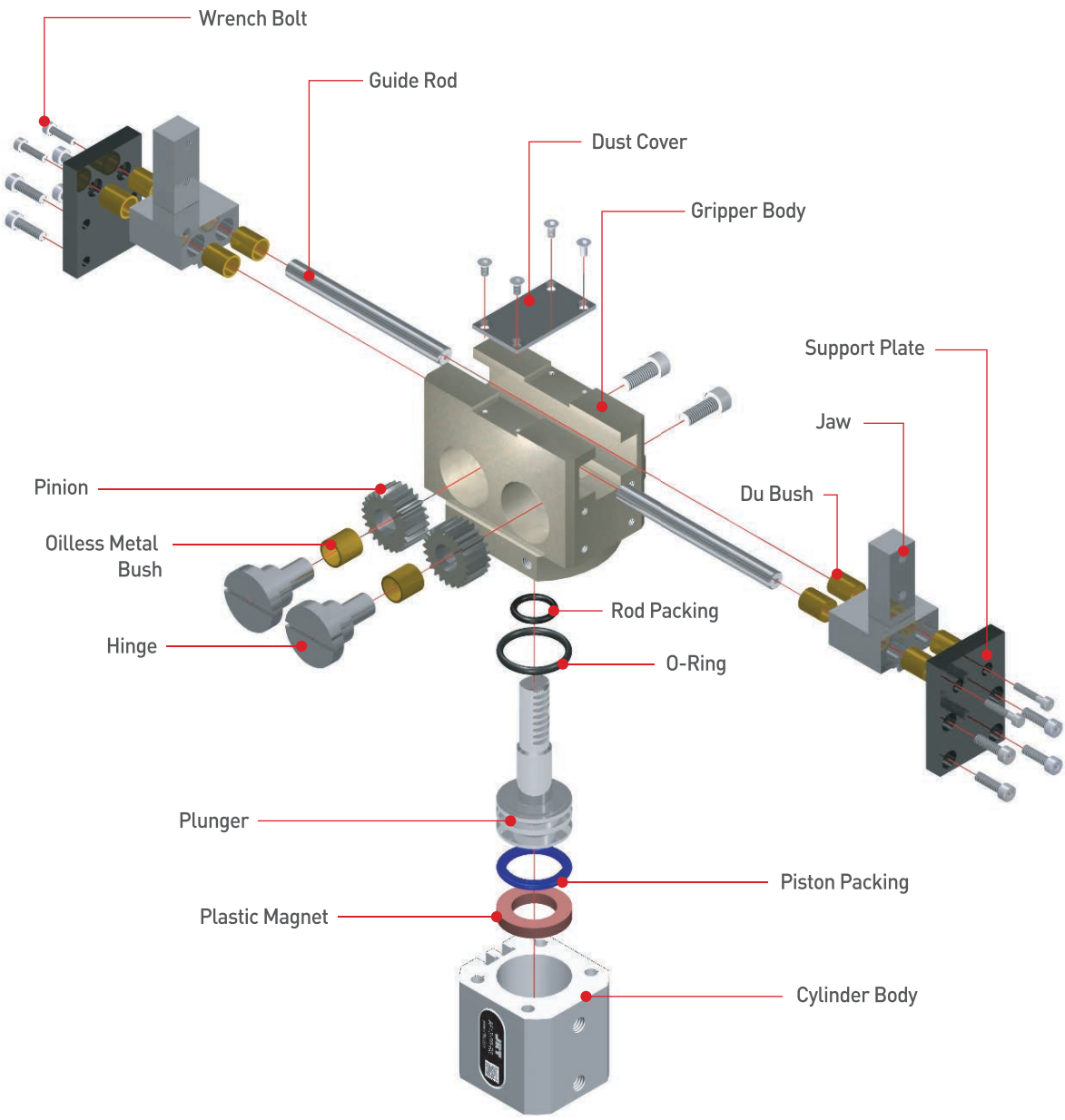
- 랙 & 피니언 (단, AF13-20은 링크 & 레버 타입)
  Rack & Pinion type (AF13-20 is Link & Lever type)
- 바디와 가이드 로드에 의한 2중지지 방식의 견고성
  Strength of double support by body and guide rod
- 다양한 기종으로 폭넓은 선택이 가능
  Wide and various selection possible by various size
- 3방향 취부로 다양한 방법의 취부가 가능
  Mounting possible from 3 sides
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing

랙 & 피니언 방식 (Rack & Pinion type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명
Product Name

실린더직경
Bore Size
20, 30, 40, 50
63, 80, 100

JAW 형태
JAW Type
A - 측면 + 정면 Tap
B - 측면 Tap
C - 정면 Tap
A - Cross Tap
B - Side direction Tap
C - Front direction Tap

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF13 - 30 A - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다.
RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

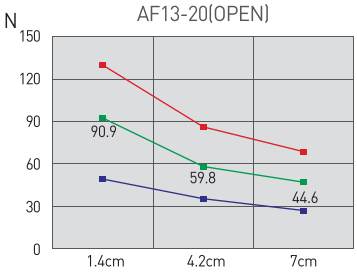
제품명칭 Products Name	AF13-20	AF13-30	AF13-40	단위 Unit
개폐범위 Stroke	12	24	30	mm
제품중량 Weight	0.55	1.3	2.2	kg
최대치구길이 Max. length attach	70	90	110	mm
배관접속구 Fitting size	M5	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	24.53P/(1+0.025L)	55.92P/(1+0.02L)	98.10P/(1+0.02L)	N
파지력 : 닫힘시 Gripping force : Close	19.62P/(1+0.025L)	48.07P/(1+0.02L)	83.39P/(1+0.02L)	N
1사이클당 공기소모량 Air consumption per cycle	3.3	15.1	33.9	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.01/0.02	sec
반복정밀도 Repeat accuracy	0.03			mm
연속사용회수 Continuation usage amount	60			cpm
사용압력 Operating pressure	3~7			bar
주위온도 Ambient temperature	-5 to 60			℃
윤활 Lubrication	불필요 Needless			

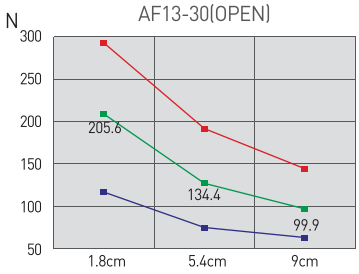
제품명칭 Products Name	AF13-50	AF13-63	AF13-80	AF13-100	단위 Unit
개폐범위 Stroke	36	40	50	60	mm
제품중량 Weight	3.35	5.03	8.29	12.7	kg
최대치구길이 Max. length attach	130	140	150	200	mm
배관접속구 Fitting size	PF(G) 1/8	PF(G) 1/8	PF(G) 1/4	PF(G) 1/4	
파지력 : 열림시 Gripping force : Open	154.02P/(1+0.015L)	242.31P/(1+0.012L)	395.34P/(1+0.01L)	654.33P/(1+0.01L)	N
파지력 : 닫힘시 Gripping force : Close	137.34P/(1+0.015L)	210.92P/(1+0.012L)	350.22P/(1+0.01L)	595.47P/(1+0.01L)	N
1사이클당 공기소모량 Air consumption per cycle	65.0	114.9	235.9	450.0	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.03/0.04	0.05/0.06	0.11/0.12	0.22/0.23	sec
반복정밀도 Repeat accuracy	0.03				mm
연속사용회수 Continuation usage amount	40	30	30	20	cpm
사용압력 Operating pressure	3~7				bar
주위온도 Ambient temperature	-5 to 60				℃
윤활 Lubrication	불필요 Needless				

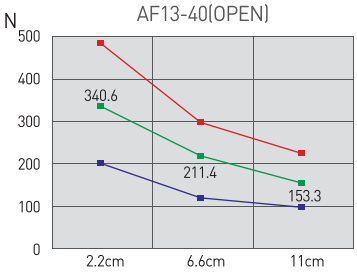
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

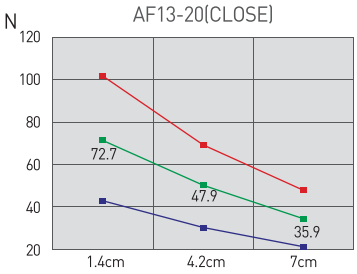
작용점에서의 파지력 (Gripping Force From a Point of Action)

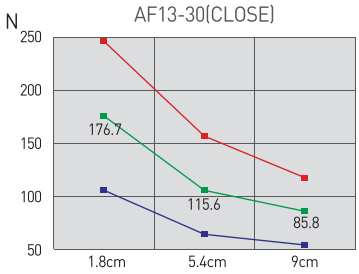
범례(Legend) : 7[bar] 5[bar] 3[bar]

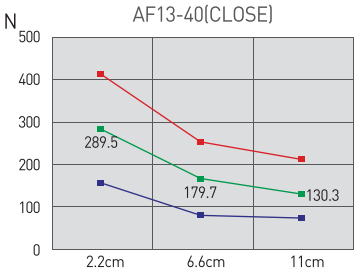


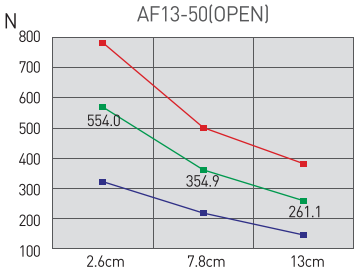


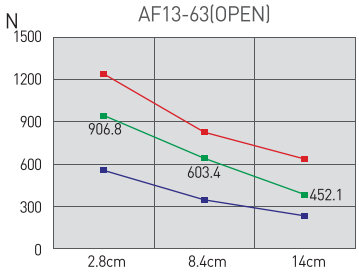


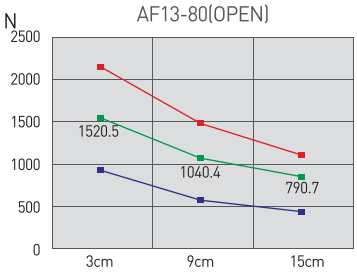


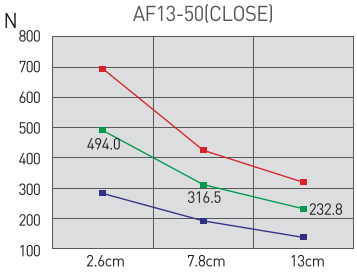


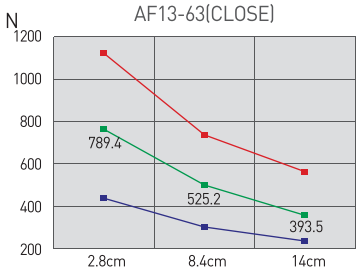


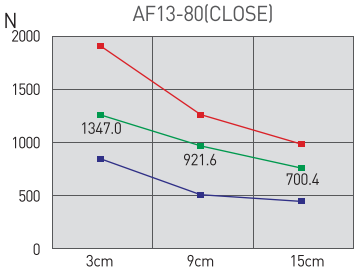


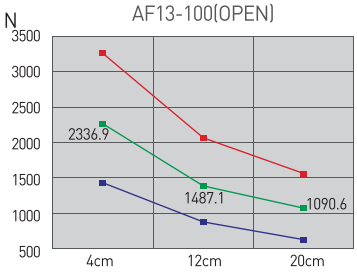


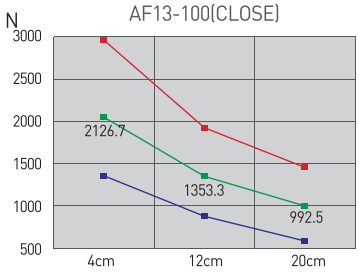




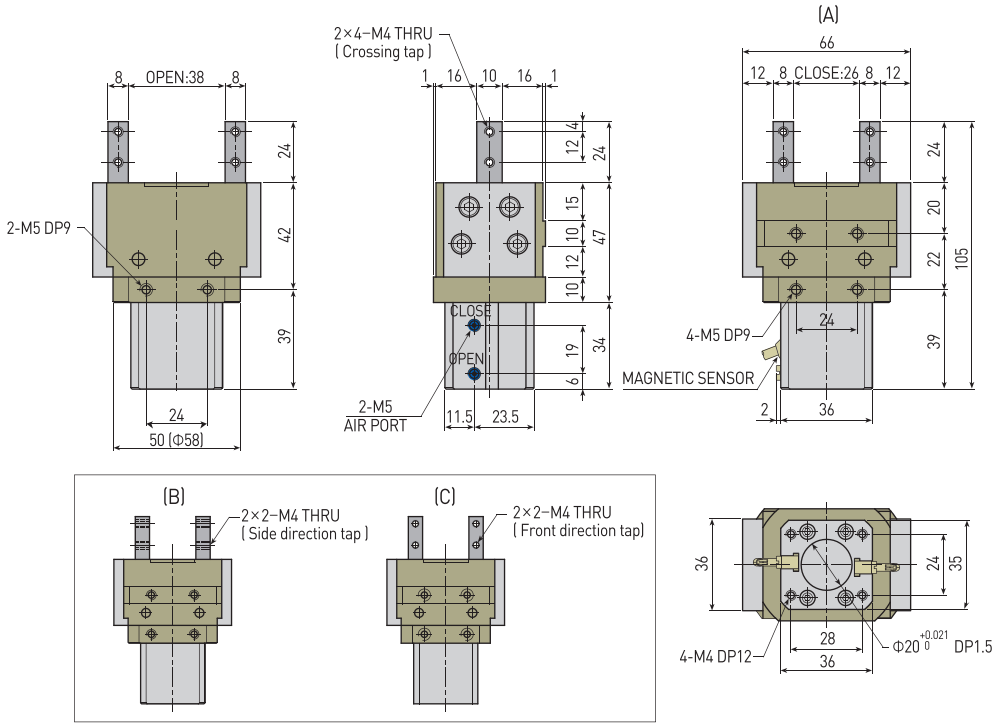




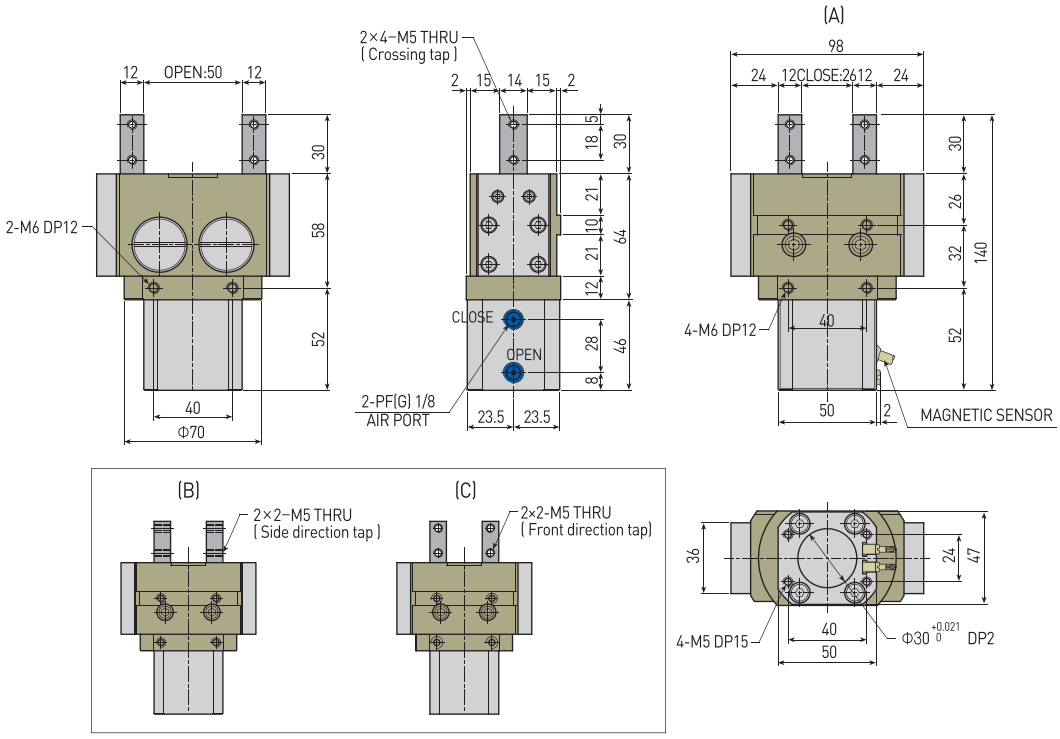




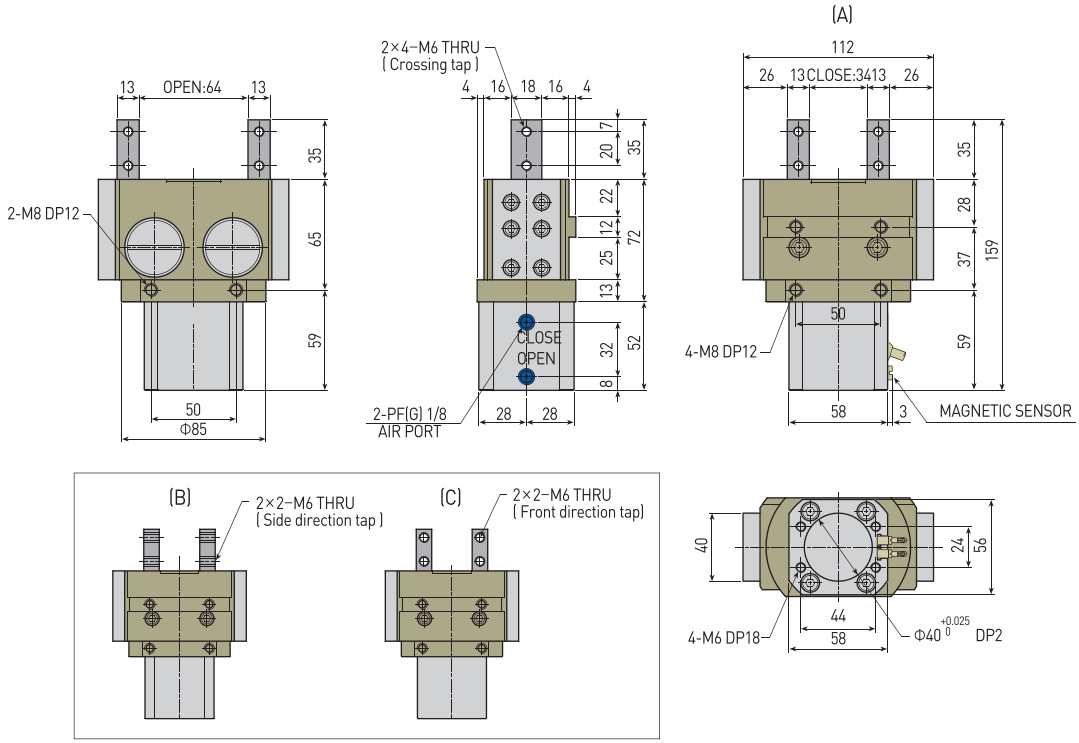
AF13-20



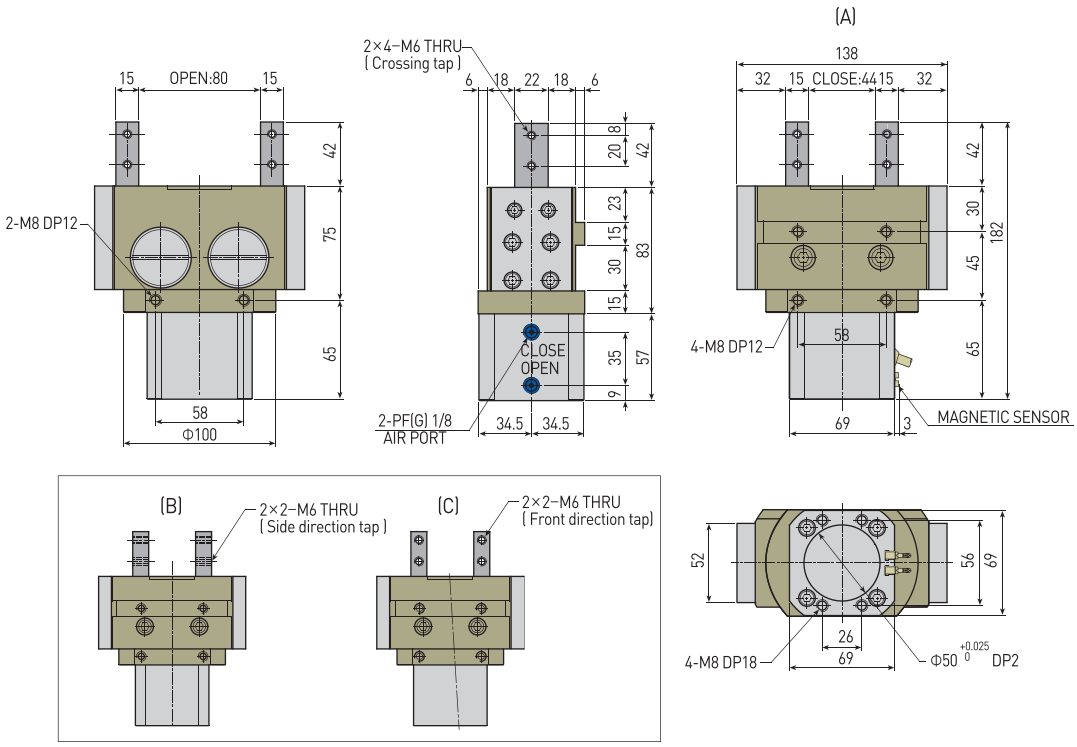
AF13-30



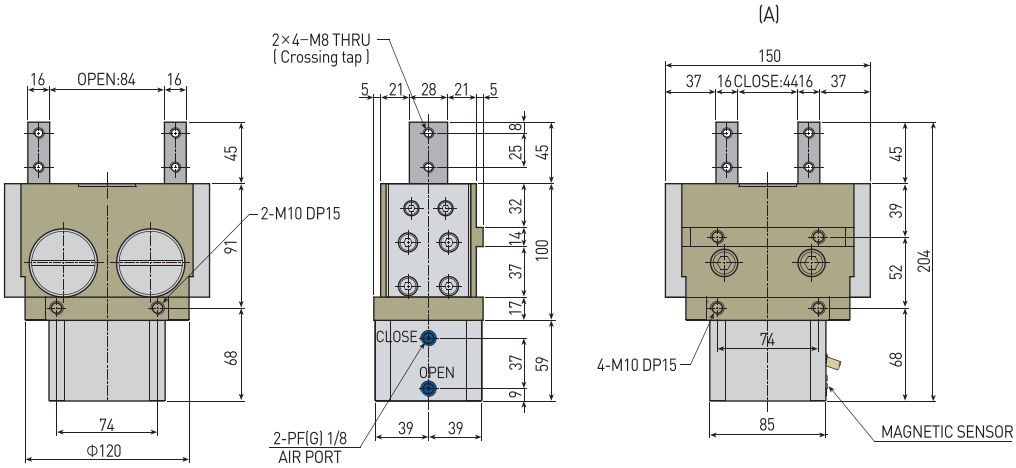
AF13-40

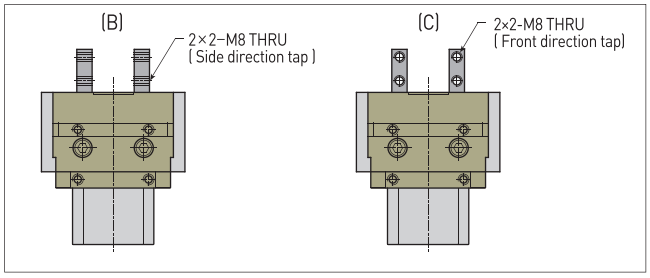


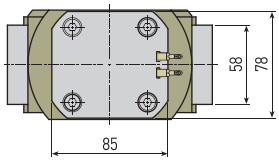
AF13-50



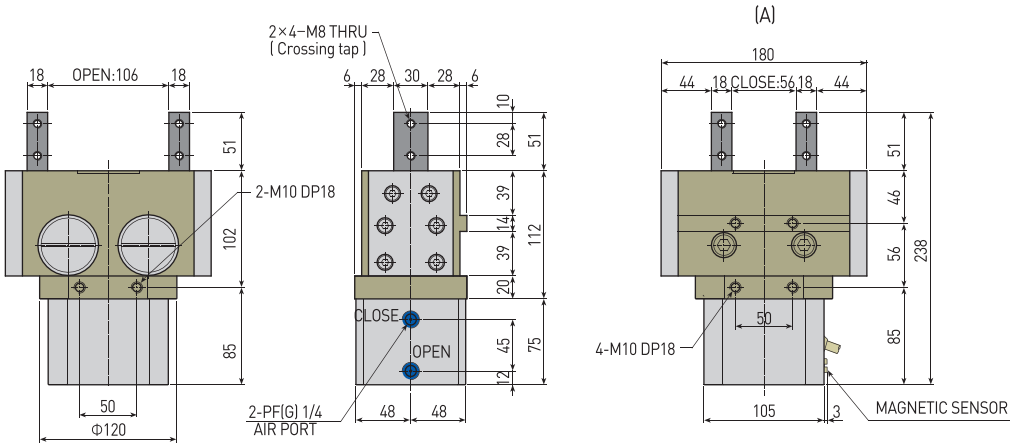
AF13-63

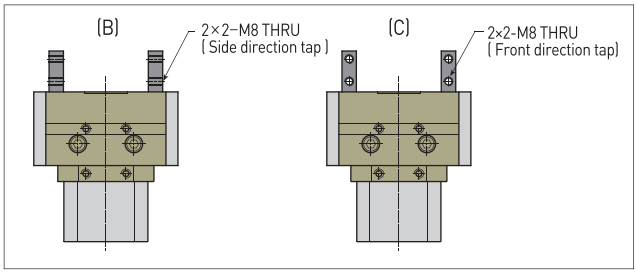


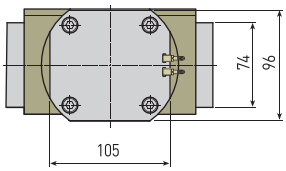




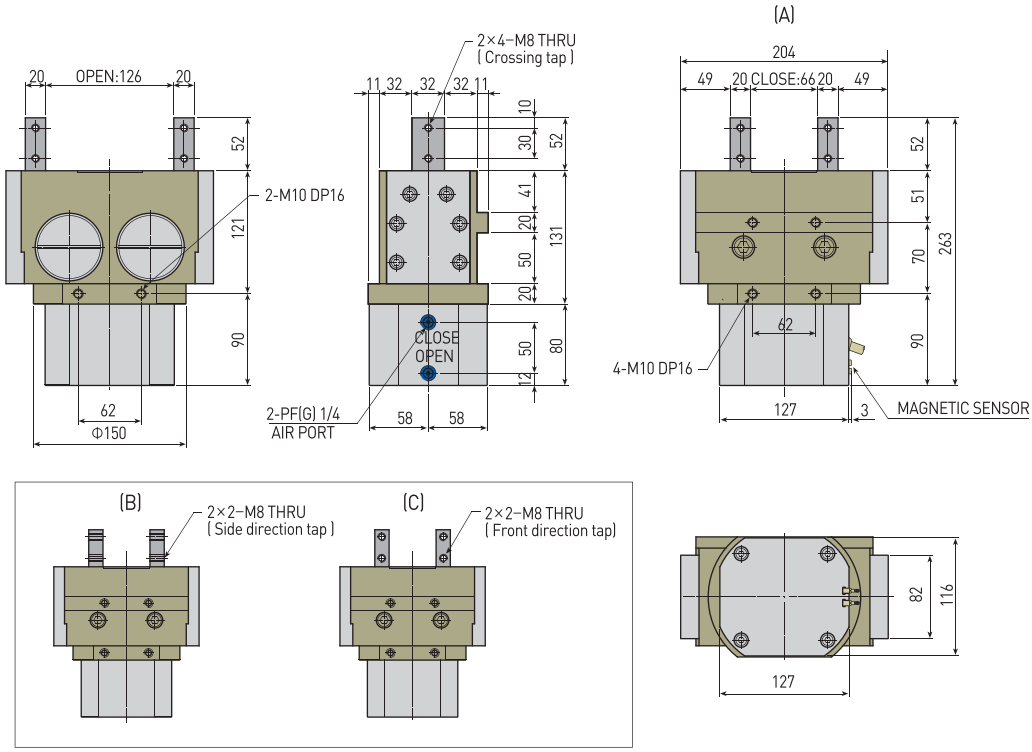
AF13-80







AF13-100



NOTE

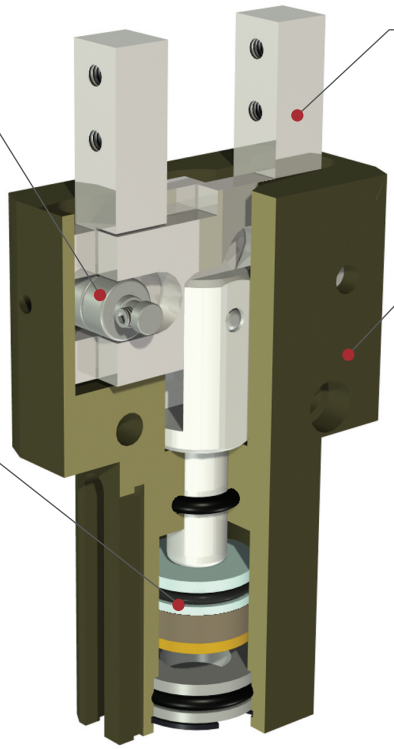
AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

AF14-20, 30

특징 (Character)

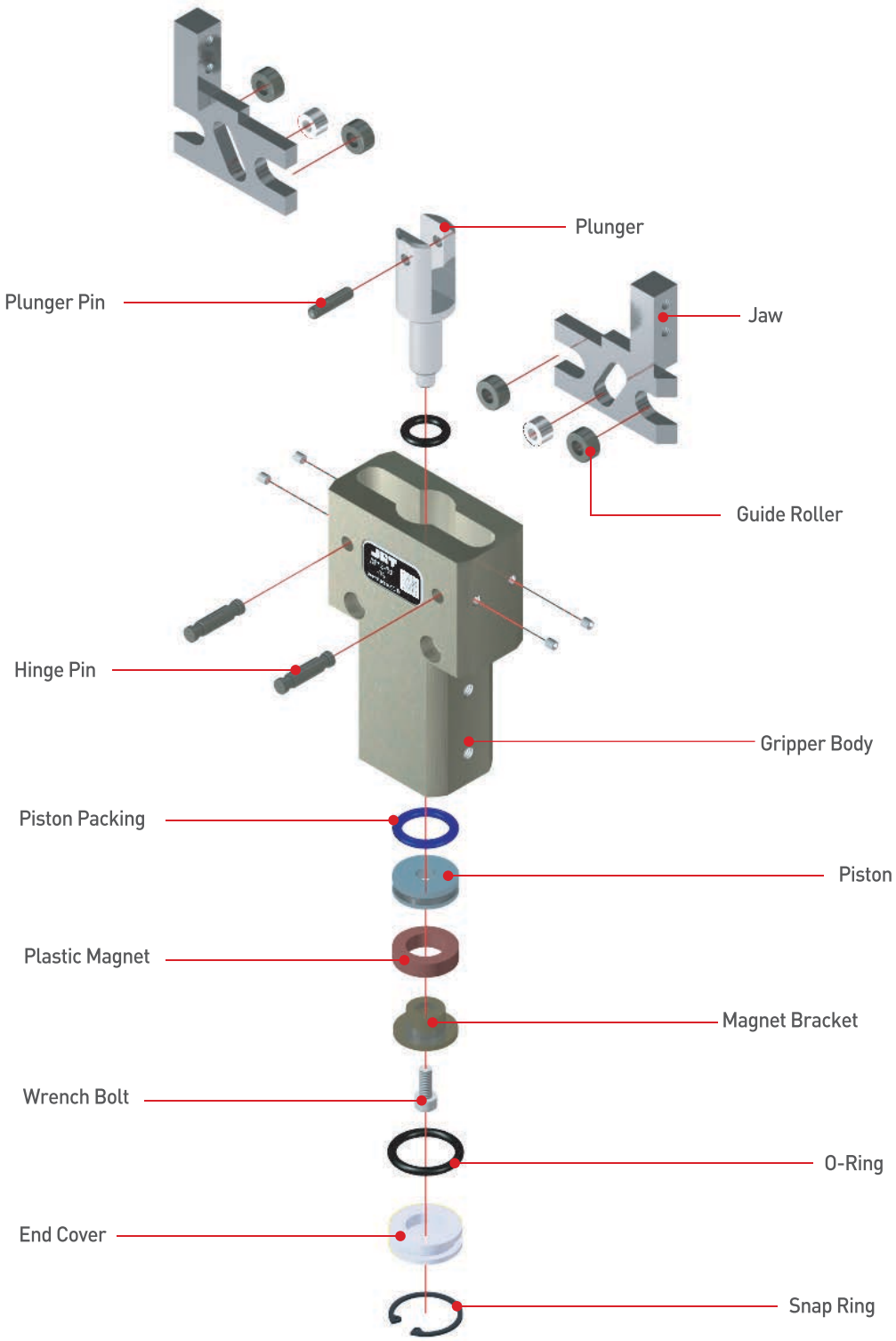
- TAPER ROLLER WAY & ROLLER를 이용한 구동방식
  Roller way & Roller type
- 고정도, 고강성 구조로 안정된 파지력
  High precision & strength structure
- 박형 BODY의 3방향 취부가능
  Easy to 3-directions(compact body)
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing

롤러 & 테이퍼 롤러가이드 방식 (Taper roller way & Roller type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)

제품명
Product Name

실린더직경
Bore Size
20, 30

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF14	-	30	-	RS	1	-	3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

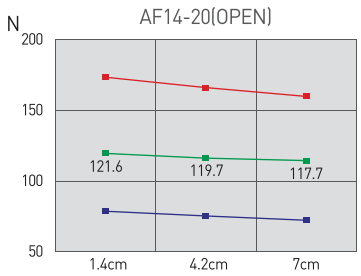
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

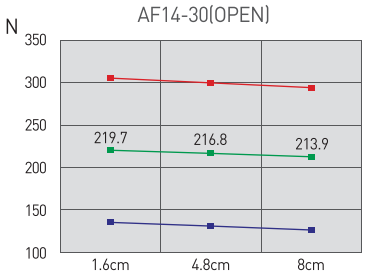
제품명칭 Products Name	AF14-20	AF14-30	단위 Unit
개폐범위 Stroke	10	12	mm
제품중량 Weight	0.38	0.72	kg
최대치구길이 Max. length attach	70	80	mm
배관접속구 Fitting size	M5	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	24.53(P-0.003L)	44.15(P-0.002L)	N
파지력 : 닫힘시 Gripping force : Close	35.32(P-0.002L)	60.82(P-0.002L)	N
1사이클당 공기소모량 Air consumption per cycle	5.5	14.6	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	sec
반복정밀도 Repeat accuracy	0.03	0.03	mm
연속사용회수 Continuation usage amount	60	40	cpm
사용압력 Operating pressure	3~7		bar
주위온도 Ambient temperature	-5 to 60		℃
윤활 Lubrication	불필요 Needless		

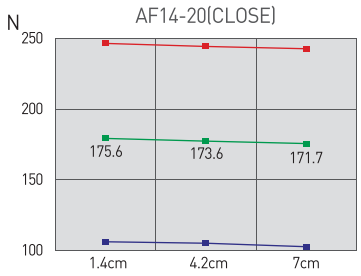
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

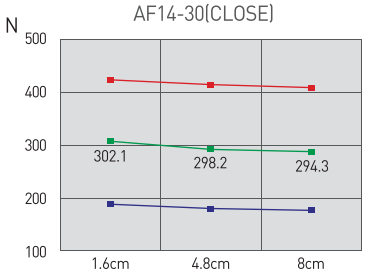
작용점에서의 파지력 (Gripping Force From a Point of Action)

범례 (Legend) : 7[bar] 5[bar] 3[bar]

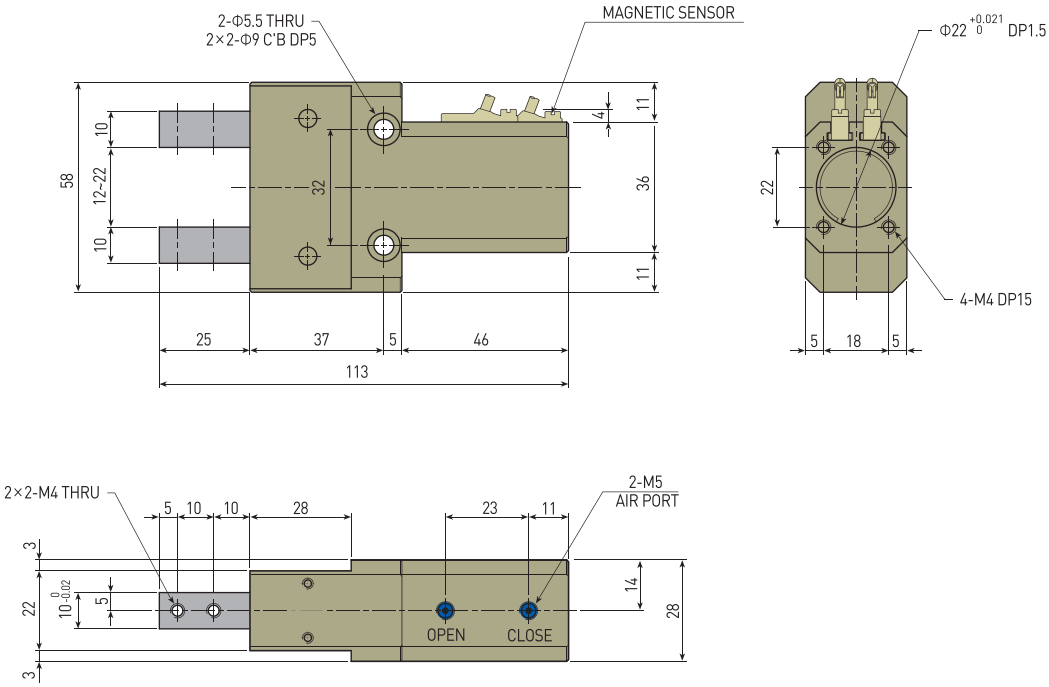




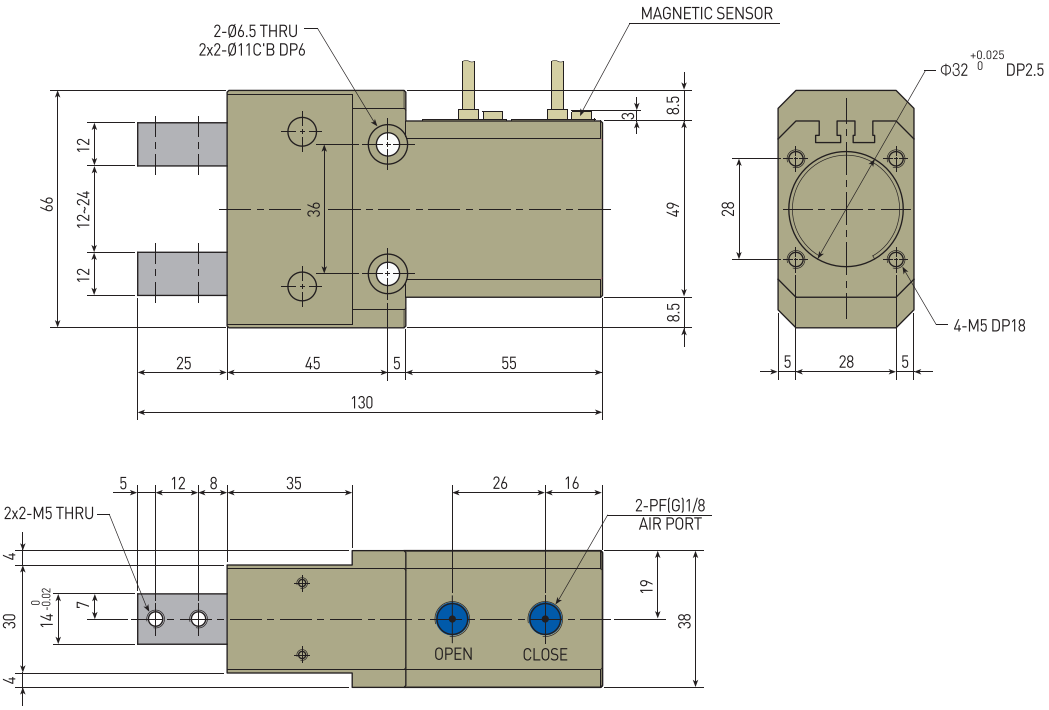




AF14-20



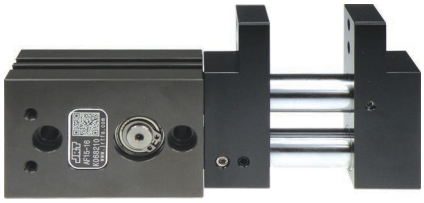
AF14-30



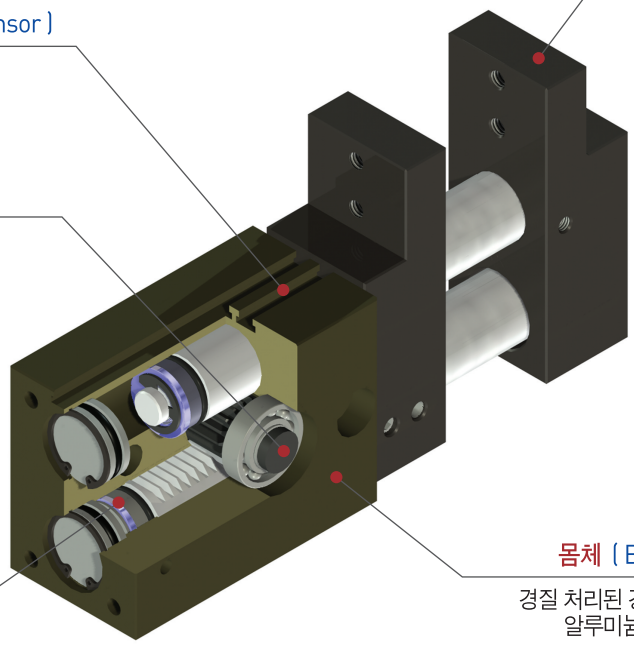
AF15-12, 16, 20

특징 (Character)

- RACK & PINION을 이용한 동기 구동방식
  Rack & pinion type
- JAW가 BODY기준 편측에 위치
  Jaw is located on one side of gripper body
- 회전 ARM 선단부착에 적합
  Suitable for attaching to rotation ARM rod thread
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing

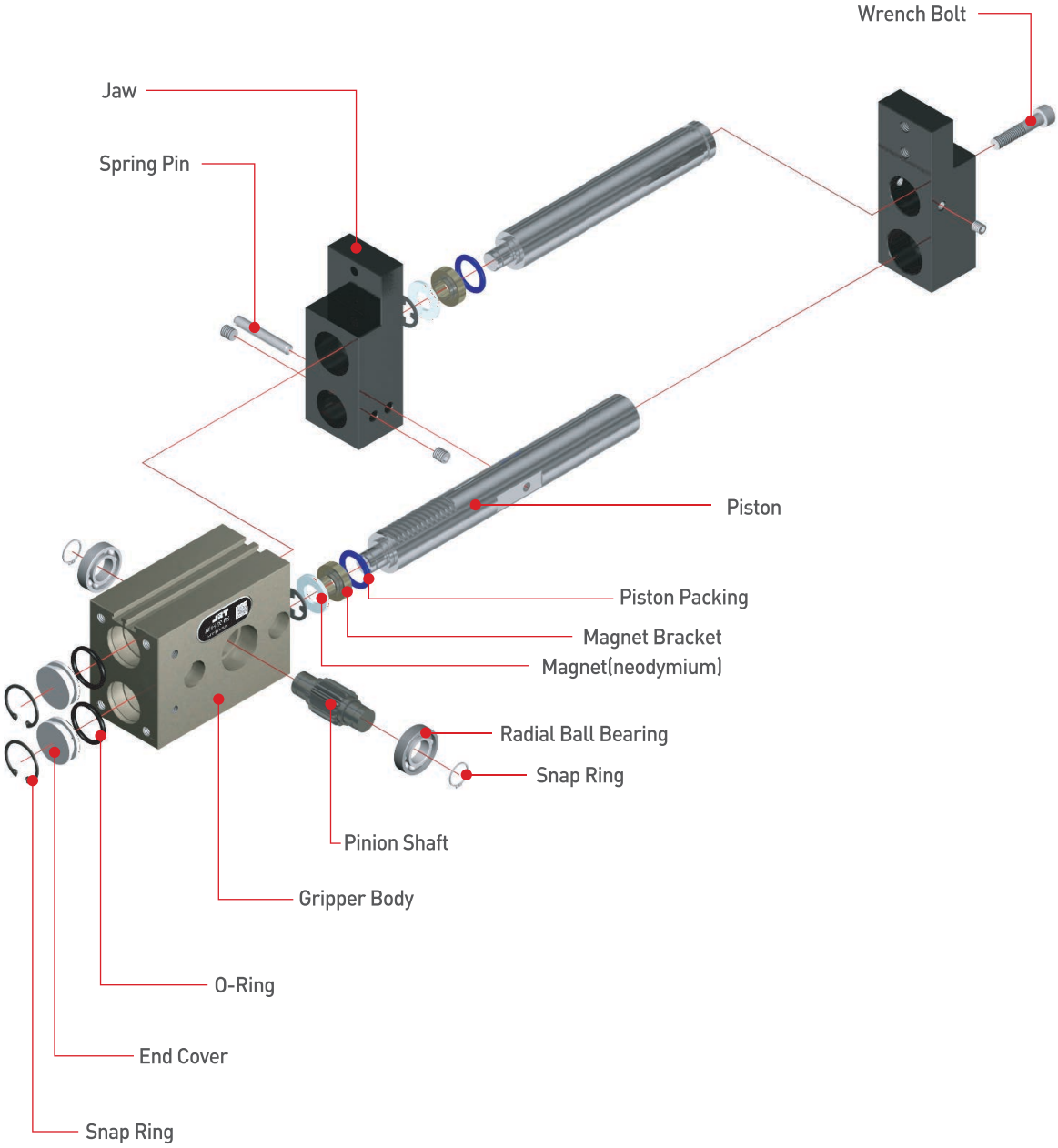


랙 & 피니언 방식 (Rack & pinion type)

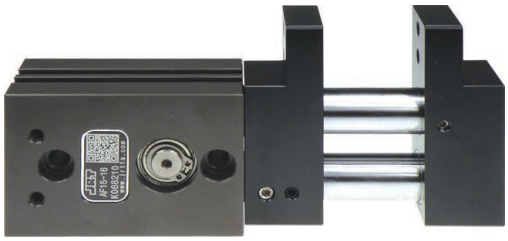


부품분해도

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다



주문기호 (How to Order)



제품명
Product Name

실린더직경
Bore Size
12, 16, 20

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF15 - 20 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

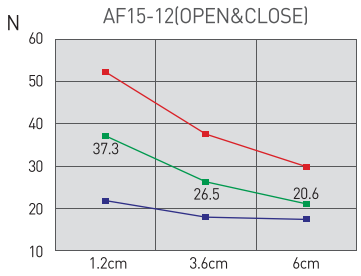
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

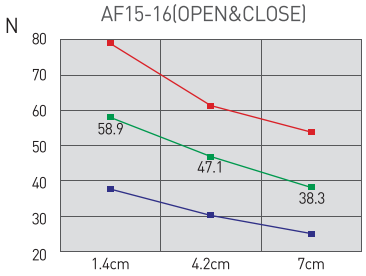
제품명칭 Products Name	AF15-12	AF15-16	AF15-20	단위 Unit
개폐범위 Stroke	20	30	36	mm
제품중량 Weight	0.43	0.81	1.6	kg
최대치구길이 Max. length attach	60	70	90	mm
배관접속구 Fitting size	M5	M5	M5	
파지력 : 열림시 Gripping force : Open	46.11P/(5+0.1L)	107.91(P+0.7)/(9+0.1L)	392.4(P+1)/(22+0.1L)	N
파지력 : 닫힘시 Gripping force : Close	46.11P/(5+0.1L)	107.91(P+0.7)/(9+0.1L)	392.4(P+1)/(22+0.1L)	N
1사이클당 공기소모량 Air consumption per cycle	1.1	3.0	5.7	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.01/0.01	sec
반복정밀도 Repeat accuracy	0.05	0.05	0.05	mm
연속사용회수 Continuation usage amount	60	40	40	cpm
사용압력 Operating pressure	3~7			bar
주위온도 Ambient temperature	-5 to 60			℃
윤활 Lubrication	불필요 Needless			

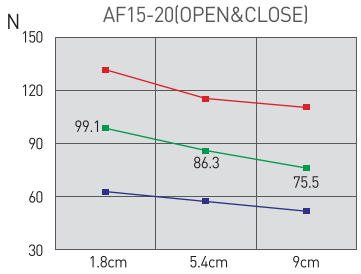
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

작용점에서의 파지력 (Gripping Force From a Point of Action)

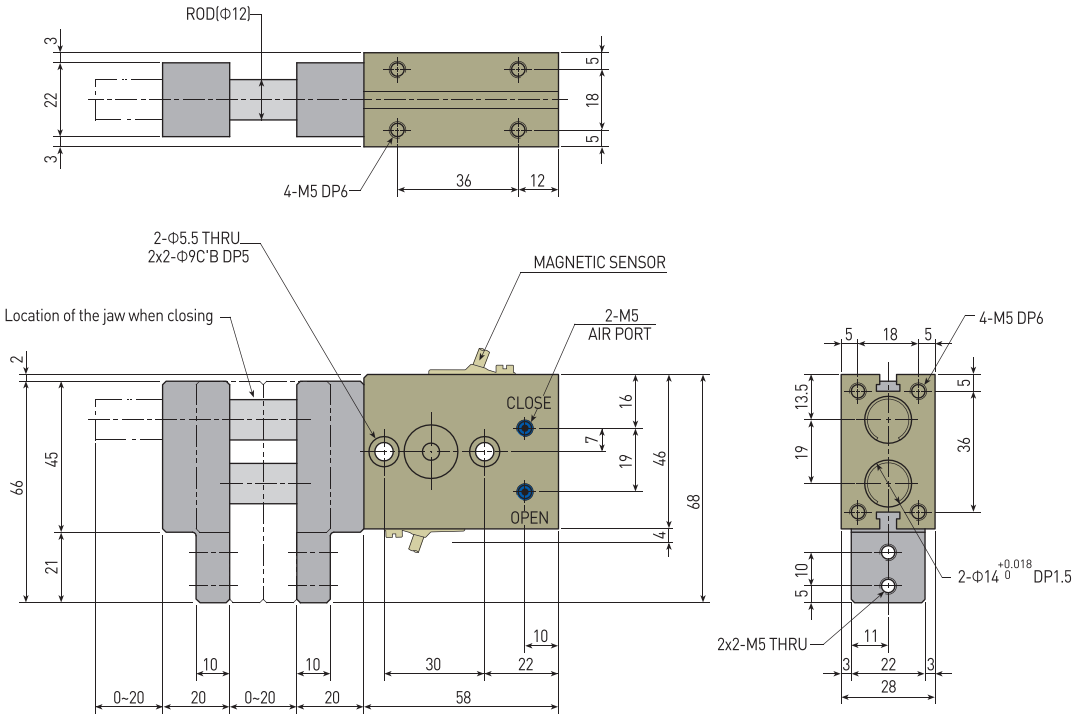
범례(Legend) : 7[bar] 5[bar] 3[bar]



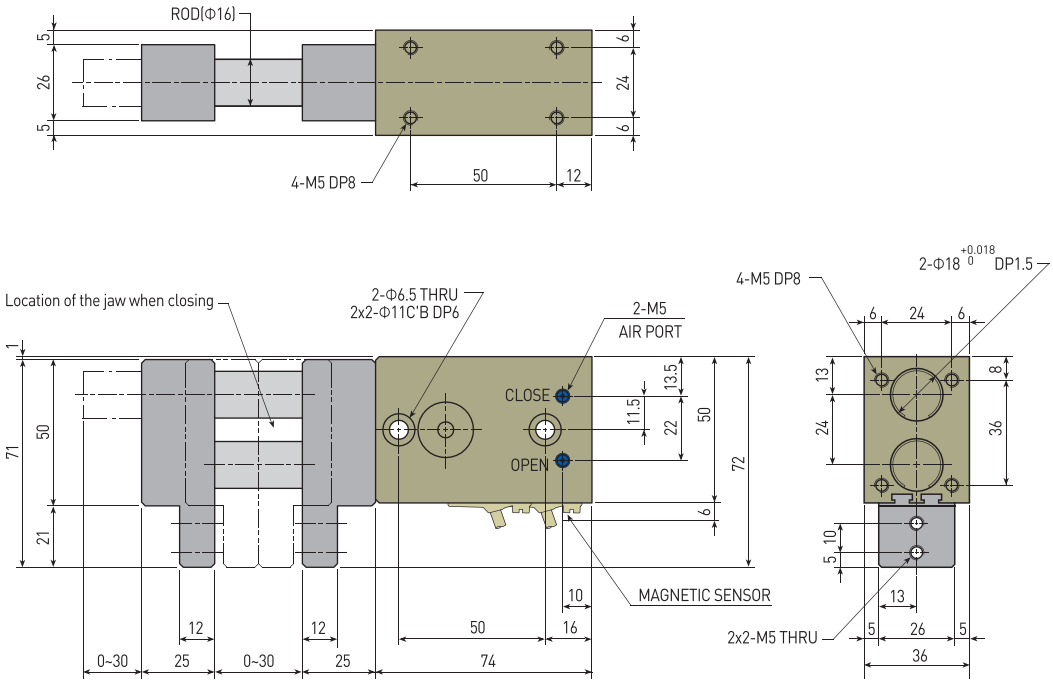




AF15-12

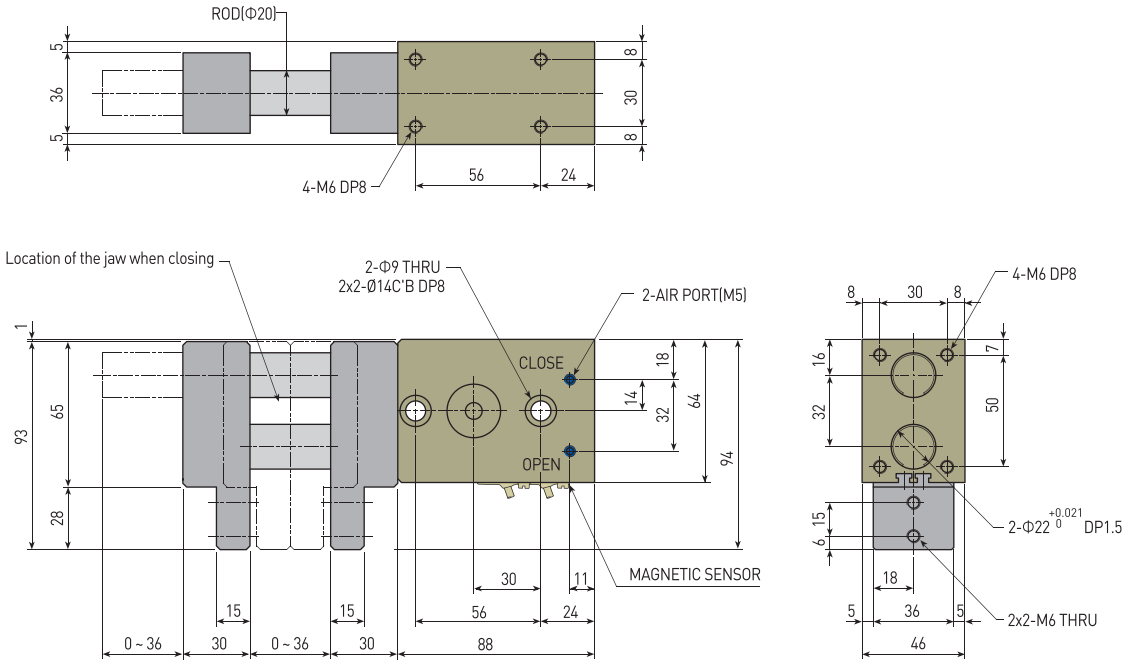


AF15-16



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

AF15-20


ROD(Φ20)
5
36
5
8
30
8
4-M6 DP8
56
24
Location of the jaw when closing
2-Φ9 THRU
2x2-Ø14C'B DP8
2-AIR PORT(M5)
CLOSE
OPEN
1
93
65
28
18
14
32
64
94
30
11
MAGNETIC SENSOR
15
15
56
24
0 ~ 36
30
0 ~ 36
30
88
8
30
8
4-M6 DP8
16
32
7
50
15
6
2-Φ22 +0.021 0 DP1.5
18
5
36
5
2x2-M6 THRU
46

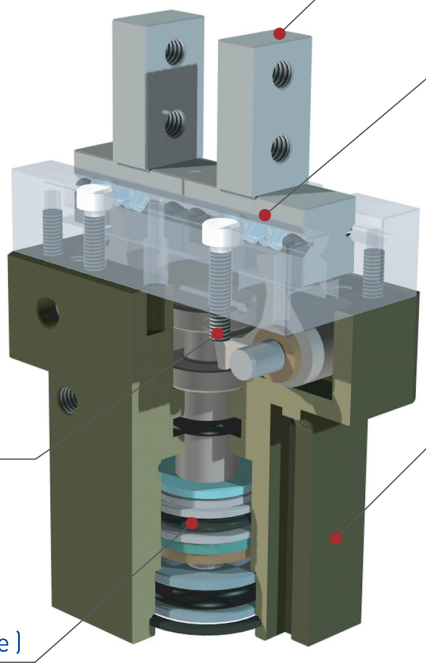
NOTE

AF316-16, 20, 25

특징 (Character)

- 크로스 롤러를 사용한 고정밀 평행 개폐방식
  Cross roller guide type
- 롤러 가이드의 병렬배치로 내구성 및 동작안정성 증가
  Increase durability and movement stability through roller guide parallel layout
- 개폐 검출용 마그네틱 센서 부착가능
  Magnetic sensor is available for open-close sensing
- 소형 경량제품에 적합
  Suitable to grip a small and light workpiece
- 비틀림에 강한 플런저
  It is strong plunger from twisted
- 높은 반복 정밀도
  High repeatbility

크로스 롤러 가이드 방식 (Cross roller guide type)



조 (Jaws)
파지부
for gripping

선형 베어링 가이드 (Linear bearing guide)
높은 반복 정밀도와 크로스 롤러 방식으로 긴 수명
high repeatability & long life by jaw united cross roller

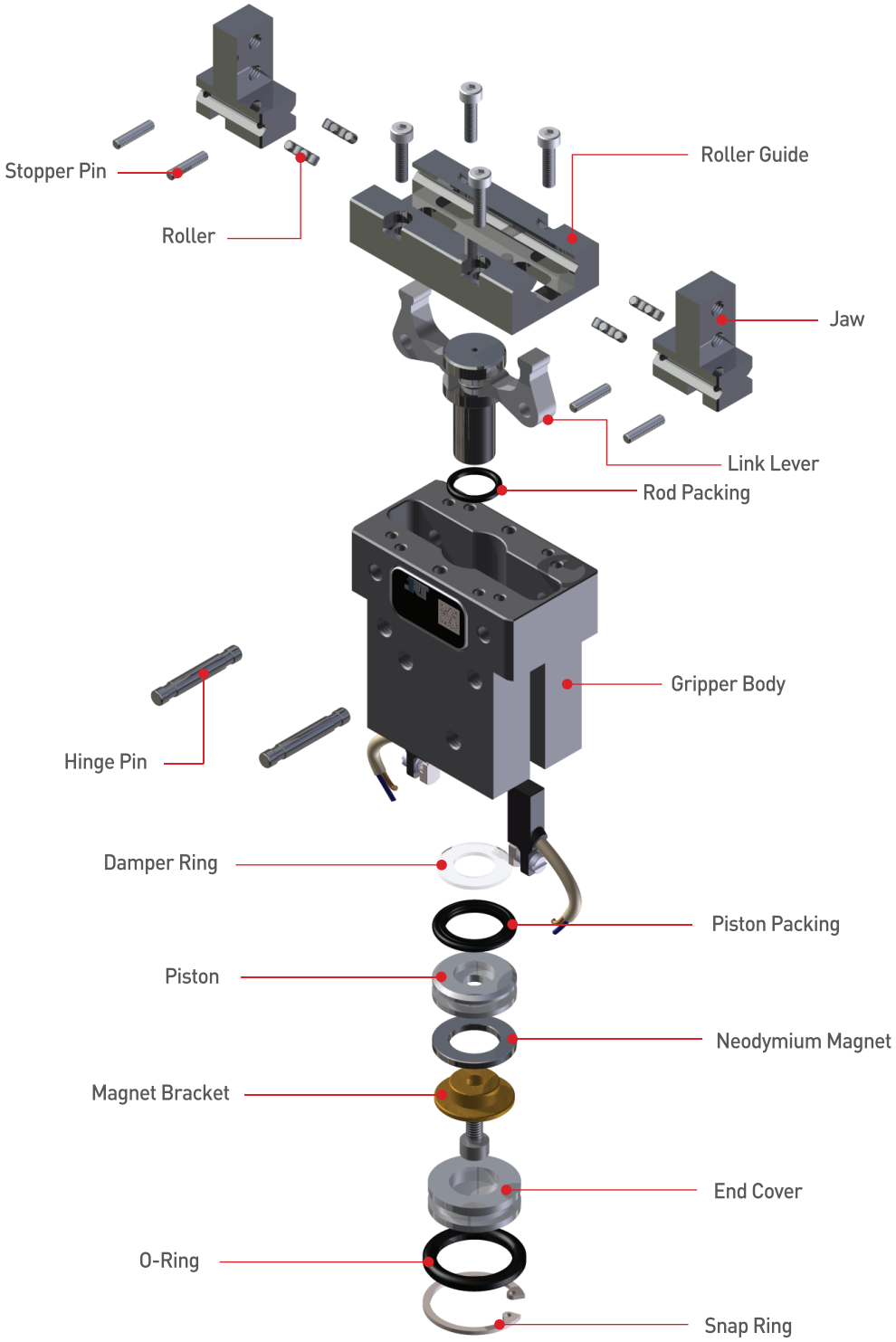
몸체 (Body)
경질 처리된 경량의 알루미늄 합금
high-tensile aluminum body with lightest possible because of hard anodizing

작동 방식 (Kinetics)
토글(toggle) 방식
roller guide type precise gripping because of base jaw guides with small clearance

구동부 (Drive)
복동식
double acting pneumatic cylinder

부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명 Product Name		실린더직경 Bore Size 16, 20, 25		센서명칭 Sensor Type	센서수량 Number of Sensor 1 - 1개 무기호 - 2개 1 - 1pc. Nil - 2pcs.		센서 선 길이 Sensor Cable Length
AF316	-	16	-	RS	1	-	3M

센서명칭 / Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이 / Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector.
* For the specification of connector and availability, refer to details of sensor part

AF316L 주문기호 (AF316L How to Order)

* L : Long stroke

제품명 Product Name		실린더직경 Bore Size 16, 20, 25		위와 동일 Same as above		
AF316L	-	16	-	RS	1	- 3M

제품사양 (Specification)

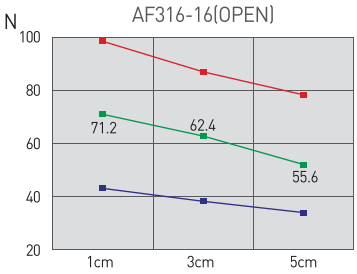
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

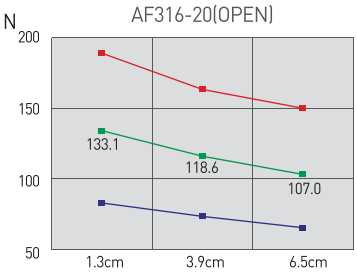
제품명칭 Products Name	AF316-16		AF316-20		AF316-25		단위 Unit
	Standard	AF316L-16	Standard	AF316L-20	Standard	AF316L-25	
개폐범위 Stroke	8	12	10	18	14	22	mm
제품중량 Weight	0.21	0.26	0.31	0.42	0.55	0.75	kg
최대치구길이 Max. length attach	50		65		80		mm
배관접속구 Fitting size	M5		M5		M5		
파지력 : 열림시 Gripping force : Open	15.3P/(1+0.0075L)		28.35P/(1+0.005L)		42.28P/(1+0.003L)		N
파지력 : 닫힘시 Gripping force : Close	9.52P/(1+0.0075L)		27.96P/(1+0.005L)		39.83P/(1+0.003L)		N
1사이클당 공기소모량 Air consumption per cycle	1.4	2.1	2.7	4.9	6.1	9.6	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01		0.01/0.01		0.01/0.01		sec
반복정밀도 Repeat accuracy	0.01		0.01		0.01		mm
연속사용회수 Continuation usage amount	60		60		40		cpm
사용압력 Operating pressure	3~7						bar
주위온도 Ambient temperature	-5 to 60						℃
윤활 Lubrication	불필요 Needless						

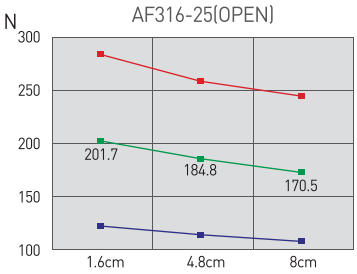
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

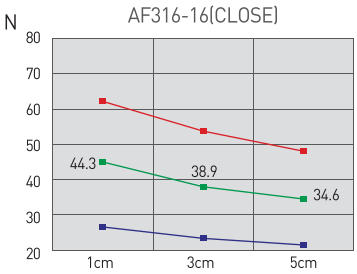
작용점에서의 파지력 (Gripping Force From a Point of Action)

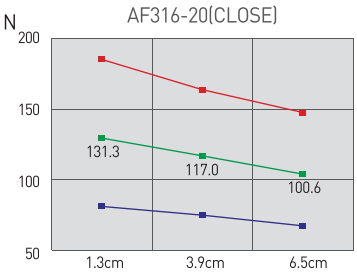
범례(Legend) : 7[bar] 5[bar] 3[bar]

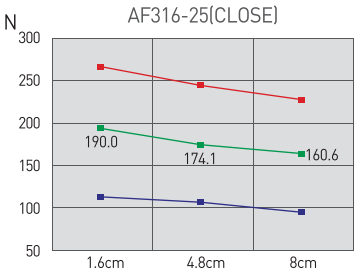




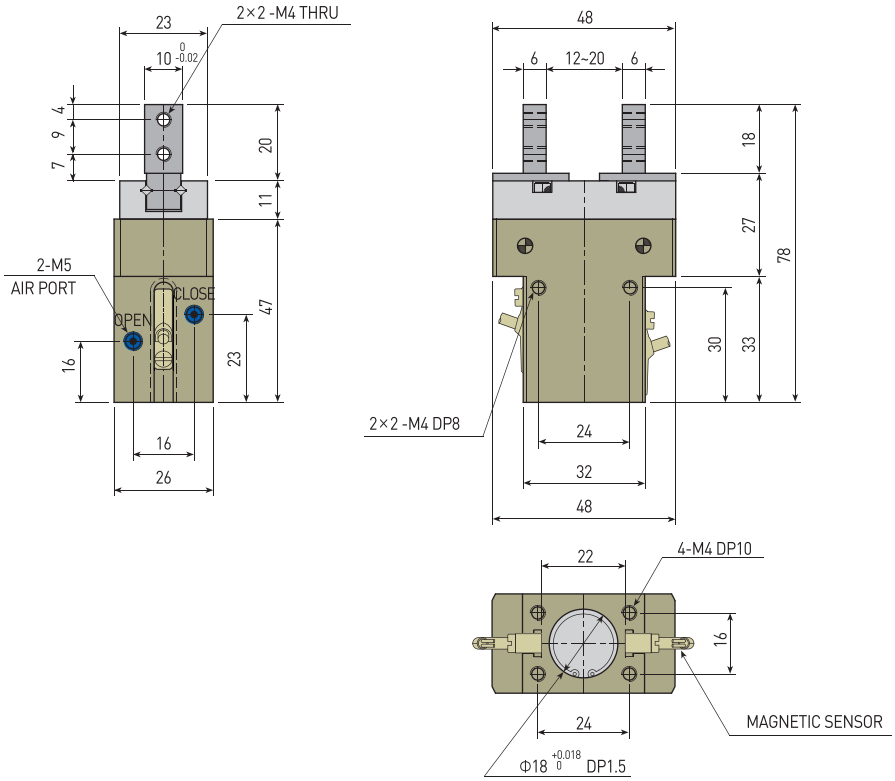




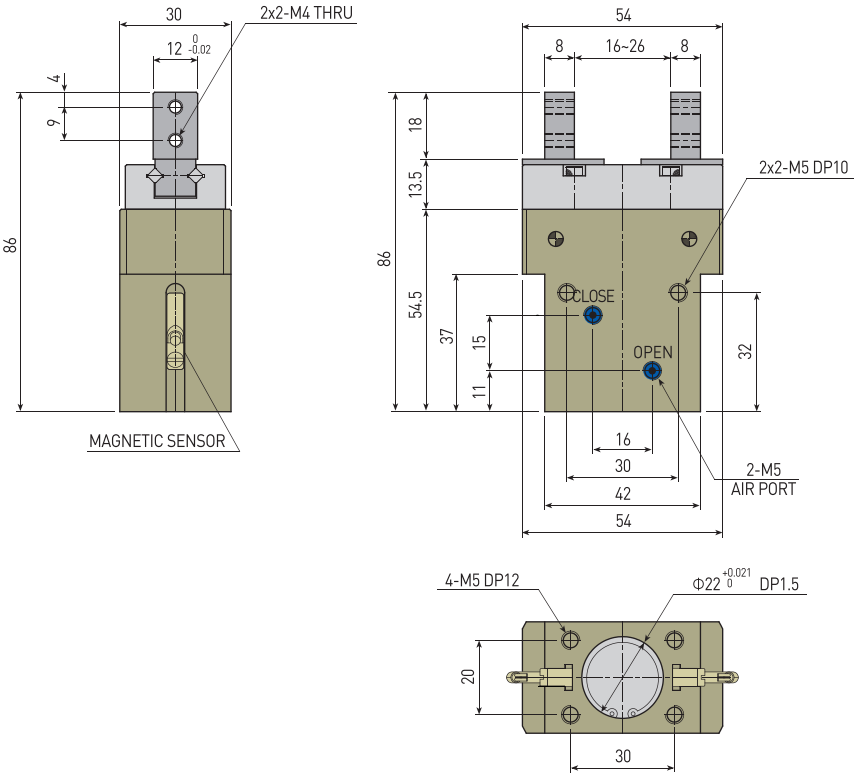




AF316-16



AF316-20



AF101
AF02
AF04P
AF105P
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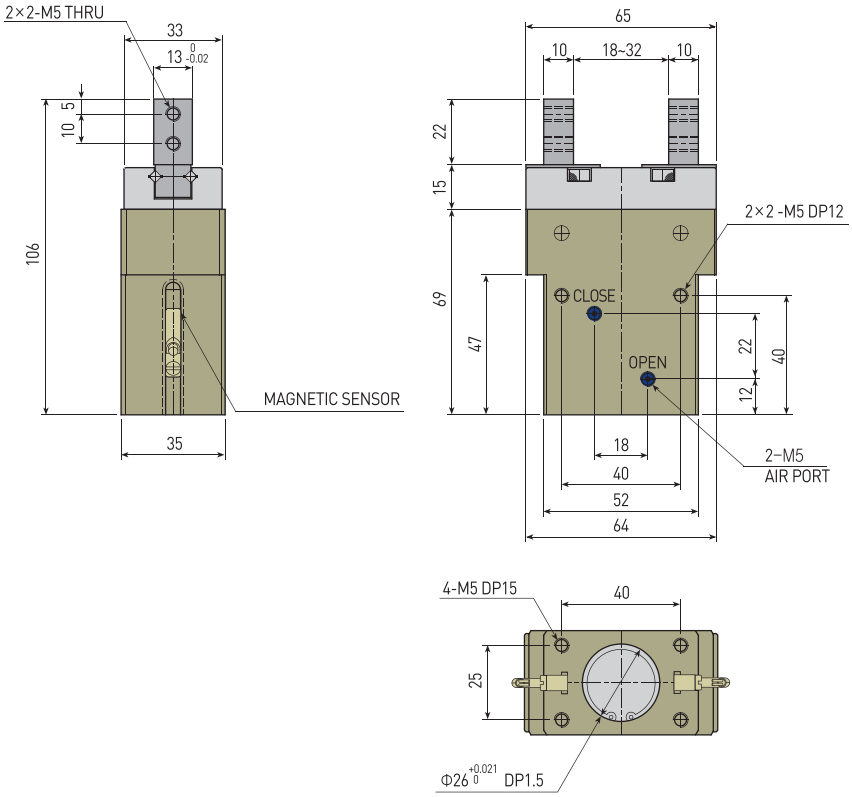
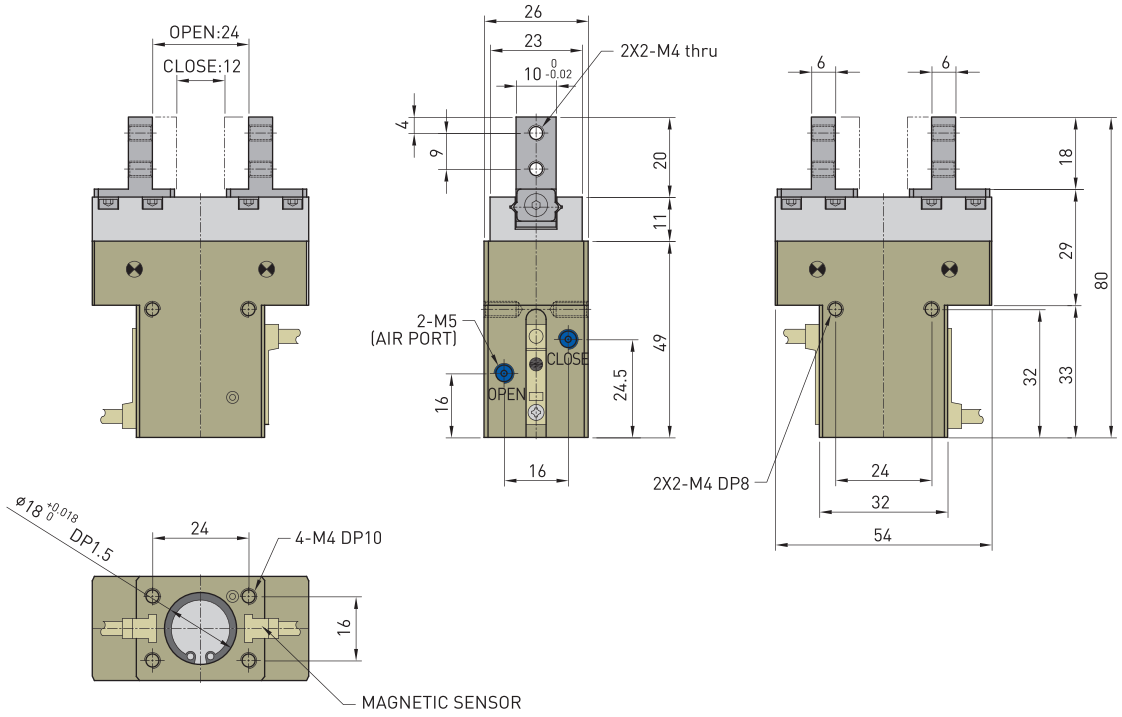
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

AF316-25

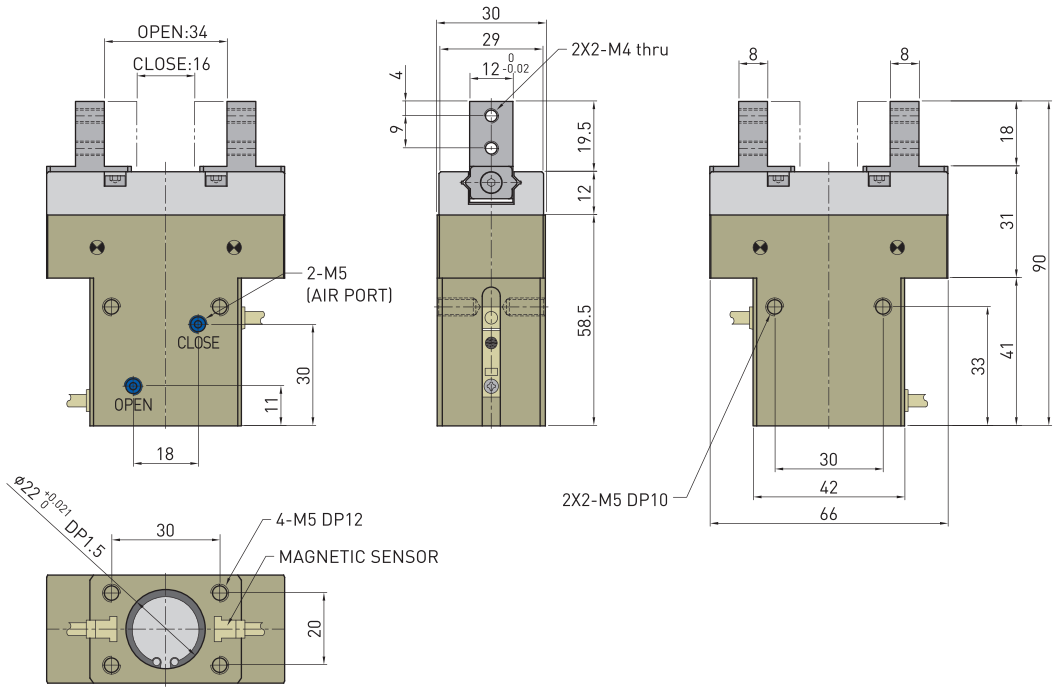


NOTE

AF316L-16



AF316L-20



AF101
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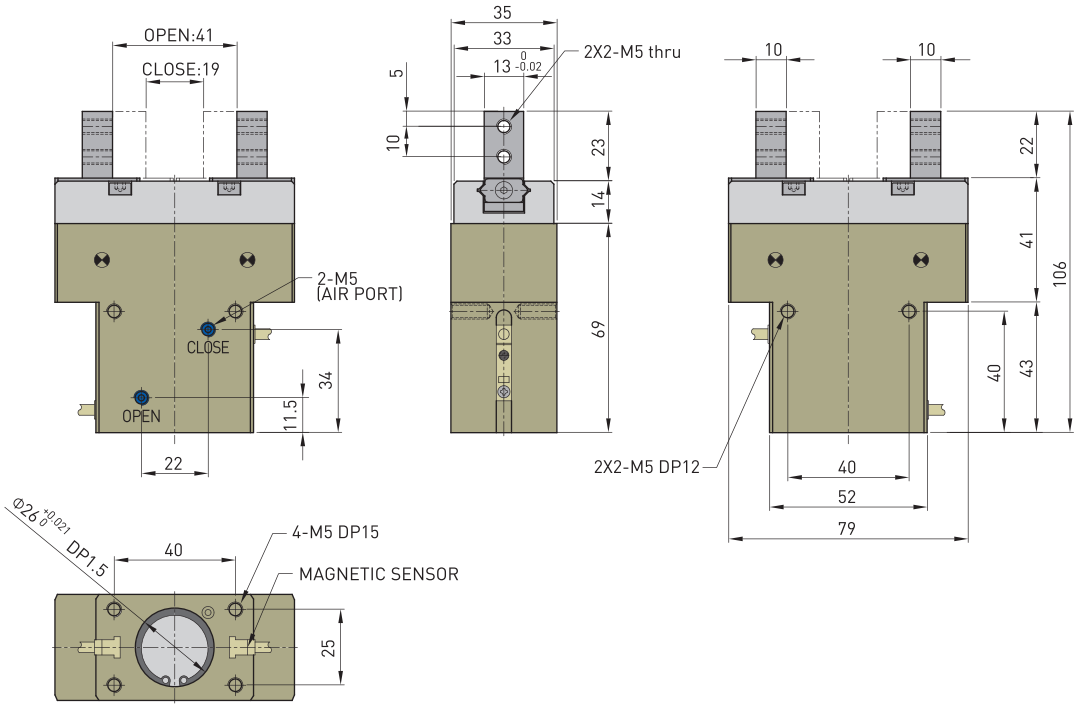
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

AF316L-25



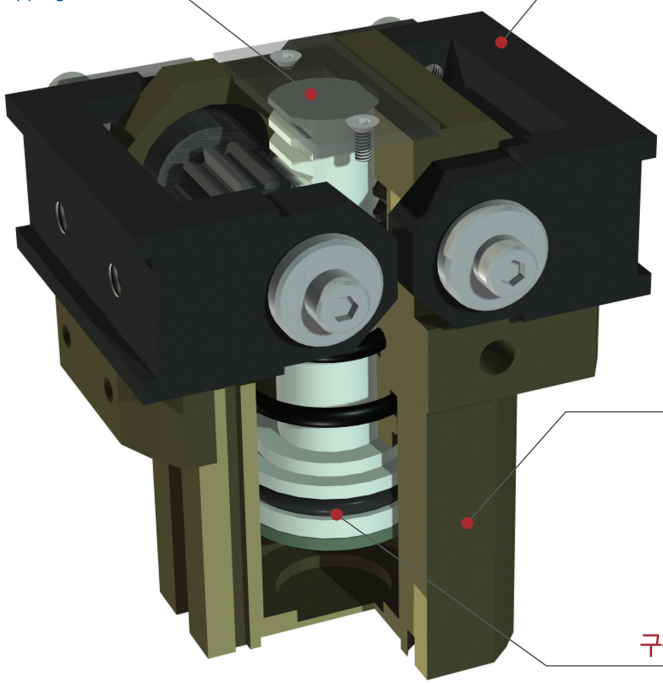
NOTE

AF17-25, 40

특징 (Character)

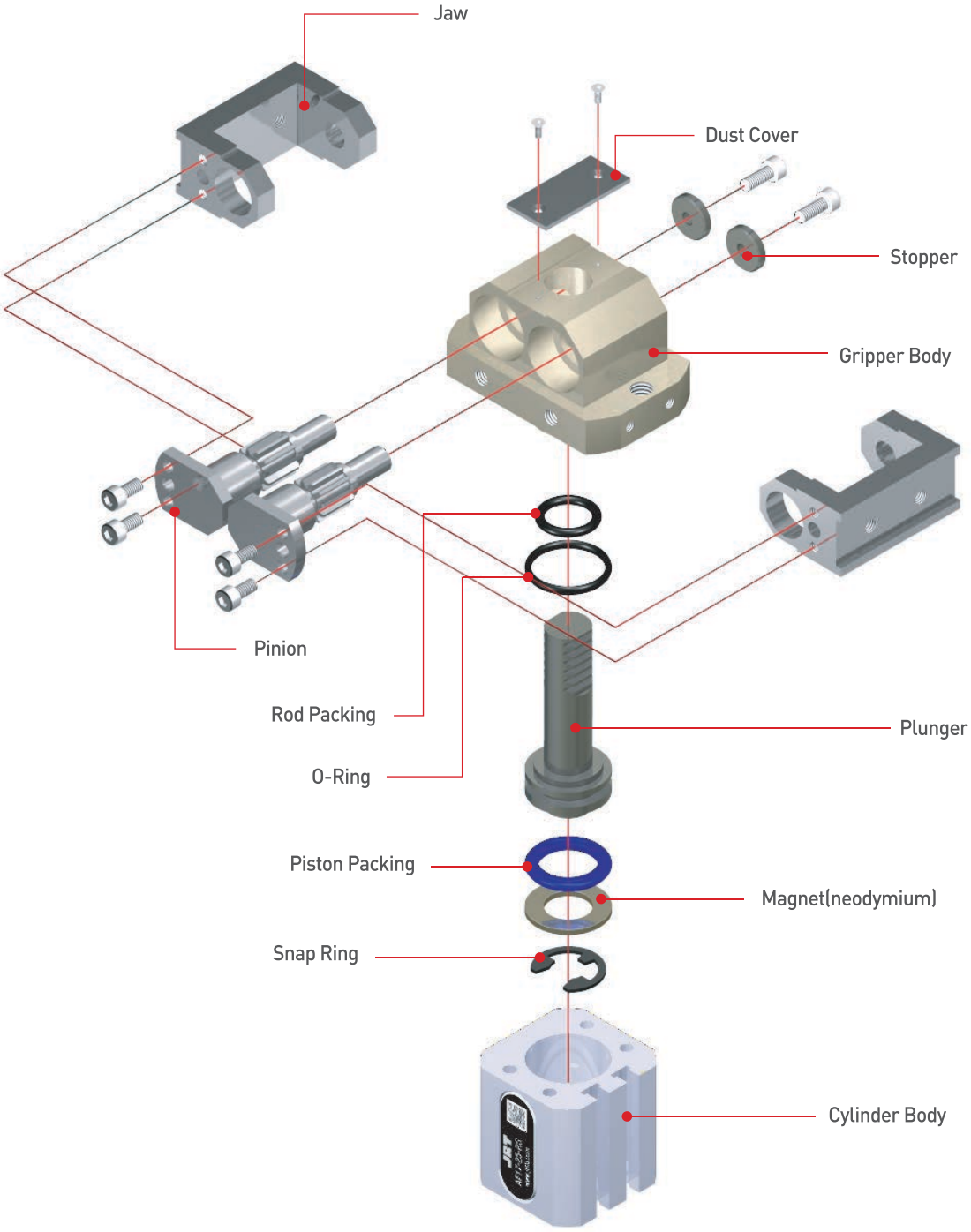
- RACK & PINION을 사용한 광각형 각도개폐방식
  Angular type by Rack & Pinion driving unit
- 개폐범위가 180도로 제품 파지시 간섭배제가 가능
  Allow to grip the workpiece by open-close range 180° without any interference
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing

랙 & 피니언 방식 (Rack & pinion type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
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AF316L
AF416
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AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)

제품명
Product Name

실린더직경
Bore Size
25, 40

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF17 - 25 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

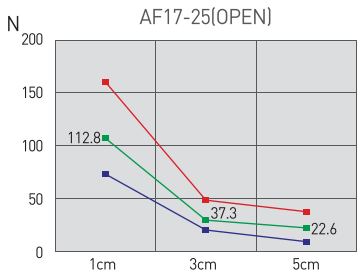
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

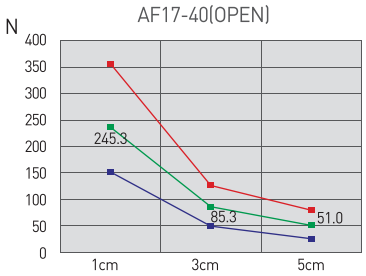
제품명칭 Products Name	AF17-25	AF17-40	단위 Unit
개폐범위 Stroke	0 to 180	0 to 180	degree
제품중량 Weight	0.68	0.86	kg
최대치구길이 Max. length attach	50	50	mm
배관접속구 Fitting size	M5	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	22.56P/0.1L	51.01P/0.1L	N
파지력 : 닫힘시 Gripping force : Close	15.70P/0.1L	38.26P/0.1L	N
1사이클당 공기소모량 Air consumption per cycle	8.3	21.2	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.02	sec
반복정밀도 Repeat accuracy	0.2	0.2	mm
연속사용회수 Continuation usage amount	60	60	cpm
사용압력 Operating pressure	3~7		bar
주위온도 Ambient temperature	-5 to 60		℃
윤활 Lubrication	불필요 Needless		

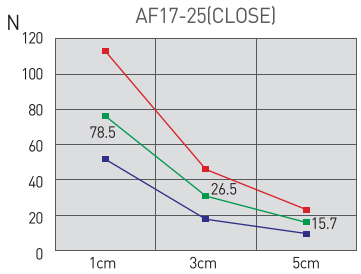
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

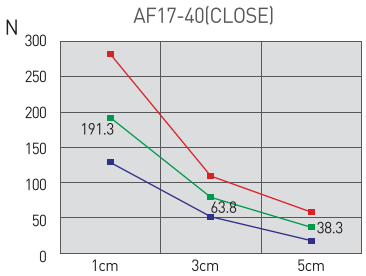
작용점에서의 파지력 (Gripping Force From a Point of Action)

범례(Legend) : 7[bar] 5[bar] 3[bar]



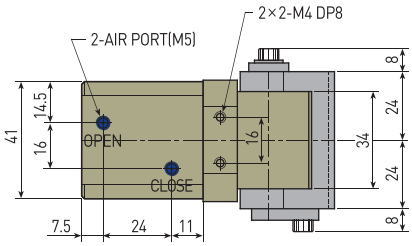


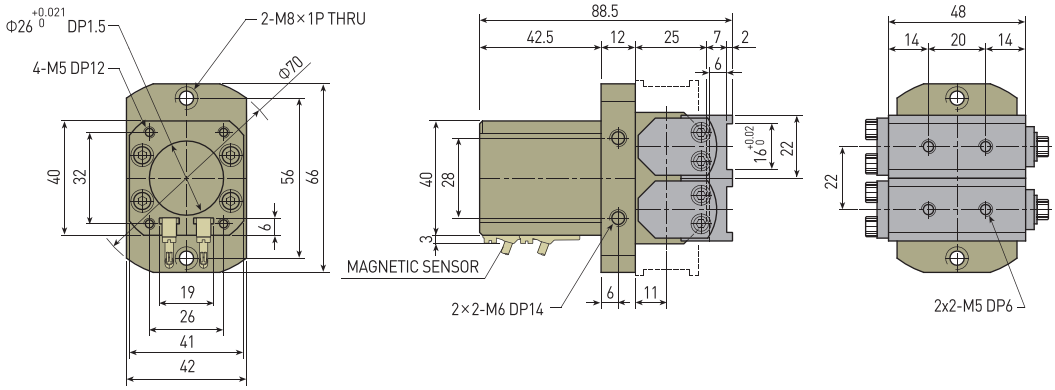




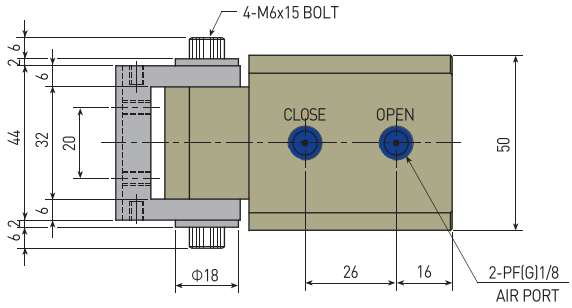
AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

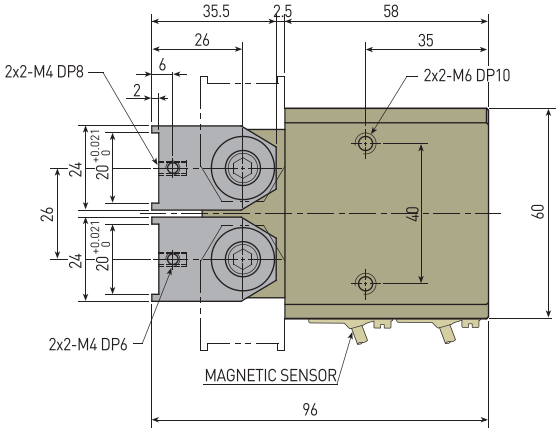
AF17-25

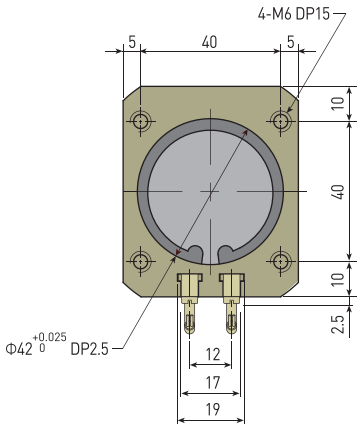




AF17-40





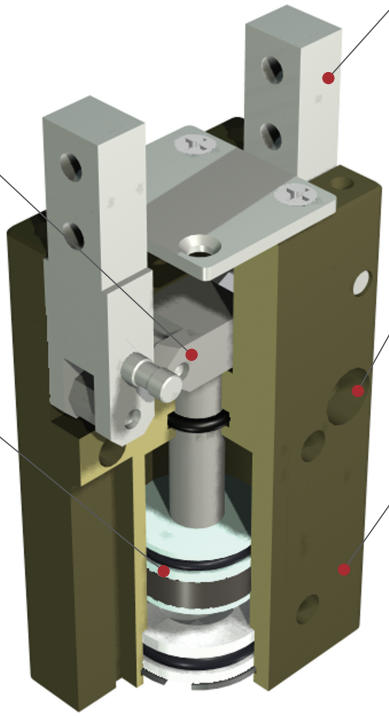


AF117-16, 20, 25, 30, 40, 50, 63, 80

특징 (Character)

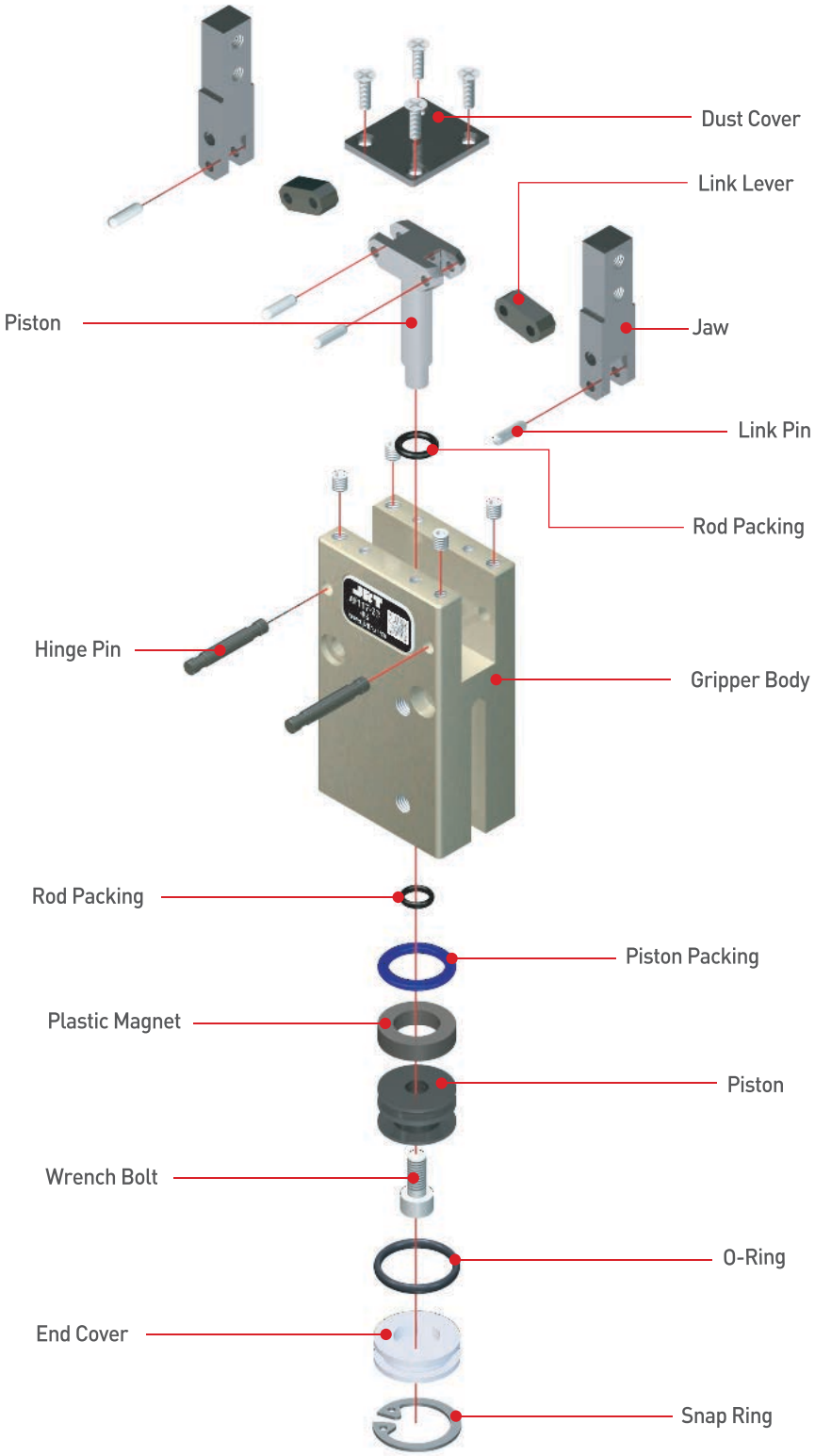
- 크랭크 레버를 사용한 광각형 각도개폐방식
  Wide angular type by crank lever driving unit
- 링크레버 타입보다 저유격실현 및 내마모성 향상
  Low gap and wear resistance improvement beside link lever type
- 다양한 크기의 제품 생산으로 선택의 편리성 추구
  Pursued convenience of selection by manufacturing various sizes.
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing

크랭크 레버 방식 (Crank lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (Ordering Code)

제품명
Product Name

실린더직경
Bore Size
16, 20, 25, 30, 40, 50, 63, 80

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF117 - 30 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

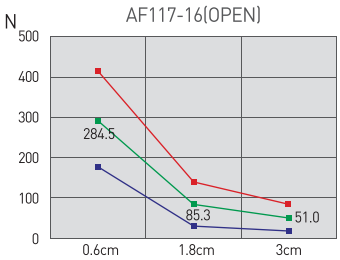
제품명칭 Products Name	AF117-16	AF117-20	AF117-25	AF117-30	단위 Unit
개폐범위 Stroke	0 to 180	0 to 180	0 to 180	0 to 180	degree
제품중량 Weight	0.21	0.27	0.38	0.69	kg
최대치구길이 Max. length attach	30	40	50	60	mm
배관접속구 Fitting size	M5	M5	M5	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	36.30(P-0.3)/0.1L	51.01(P-0.5)/0.1L	56.90(P-0.1)/0.1L	63.77P/0.1L	N
파지력 : 닫힘시 Gripping force : Close	31.39(P-0.3)/0.1L	44.15(P-0.5)/0.1L	51.01(P-0.3)/0.1L	55.92P/0.1L	N
1사이클당 공기소모량 Air consumption per cycle	4.3	9.9	15.4	33.4	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.02/0.02	0.04/0.04	sec
반복정밀도 Repeat accuracy	0.2	0.2	0.2	0.2	mm
연속사용회수 Continuation usage amount	60	60	60	40	cpm
사용압력 Operating pressure	3~7				bar
주위온도 Ambient temperature	-5 to 60				℃
윤활 Lubrication	불필요 Needless				

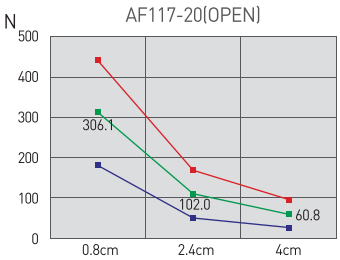
제품명칭 Products Name	AF117-40	AF117-50	AF117-63	AF117-80	단위 Unit
개폐범위 Stroke	0 to 180	0 to 180	0 to 180	0 to 180	degree
제품중량 Weight	1.2	2.17	3.5	6.65	kg
최대치구길이 Max. length attach	70	75	125	150	mm
배관접속구 Fitting size	PF(G) 1/8	PF(G) 1/8	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	136.36P/0.1L	308.03P/0.1L	607.24P/0.1L	1177.20P/0.1L	N
파지력 : 닫힘시 Gripping force : Close	116.74P/.01L	253.10P/0.1L	544.46P/0.1L	1059.48P/0.1L	N
1사이클당 공기소모량 Air consumption per cycle	68.4	148.1	301.9	583.3	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.07/0.07	0.15/0.15	0.30/0.30	0.60/0.60	sec
반복정밀도 Repeat accuracy	0.2	0.2	0.3	0.4	mm
연속사용회수 Continuation usage amount	40	30	30	20	cpm
사용압력 Operating pressure	3~7				bar
주위온도 Ambient temperature	-5 to 60				℃
윤활 Lubrication	불필요 Needless				

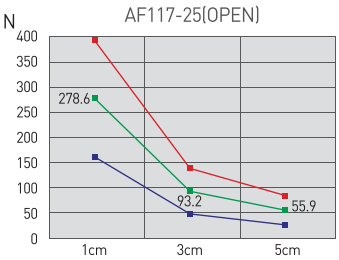
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

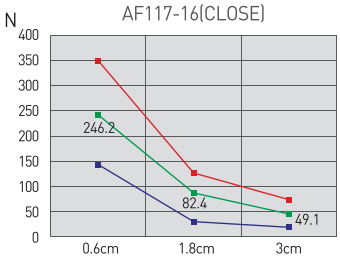
작용점에서의 파지력 (Gripping Force From a Point of Action)

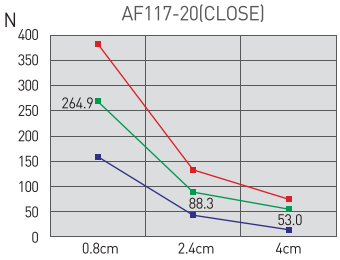
범례(Legend) : 7[bar] 5[bar] 3[bar]

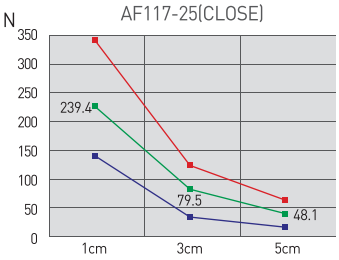


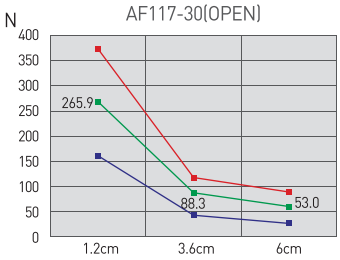


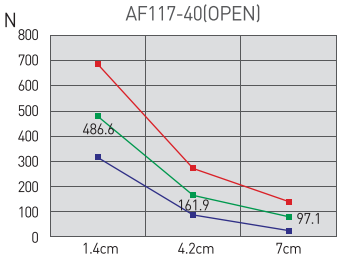


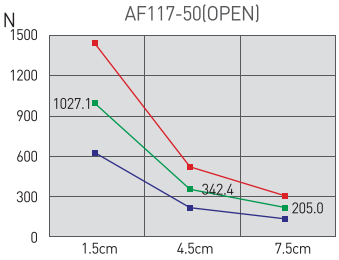


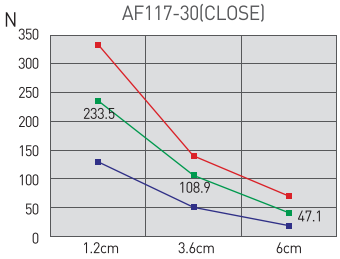


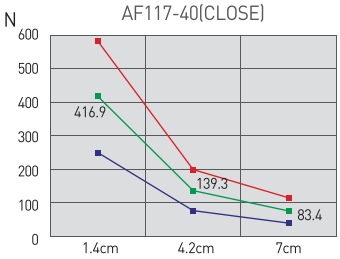


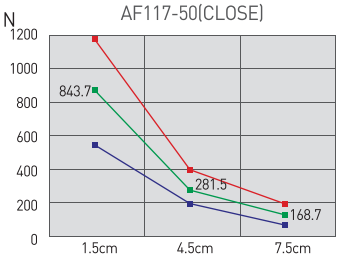


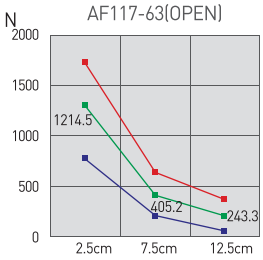


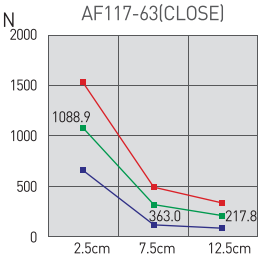


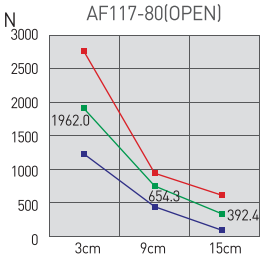


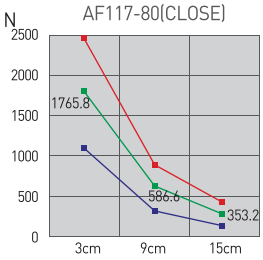












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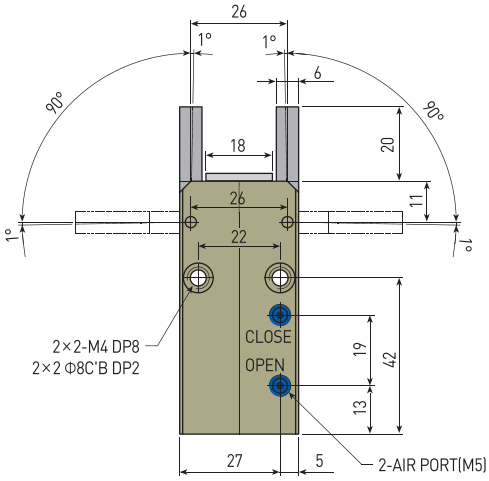
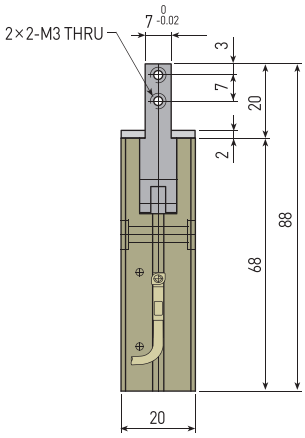
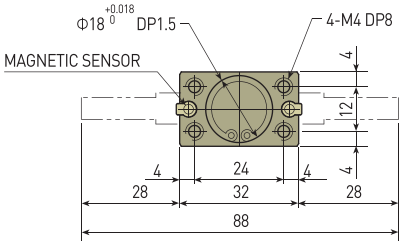
AF56L
RAF56N
MF16

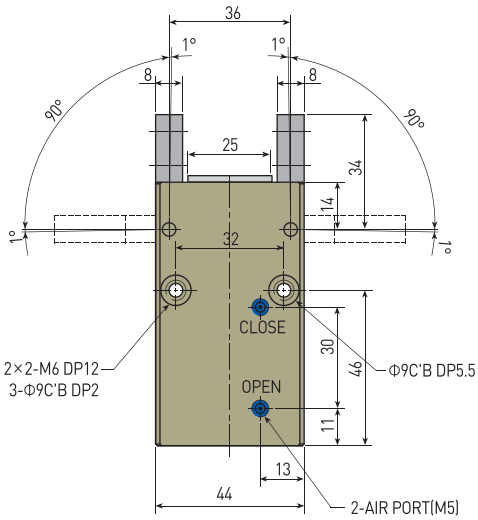
AF117-16

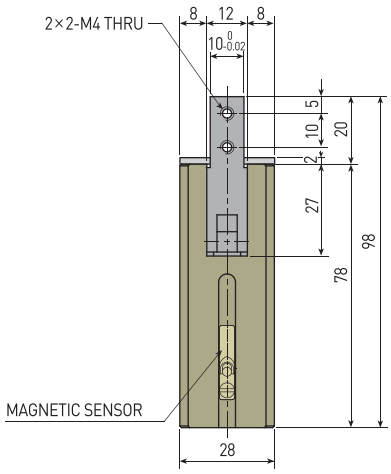


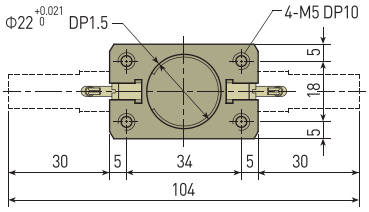




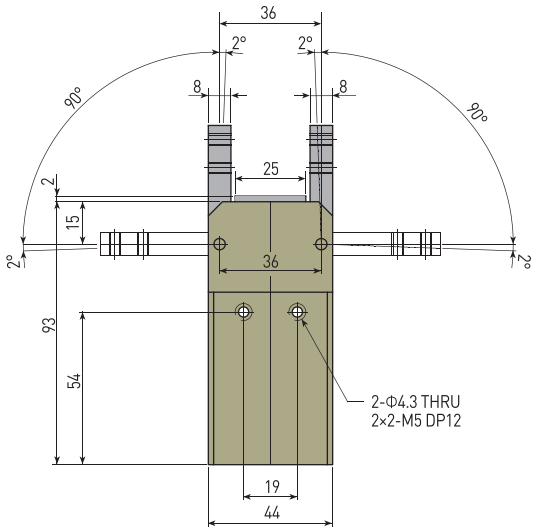
AF117-20

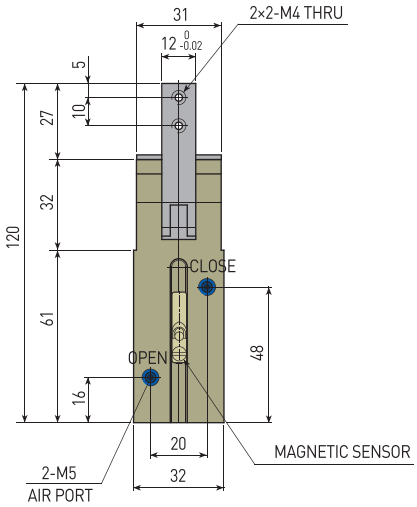


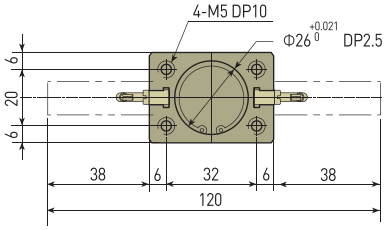




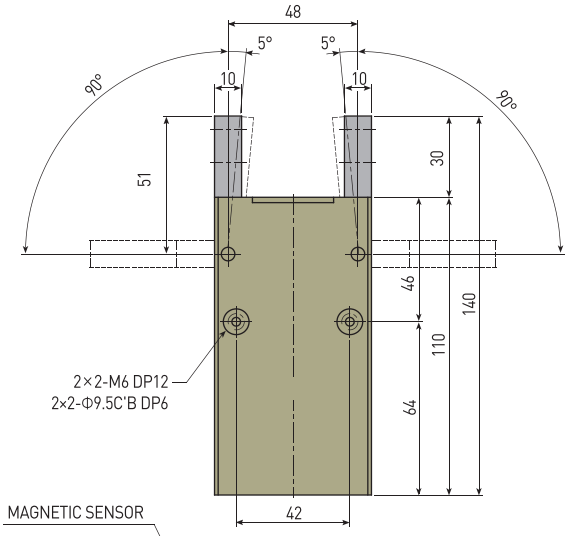
AF117-25

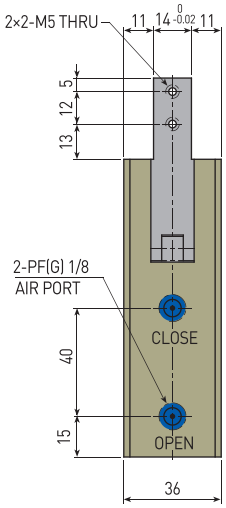


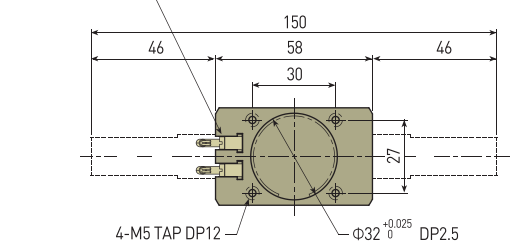




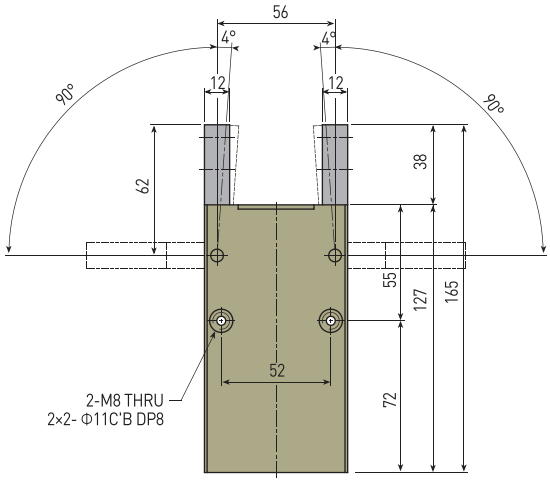
AF117-30

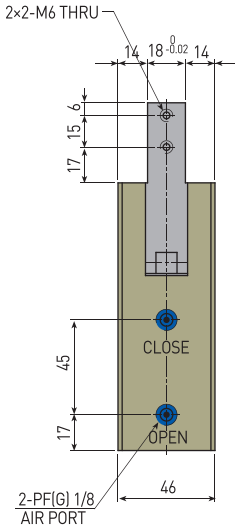


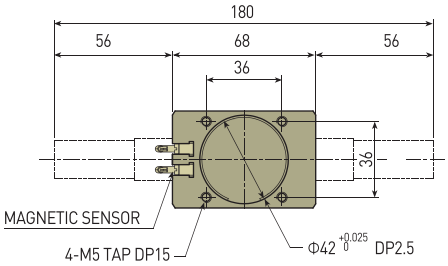




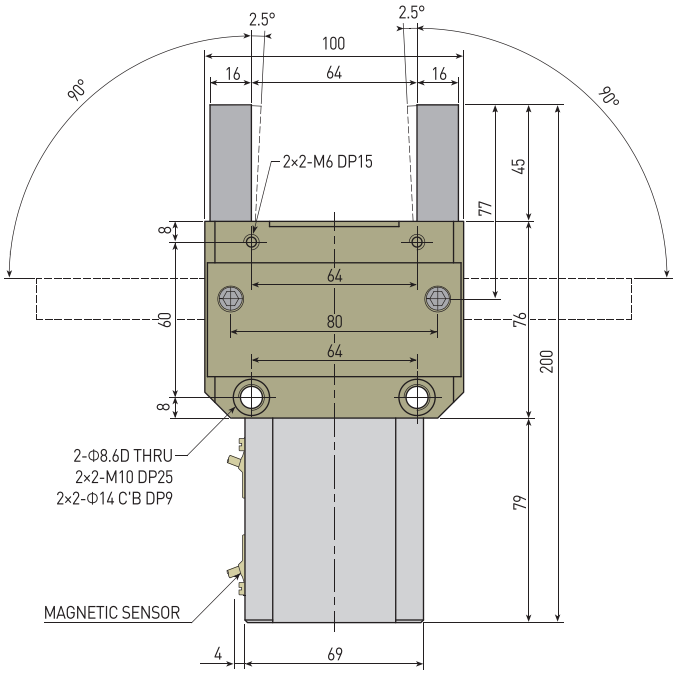
AF117-40

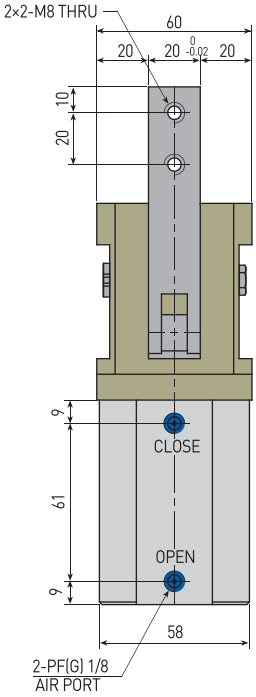




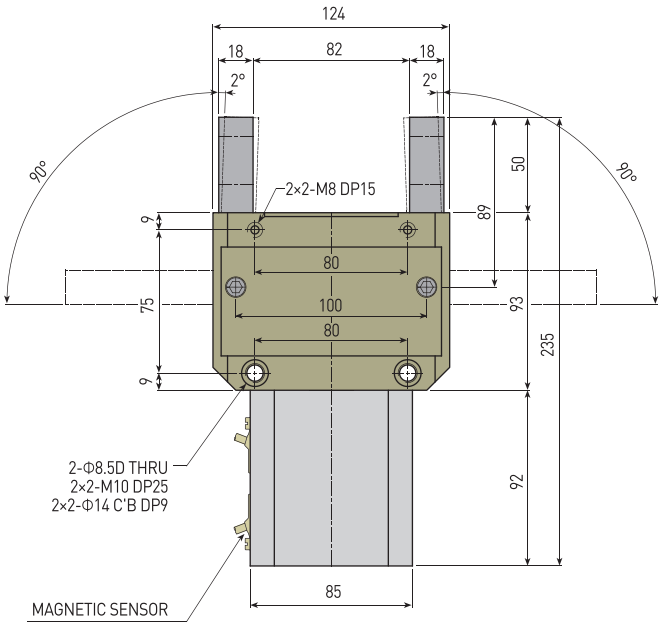


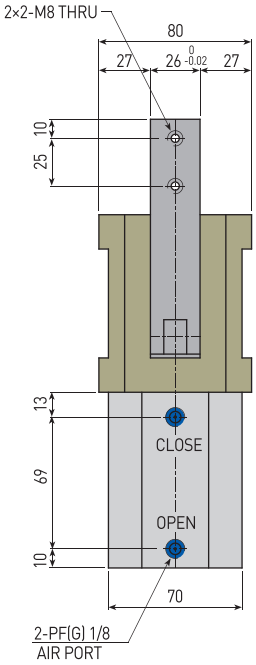
AF117-50





AF117-63





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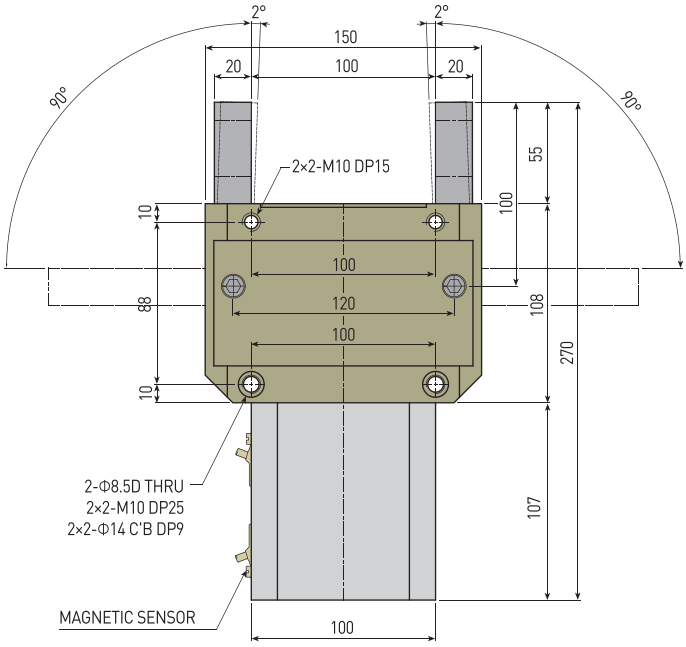

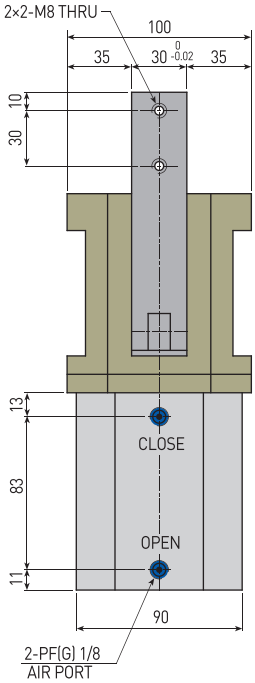

AF101
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AF416
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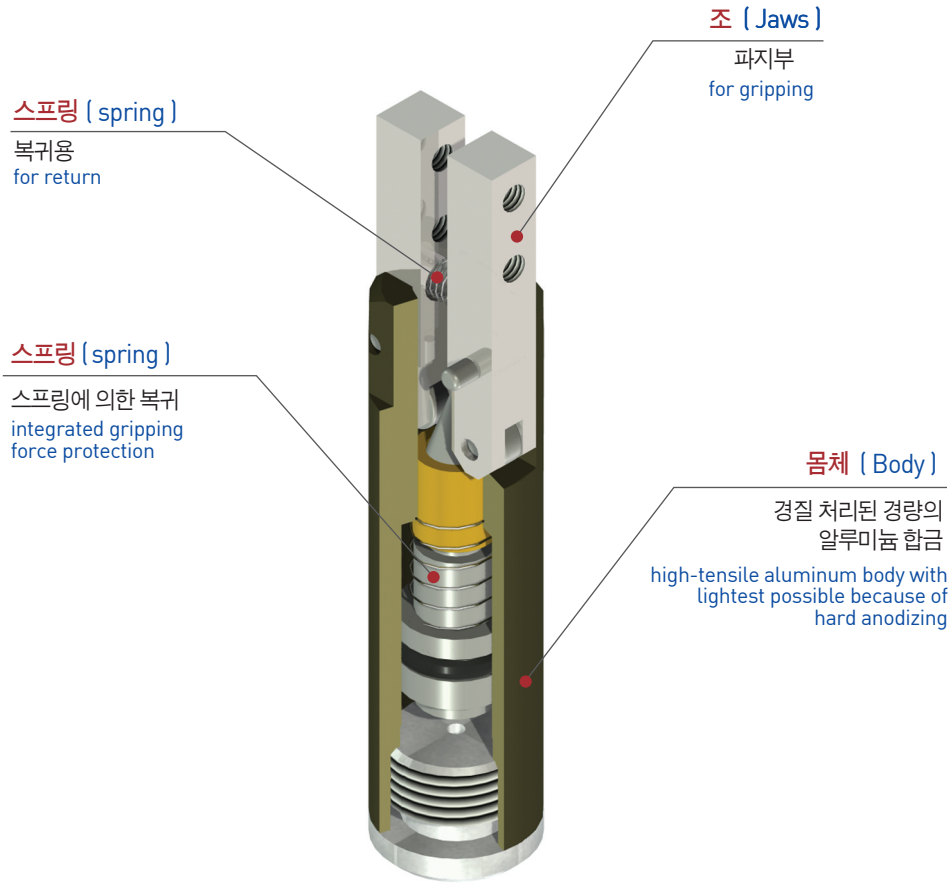
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

AF19-10

특징 (Character)

- 캠 롤러 방식의 초소형 각도개폐방식
  Angular type by cam & roller driving unit
- 본제품은 몸체의 원통부를 잡는방식으로 취부합니다.
  This type is to grip the body's cylinder part.
- 소형전자부품의 파지에 적합한 NORMAL OPEN의 빠른 응답성
  Suitable for gripping small electric parts.
- 마그네틱 센서 사용이 불가능
  Magnetic sensor is not available

캠 롤러 방식 (Cam roller type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.

AF101
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RAF56N
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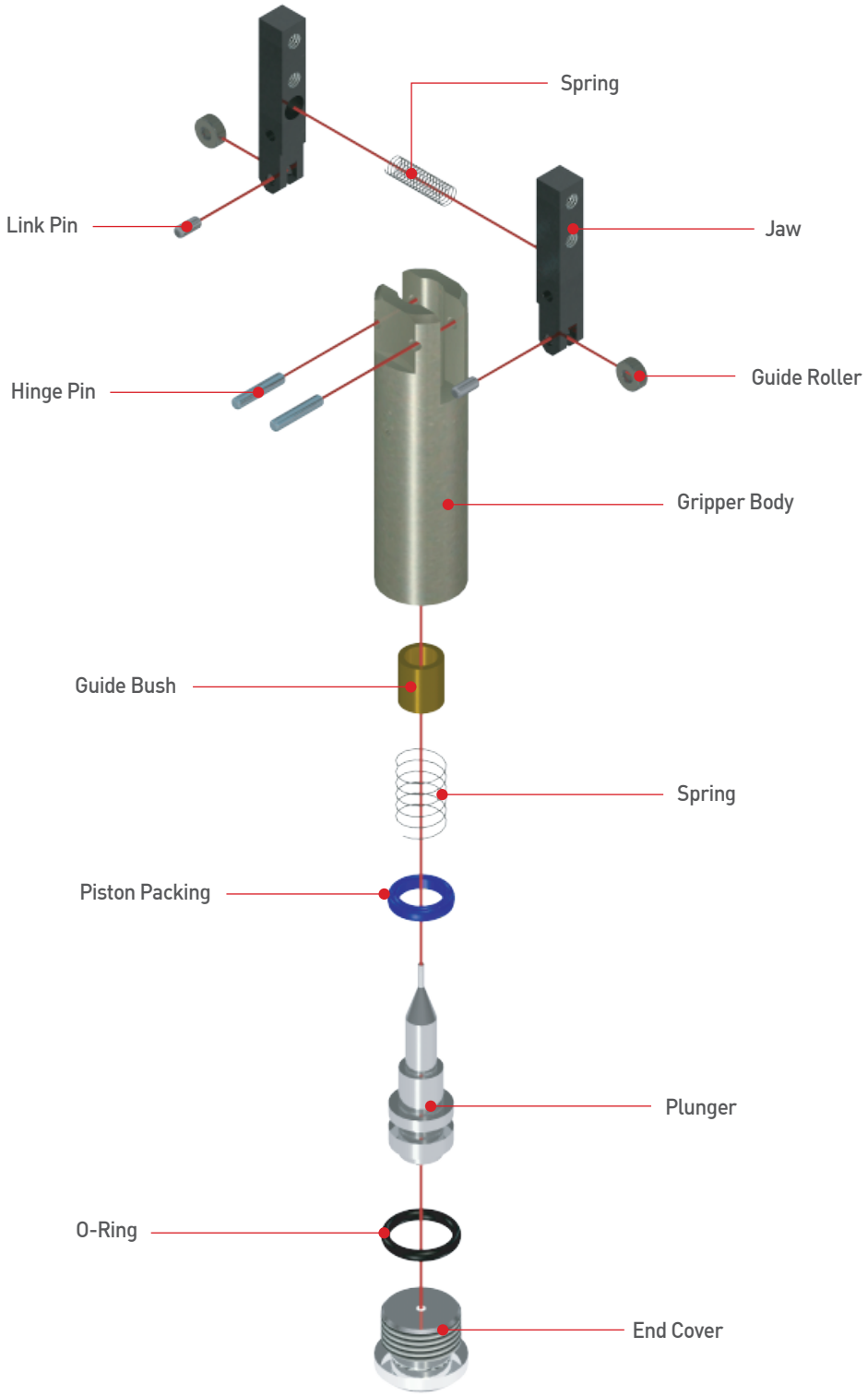


주문기호 (Ordering Code)

제품명 Product Name		실린더직경 Bore Size 10
AF19	-	10

제품사양 (Specification)

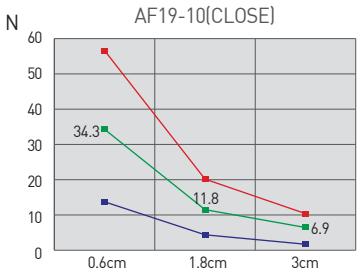
P=공기압력(bar) , L=작용점까지의 거리(mm)
P=Air Pressure(bar) , L=Exertion length(mm)

제품명칭 Products Name	AF19-10	단위 Unit
개폐범위 Working angle	-7 to 14	degree
제품중량 Weight	0.04	kg
최대치구길이 Max. length of attach	30	mm
배관접속구 Fitting size	M5	
파지력 : 열림시 Gripping force : Open	-	N
파지력 : 닫힘시 Gripping force : Close	5.9(P-1.5)/0.1L	
연속사용회수 Continuation usage amount	60	cpm
사용압력 Operation pressure	3 to 7	bar
주위온도 Ambient temperature	-5 to 60	℃
윤활 Lubrication	불필요 Needless	

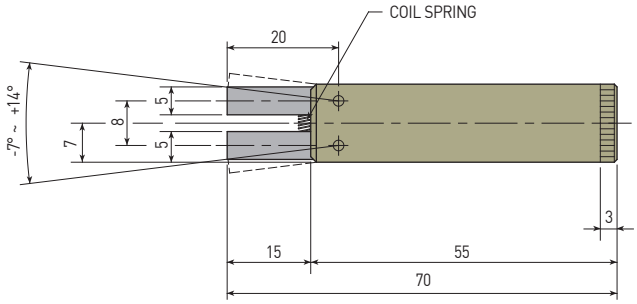
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

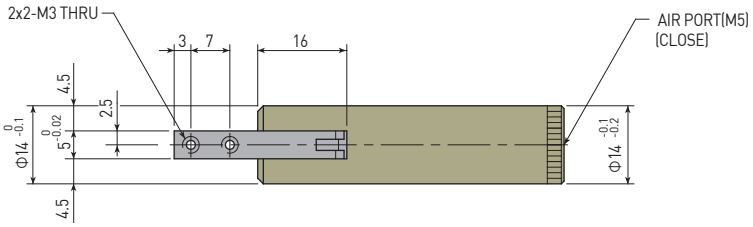
작용점에서의 파지력 (Gripping Force From a Point of Action)

범례 (Legend) : 7[bar] 5[bar] 3[bar]



AF19-10





NOTE

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AF105P
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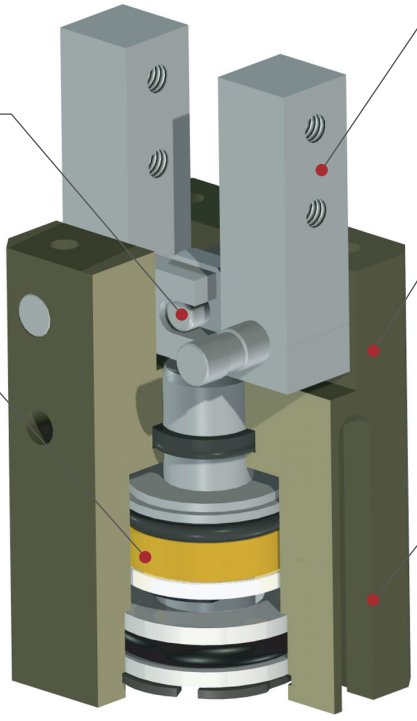
AF28D
AF30
AF30L
AF30SP
AF40
AF46
AF56N
RAF56N
MF16

AF24-12,16, 20, 30, 40

특징 (Character)

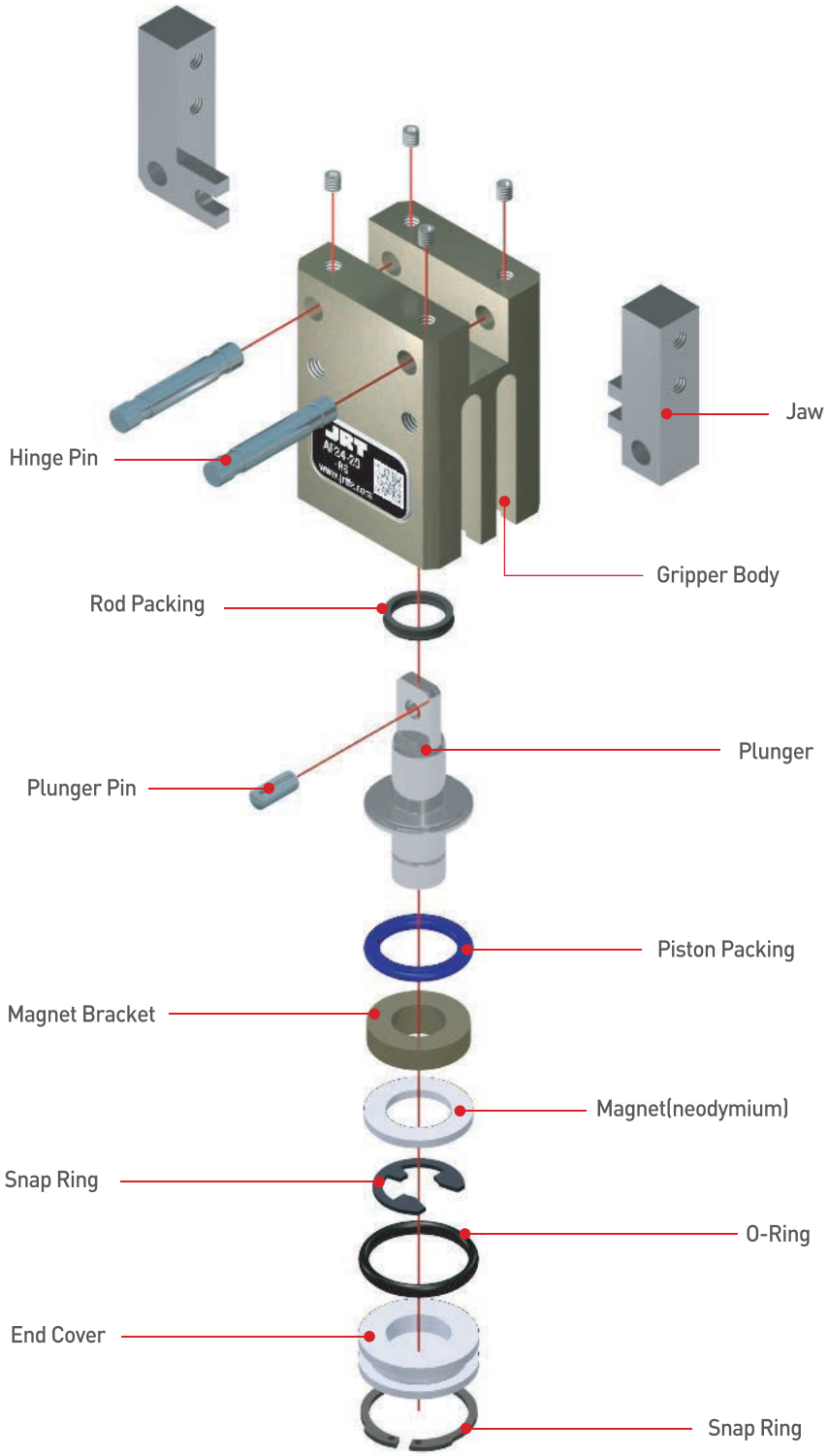
- 링크레버 구동방식의 각도개폐형 제품
  Angular type by link lever driving unit
- 각형 BODY형태로 3방향 취부가능
  Easy mounting to 3-direction (square type body)
- 개폐검출 센서 전기종 부착가능
  Magnetic sensor is available for open-close sensing Kinetics

링크레버 방식 (Link lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명
Product Name

실린더직경
Bore Size
12, 16, 20, 30, 40

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF24 - 20 - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

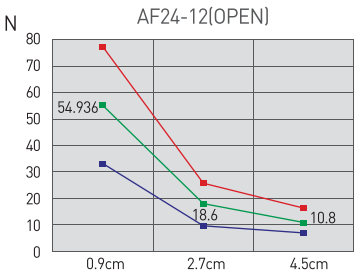
제품명칭 Products Name	AF24-12	AF24-16	AF24-20	AF24-30	AF24-40	단위 Unit
개폐범위 Stroke	-5 to 15	-5 to 15	-5 to 20	-5 to 20	-5 to 25	degree
제품중량 Weight	0.05	0.06	0.2	0.41	0.76	kg
최대치구길이 Max. length attach	45	60	70	85	120	mm
배관접속구 Fitting size	M5	M5	M5	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	9.81P/0.1L	19.62P/0.1L	36.3P/0.1L	110.85P/0.1L	234.46P/0.1L	N
파지력 : 닫힘시 Gripping force : Close	7.36P/0.1L	14.72P/0.1L	27.47P/0.1L	86.33P/0.1L	191.3P/0.1L	N
1사이클당 공기소모량 Air consumption per cycle	0.3	0.7	1.6	4.7	11.0	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.01/0.01	0.01/0.01	0.01/0.01	sec
반복정밀도 Repeat accuracy	0.03	0.03	0.03	0.03	0.03	mm
연속사용회수 Continuation usage amount	60	60	60	45	40	cpm
사용압력 Operating pressure	3~7					bar
주위온도 Ambient temperature	-5 to 60					℃
윤활 Lubrication	불필요 Needless					

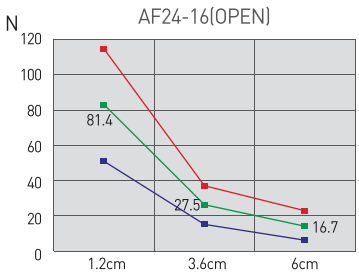
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

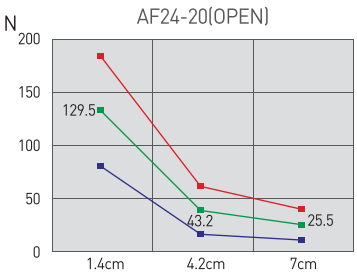
NOTE

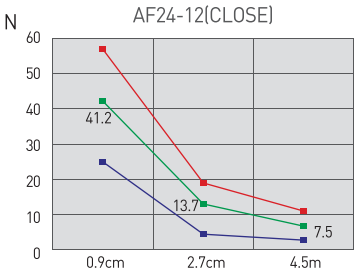
작용점에서의 파지력 (Gripping Force From a Point of Action)

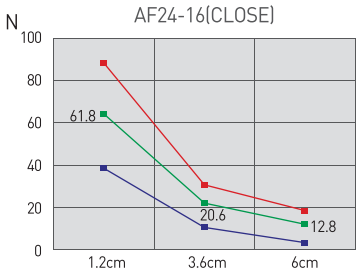
범례 (Legend) : 7[bar] 5[bar] 3[bar]

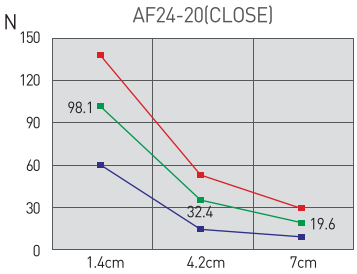


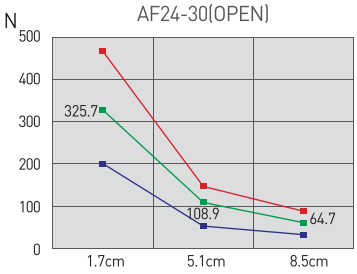


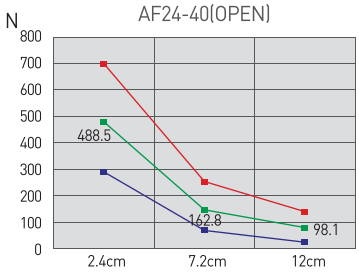


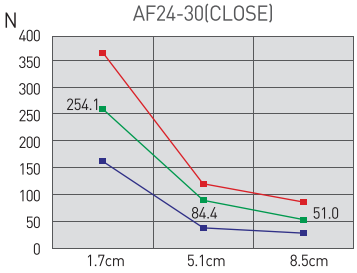


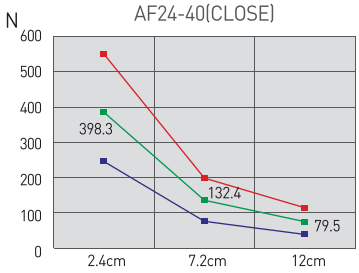




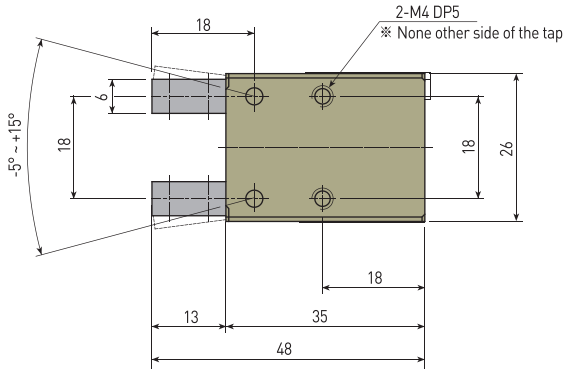


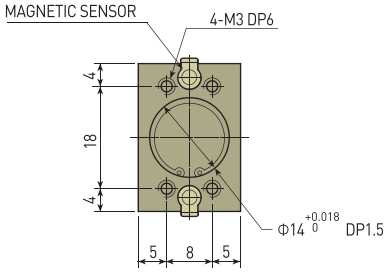


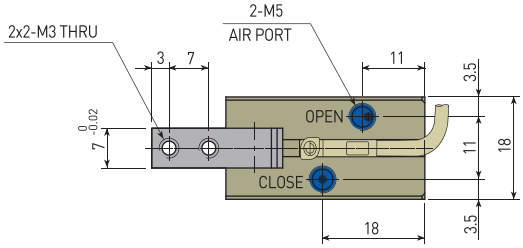




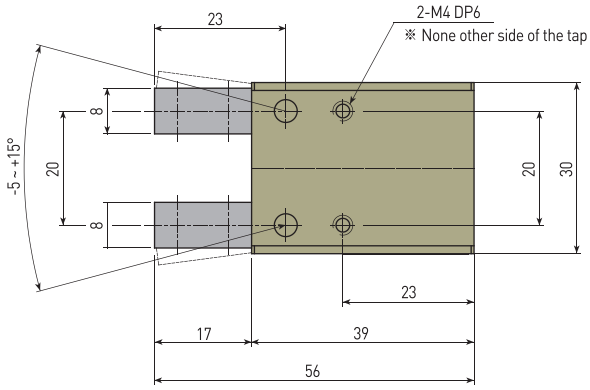
AF24-12

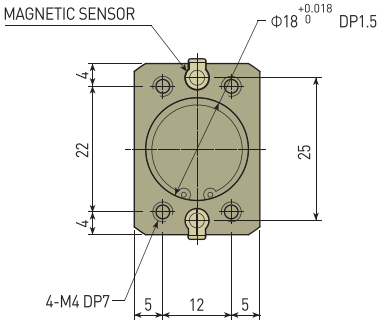


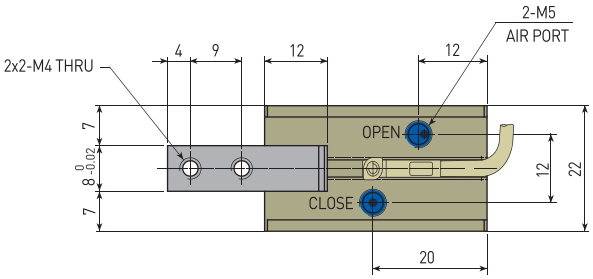




AF24-16







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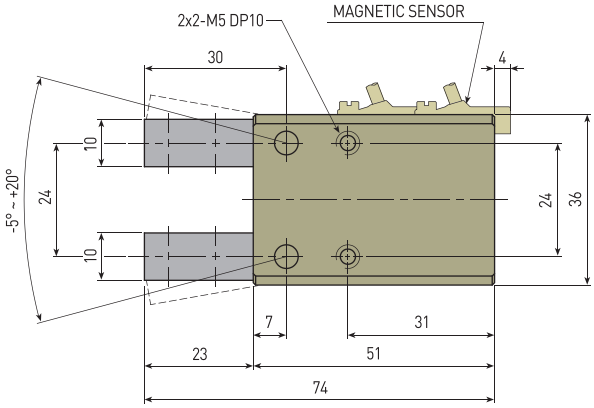
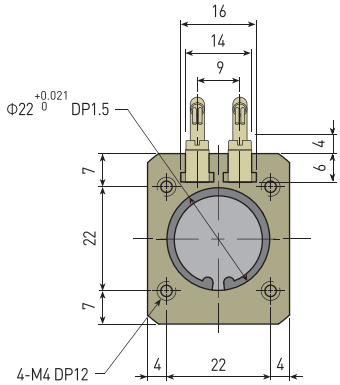
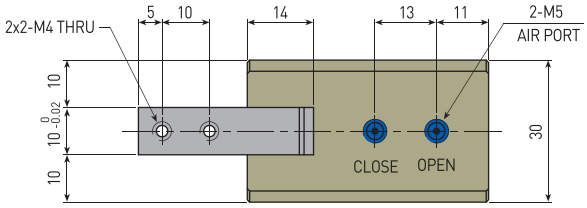
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

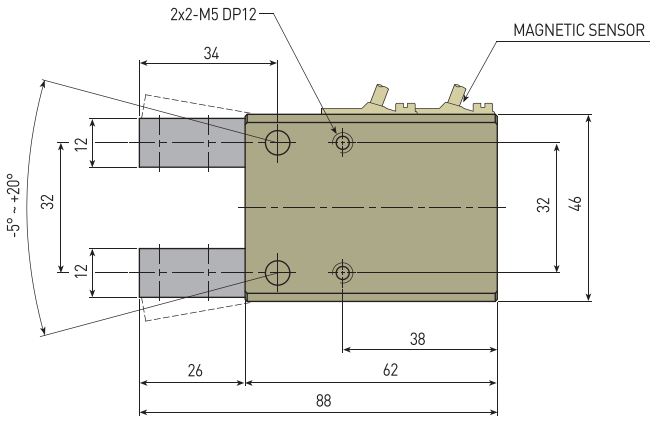
AF24-20

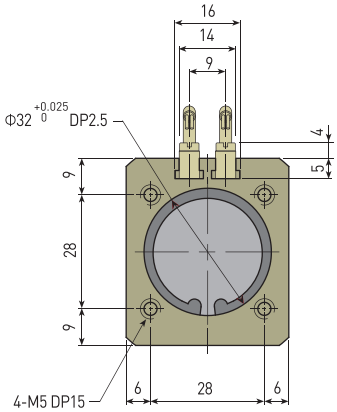


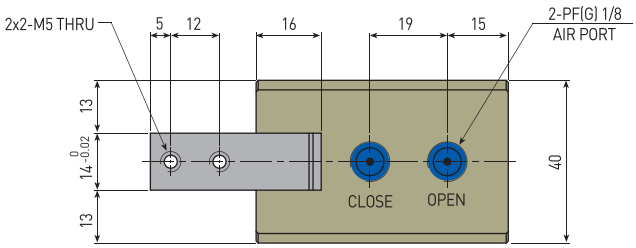




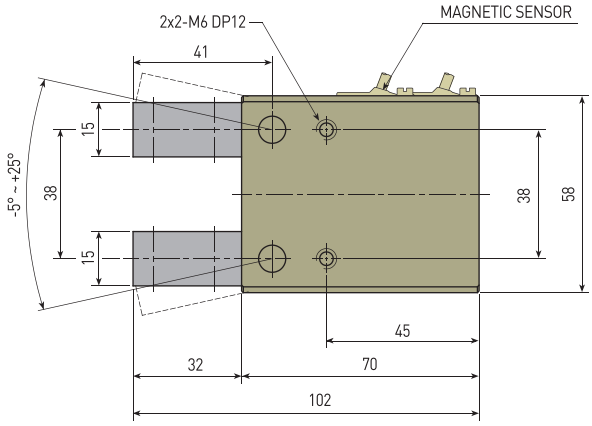
AF24-30

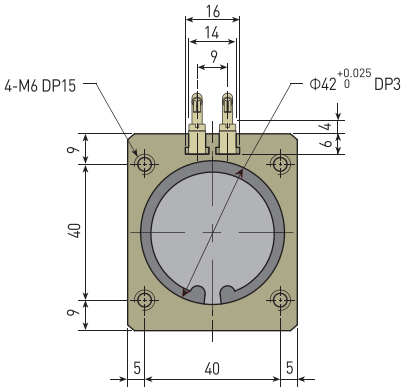


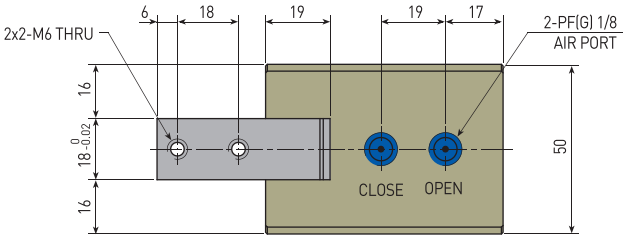




AF24-40


2x2-M6 DP12
MAGNETIC SENSOR
41
15
38
-5° ~ +25°
15
38
58
45
32
70
102


16
14
9
4-M6 DP15
Φ42 +0.025 0 DP3
4
6
9
40
9
5
40
5


2x2-M6 THRU
6
18
19
19
17
2-PF(G) 1/8
AIR PORT
16
18 0 -0.02
16
50
CLOSE
OPEN

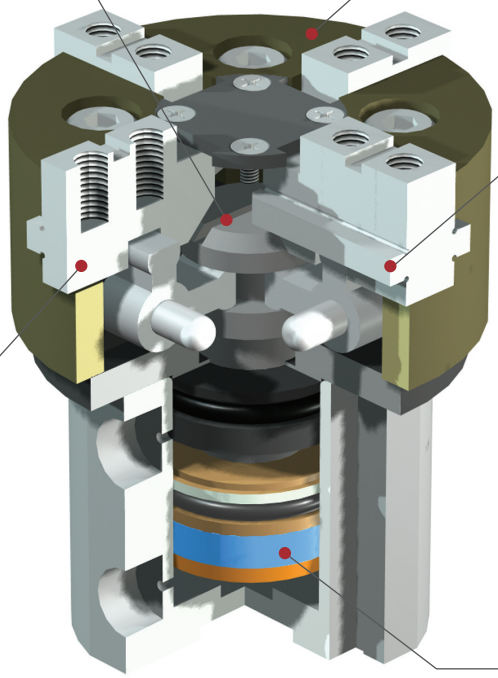
NOTE

AF26-16, 20, 25, 30, 40, 50, 63, 80, 100

특징 (Character)

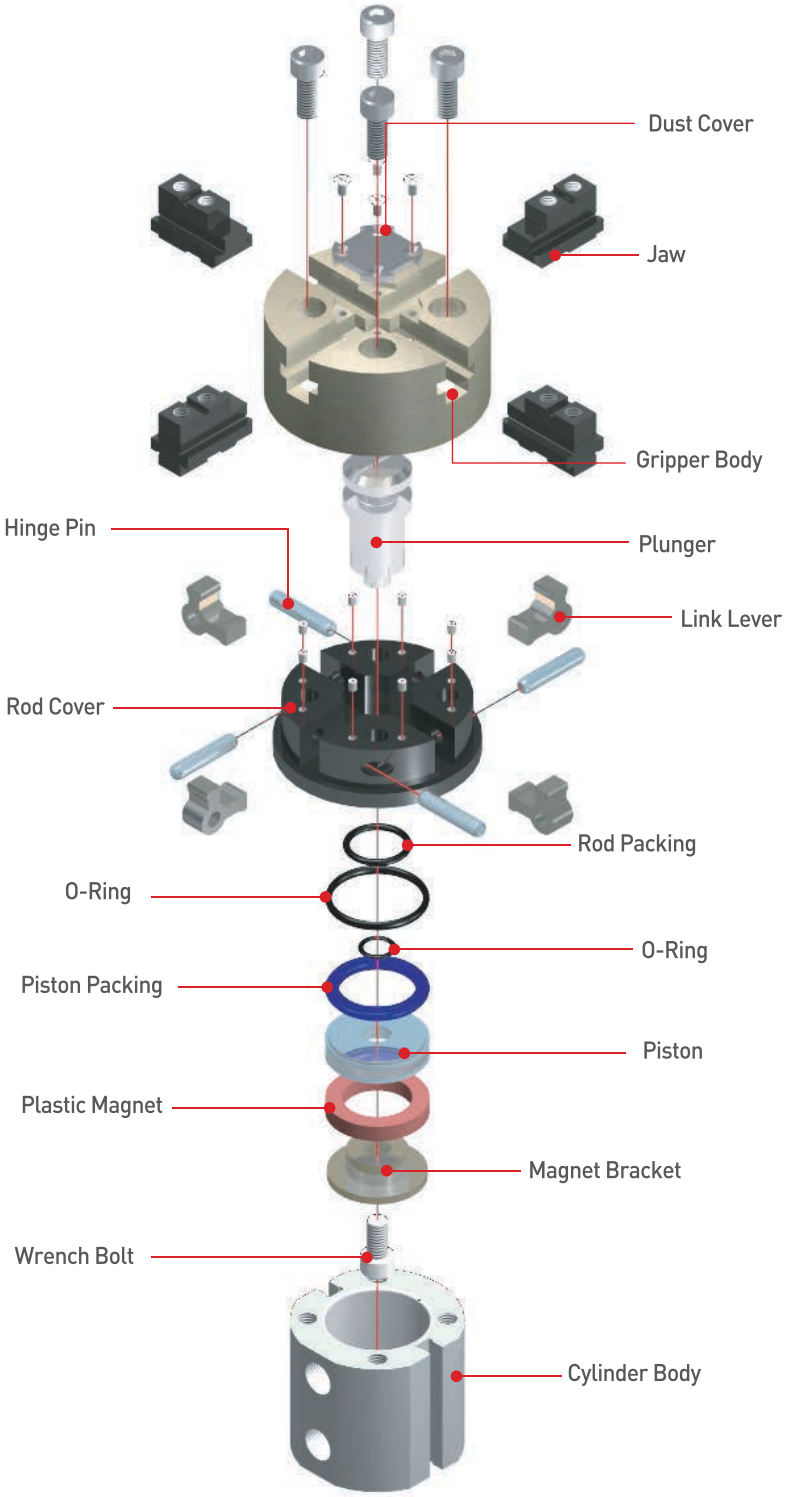
- 링크레버를 이용 실린더의 추력확대로 우수한 파지력
  Great gripping force by link lever
- Φ16~Φ100까지 풍부한 기종보유로 선택의 폭이 다양
  Wide and various selection possible by various size
- 링크레버 타입의 원형몸체구조의 그리퍼
  Link lever type gripper by the cylindrical structure
- 2,3,4 JAW의 다양한 모델
  Various type by 2,3,4 jaw
- 개폐검출용 마그네틱 센서 부착가능
  Magnetic sensor is available for open-close sensing

링크레버 방식 (Link lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)

제품명 Product Name	실린더직경 Bore Size	JAW형태 JAW Type		센서수량 Number of Sensor		
	16, 20, 25, 30, 40, 50, 63, 80, 100	A - 2 Jaw B - 3 Jaw C - 4 Jaw		1 - 1개 무기호 - 2개 1 - 1pc. Nil - 2pcs.		
AF26	- 20	A	- RS	1	- 3M	

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

※ 제품 중량은 B(3-Jaw) Type 기준입니다.
※ Weight is based on the B(3-Jaw) type.

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

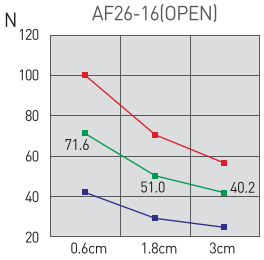
제품명칭 Products Name	AF26-16	AF26-20	AF26-25	AF26-30	AF26-40	단위 Unit
개폐범위 Stroke	6	8	12	12	20	mm
제품중량 Weight	0.21	0.32	0.51	0.63	1.59	kg
최대치구길이 Max. length attach	30	40	50	55	70	mm
배관접속구 Fitting size	M5	M5	M5	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	17.66P/(1+0.04L)	29.43P/(1+0.035L)	46.11P/(1+0.025L)	66.71P/(1+0.025L)	115.76P/(1+0.015L)	N
파지력 : 닫힘시 Gripping force : Close	13.73P/(1+0.04L)	22.56P/(1+0.035L)	37.28P/(1+0.025L)	49.05P/(1+0.025L)	87.31P/(1+0.015L)	N
1사이클당 공기소모량 Air consumption per cycle	1.1	2.9	6.9	9.7	30.8	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.01/0.01	0.02/0.02	0.02/0.02	0.03/0.04	sec
반복정밀도 Repeat accuracy	0.03	0.03	0.03	0.03	0.03	mm
연속사용회수 Continuation usage amount	60	60	60	50	50	cpm
사용압력 Operating pressure	3~7					bar
주위온도 Ambient temperature	-5 to 60					℃
윤활 Lubrication	불필요 Needless					

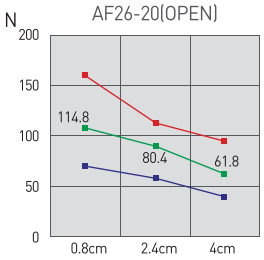
제품명칭 Products Name	AF26-50	AF26-63	AF26-80	AF26-100	단위 Unit
개폐범위 Stroke	20	26	30	42	mm
제품중량 Weight	2.12	3.44	4.9	8.01	kg
최대치구길이 Max. length attach	80	100	130	150	mm
배관접속구 Fitting size	PF(G) 1/8	PF(G) 1/8	PF(G) 1/8	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	163.8P/(1+0.015L)	229.6P/(1+0.013L)	384.6P/(1+0.01L)	560.2P/(1+0.008L)	N
파지력 : 닫힘시 Gripping force : Close	135.4P/(1+0.015L)	194.2P/(1+0.013L)	338.4P/(1+0.01L)	384.6P/(1+0.008L)	N
1사이클당 공기소모량 Air consumption per cycle	48.1	109.1	219.9	442.5	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.03/0.04	0.06/0.08	0.15/0.20	0.30/0.35	sec
반복정밀도 Repeat accuracy	0.03	0.03	0.03	0.03	mm
연속사용회수 Continuation usage amount	40	40	30	30	cpm
사용압력 Operating pressure	3~7				bar
주위온도 Ambient temperature	-5 to 60				℃
윤활 Lubrication	불필요 Needless				

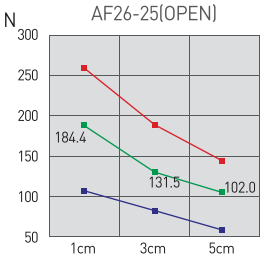
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

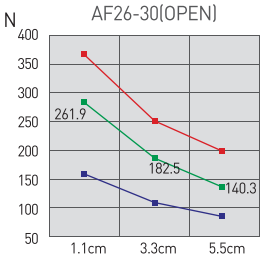
작용점에서의 파지력 (Gripping Force From a Point of Action)

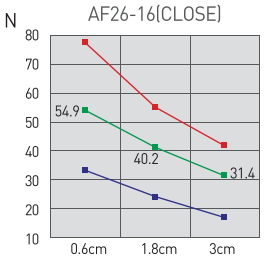
범례(Legend) : 7[bar] 5[bar] 3[bar]

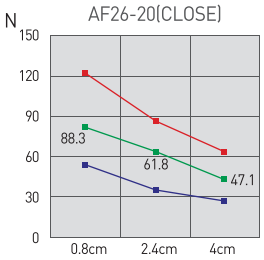


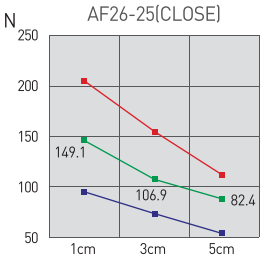


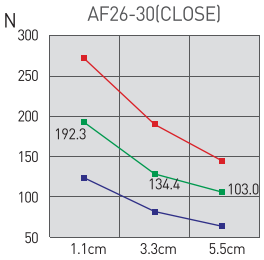


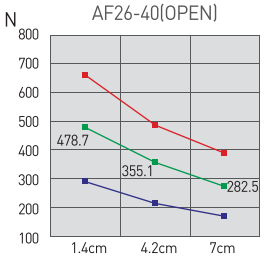


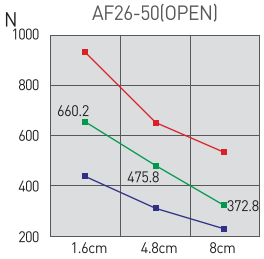


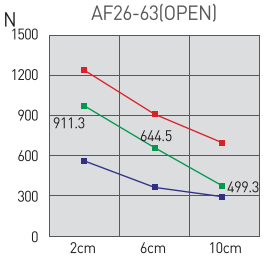


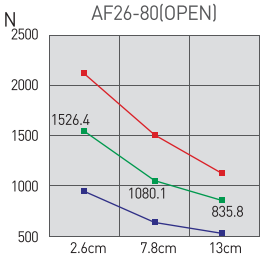


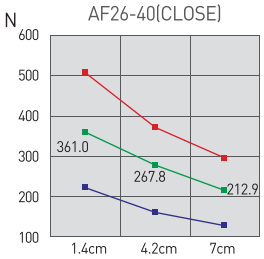


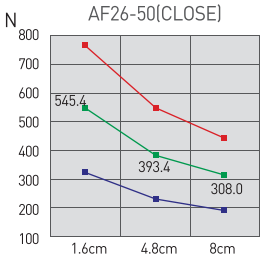


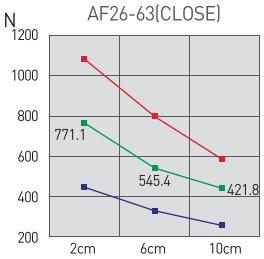


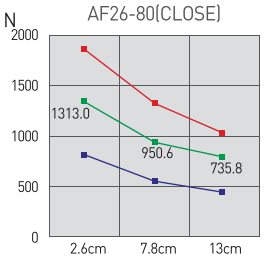


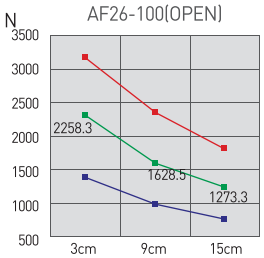


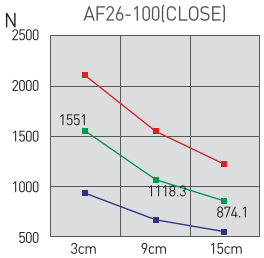




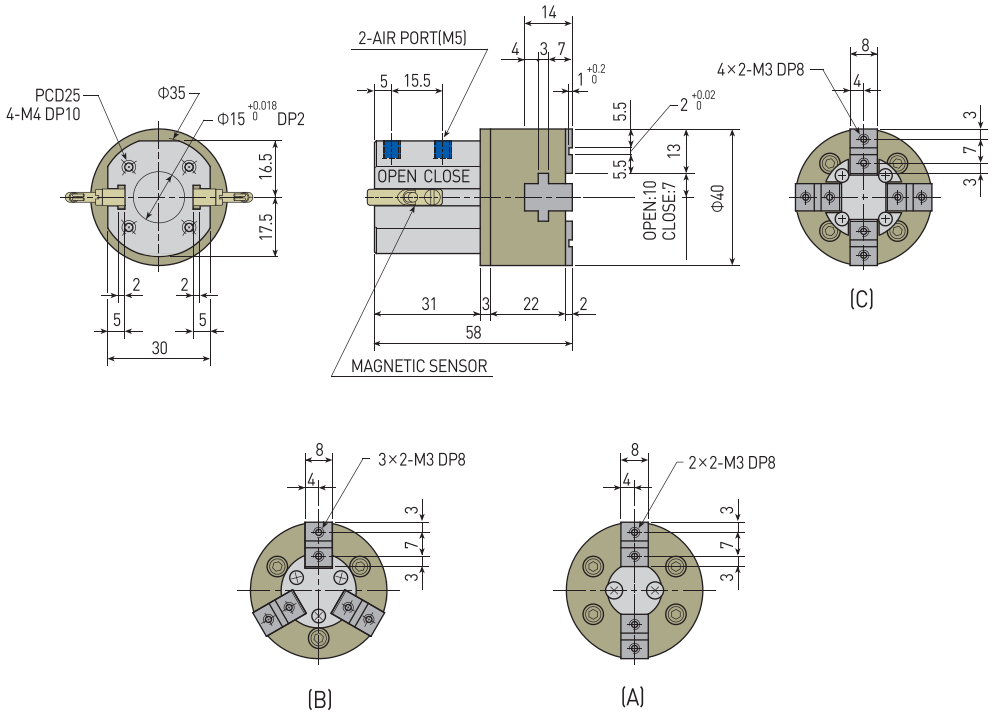




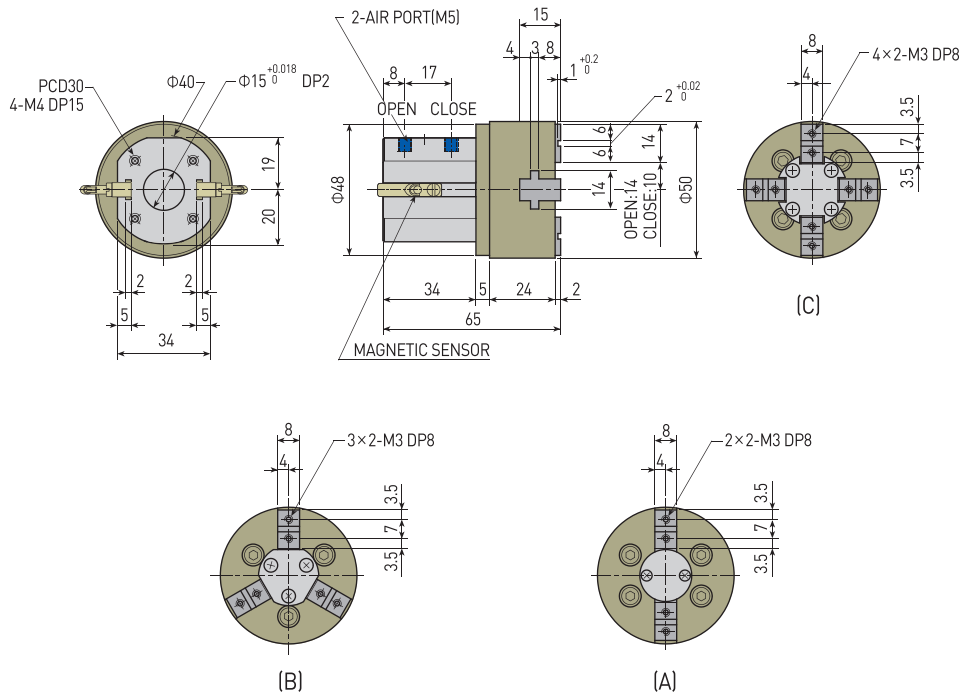




AF26-16

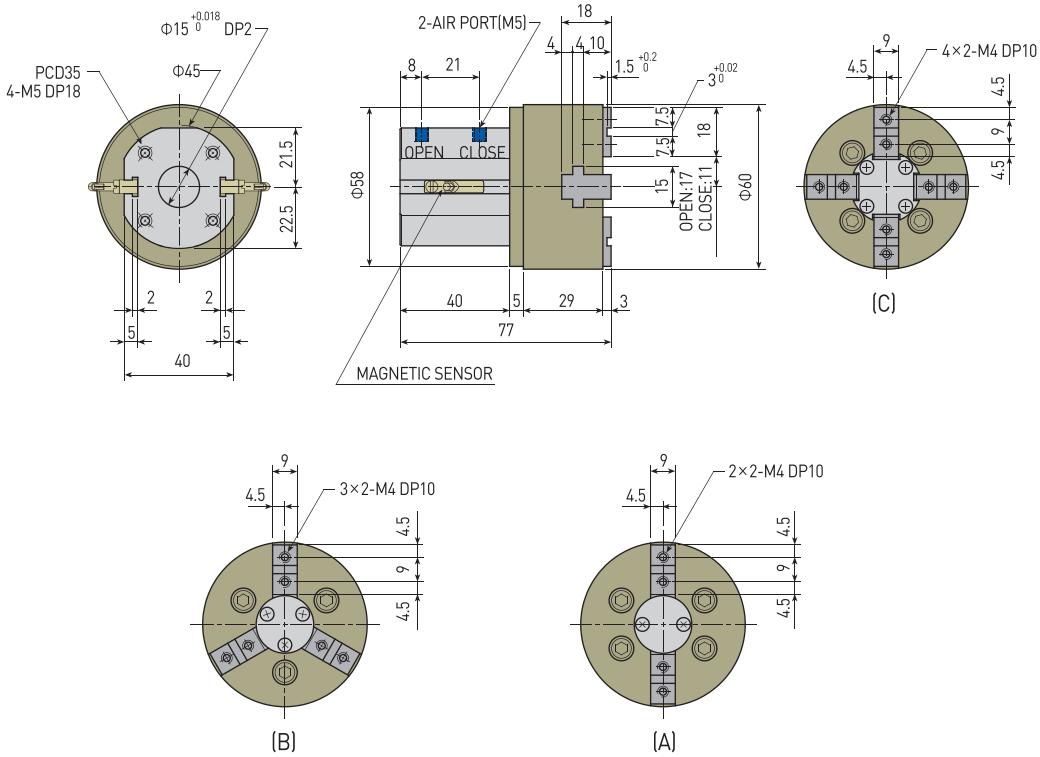


AF26-20

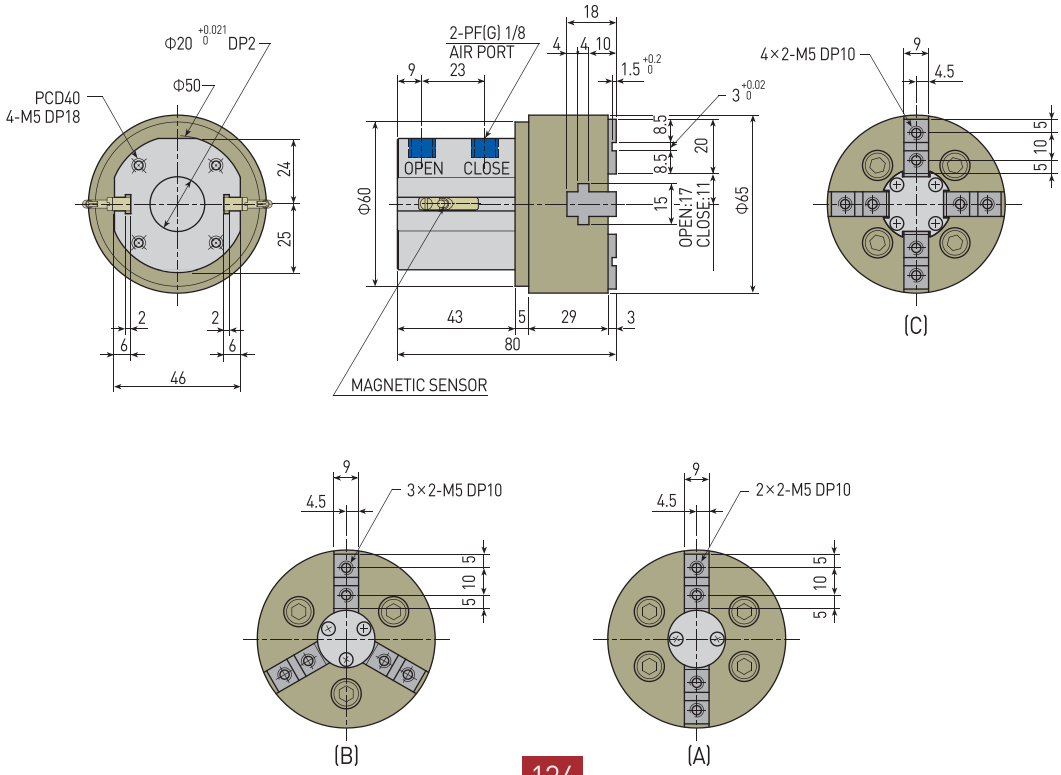


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

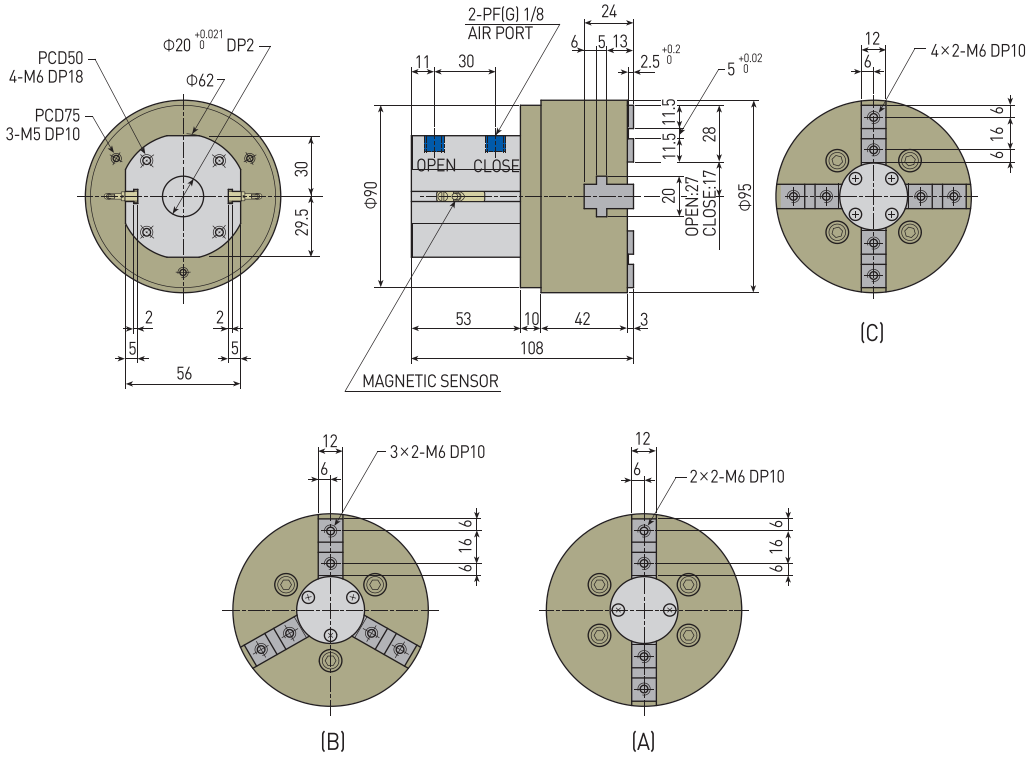
AF26-25



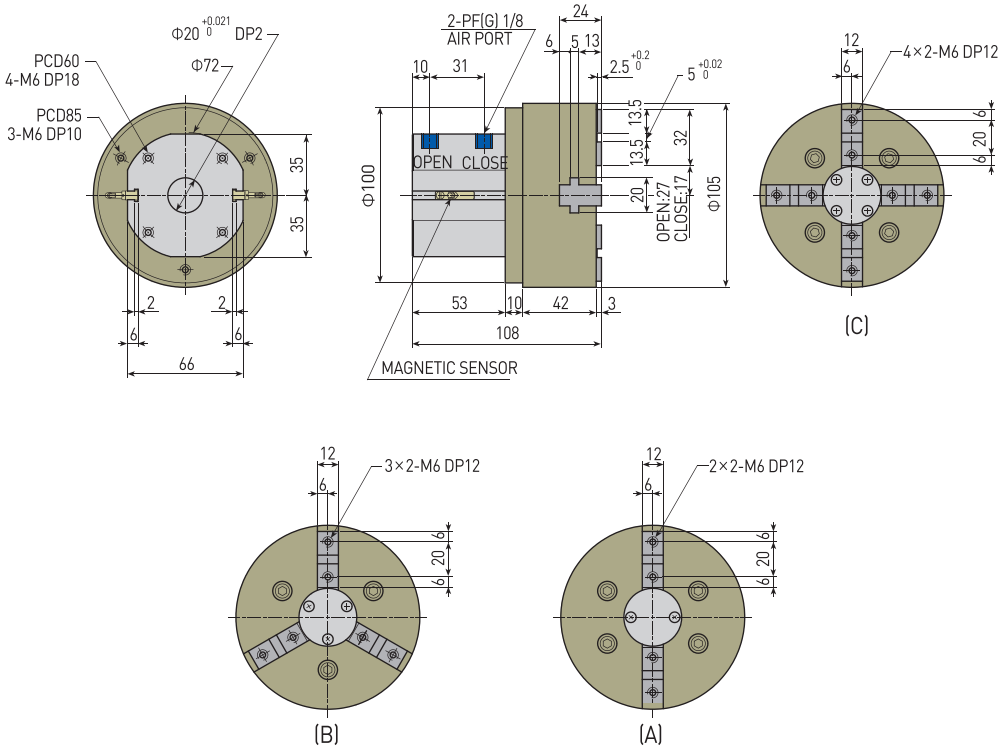
AF26-30



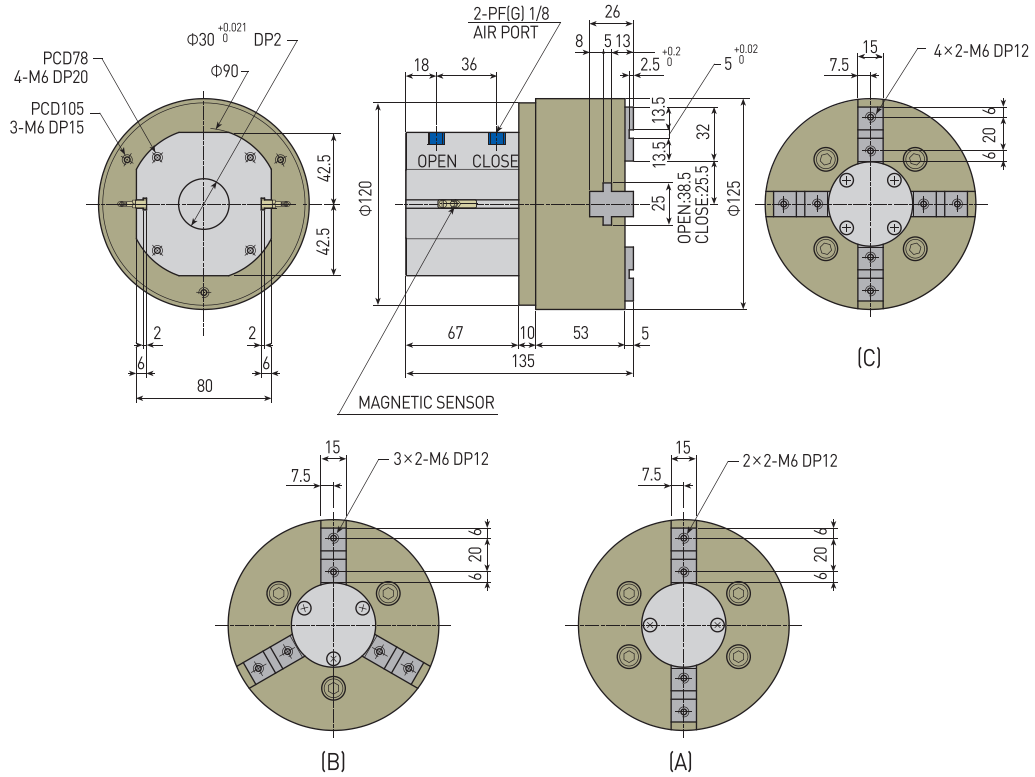
AF26-40



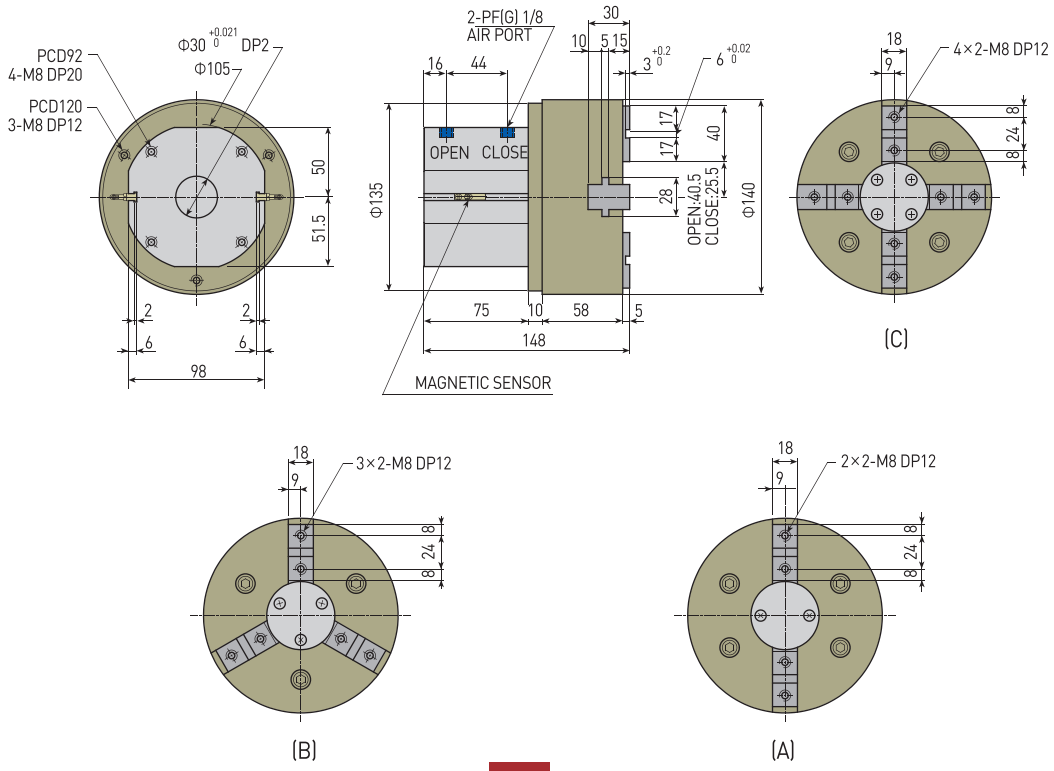
AF26-50



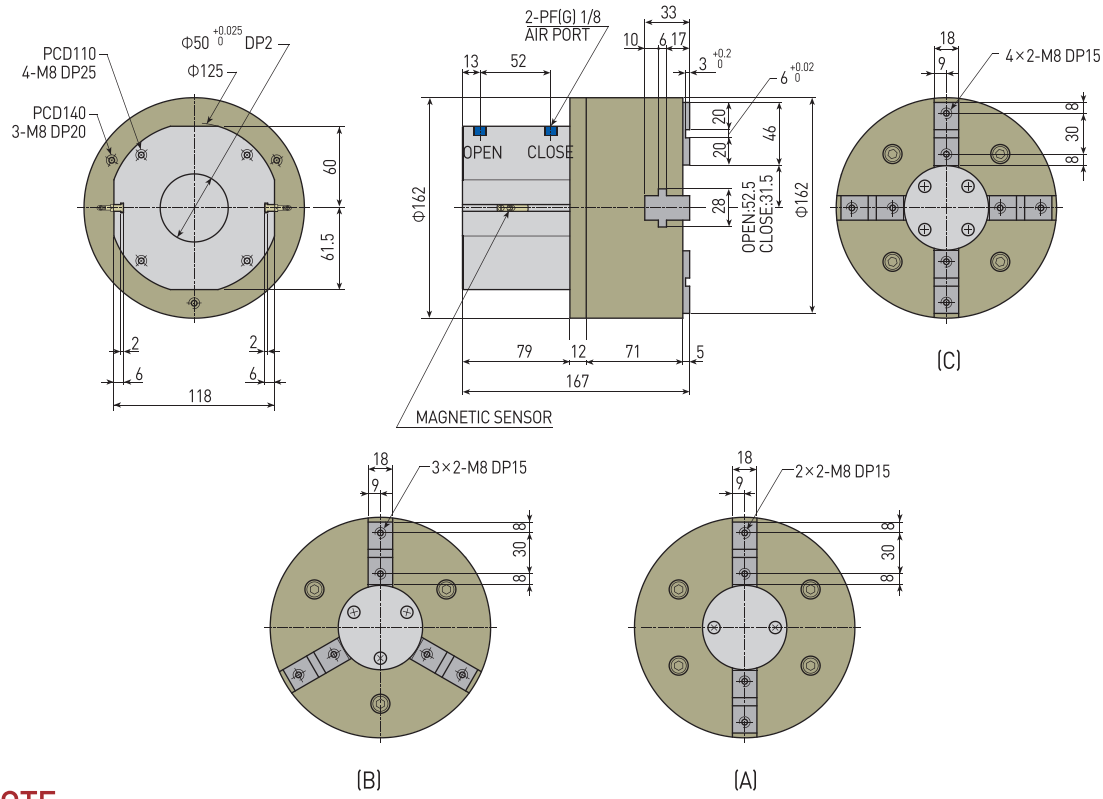
AF26-63



AF26-80



AF26-100



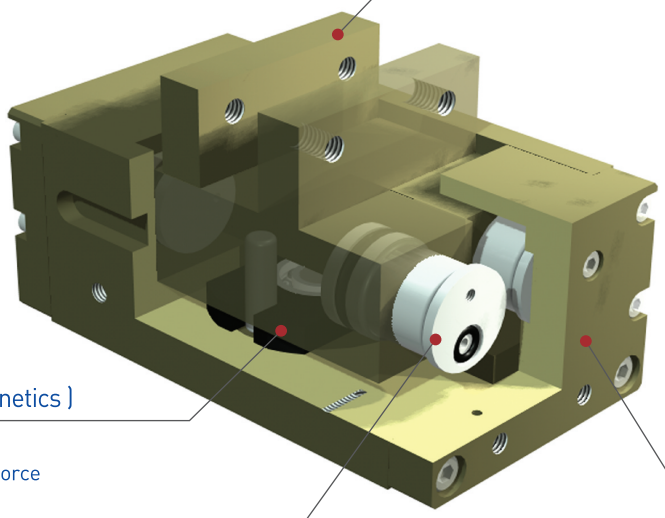
NOTE

AF28D-10, 14, 16, 20, 30

특징 (Character)

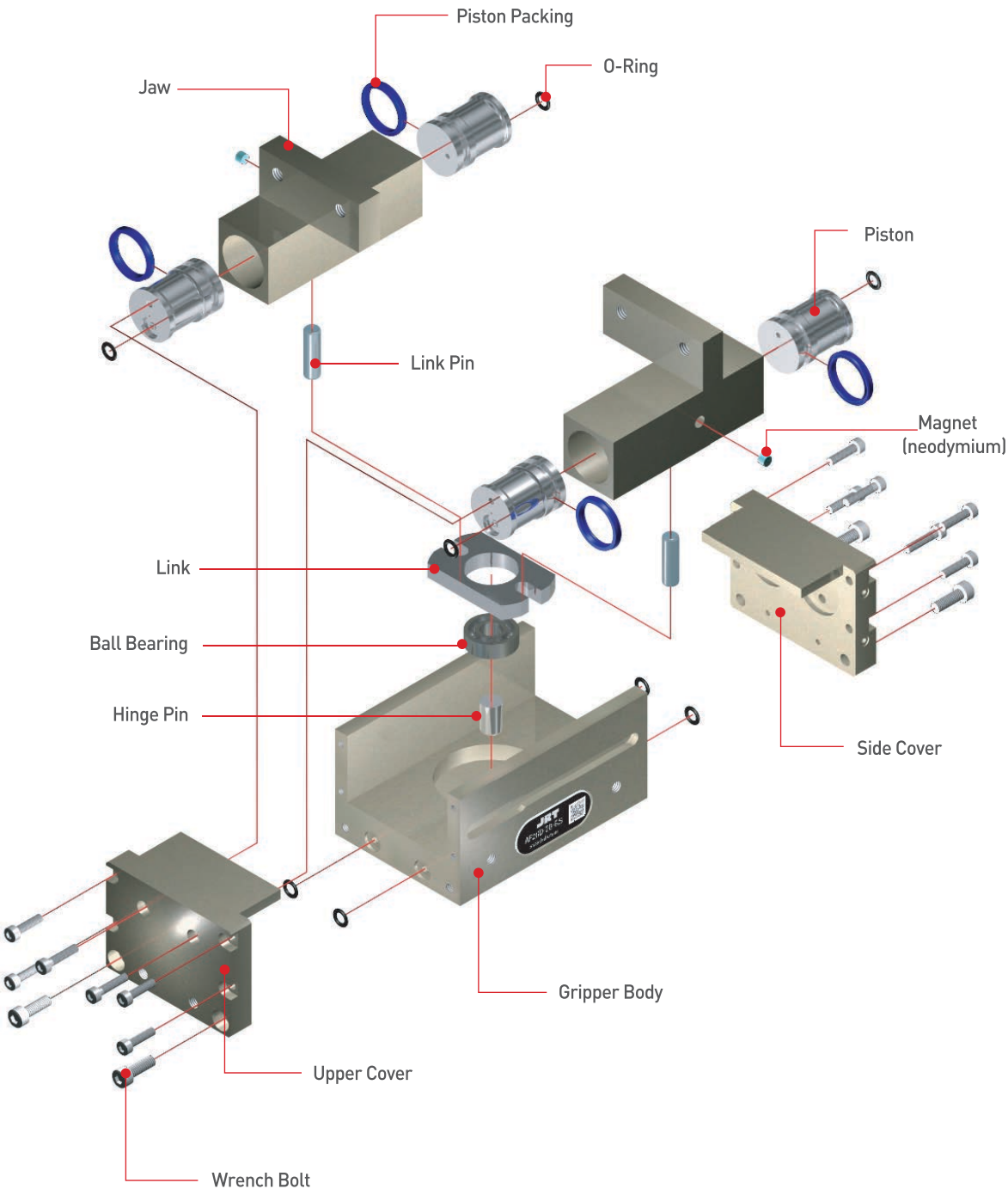
- Dual piston구조로 파지력 극대화
  High gripping forces by the structure of synchronized dual piston
- Piston, Body의 알루미늄화로 초소형, 경량화 실현
  Body & parts made of aluminium alloy-Compact & Light weight gripper
- DUST COVER 일체화로 이물질 혼입방지 가능
  A dust cover to prevent coarse particle
- 개폐 검출용 마그네틱 센서 부착가능
  Magnetic sensor is available for open-close sensing

링크레버 방식 (Link lever type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)

제품명 Product Name		실린더직경 Bore Size 10, 14, 16, 20, 30			센서수량 Number of Sensor 1 - 1개 무기호 - 2개 1 - 1pc. Nil - 2pcs.		
AF28D	-	30	-	RS	1	-	3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다.
RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

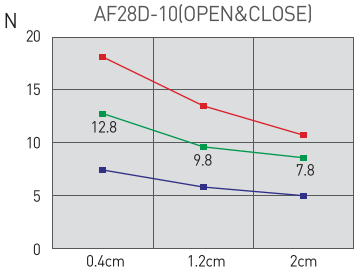
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

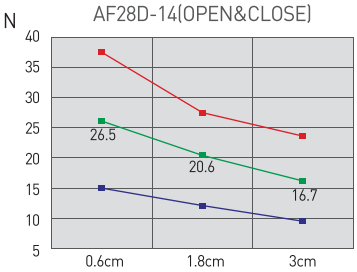
제품명칭 Products Name	AF28D-10	AF28D-14	AF28D-16	AF28D-20	AF28D-30	단위 Unit
개폐범위 Stroke	15	20	24	30	36	mm
제품중량 Weight	0.19	0.3	0.42	0.8	1.57	kg
최대치구길이 Max. length attach	20	30	40	60	80	mm
배관접속구 Fitting size	M5	M5	M5	M5	M5	
파지력 : 열림시 Gripping force : Open	2.85P/(1+0.039L)	6.28P/(1+0.03L)	8.14P/(1+0.026L)	18.14P/(1+0.026L)	31.00P/(1+0.016L)	N
파지력 : 닫힘시 Gripping force : Close	2.85P/(1+0.039L)	6.28P/(1+0.03L)	8.14P/(1+0.026L)	18.14P/(1+0.026L)	31.00P/(1+0.016L)	N
1사이클당 공기소모량 Air consumption per cycle	2.4	6.2	9.7	18.8	50.9	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.02/0.02	0.03/0.03	0.03/0.03	0.04/0.04	0.05/0.05	sec
반복정밀도 Repeat accuracy	0.03	0.03	0.03	0.03	0.03	mm
연속사용회수 Continuation usage amount	60	60	60	40	40	cpm
사용압력 Operating pressure	3~7					bar
주위온도 Ambient temperature	-5 to 60					℃
윤활 Lubrication	불필요 Needless					

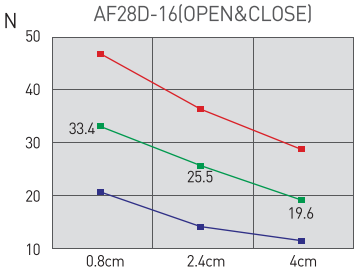
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

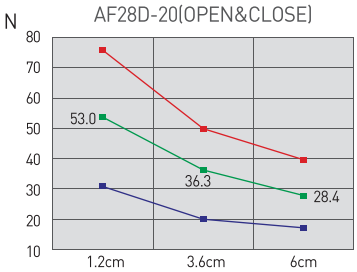
작용점에서의 파지력 (Gripping Force From a Point of Action)

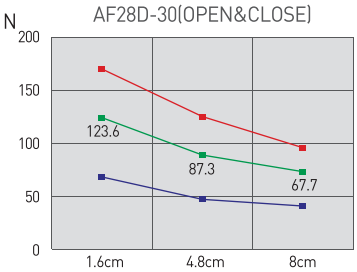
범례 (Legend) : 7[bar] 5[bar] 3[bar]





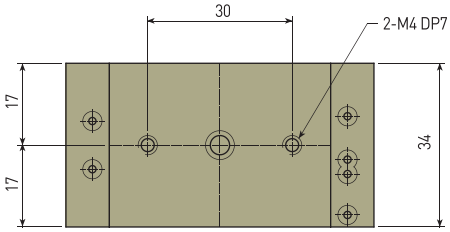


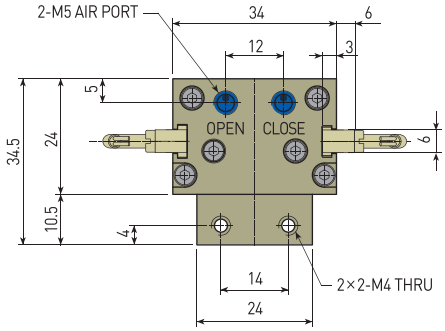


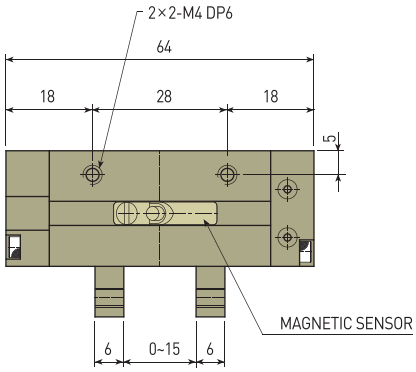


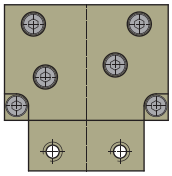
AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

AF28D-10

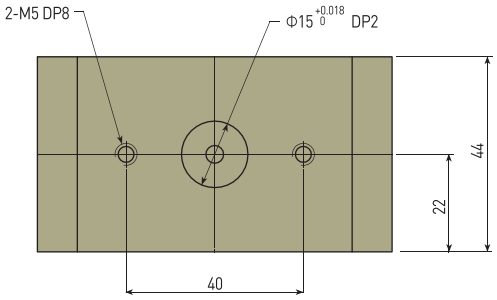


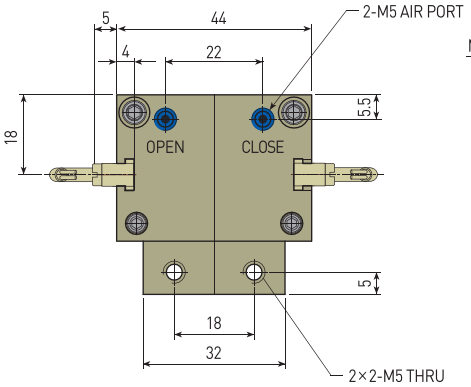


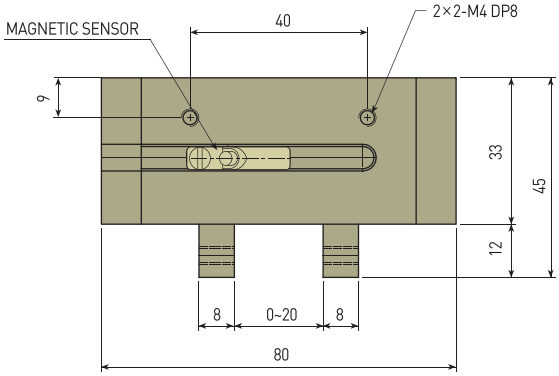




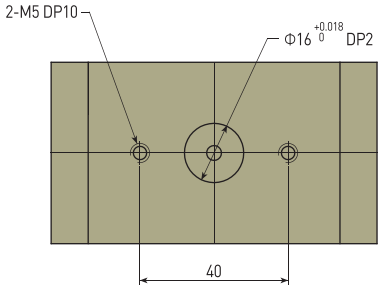
AF28D-14

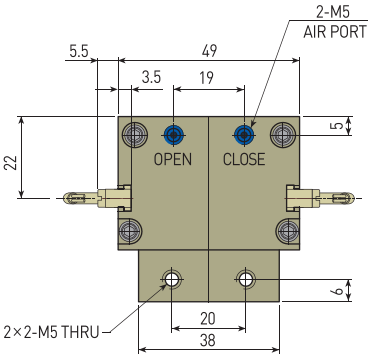


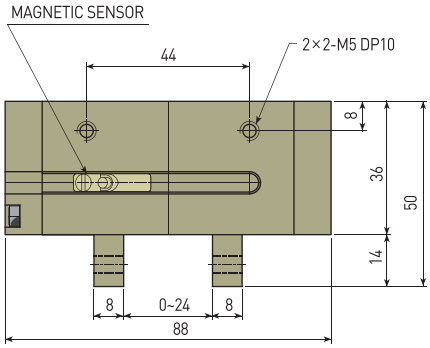




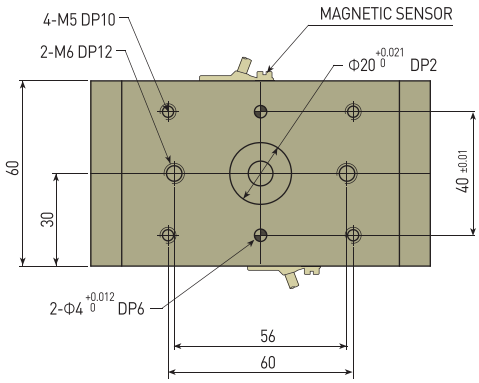
AF28D-16

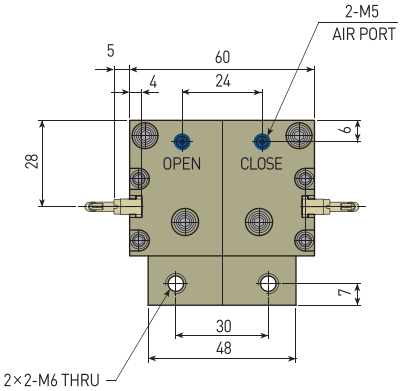


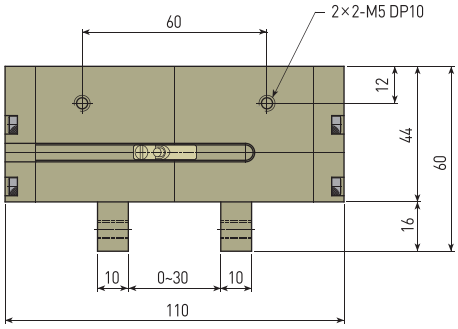




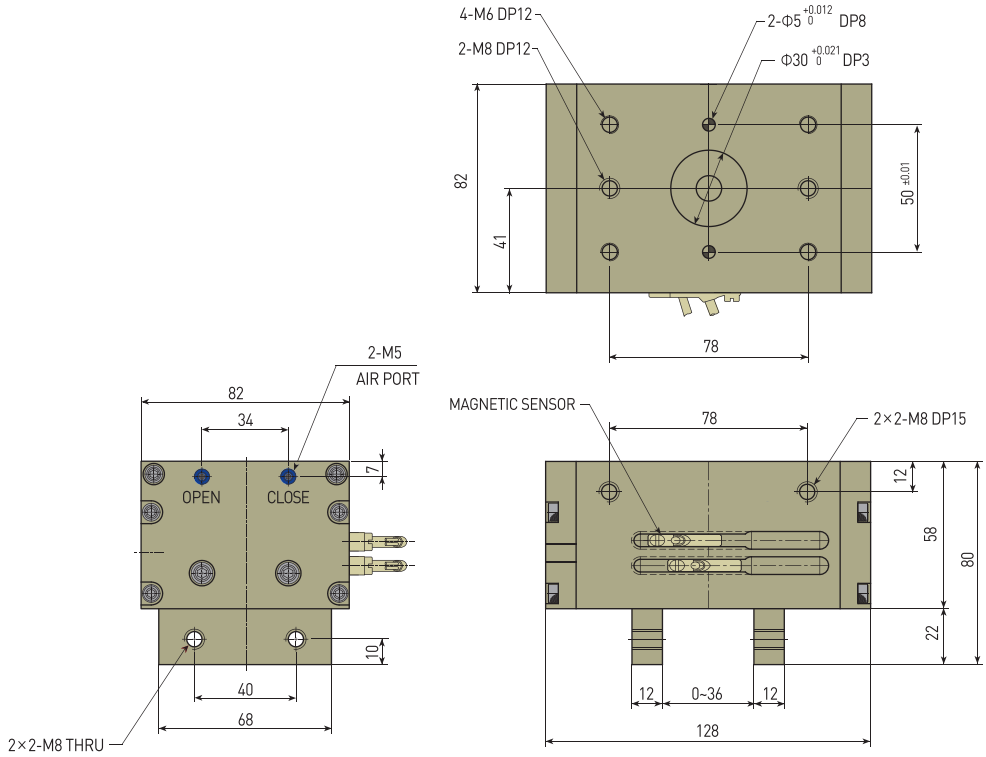
AF28D-20







AF28D-30

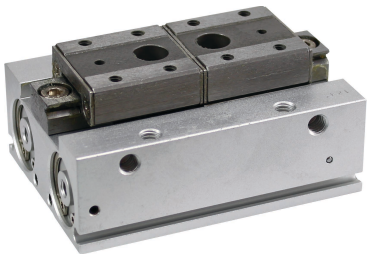


NOTE

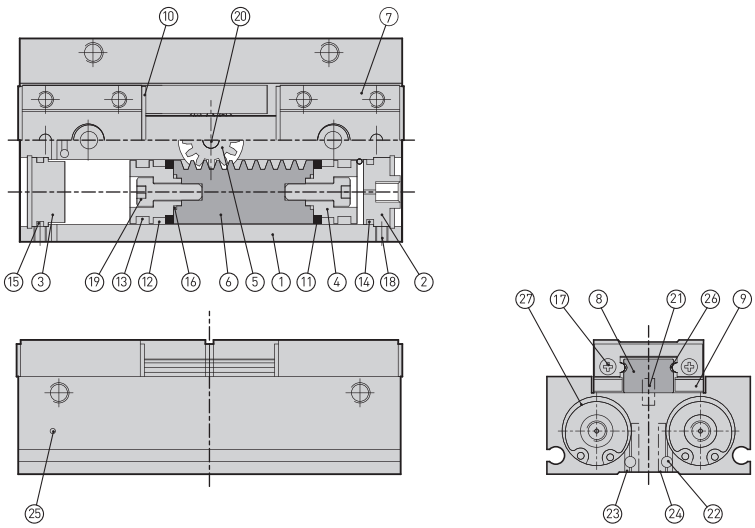
AF28DS-12, 16, 20

특징 (Character)

- Dual piston 구조로 파지력 극대화
  Double piston construction achieves strong gripping force.
- 초소형화로 공간 절약,모멘트 발생경감
  The low profile design saves space and reduces bending moments.
- 리니어 가이드의 흔들림 감소 효과도 정도 향상
  Linear guide provides high precision and rigidity
- 다양한 스트로크
  Diverse stroke
- 4방향 설치가능
  Possible to mount for 4 side



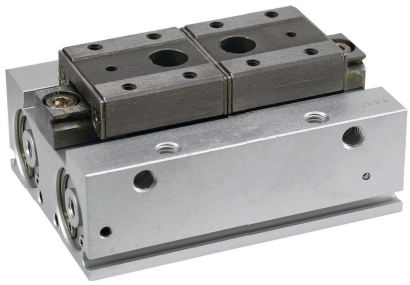
내부구조도 (Construction)



| 부재명칭 및 재료표 | Components and Material list

번호 Number	부품명 Part Name	재질 Material	번호 Number	부품명 Part Name	재질 Material
1	몸체 Body	알루미늄합금 Aluminum alloy	15	백커버 오링 End cover O-ring	NBR
2	헤드커버 Front cover	알루미늄합금 Aluminum alloy	16	피스톤 오링 Piston O-Ring	NBR
3	백커버 End cover	알루미늄합금 Aluminum alloy	17	스크류 Screw	합금강 Alloy steel
4	피스톤 Piston	알루미늄합금 Aluminum alloy	18	스크류 Screw	합금강 Alloy steel
5	기어 로드 Gear rod	세미스틸 Middle carbon steel	19	피스톤 스크류 Piston screw	합금강 Alloy steel
6	래크 Gear rack	스테인리스강 Stainless steel	20	기어핀 Gear pin	베어링강 Bearing steel
7	슬라이드 테이블 Slide table	스테인리스강 Stainless steel	21	슬라이드 레일 핀 Slide rail pin	베어링강 Bearing steel
8	슬라이드 레일 Slide rail	스테인리스강 Stainless steel	22	스틸볼 Steel ball	스테인리스강 Stainless steel
9	롤러가이드 Roller guide	스테인리스강 Stainless steel	23	스틸볼 Steel ball	스테인리스강 Stainless steel
10	롤러막이 Roller stopper	스테인리스강 Stainless steel	24	스틸볼 Steel ball	스테인리스강 Stainless steel
11	자석 Magnet	REM	25	스틸볼 Steel ball	스테인리스강 Stainless steel
12	웨어링 Wear ring	POM	26	스틸볼 Steel ball	스테인리스강 Stainless steel
13	피스톤 패킹 Piston packing	NBR	27	스냅링 Snap ring	스프링강 Spring steel
14	오링 O-Ring	NBR			

주문기호 (How to order)



제품명 Product Name		실린더직경 Bore Size		행정 Stroke		센서명칭 Sensor Type	센서수량 Number of Sensor	센서 선 길이 Sensor Cable Length
AF28DS	-	12	-	12	-	RS	1	3M

제품명 / Product Name

AF28DS

실린더직경 / Bore Size

12, 16, 20

행정 / Stroke

12 : 12, 24, 48
16 : 16, 32, 64
20 : 20, 40, 80

센서수량 / Number of Sensor

1 - 1개
무기호 - 2개

1 - 1pc.
Nil - 2pcs.

센서명칭 / Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이 / Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

제품명칭 Products Name	AF28DS 12-12	AF28DS 12-24	AF28DS 12-48	AF28DS 16-16	AF28DS 16-32	AF28DS 16-64	AF28DS 20-20	AF28DS 20-40	AF28DS 20-80	단위 Unit
개폐범위 Stroke	12	24	48	16	32	64	20	40	80	mm
제품중량 Weight	0.14	0.2	0.3	0.34	0.44	0.68	0.66	0.88	1.34	kg
배관접속구 Fitting size	M5	M5	M5	M5	M5	M5	M5	M5	M5	
조 1개당 파지력 Gripping force per 1 Jaw / 파지력 Gripping force	48	48	48	90	90	90	141	141	141	N
반복정밀도 Repeat accuracy	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	± 0.05	mm
연속사용회수 Continuation usage amount	100	100	60	100	100	60	100	100	60	c.p.m.
사용압력 Operating pressure	2~7	2~7	2~7	2~7	2~7	2~7	2~7	2~7	2~7	bar
주위온도 Ambient temperature	-10 to 60									℃
윤활 Lubrication	불필요 Needless									

* 파지력은 압력:5bar, 파지점:20mm, 스트로크 중심에서의 기준값입니다.
Gripping force is based on Air pressure : 5 Bar / Gripping point : 20 mm

NOTE

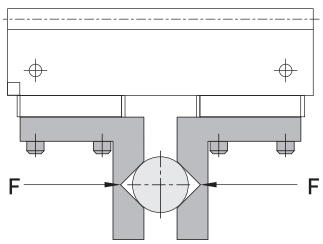
기종선정방법 (How to select)

■ 제품선정 Selection Procedure

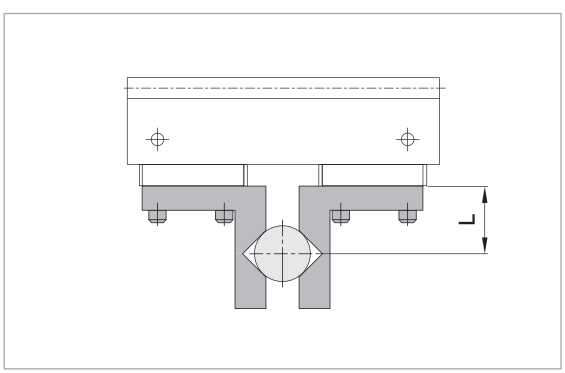
1. 실효파지력 확인 Selection Procedure
2. 파지점 확인 Confirm gripping point
3. 조에 가해지는 외력 확인 Confirm external force on fingers

■ 순서 1 Step1

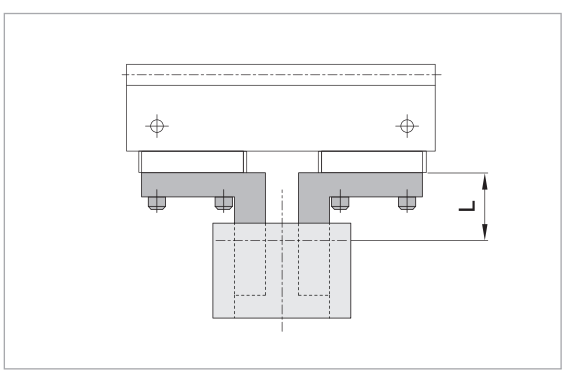
- 실효 파지력 확인 : AF28DS Series
- 실효 파지력의 계산
- Confirm gripping force : AF28DS series
- Expressing the effective gripping force

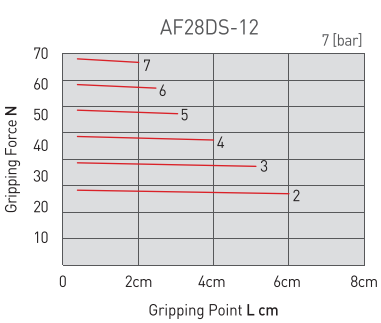


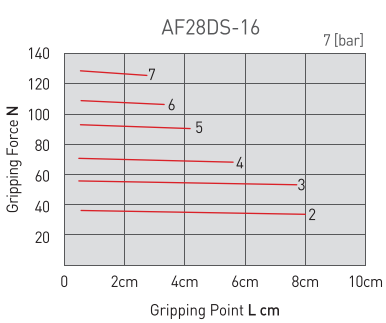
■ 외경파지상태 External gripping

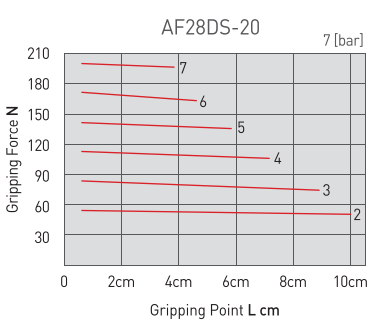


■ 내경파지상태 Internal gripping







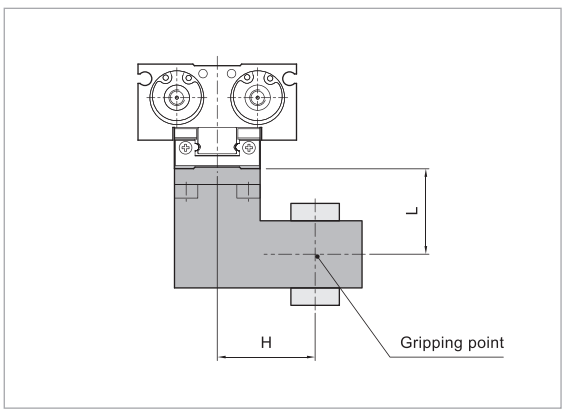


■ 순서 ❷ Step 2

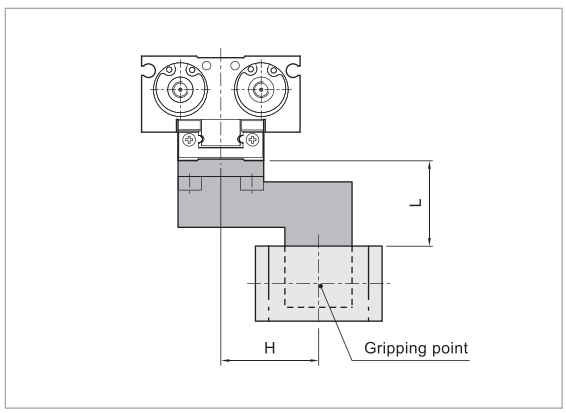
- 파지점 확인 : **AF28DS Series**
- 워크의 파지점은 사용압력별로 오버행량 : H 가 아래 그림의 범위 내가 되도록 사용하십시오.
- 워크의 파지점은 제한범위를 벗어나면 그리퍼 수명에 악영향을 미치는 원인이 됩니다.

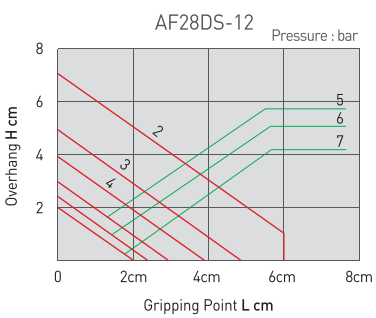
- Confirmation of the gripping position : **AF28DS series**
- The gripping position of a workpiece should be operated so that the amount of overhang (H) will stay the range given in the graphs below.
- If the gripping position of a workpiece over the range limits, this will have an adverse effect on the life of the gripper

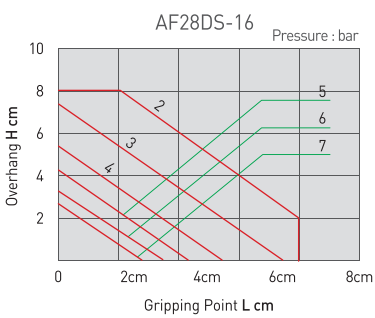
■ 외경파지상태 External gripping

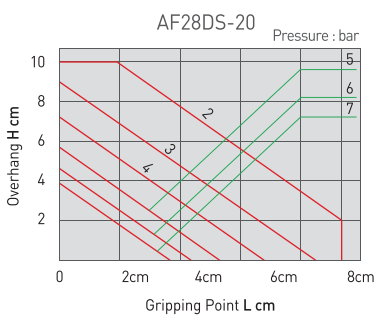


■ 내경파지상태 Internal gripping



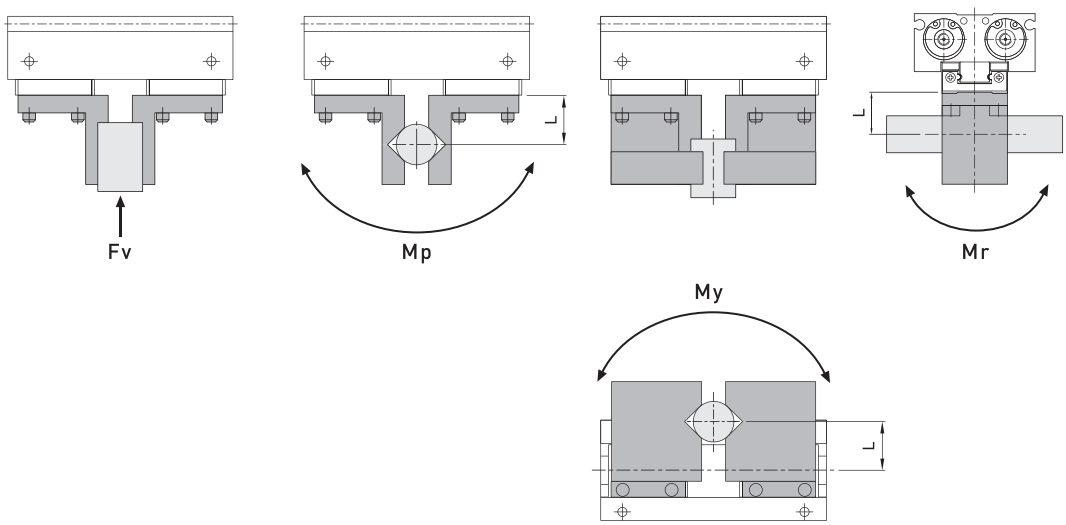






■ 순서 ③ Step3

- 조에 가해지는 외력 확인 : **AF28DS** Series
- Confirm external force on fingers



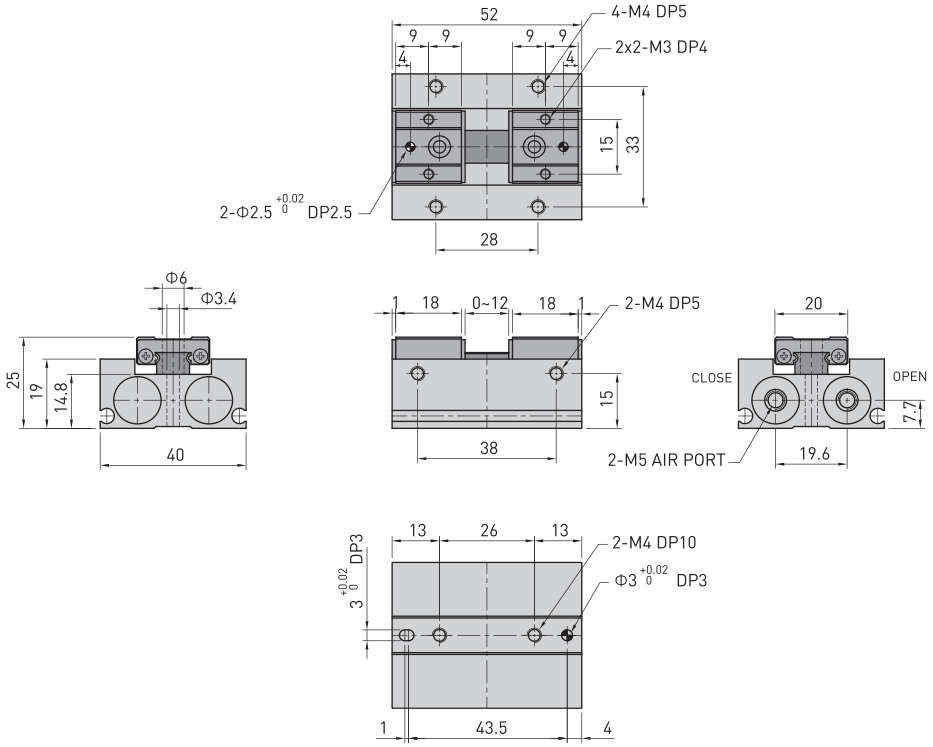
L : 하중에 가해지는 점까지의 거리 (mm)
L : Distance to the point at which the load is applied

제품명칭 Products Name	수직방향 허용하중 Allowable vertical load Fv(N)	Maximum allowable moment		
		Mp (N·m)	My (N·m)	Mr (N·m)
AF28DS-12	98	0.68	0.68	1.4
AF28DS-16	176	1.4	1.4	2.8
AF28DS-20	294	2	2	4

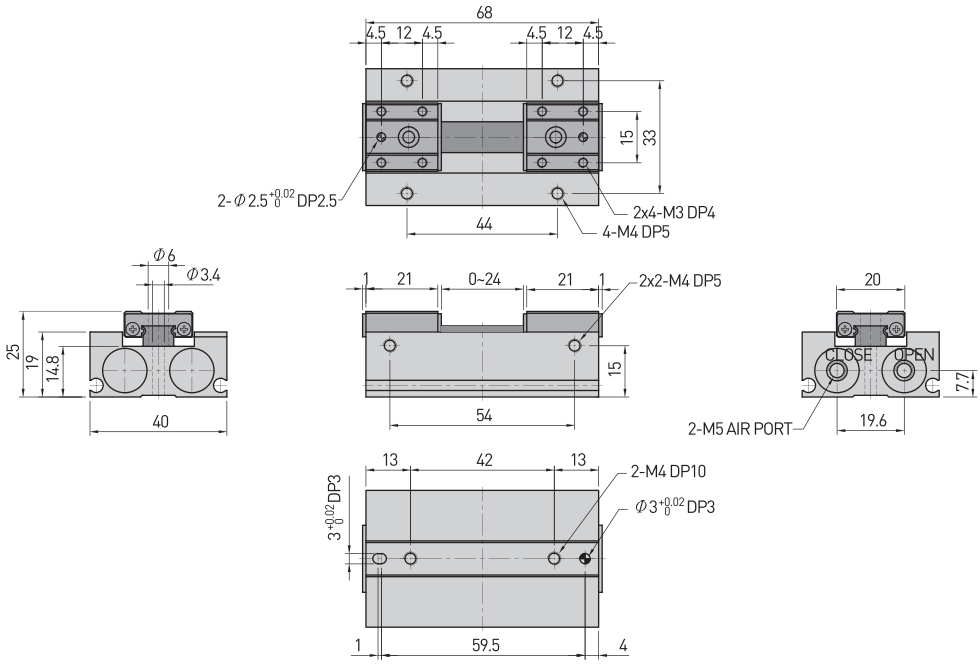
표중의 하중 및 모멘트 값은 정적인 값을 나타내고 있습니다.
the load and moment values in the table is static values

허용 외력의 계산 (모멘트 하중이 가해질때) Calculation of allowable external force (when moment load is applied)	계산 예 Example of Computation
허용하중 F(N) = $\frac{M\,(\text{최대 허용 모멘트})(N\cdot m)}{L \times 10^{-3}}$ Allowable load F(N) = $\frac{M\,(\text{Maximum allowable moment})}{L \times 10^{-3}}$	AF28DS-12의 조 단면에서 L = 30mm의 점의 피치 모멘트를 가하는 F = 10N의 정하중이 작용하는 경우 When a load f= 10 N operating,which applies pitch moment to point 30mm from the end of the AF28DS - 12 허용하중 F = $\frac{1.4}{10 \times 10^{-3}}$ = 46.6(N) Allowable load F = 46.6 > 10 이므로 사용가능함 can be used

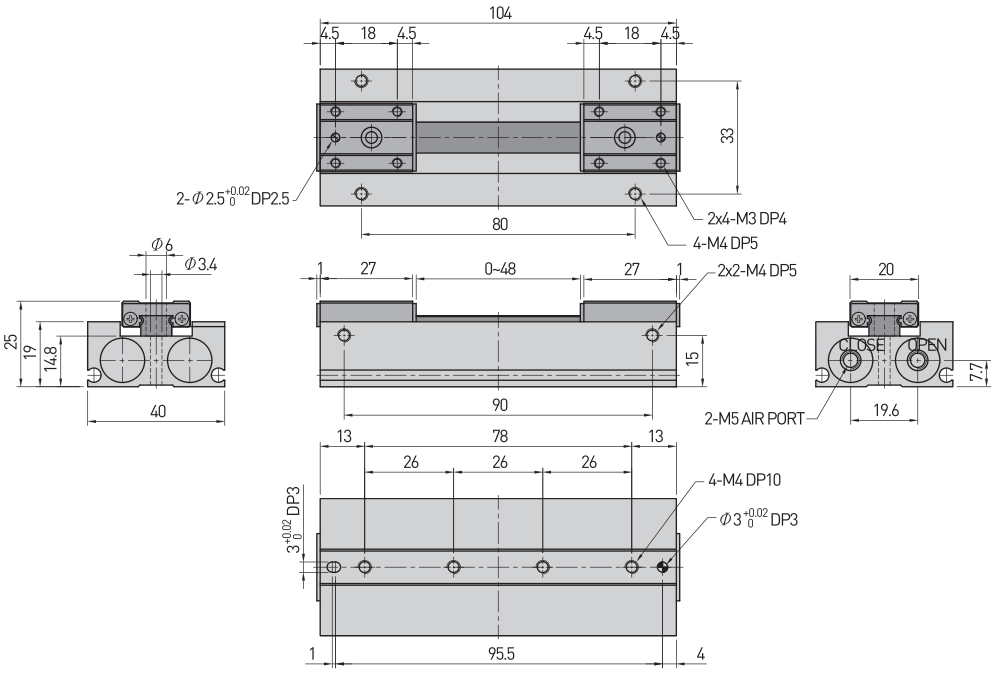
AF28DS-12-12



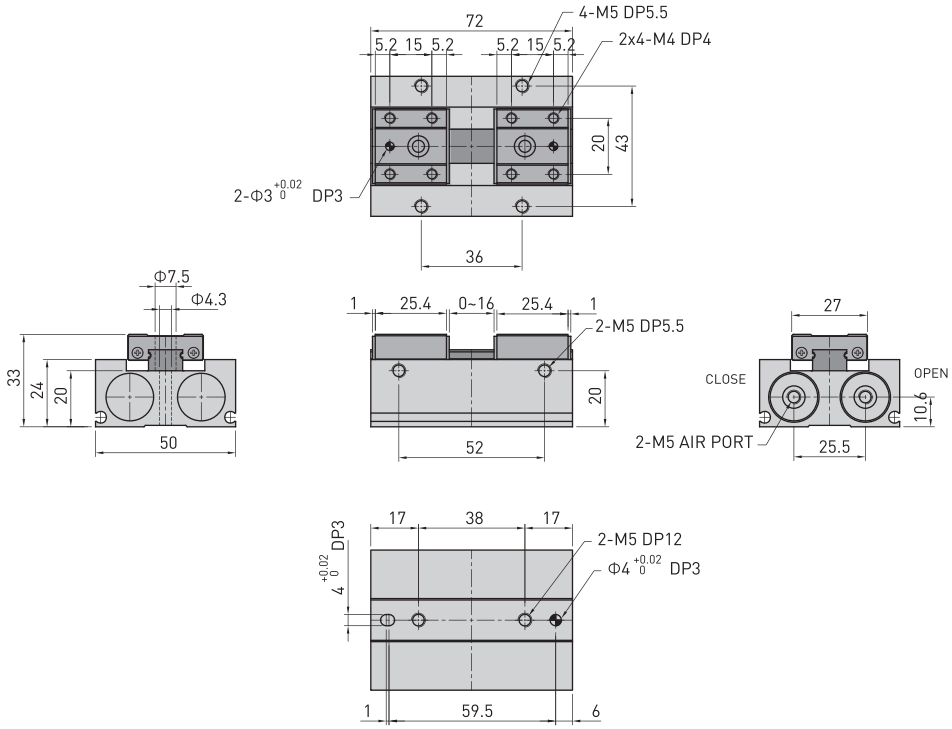
AF28DS-12-24



AF28DS-12-48

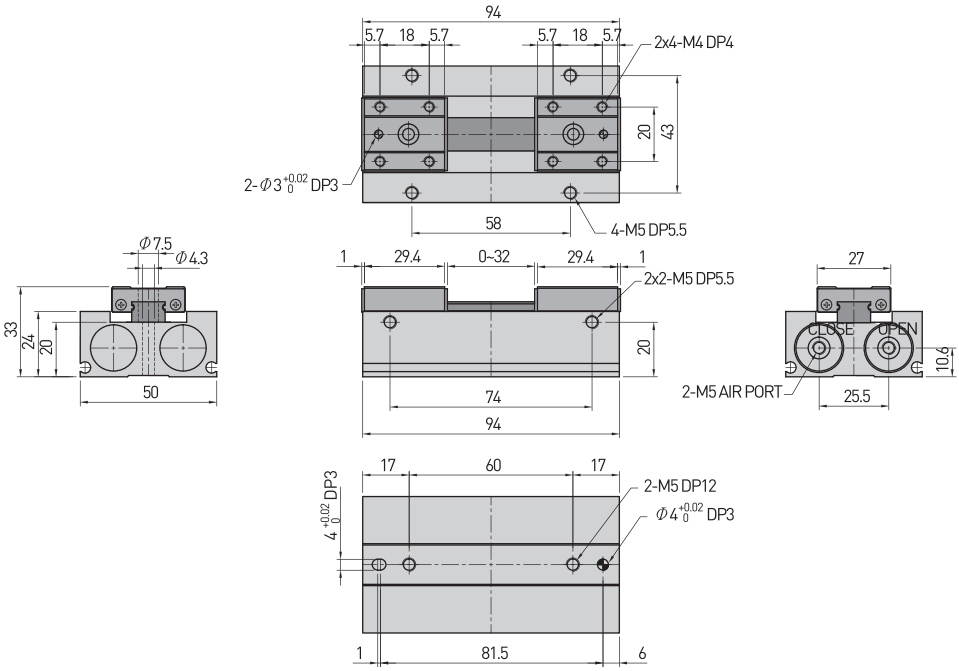


AF28DS-16-16

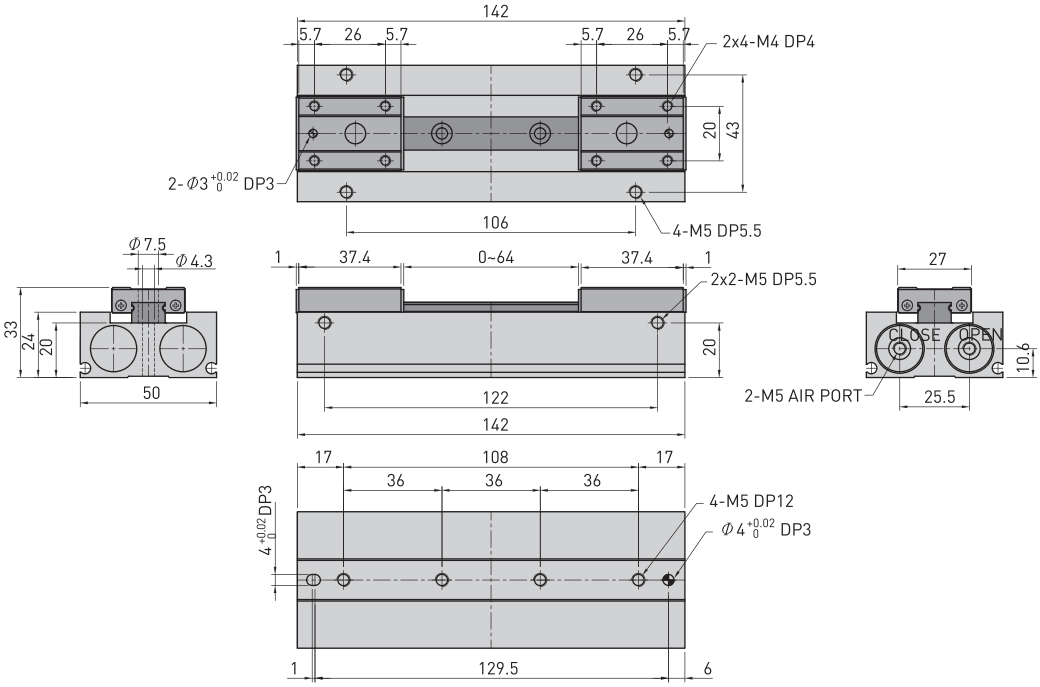


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

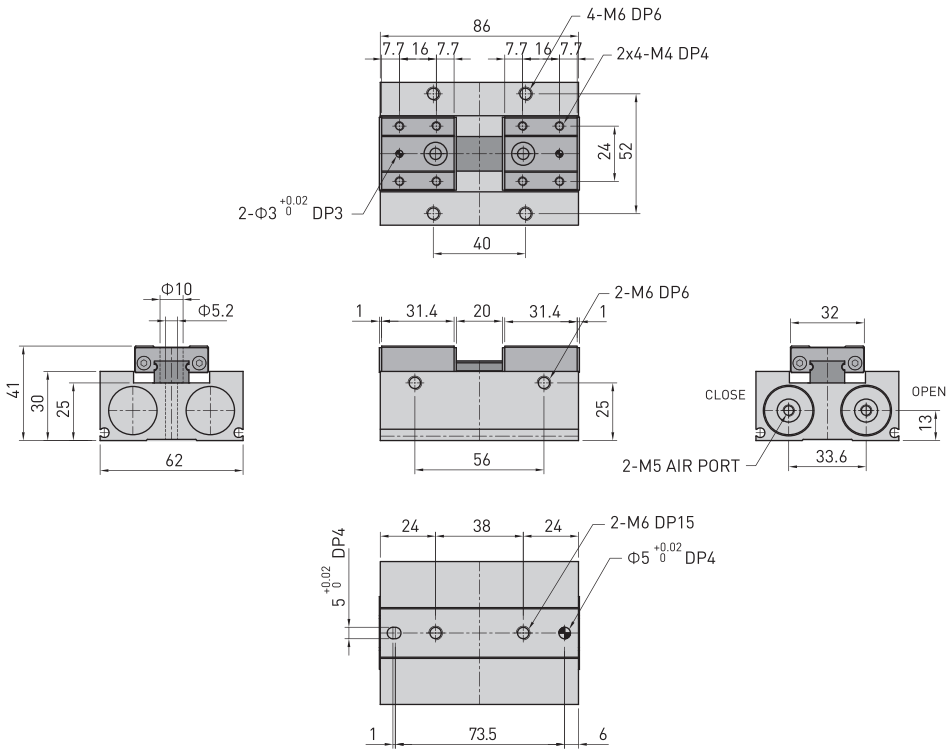
AF28DS-16-32



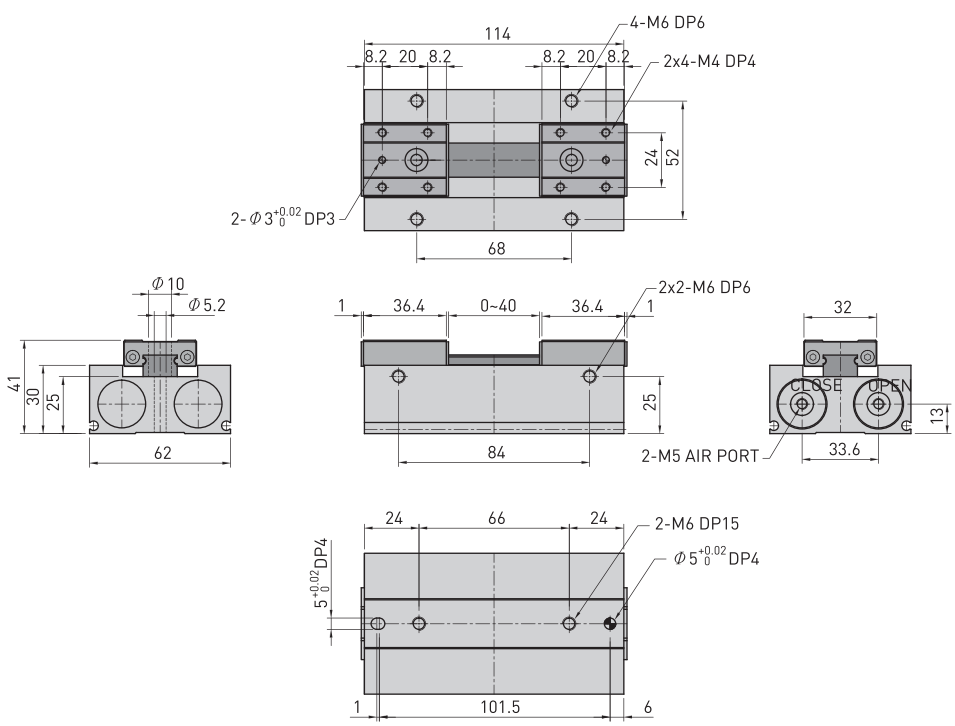
AF28DS-16-64



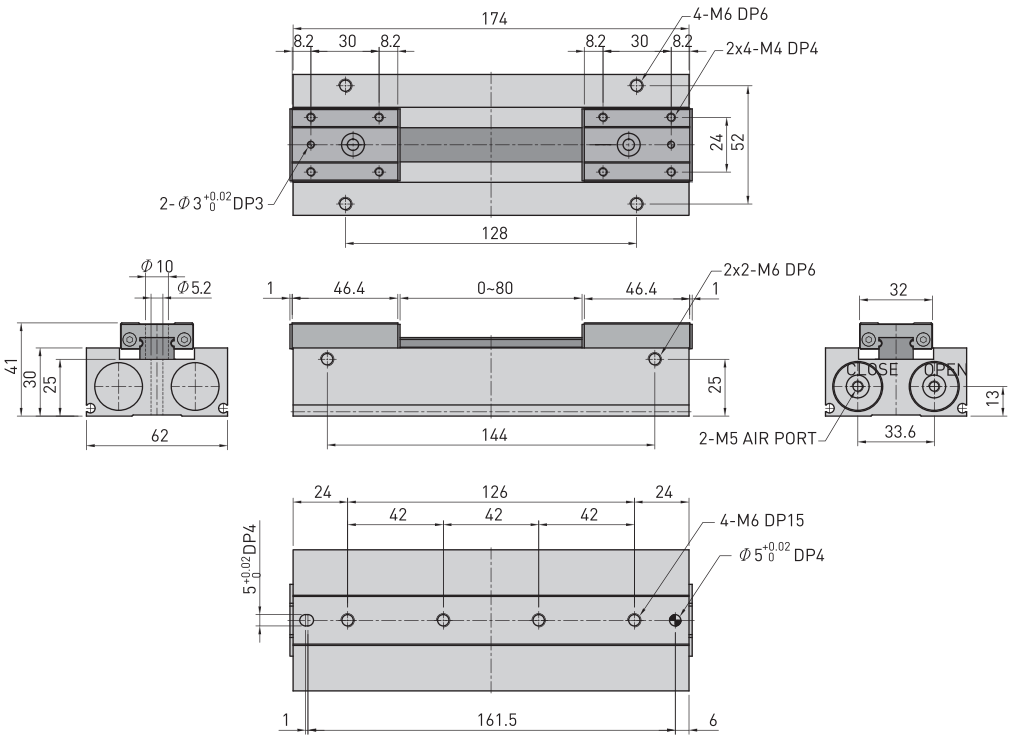
AF28DS-20-20



AF28DS-20-40



AF28DS-20-80

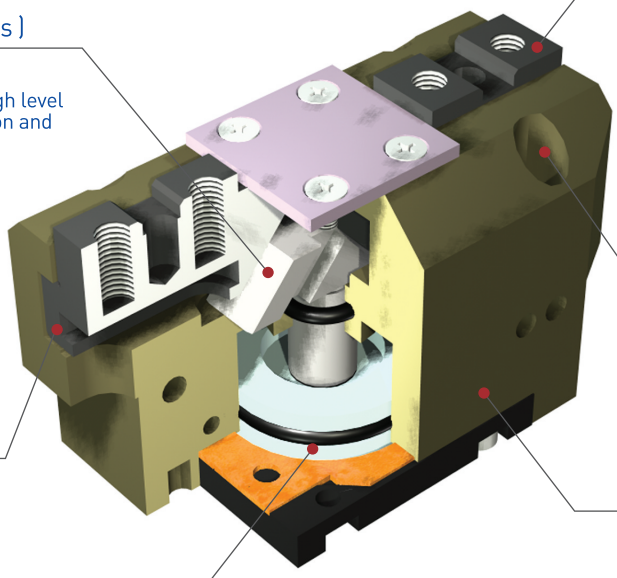

174
8.2
30
8.2
8.2
30
8.2
4-M6 DP6
2x4-M4 DP4
24
52
2-Φ3 +0.02 0 DP3
128
Φ10
Φ5.2
41
30
25
62
1
46.4
0~80
46.4
1
2x2-M6 DP6
25
144
32
CLOSE
OPEN
13
2-M5 AIR PORT
33.6
24
126
24
42
42
42
4-M6 DP15
Φ5 +0.02 0 DP4
5 +0.02 0 DP4
1
161.5
6

AF30(SN)-20, 25, 30, 40, 50, 63, 90, 125

특징 (Character)

- 테이퍼 슬라이딩 방식에 의한 견고한 면압구동방식
  Surface pressure driving type by taper sliding
- COMPACT한 구조와 다양한 취부 편의성
  Compact structure and various mounting convenience
- 배면포트를 이용(BP 옵션)하면 MODULE 구성시 AIR 배관에서 TUBE를 생략할 수 있어 공간절약 및 편리성의 추구가 가능
  Possible to use without the supply tube when you use back side support port(BP option)
- 근접스위치만 부착 가능합니다.
  Proximity sensor is available for open-close sensing.

웨지 방식 (Wedge type)



조 (Jaws)
파지부
for gripping

작동 방식 (Kinetics)
웨지 방식
wedge system for high level of power transmission and centric gripping

취부위치 (Mounting and positioning)
다방면 취부가 가능
mounting possible from several sides for versatile positioning

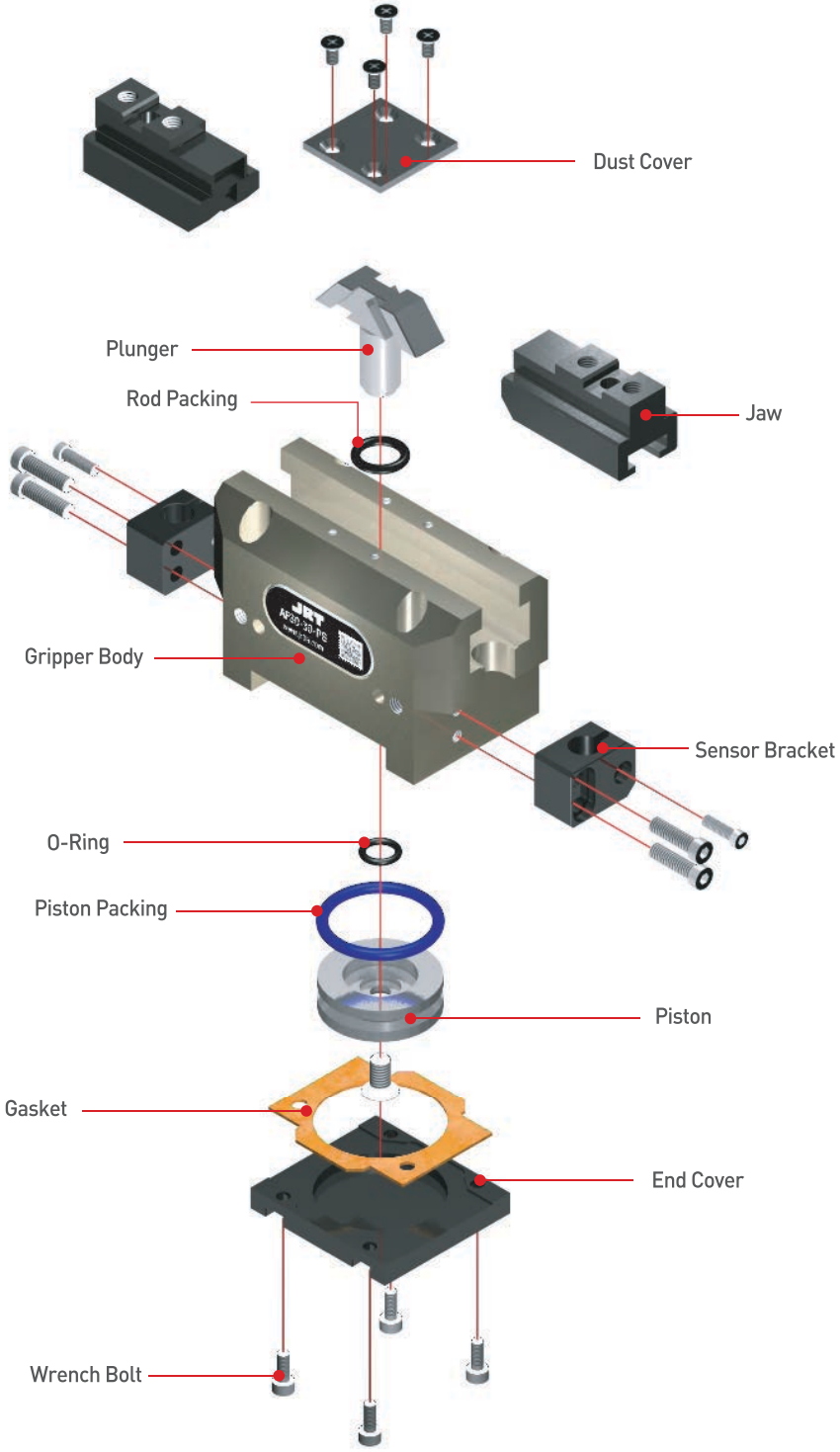
정밀한 T형 가이드 (Precise T-slot guide)
높은 힘과 고강성
high force and moment absorption

몸체 (Body)
경질 처리된 경량의 알루미늄 합금
high-tensile aluminum body with lightest possible because of hard anodizing

구동부 (Drive)
복동식
double acting pneumatic cylinder

부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



주문기호 (How to Order)

제품명 Product Name	실린더직경 Bore Size	배관접속구옵션 Port Option	센서수량 Number of Sensor	센서 선 길이 Sensor Cable Length
	20, 25, 30, 40, 50, 63, 90, 125	무기호 - 표준 BP - 밑면 배관 접속구 Nil - Standard BP - Bottom side Air Port	1 - 1개 무기호 - 2개 1 - 1pc. Nil - 2pcs.	무기호 - 1m Nil - 1m 3M - 3m 3M - 3m

AF30 SN - 30 BP - NO - PS 1 - 3M

행정확대옵션 Stroke Expansion Option

무기호 : 표준
SN : (WEDGE 각도를 변경하여 외형상의 치수변화 없이 행정 확대 제품)
*AF30-90, 125는 해당제품이 없습니다.
*파지력은 표준제품과 비교시 약 15% 저하됩니다.

Nil: Standard
SN : (Product with the stroke extended and the wedge angle changed without any change in external dimension)

* AF30-90 and 125 are not supplied.
* Gripping force is lower by approx. 15% compared to that of the standard product.

상시개/폐(常時開/閉)옵션 Permanent on/off option

NO : Normal Open
(스프링을 이용한 상시 Open Type)
NC : Nomal Close
(스프링을 이용한 상시 Close Type)
*공간 제약상 SPRING만으로 공압에 준하는 유지력을 발생시킬 수 없습니다.

NO : Normal Open
(Permanent open-type using spring)
NC : Nomal Close
(Permanent close-type using spring)

* Because of space restriction, the sustaining force equivalent to pneumatic cannot be exerted using only a spring.

센서명칭 Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다.
*3선식 NPN 출력방식이 기본이며, 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

*참고사항
JPM8S - AF30-20~50까지 권장센서
JPM8 - AF30-20~90 사용 가능하나
AF30-20,25,30,40,50 제품은 센서 선이 BODY 밑면보다 돌출될 수 있습니다. (도면참조)
JPM12 - AF30-125 적용센서

Nil – Sensor and relevant parts are not supplied.
*3-line type NPN output method is the standard supply. For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

* Note
Recommendable for JPM8S - AF30-20~50
It can be used for JPM8 - AF30-20~90, but the sensor line may protrude beyond the body bottom plate in case of AF30-20, 25, 30, 40, and 50. (See the drawings)
Applicable to JPM12 - AF30-125

AF30L 주문기호 (AF30L How to Order)

제품명 Product Name	실린더직경 Bore Size	위와 동일 Same as above
	40, 50, 63	

AF30L - 40 BP - PS 1 - 3M

※ AF30 type의 취부호환성과 파지력을 유지하며 개폐범위를 획기적으로 증대시킨 제품입니다.
It is interfaced with AF30 type and maintains the same gripping force, but significantly increases its stroke.

제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

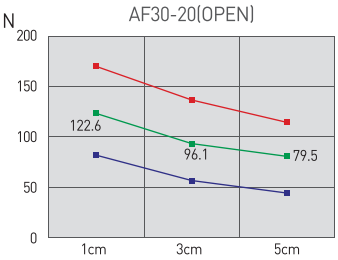
제품명칭 Products Name	AF30-20		AF30-25		AF30-30		AF30-40			단위 Unit
	Standard	AF30SN-20	Standard	AF30SN-25	Standard	AF30SN-30	Standard	AF30SN-40	AF30L-40	
개폐범위 Stroke	8	10	12	16	16	20	20	26	40	mm
제품중량 Weight	0.14		0.3		0.47		0.81		1.4	kg
최대치구길이 Max. length attach	50		60		77		100			mm
배관접속구 Fitting size	M5		M5		M5		PF(G) 1/8			
파지력 : 열림시 Gripping force : Open	28.45P / 1+0.016L	25.32P / 1+0.016L	43.16P / 1+0.012L	37.86P / 1+0.012L	62.78P / 1+0.009L	54.88P / 1+0.009L	112.82P / 1+0.007L	98.64P / 1+0.007L	112.82P / 1+0.007L	N
파지력 : 닫힘시 Gripping force : Close	25.51P / 1+0.016L	22.70P / 1+0.016L	39.24P / 1+0.012L	34.38P / 1+0.012L	55.92P / 1+0.009L	48.90P / 1+0.009L	99.08P / 1+0.007L	86.64P / 1+0.007L	99.08P / 1+0.007L	N
1사이클당 공기소모량 Air consumption per cycle	3.5		7.0		13.4		30.7		58	cm³
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01		0.01/0.01		0.02/0.02		0.04/0.04		0.06/0.06	sec
반복정밀도 Repeat accuracy	0.01		0.01		0.01		0.02		0.02	mm
연속사용회수 Continuation usage amount	60		60		50		50		40	cpm
사용압력 Operating pressure	3~7									bar
주위온도 Ambient temperature	-5 to 60									℃
윤활 Lubrication	불필요 Needless									

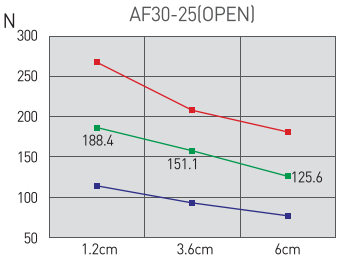
제품명칭 Products Name	AF30-50			AF30-63			AF30-90	AF30-125	단위 Unit
	Standard	AF30SN-50	AF30L-50	Standard	AF30SN-63	AF30L-63			
개폐범위 Stroke	26	32	46	32	38	52	50	70	mm
제품중량 Weight	1.37		2.3	2.6		3.8	4.8	13.9	kg
최대치구길이 Max. length attach	127			160			200	240	mm
배관접속구 Fitting size	PF(G) 1/8			PF(G) 1/8			PF(G) 1/8	PF(G) 1/4	
파지력 : 열림시 Gripping force : Open	179.52P / 1+0.006L	156.61P / 1+0.006L	179.52P / 1+0.006L	288.41P / 1+0.005L	250.98P / 1+0.005L	288.41P / 1+0.005L	464.99P / (1+0.004L)	848.57P / (1+0.003L)	N
파지력 : 닫힘시 Gripping force : Close	160.88P / 1+0.006L	140.33P / 1+0.006L	160.88P / 1+0.006L	258.98P / 1+0.005L	232.88P / 1+0.005L	258.98P / 1+0.005L	435.56P / (1+0.004L)	830.91P / (1+0.003L)	N
1사이클당 공기소모량 Air consumption per cycle	59.6		113	118.4		199	305.8	978.6	cm³
닫힘시/열림시 시간 Closing / Opening time	0.06/0.06		0.08/0.08	0.12/0.12		0.14/0.14	0.3/0.3	1.0/1.0	sec
반복정밀도 Repeat accuracy	0.02			0.02			0.02	0.02	mm
연속사용회수 Continuation usage amount	40		30	40		30	30	20	cpm
사용압력 Operating pressure	3~7								bar
주위온도 Ambient temperature	-5 to 60								℃
윤활 Lubrication	불필요 Needless								

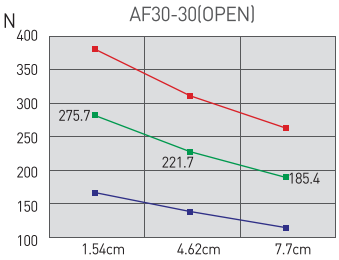
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

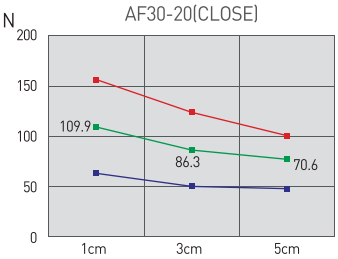
작용점에서의 파지력 (Gripping Force From a Point of Action)

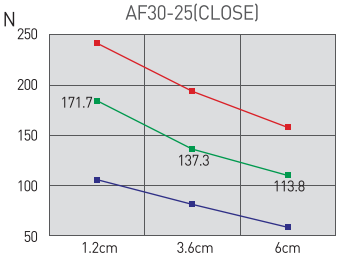
범례(Legend) : 7[bar] 5[bar] 3[bar]

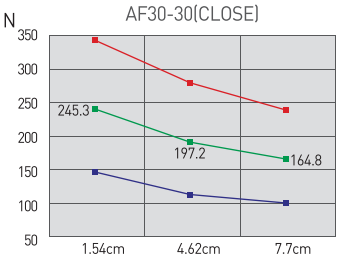


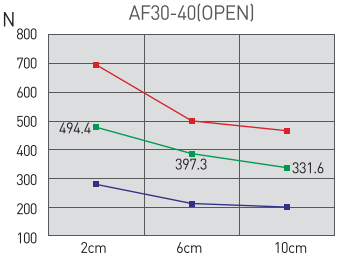


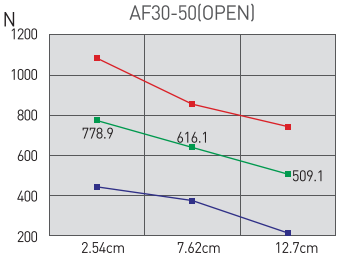


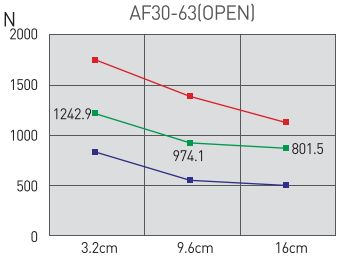


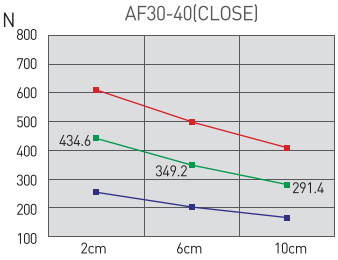


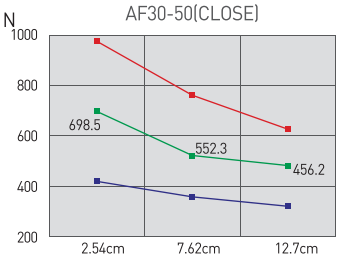


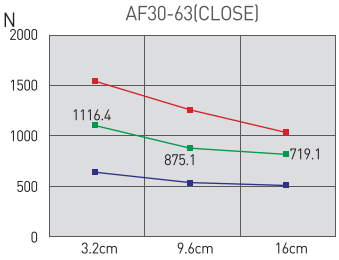


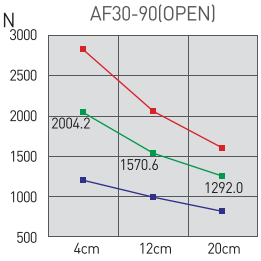


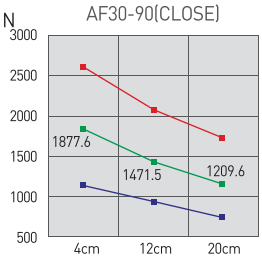


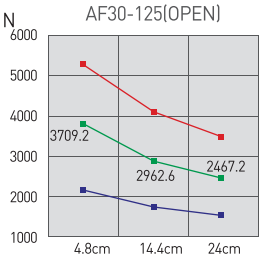


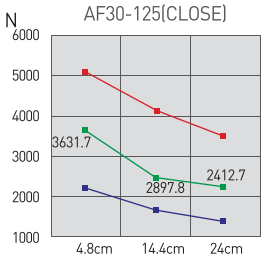




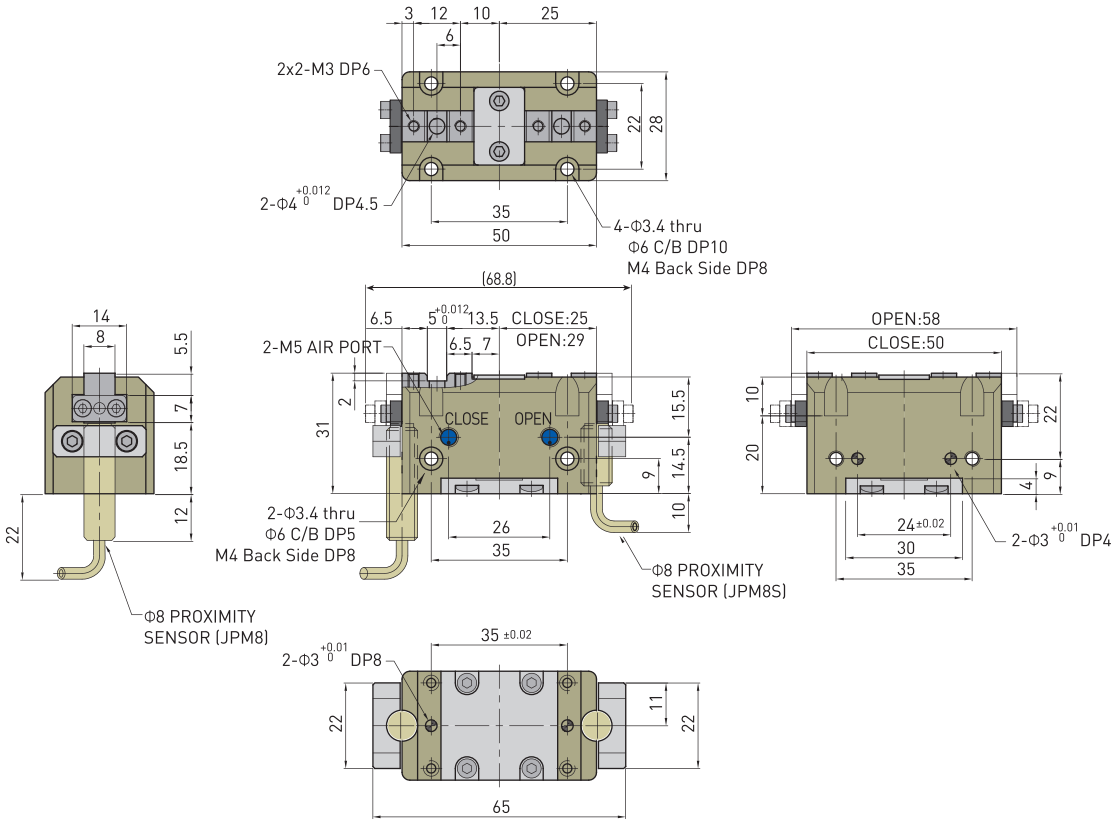




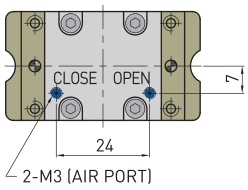




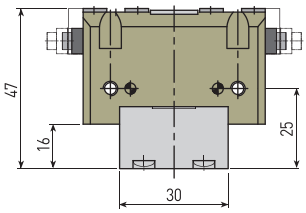
AF30-20



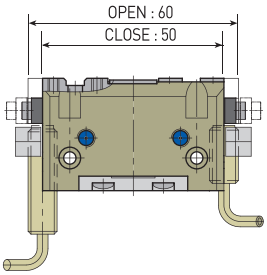
- AF30-20 BP (밑면 포트 옵션)
  BP(Bottom Port) AF30-20 BP



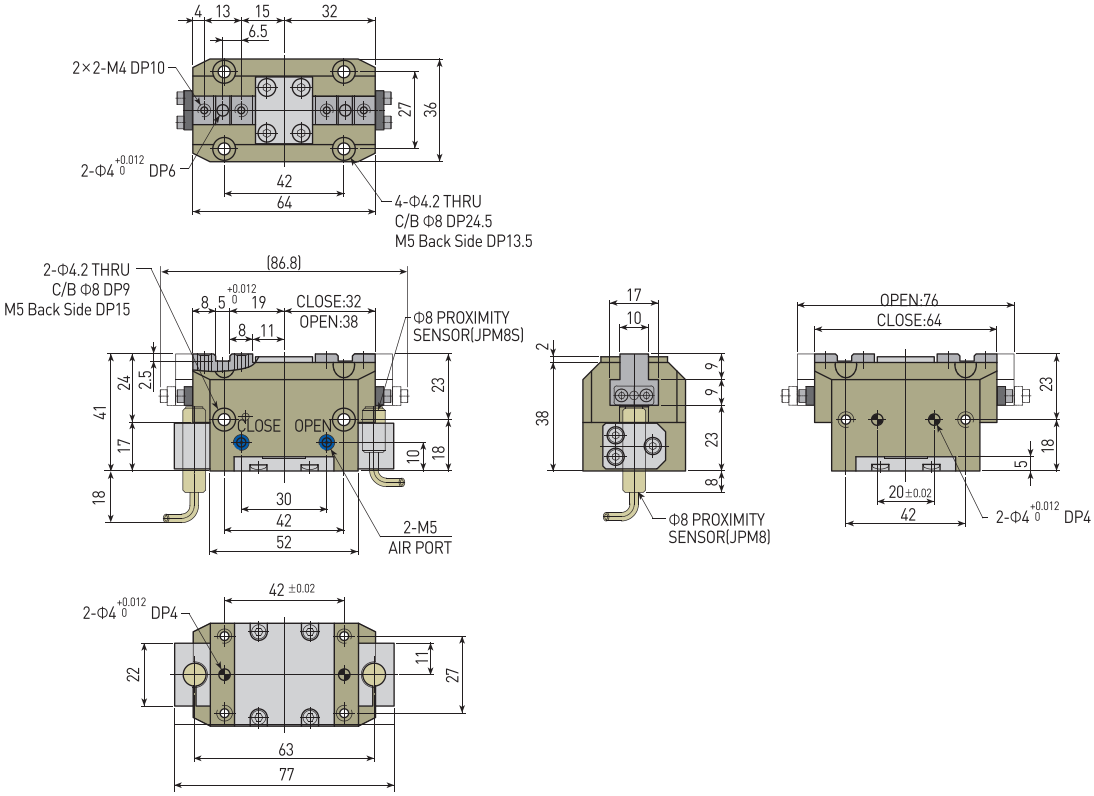
- AF30-20 NO / NC(상시 개.폐 옵션)
  AF30-20 NO / NC(NORMAL OPEN / NORMAL CLOSE)



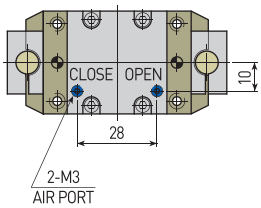
- AF30SN-20 (행정확대제품)
  AF30SN-20 (Stroke extended product)



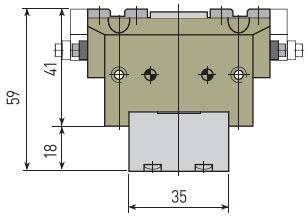
AF30-25



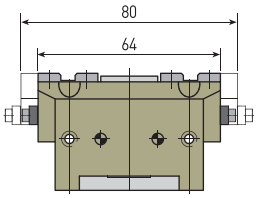
- AF30-25 BP (밑면 포트 옵션)
  BP(Bottom Port) AF30-25 BP



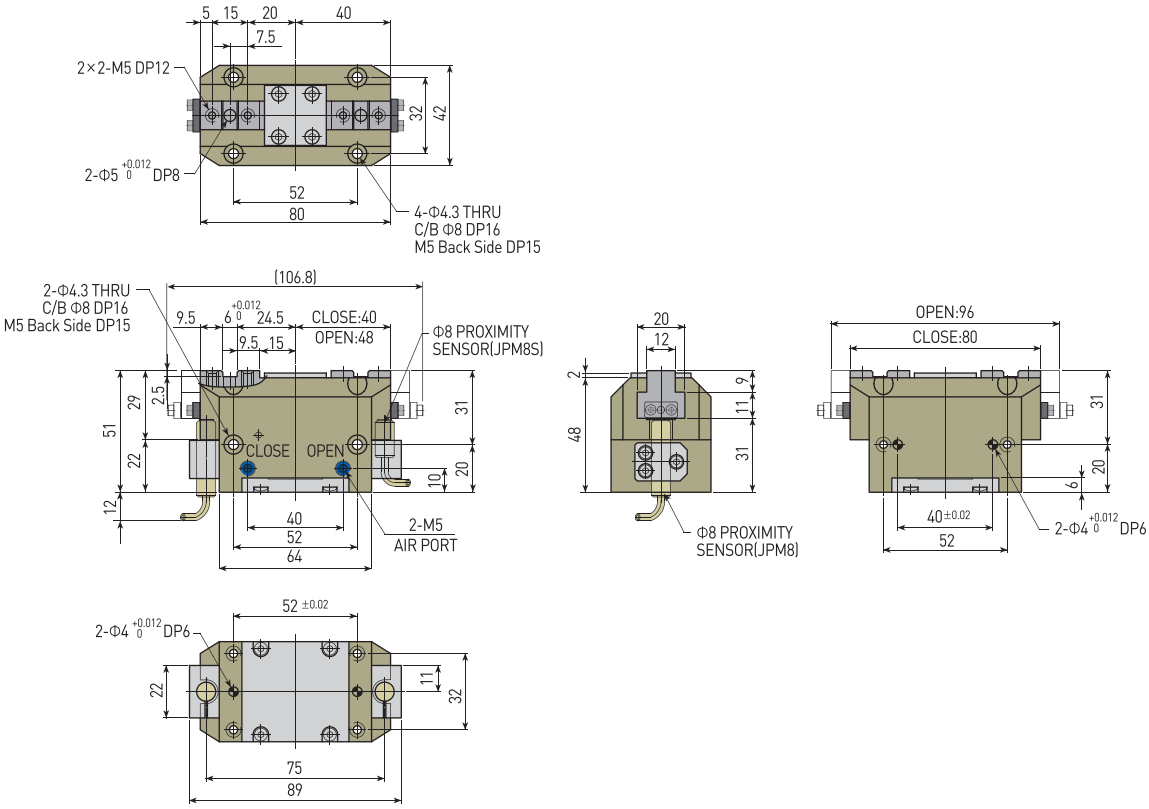
- AF30-25 NO / NC(상시 개.폐 옵션)
  AF30-25 NO / NC(NORMAL OPEN / NORMAL CLOSE)



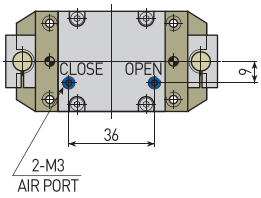
- AF30SN-25 (행정확대제품)
  AF30SN-25 (Stroke extended product)



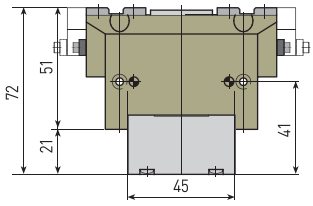
AF30-30



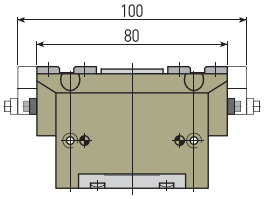
■ AF30-30 BP (밑면 포트 옵션)
BP(Bottom Port) AF30-30 BP



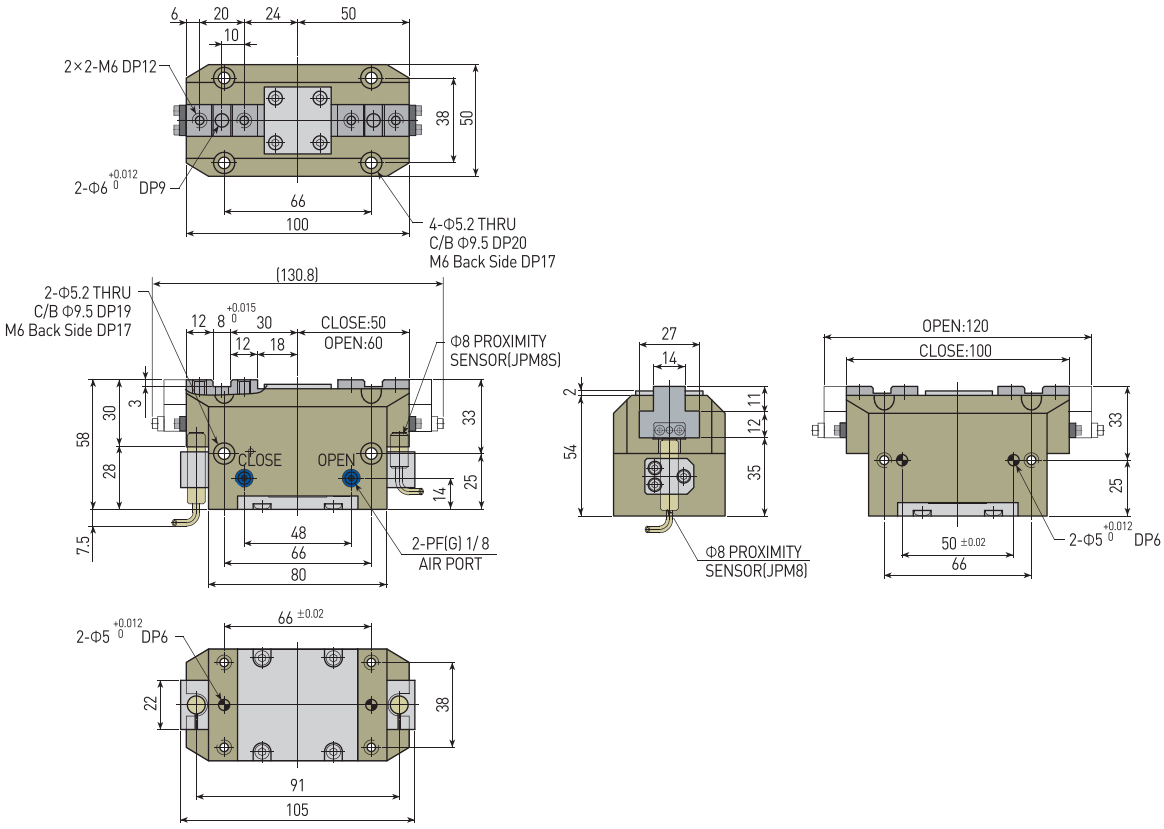
■ AF30-30 NO / NC(상시 개.폐 옵션)
AF30-30 NO / NC (NORMAL OPEN / NORMAL CLOSE)



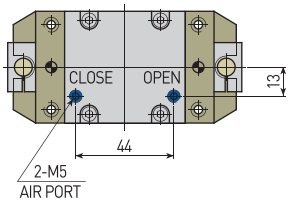
■ AF30SN-30 (행정확대제품)
AF30SN-30 (Stroke extended product)



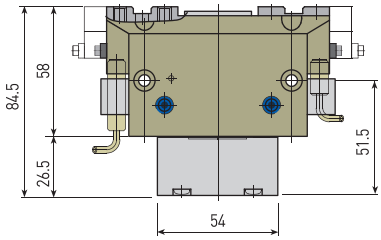
AF30-40



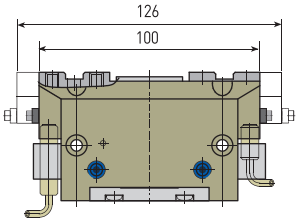
■ AF30-40 BP(밑면 포트 옵션)
BP(Bottom Port) AF30-40 BP



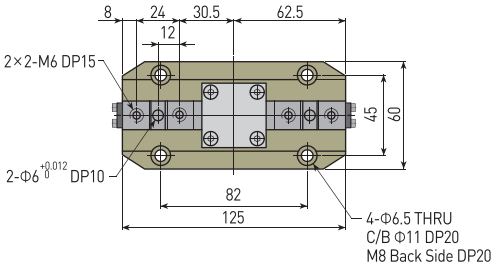
■ AF30-40 NO / NC(상시 개.폐 옵션)
AF30-40 NO / NC(NORMAL OPEN / NORMAL CLOSE)

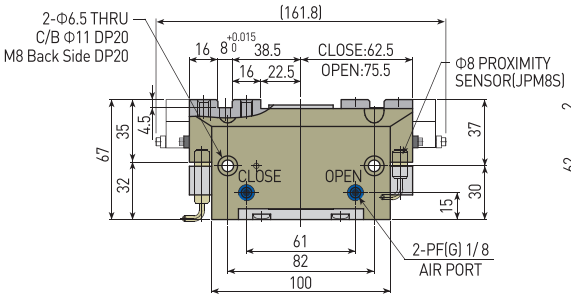


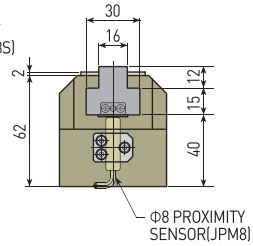
■ AF30SN-40 (행정 확대 제품)
AF30SN-40 (Stroke extended product)

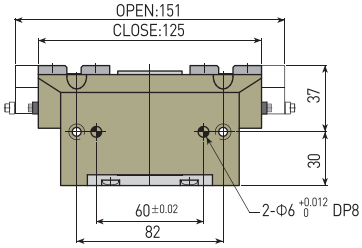


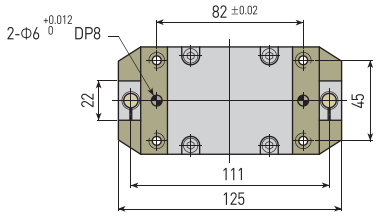
AF30-50



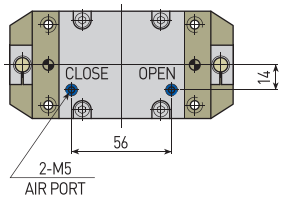




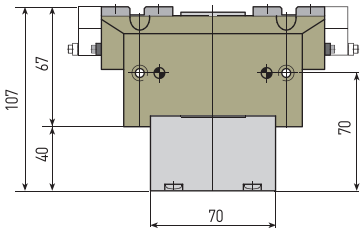




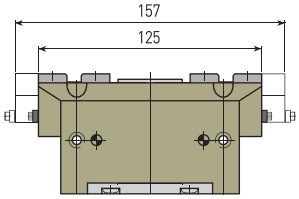
■ AF30-50 BP (밑면 포트 옵션)
BP(Bottom Port) AF30-50 BP



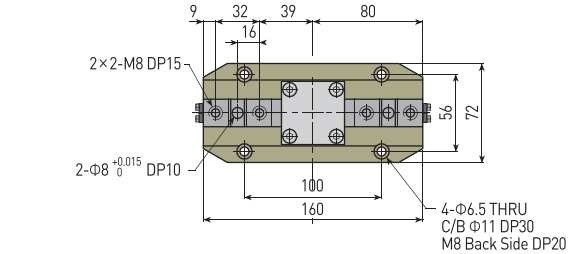
■ AF30-50 NO / NC(상시 개.폐 옵션)
AF30-50 NO / NC(NORMAL OPEN / NORMAL CLOSE)

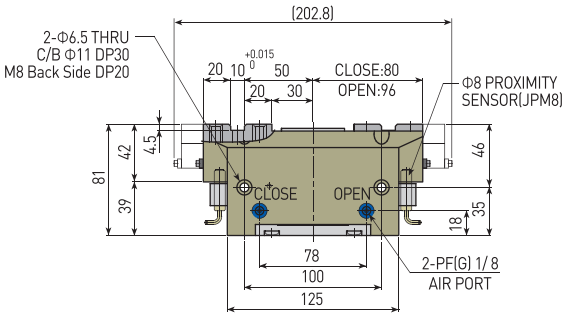


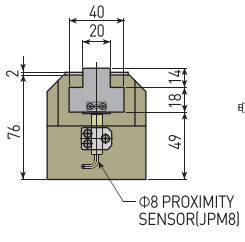
■ AF30SN-50 (행정 확대 제품)
AF30SN-50 (Stroke extended product)

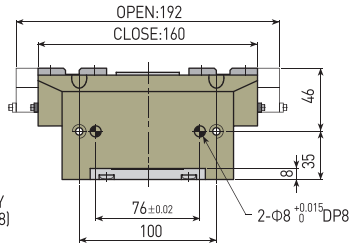


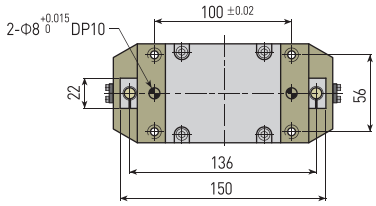
AF30-63



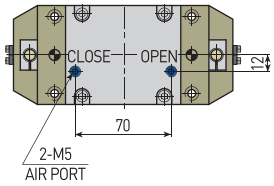




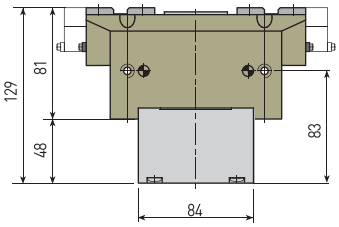




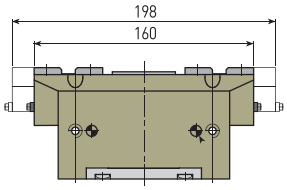
■ AF30-63 BP(밑면 포트 옵션)
BP(Bottom Port) AF30-63 BP



■ AF30-63 NO / NC(상시 개.폐 제품)
AF30-63 NO / NC(NORMAL OPEN / NORMAL CLOSE)

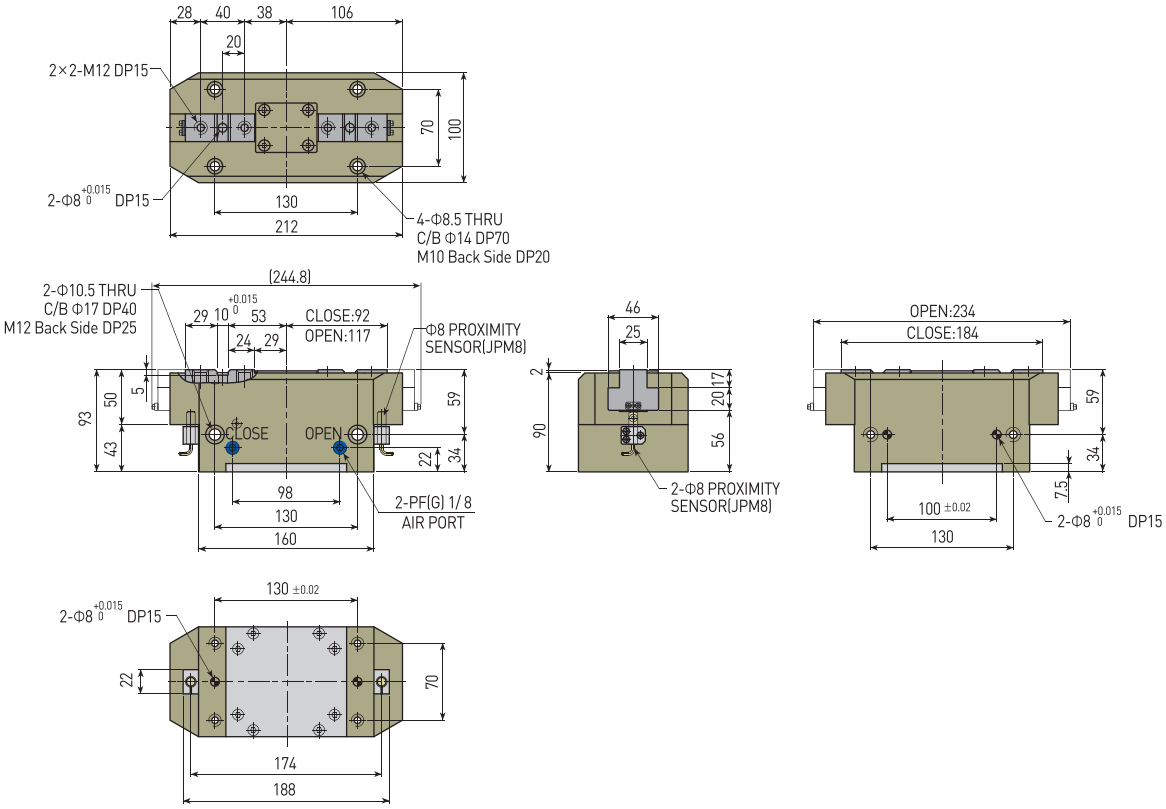


■ AF30SN-63 (행정 확대 제품)
AF30SN-63 (Stroke extended product)

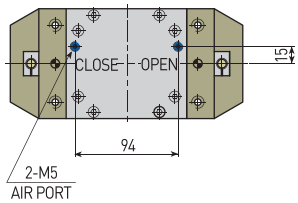


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

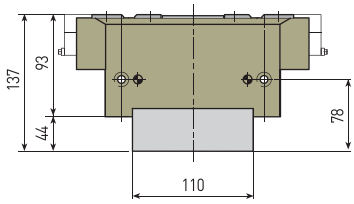
AF30-90



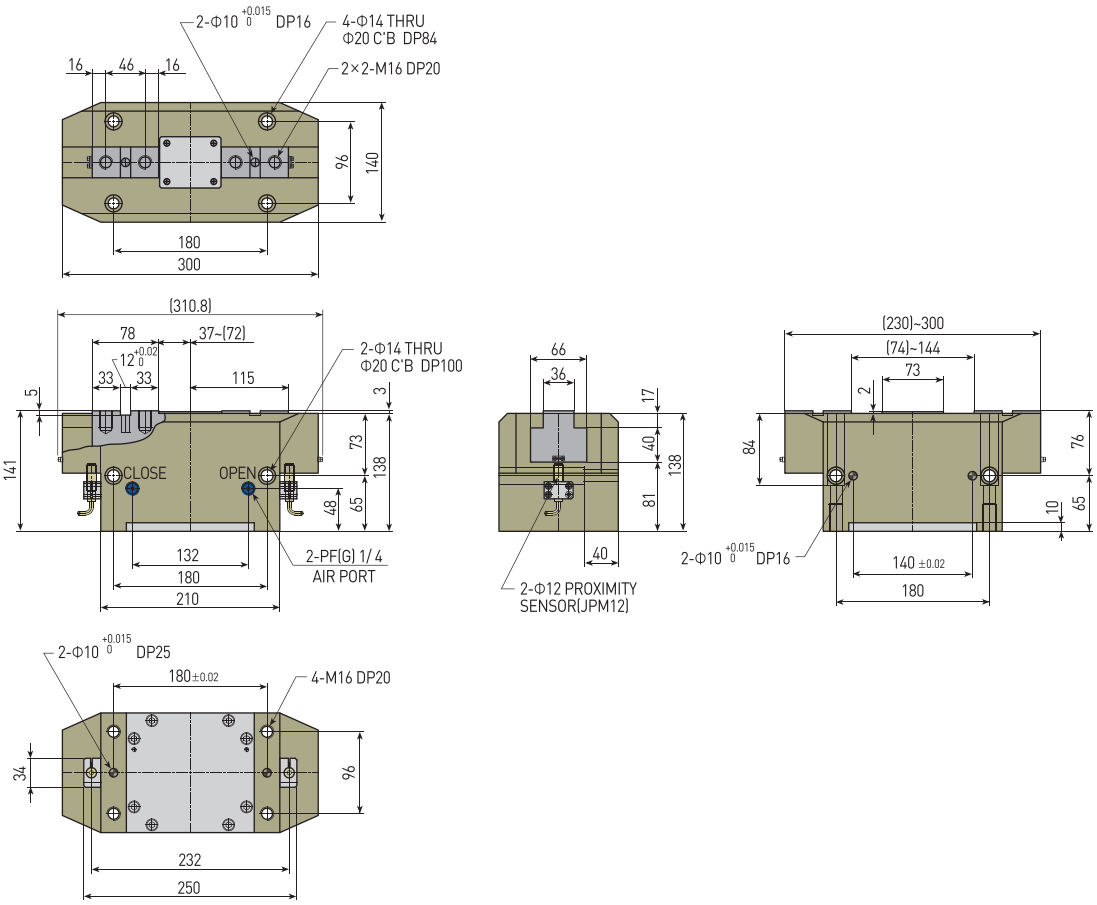
■ AF30-90 BP(밑면 포트 옵션)
BP(Bottom Port) AF30-90 BP



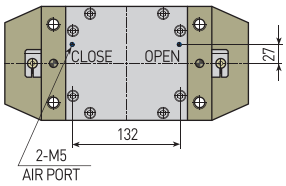
■ AF30-90 NO / NC(상시 개.폐 제품)
AF30-90 NO / NC(NORMAL OPEN / NORMAL CLOSE)



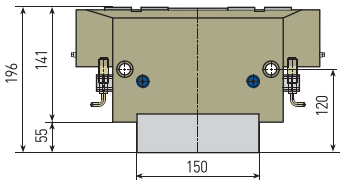
AF30-125



■ AF30-125 BP(밑면 포트 옵션)
BP(Bottom Port) AF30-125 BP



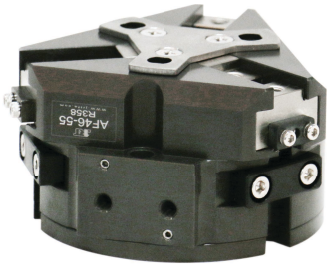
■ AF30-125 NO/NC(상시 개/폐 제품)
AF30-125 NO / NC(NORMAL OPEN / NORMAL CLOSE)



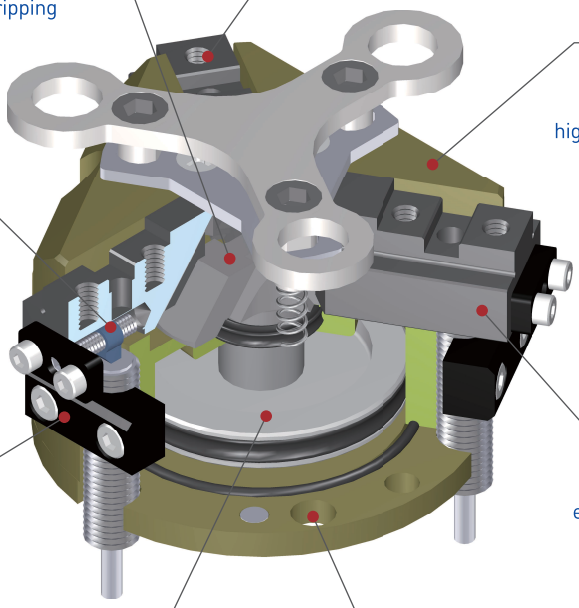
AF46(SN)-30, 40, 55, 75, 95, 125, 160

특징 (Character)

- 테이퍼 슬라이딩 방식에 의한 견고한 면압구동방식
  Surface pressure driving type by taper sliding
- AIR PORT의 분기구조로 선택사용이 가능하며 밑면
  AIR PORT(BP)사용시 SSU 등에 적절한 조합이 가능
  Possible to use by Air port's branch structure and when using underside Airport(BP) possible to combine at SSU, etc
- 개폐 검출용 근접스위치 부착 가능합니다.
  Proximity sensor is available for open-close sensing
- 원형 몸체 구조로 대상물의 중심기준 작업에 효과적
  Easy to grip the center of workpiece by the cylindrical structure

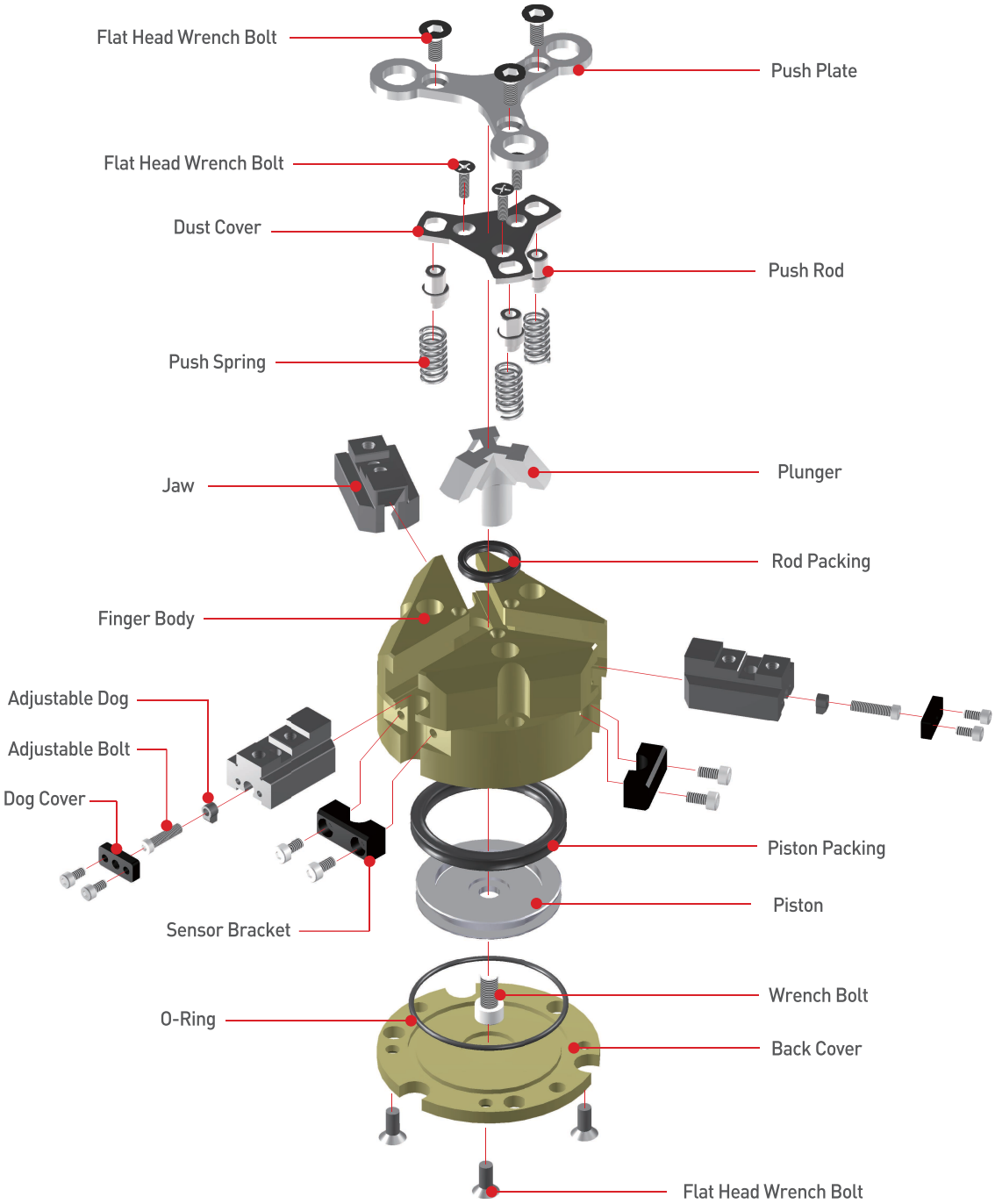


웨지 방식 (Wedge type)



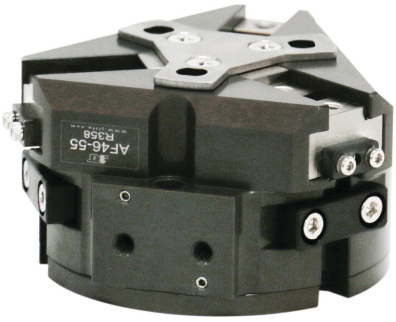
부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)



제품명
Product Name

실린더 직경
Bore Size
30, 40, 55, 75, 95, 125, 160

배관접속구 옵션
Port Option
무기호 - 표준
BP - 밑면 배관 접속구
Nil - Standard
BP - Bottom side Air Port

센터 푸셔
Center Pusher
무기호 - 표준
CP - 센터 푸셔
Nil - Standard
CP - Center Pusher

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

센서선 길이
Sensor Cable Length
무기호 - 1m
3M - 3m
Nil - 1m
3M - 3m

AF46 | SN | A - 30 | BP - CP - NO - PS | 1 - 3M

행정확대옵션
Stroke Expansion Option
무기호 : 표준
SN : WEDGE 각도를 변경하여 외형 상의 치수변화 없이 행정 확대 제품 (파지력은 표준제품과 비교시 약 15% 저하됩니다.)
Nil: Standard
SN : (Product with the stroke extended and the wedge angle changed without any change in external dimension)
(Gripping force is lower by approx. 15% compared to that of the standard product.)

버전
Version
무기호
A
⋮
Nil
A
⋮

상시개/폐(常時開/閉) 옵션
Permanent on/off option
NO : Normal Open
(스프링을 이용한 상시 Open Type)
NC : Normal Close
(스프링을 이용한 상시 Close Type)
*공간 제약상 SPRING만으로 공압에 준하는 유지력을 발생시킬 수 없습니다.
*AF46-160N의 NO, NC사양은 본사에 문의 바랍니다.
NO : Normal Open
(Permanent open-type using spring)
NC : Nomal Close
(Permanent close-type using spring)
* Because of space restriction, the sustaining force equivalent to pneumatic cannot be exerted using only a spring.

센서명칭
Sensor Type
무기호 - 센서 및 관련부품을 제공하지 않습니다.
*3선식 NPN 출력방식이 기본이며, 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.
*참고사항
JPM8S - AF46-30~75까지 권장센서
JPM8 - AF46-30~160N까지 사용 가능하나 AF46-30~75 제품은 센서 선이 BODY 밑면보다 돌출될 수 있습니다. (도면참조)
Nil – Sensor and relevant parts are not supplied.
*3-line type NPN output method is the standard supply. For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.
* Note
Recommendable for JPM8S - AF46-30~75
It can be used for JPM8 - AF46-30~160N, but the sensor line may protrude beyond the body bottom plate in case of AF46-30~75. (See the drawings)

제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

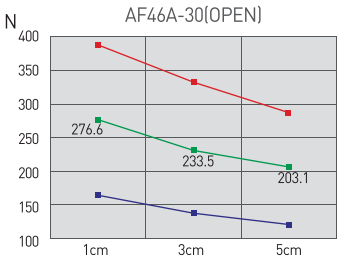
제품명칭 Products Name	AF46A-30		AF46A-40		AF46A-55		AF46A-75		단위 Unit
	Standard	AF46SNA-30	Standard	AF46SNA-40	Standard	AF46SNA-55	Standard	AF46SNA-75	
개폐범위 Stroke	8	10	12	15	16	20	20	24	mm
제품중량 Weight	0.24		0.43		0.75		1.30		kg
최대치구길이 Max. length attach	50		60		80		100		mm
배관접속구 Fitting size	M5		M5		M5		PF(G) 1/8		
파지력 : 열림시 Gripping force : Open	60.82P / 1+0.01L	54.12P / 1+0.01L	109.87P / 1+0.008L	97.78P / 1+0.008L	241.33P / 1+0.01L	214.78P / 1+0.01L	421.83P / 1+0.007L	375.42P / 1+0.007L	N
파지력 : 닫힘시 Gripping force : Close	52.97P / 1+0.01L	47.14P / 1+0.01L	98.1P / 1+0.008L	87.31P / 1+0.008L	233.48P / 1+0.01L	207.79P / 1+0.01L	403.19P / 1+0.007L	358.83P / 1+0.007L	N
1사이클당 공기소모량 Air consumption per cycle	6.8		19.9		46.0		103.6		cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01		0.02/0.02		0.05/0.05		0.10/0.10		sec
반복정밀도 Repeat accuracy	0.01		0.01		0.01		0.01		mm
연속사용회수 Continuation usage amount	60		50		50		40		cpm
사용압력 Operating pressure	3~7								bar
주위온도 Ambient temperature	-5 to 60								℃
윤활 Lubrication	불필요 Needless								

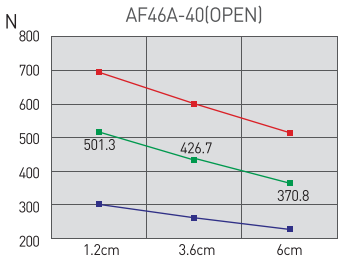
제품명칭 Products Name	AF46A-95		AF46A-125		AF46A-160		단위 Unit
	Standard	AF46SNA-95	Standard	AF46SNA-125	Standard	AF46SNA-160	
개폐범위 Stroke	26	31	32	39	50	58	mm
제품중량 Weight	2.05		4.07		10.85		kg
최대치구길이 Max. length attach	120		160		200		mm
배관접속구 Fitting size	PF(G) 1/8		PF(G) 1/8		PF(G) 1/8		
파지력 : 열림시 Gripping force : Open	500.31P / 1+0.008L	445.27P / 1+0.008L	657.27P / 1+0.01L	584.97P / 1+0.01L	1216.44P / 1+0.003L	1082.63P / 1+0.003L	N
파지력 : 닫힘시 Gripping force : Close	480.69P / 1+0.008L	427.81P / 1+0.008L	618.03P / 1+0.01L	550.04P / 1+0.01L	1137.96P / 1+0.003L	1012.78P / 1+0.003L	N
1사이클당 공기소모량 Air consumption per cycle	213.8		466.6		1182.2		cm^3
닫힘시/열림시 시간 Closing / Opening time	0.22/0.22		0.50/0.50		0.12/0.12		sec
반복정밀도 Repeat accuracy	0.02		0.05		0.1		mm
연속사용회수 Continuation usage amount	40		30		20		cpm
사용압력 Operating pressure	3~7						bar
주위온도 Ambient temperature	-5 to 60						℃
윤활 Lubrication	불필요 Needless						

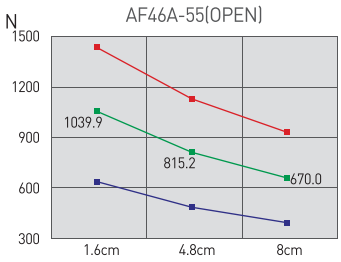
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

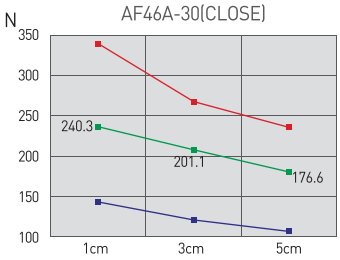
작용점에서의 파지력 (Gripping Force From a Point of Action)

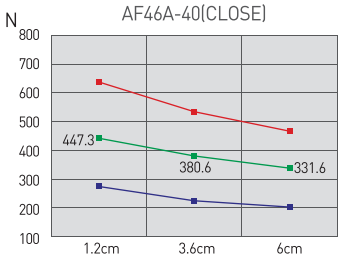
범례(Legend) : 7[bar] 5[bar] 3[bar]

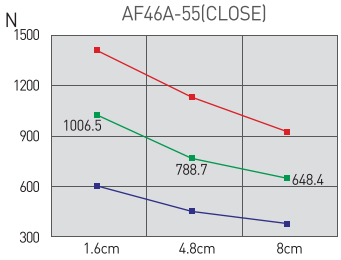


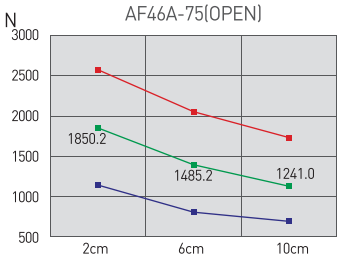


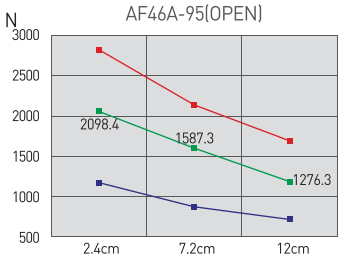


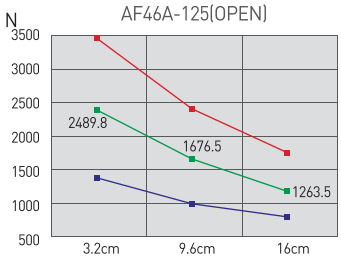


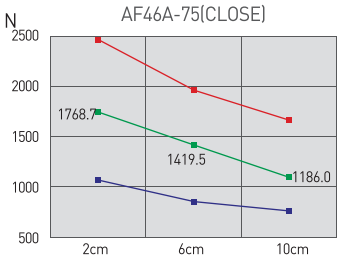


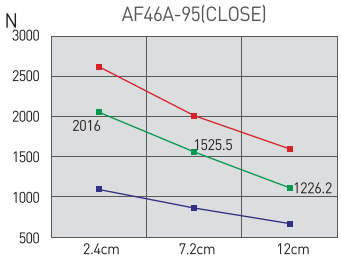


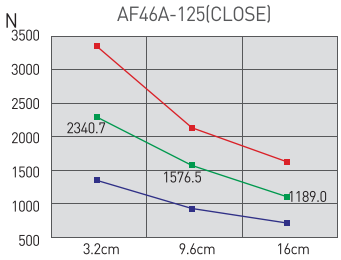


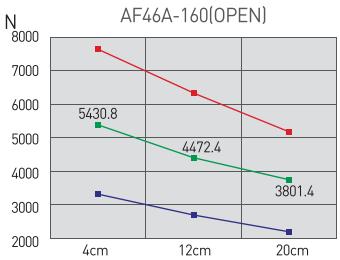


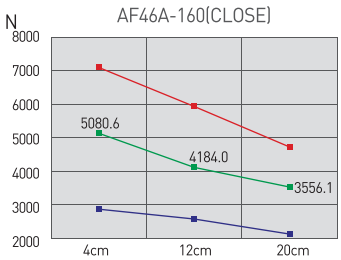




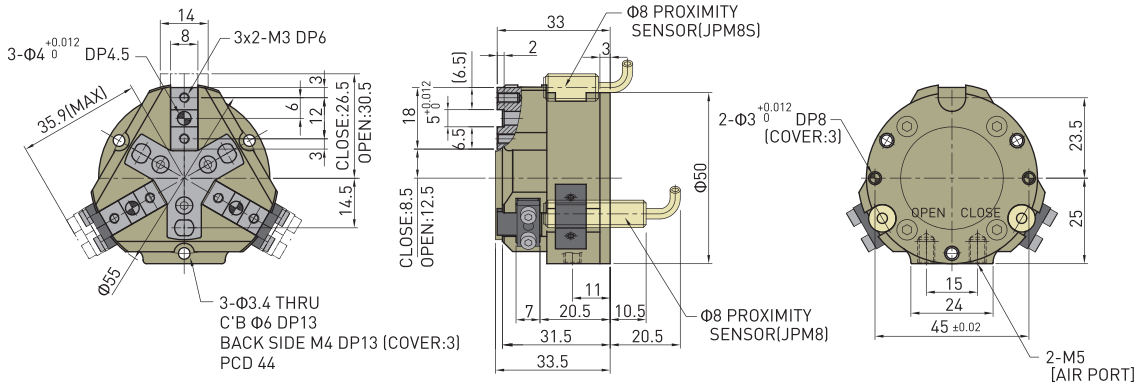




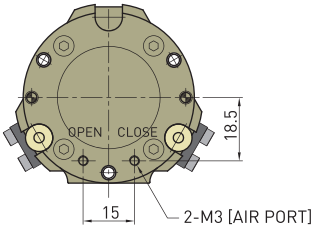




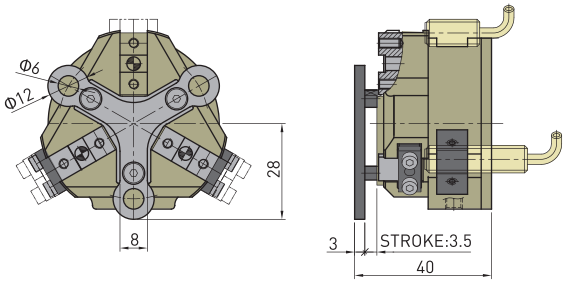
AF46A-30



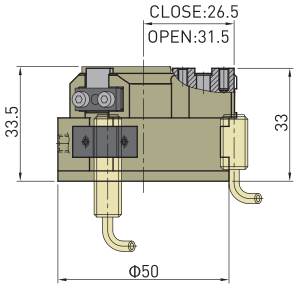
■ BP (Bottom Port) DIMENSION



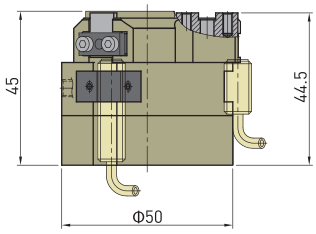
■ CP (Standard Center Push) DIMENSION



■ AF46SNA-30 DIMENSION

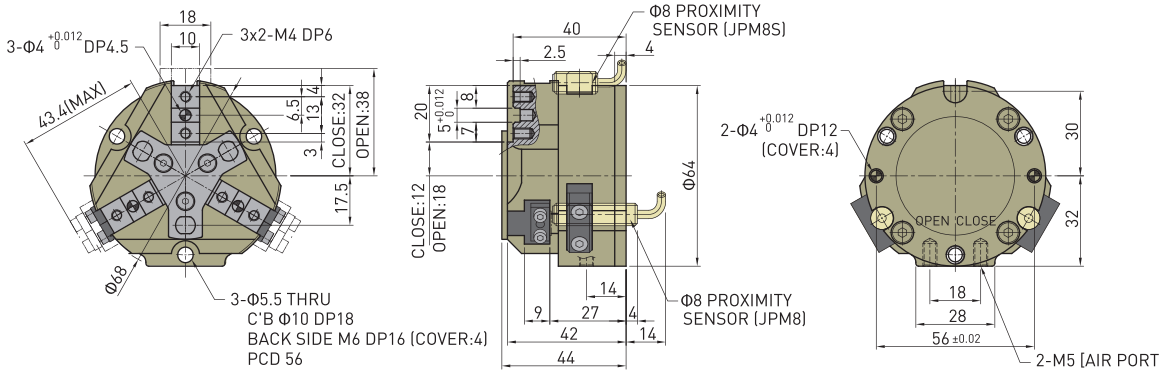


■ AF46□□A-30...-NO(NC) DIMENSION

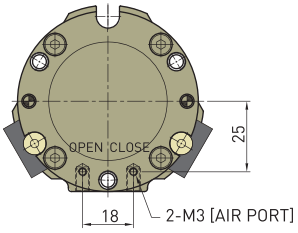


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

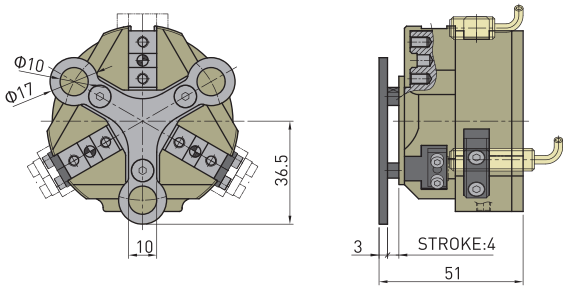
AF46A-40



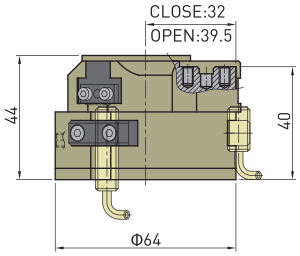
■ BP (Bottom Port) DIMENSION



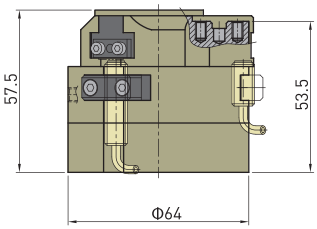
■ CP (Standard Center Push) DIMENSION



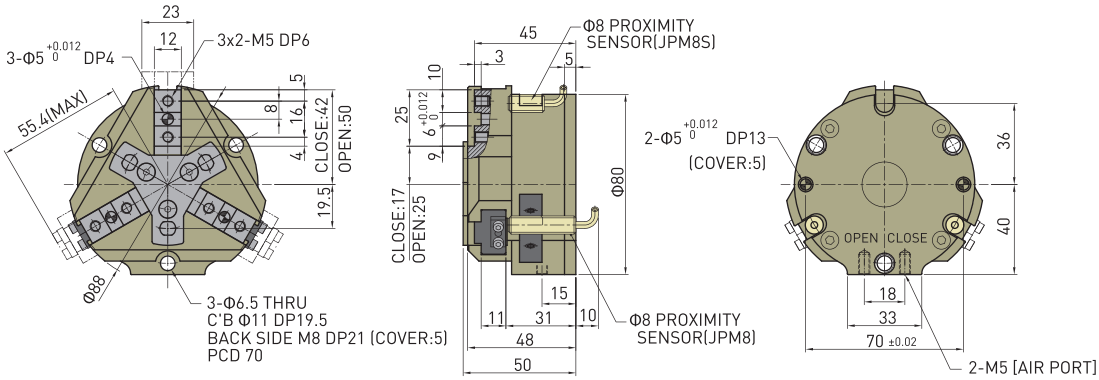
■ AF46SNA-40 DIMENSION



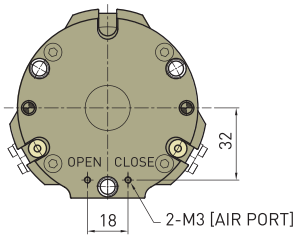
■ AF46□□A-40...-NO(NC) DIMENSION



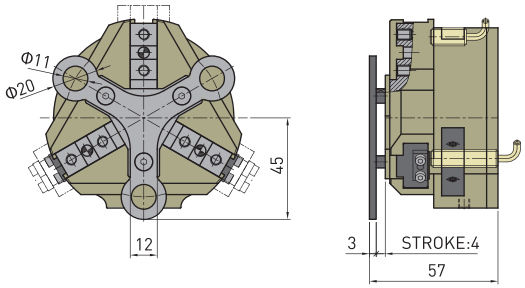
AF46A-55



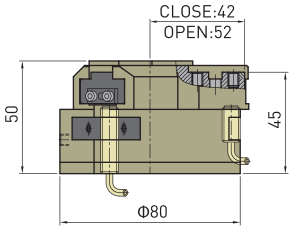
■ BP (Bottom Port) DIMENSION



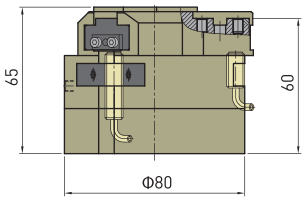
■ CP (Standard Center Push) DIMENSION



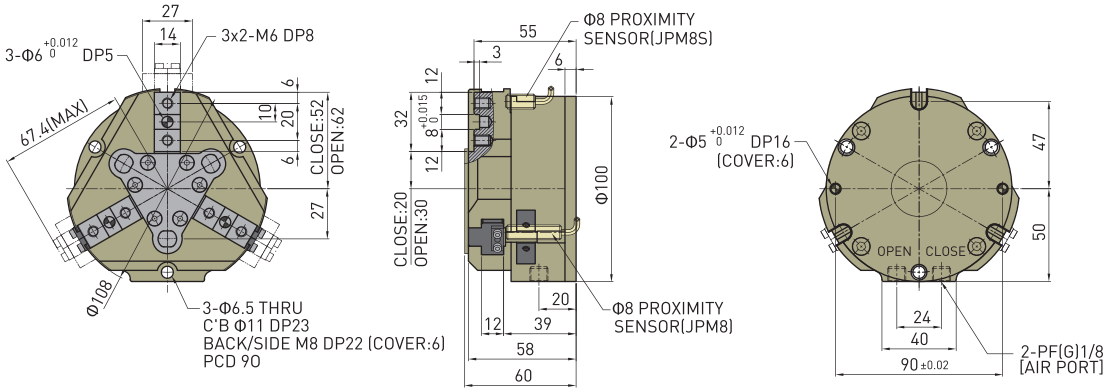
■ AF46SNA-55 DIMENSION



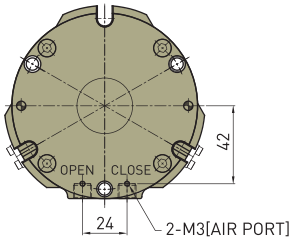
■ AF46□□A-55...-NO(NC) DIMENSION



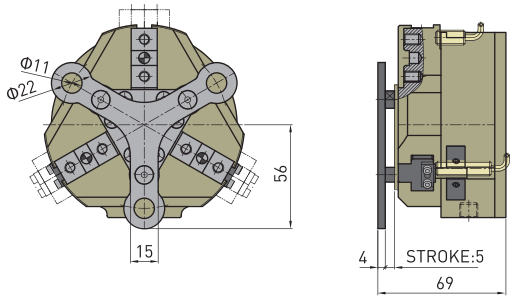
AF46A-75



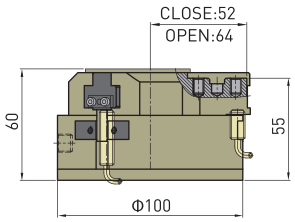
- BP (Bottom Port) DIMENSION



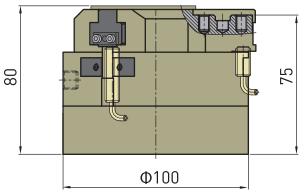
- CP (Standard Center Push) DIMENSION



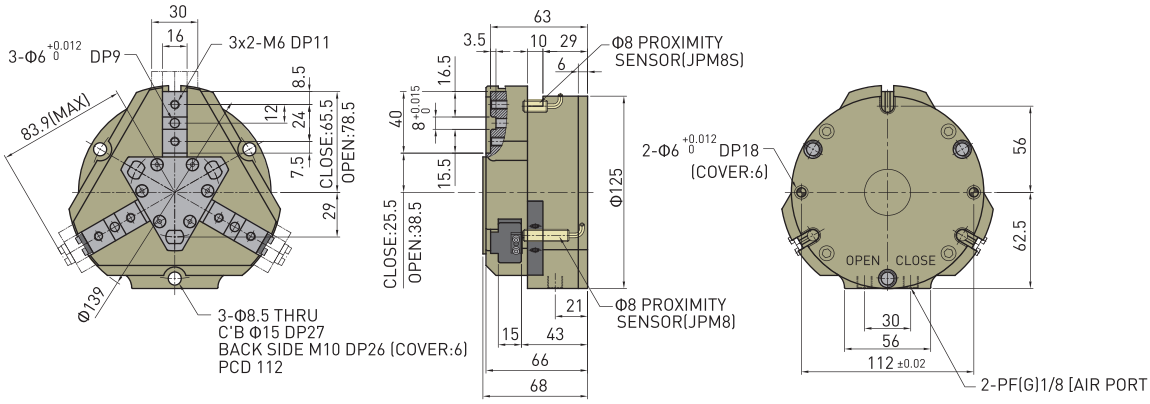
- AF46SNA-75 DIMENSION



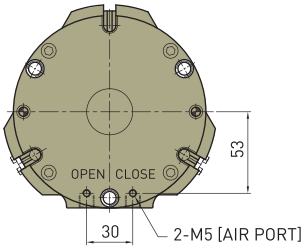
- AF46□□A-75...-NO(NC) DIMENSION



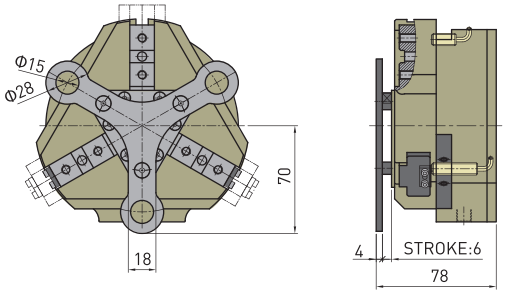
AF46A-95



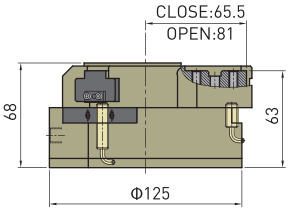
■ BP (Bottom Port) DIMENSION



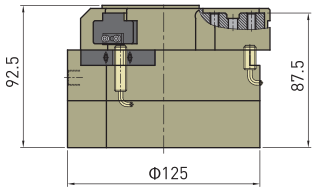
■ CP (Standard Center Push) DIMENSION



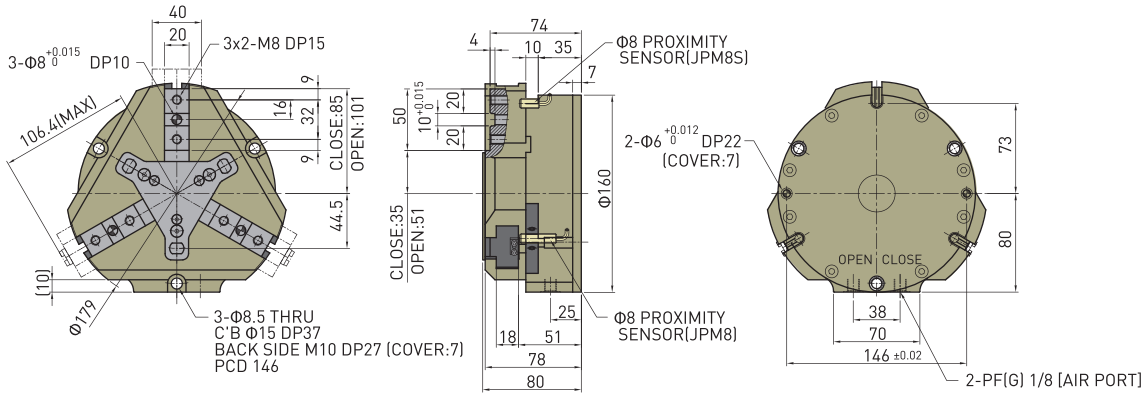
■ AF46SNA-95 DIMENSION



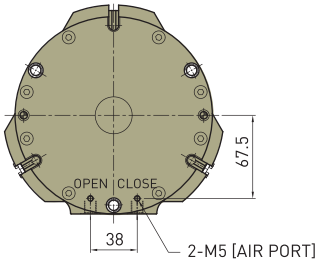
■ AF46□□A-95...-NO(NC) DIMENSION



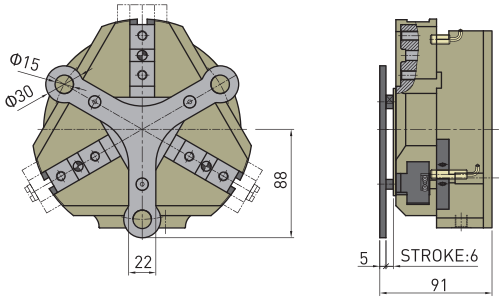
AF46A-125



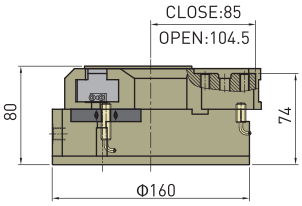
- BP (Bottom Port) DIMENSION



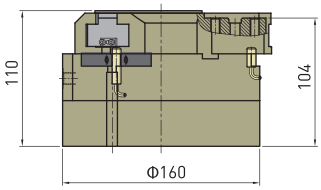
- CP (Standard Center Push) DIMENSION



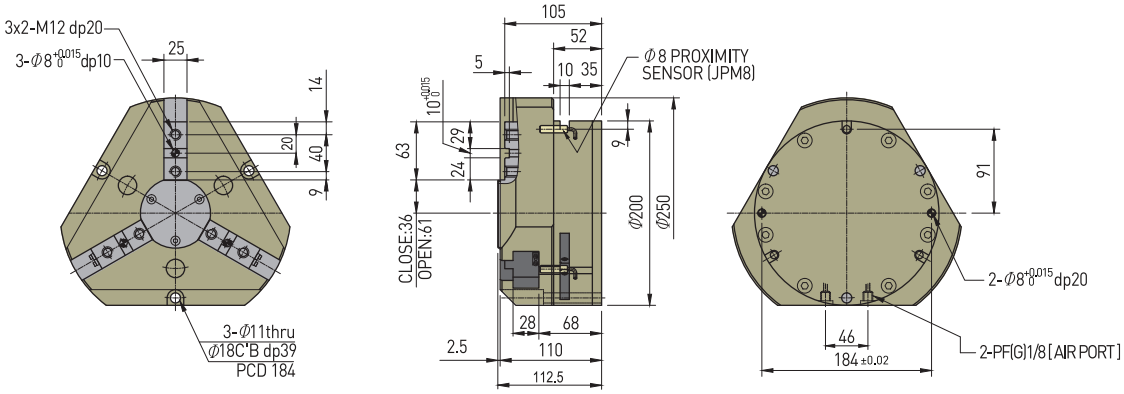
- AF46SNA-125 DIMENSION



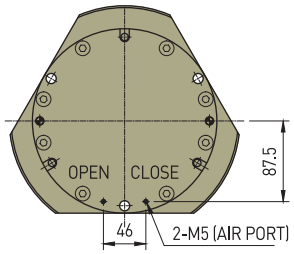
- AF46□□A-125...-NO(NC) DIMENSION



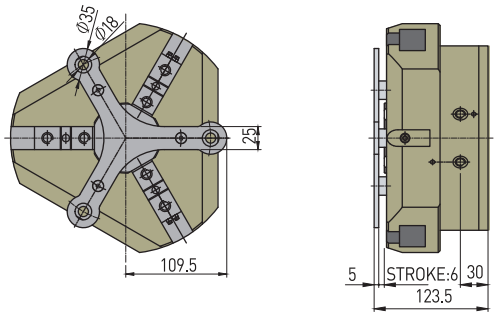
AF46A-160



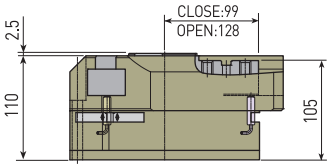
■ BP (Bottom Port) DIMENSION



■ CP STANDARD OPTION DIMENSION

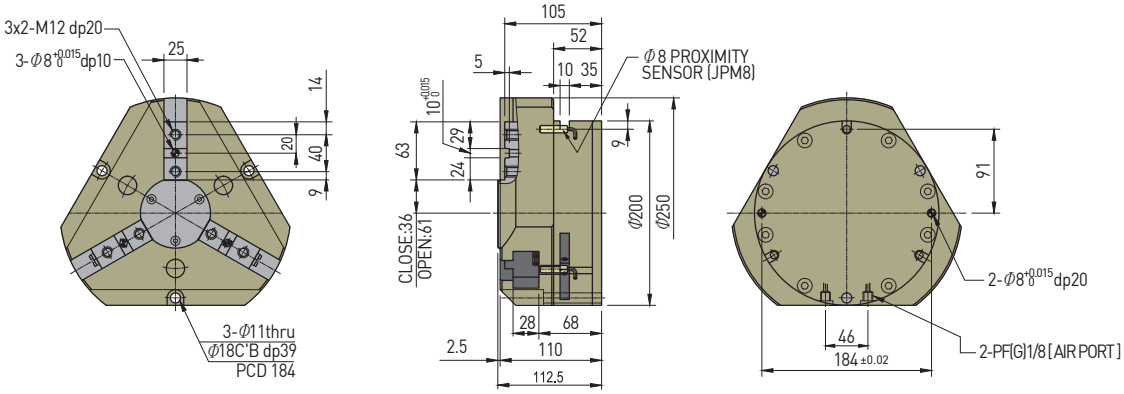


■ AF46SNA-160 DIMENSION

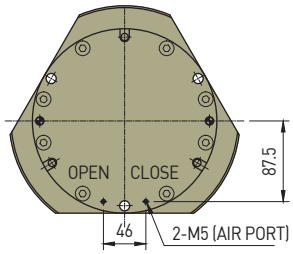


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

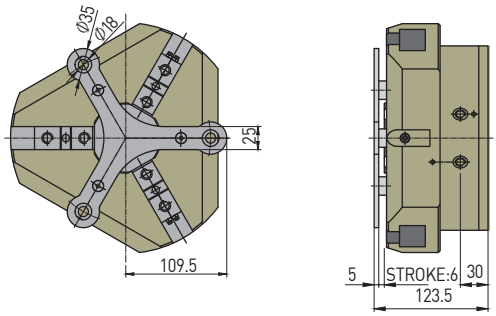
AF46A-160



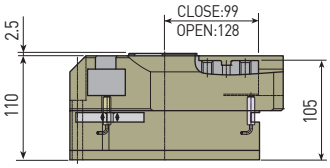
■ BP (Bottom Port) DIMENSION



■ CP STANDARD OPTION DIMENSION



■ AF46SNA-160 DIMENSION

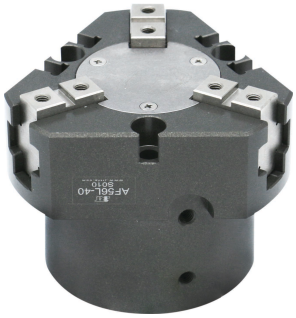


AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

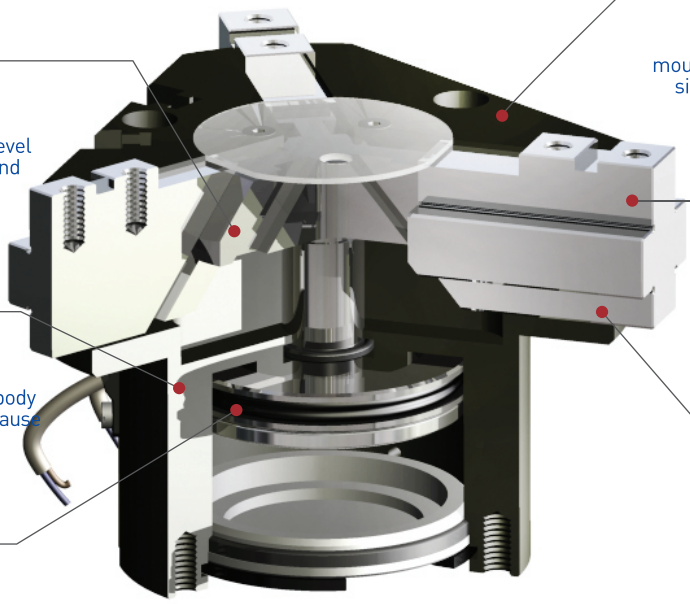
AF56L-40, 50, 63

특징 (Character)

- 취부용 밑면 고정핀 자리 2개소 기본가공
  Basic working 2-fixing pin positions at bottom for attachment
- JAW의 접촉부 몸체의 살두께 보강으로 내구성, 내마모성 향상
  Durability and wear resistance improvement by strengthen thickness of Jaw's contact body.
- 대상물의 중심기준 작업에 효과적
  Easy to grip the center of workpiece
- 마그네틱 센서 사용이 가능한 테이퍼 슬라이딩 방식의 그리퍼
  Taper Sliding type gripper which available to use magnetic sensor
- 롱 스트로크
  Long Stroke

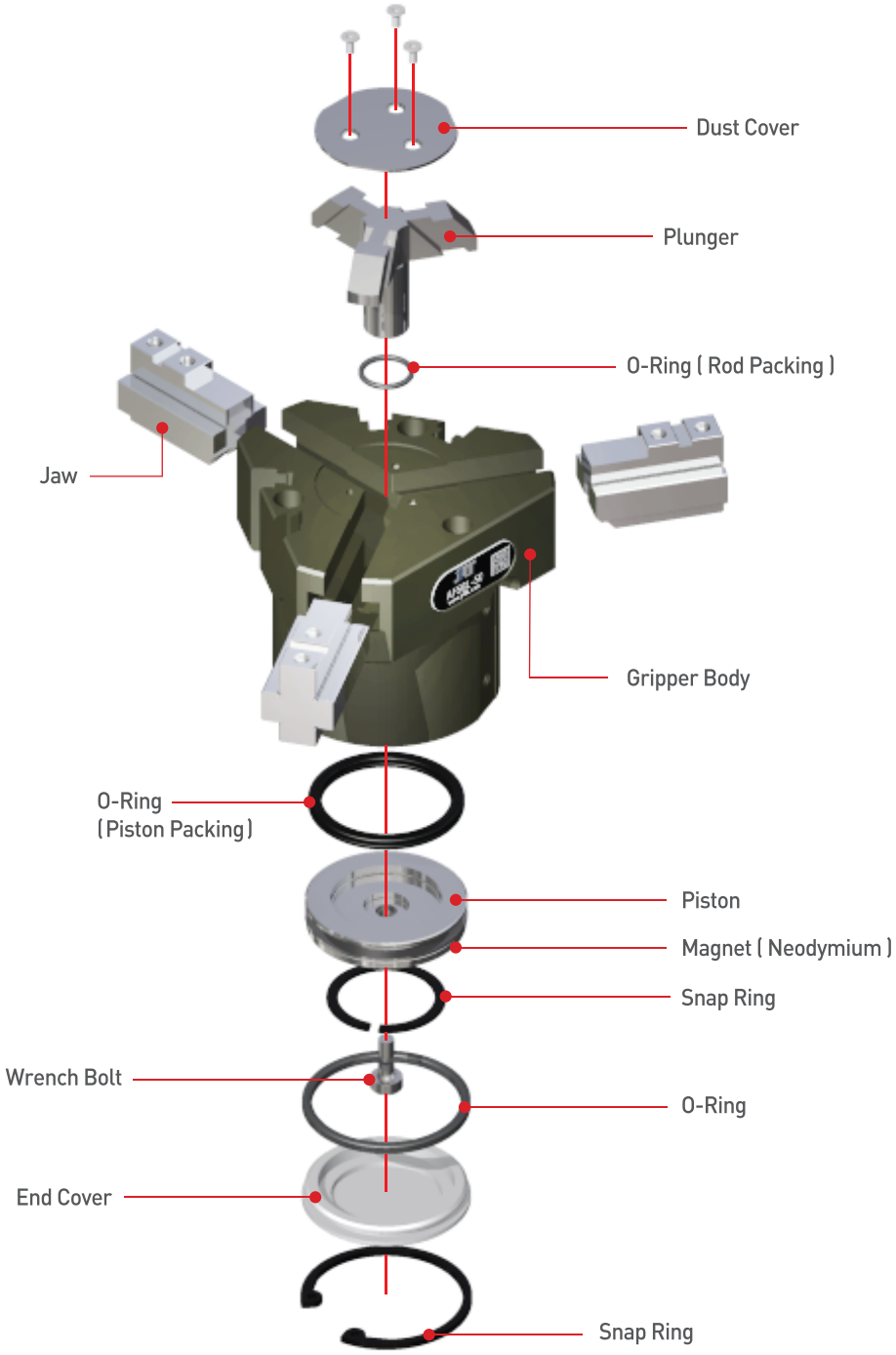


테이퍼 슬라이딩 방식의 3JAW 방식 (Wedge type 3 jaw)



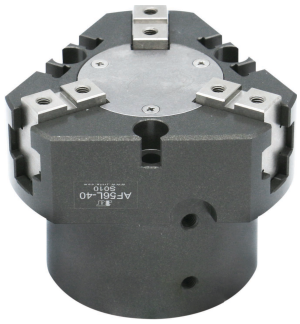
부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
AF02
AF04P
AF105P
AF10
AF13
AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)



제품명
Product Name

실린더직경
Bore Size
40, 50, 63

배관접속구 옵션
Port Option
무기호 - 표준
BP - 밑면 배관 접속구
Nil - Standard
BP - Bottom side Air Port

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

AF56L - 40 BP - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

제품사양 (Specification)

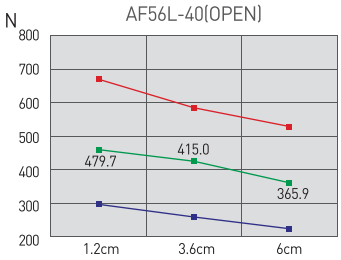
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

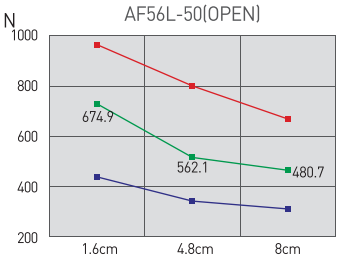
제품명칭 Products Name	AF56L-40	AF56L-50	AF56L-63	단위 Unit
개폐범위 Stroke	22	30	34	mm
제품중량 Weight	0.7	1.2	1.9	kg
최대치구길이 Max. length attach	60	80	100	mm
배관접속구 Fitting size	M5	M5	PF(G) 1/8	
파지력 : 열림시 Gripping force : Open	103.99P / (1+0.007L)	150.09P / (1+0.007L)	238.38P / (1+0.006L)	N
파지력 : 닫힘시 Gripping force : Close	95.16P / (1+0.007L)	138.32P / (1+0.007L)	211.90P / (1+0.006L)	N
1사이클당 공기소모량 Air consumption per cycle	34	69	121	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.06 / 0.06	0.08 / 0.08	0.15 / 0.15	sec
반복정밀도 Repeat accuracy	0.02	0.02	0.02	mm
연속사용회수 Continuation usage amount	40	40	40	cpm
사용압력 Operating pressure	3~7			bar
주위온도 Ambient temperature	-5 to 60			℃
윤활 Lubrication	불필요 Needless			

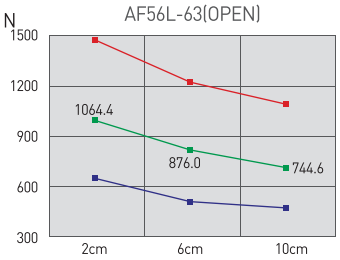
반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

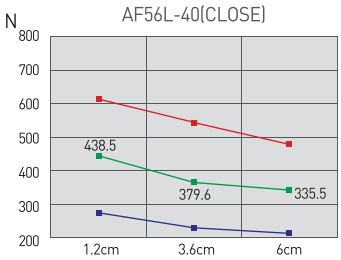
작용점에서의 파지력 (Gripping Force From a Point of Action)

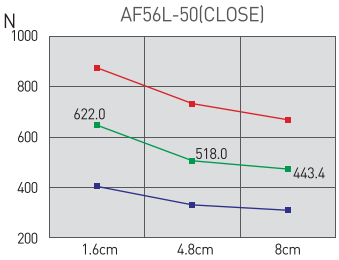
범례(Legend) : 7[bar] 5[bar] 3[bar]

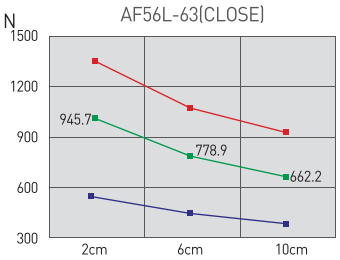




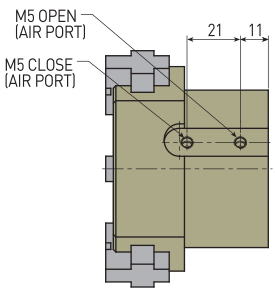


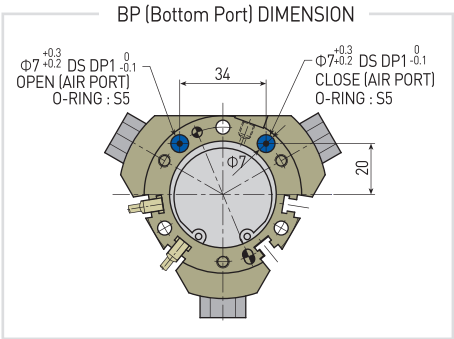


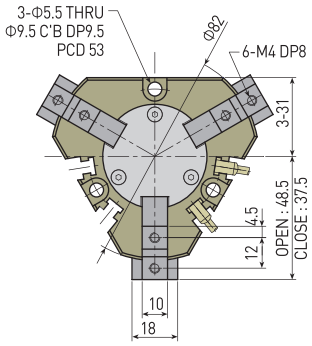


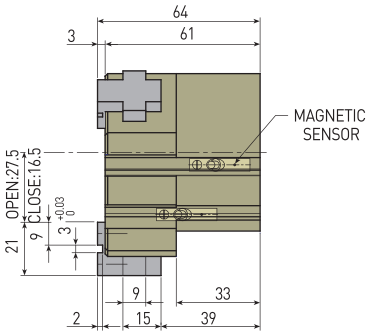


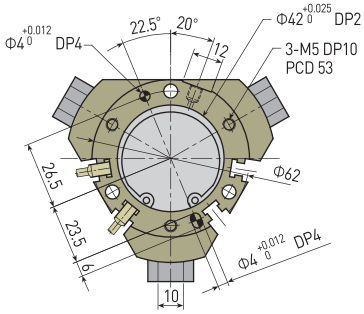
AF56L-40



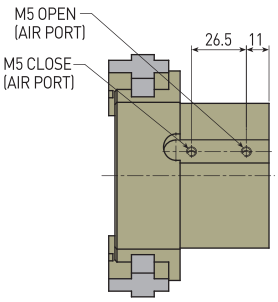


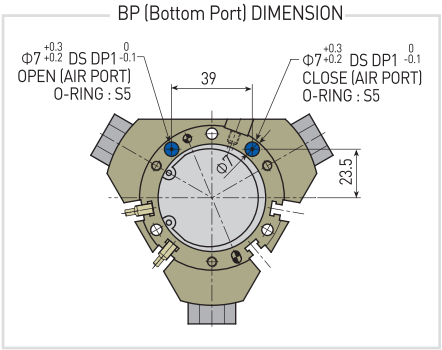


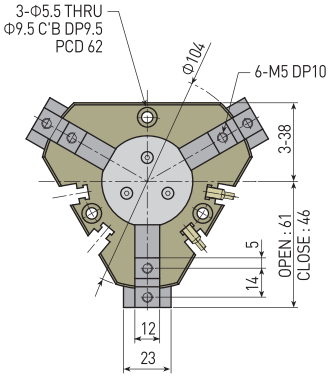


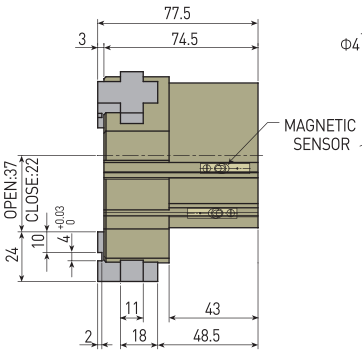


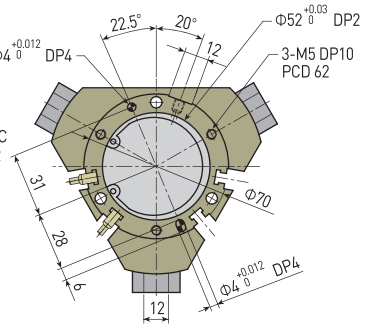
AF56L-50



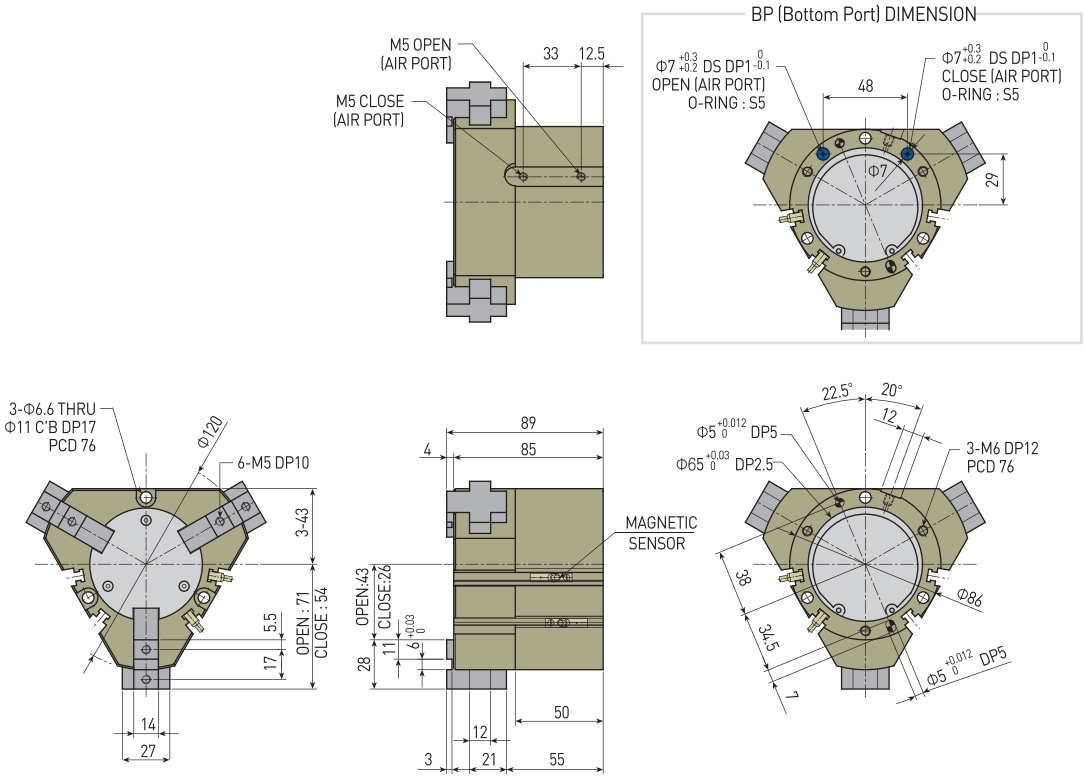








AF56L-63



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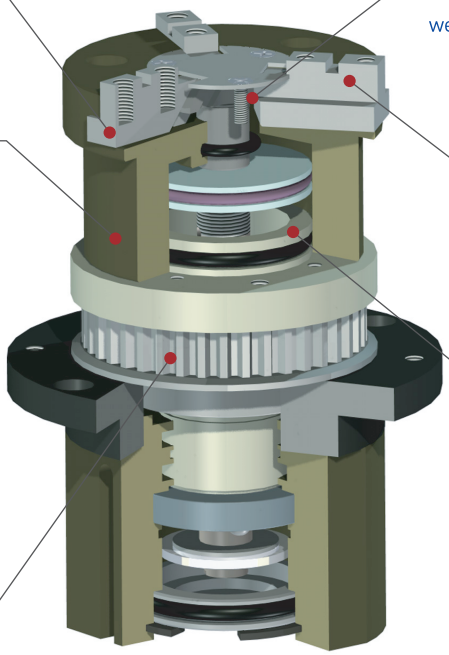
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

RAF56N-32, 40, 50, 63

특징 (Character)

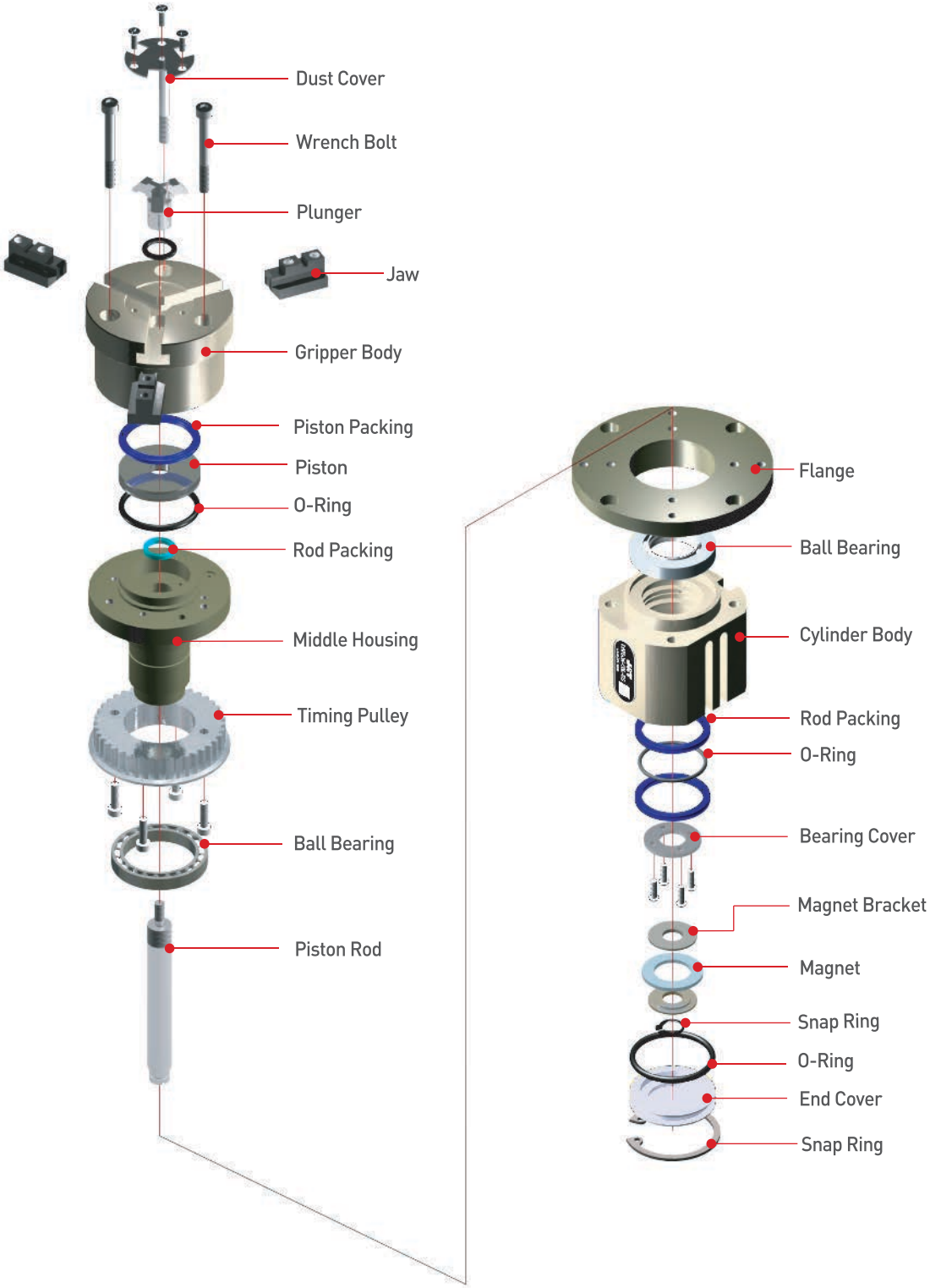
- 센서 사용이 가능한 WEDGE방식 회전용 AIR FINGER
  Air finger for rotation wedge type which available to use sensor
- AF56N SERIES에 회전 장치 부착으로 연속 회전이 가능
  Possible to continuous rotation by attaching turning gear to AF56N SERIES
- 허용회전수 - 100 회/분
  Admissible RPM is 100
- 회전중에도 마그네틱 센서에 의한 개,폐 검출이 가능
  It is available for open-close sensing by magnetic sensor during rotation.
- 타이밍벨트 - XL037-32NT, XL037-40NT사용
  Timing belt

연속회전용 테이퍼 슬라이딩 방식의 3JAW (Wedge type 3 jaw rotation gripper)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



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AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)

제품명
Product Name

실린더직경
Bore Size
32, 40, 50, 63

JAW형태
JAW Type
B - 3 Jaw (표준)
B - 3 Jaw (Standard)

센서수량
Number of Sensor
1 - 1개
무기호 - 2개
1 - 1pc.
Nil - 2pcs.

RAF56N - 32 - B - RS 1 - 3M

센서명칭
Sensor Type

무기호 - 센서 및 관련부품을 제공하지 않습니다. RS(기존방식) 기입시, 본사에서 적합한 임의의 센서를 선정하여 부착해 드립니다.

* 제품에 부착 가능한 센서 규격 및 주문기호는 센서 상세 페이지를 참조 바랍니다.

Nil - Sensor and relevant components are not supplied. When entering RS(existing method), our Head Office will attach a suitable sensor selected at its option.

* For the specification of sensor attachable to the product and the sensor order code, refer to details of sensor part.

센서 선 길이
Sensor Cable Length

무기호 - 1m
3M - 3m
5M - 5m
Q□ - 커넥터 사용
* 커넥터 사양 및 가능여부는 센서 상세 페이지를 참조 바랍니다.

Nil - 1m
3M - 3m
5M - 5m
Q - Quick connector
* For the specification of connector and availability, refer to details of sensor part.

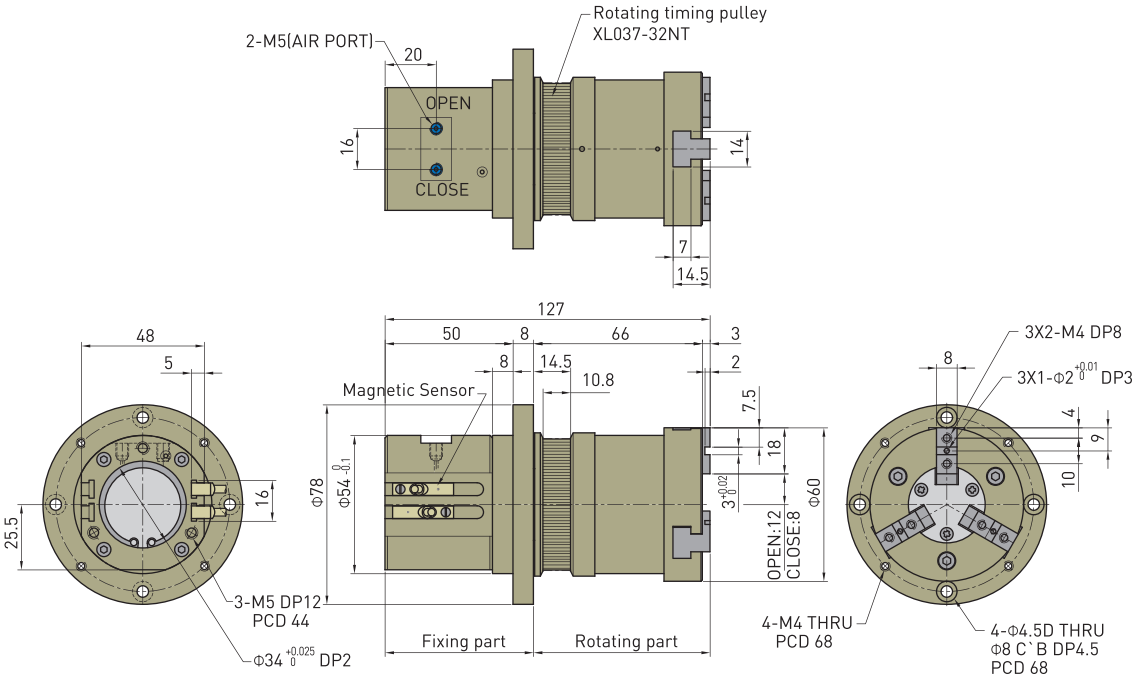
제품사양 (Specification)

P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

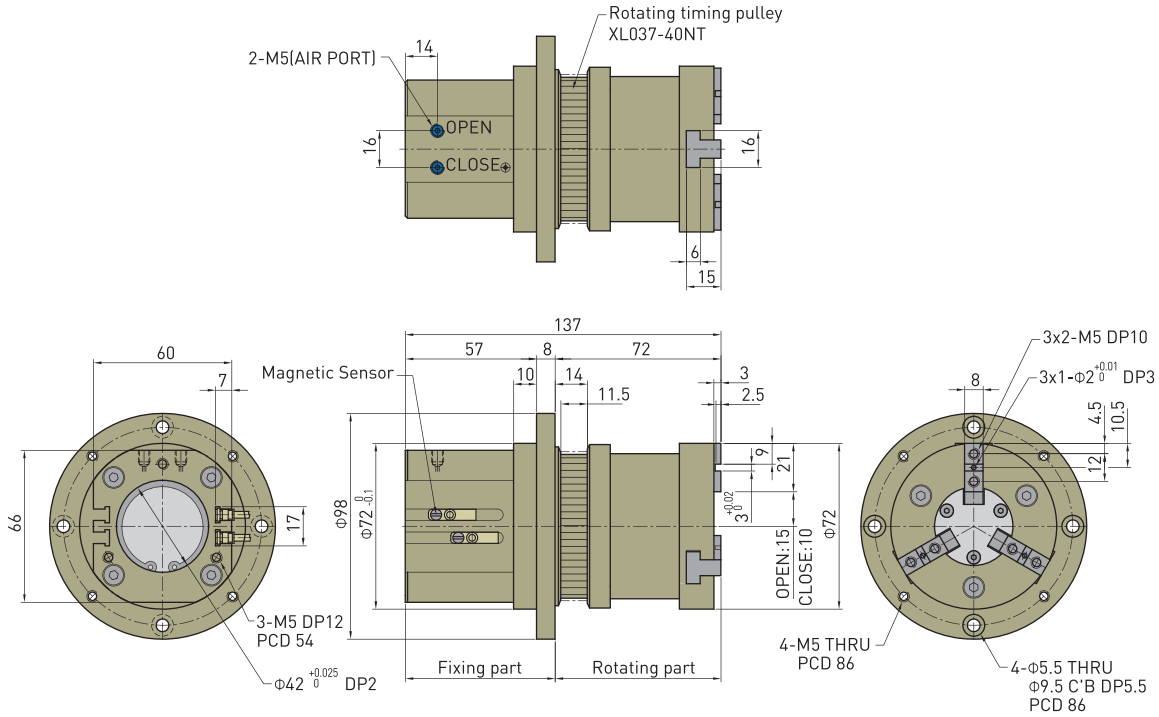
제품명칭 Products Name	RAF56N-32-B	RAF56N-40-B	RAF56N-50-B	RAF56N-63-B	단위 Unit
개폐범위 Stroke	8	10	12	16	mm
제품중량 Weight	0.95	1.43	1.74	2.40	kg
최대치구길이 Max. length attach	50	60	80	100	mm
배관접속구 Fitting size	M5	M5	M5	M5	
파지력 : 열림시 Gripping force : Open	56.90P/(1+0.009L)	103.99P/(1+0.007L)	150.09P/(1+0.007L)	238.38P/(1+0.006L)	N
파지력 : 닫힘시 Gripping force : Close	52.97P/(1+0.009L)	95.16P/(1+0.007L)	138.32P/(1+0.007L)	211.90P/(1+0.006L)	N
타이밍풀리 Timing Pulley Specification	XL037-32NT	XL037-40NT	XL037-40NT	XL037-40NT	
부하토크 (공기압력:0~5 bar) Load Torque (Air Pressure:0~5 bar)	0.3 ~ 0.9	0.5 ~ 2.5	0.5 ~ 2.5	0.4 ~ 2.8	N·m
1사이클당 공기소모량 Air consumption per cycle	6.8	14.9	27.9	59.7	cm^3
닫힘시/열림시 시간 Closing / Opening time	0.01/0.01	0.02/0.02	0.03/0.03	0.06/0.06	sec
반복정밀도 Repeat accuracy	0.01	0.01	0.01	0.01	mm
연속사용회수 Continuation usage amount	60	50	50	50	cpm
허용회전수 Revolution per minute	100	100	100	100	rpm
사용압력 Operating pressure	3~7				bar
주위온도 Ambient temperature	-5 to 60				℃
윤활 Lubrication	불필요 Needless				

반복정밀도 : 연속 100회 작동후 측정치
After 100 consecutive strokes to end positions

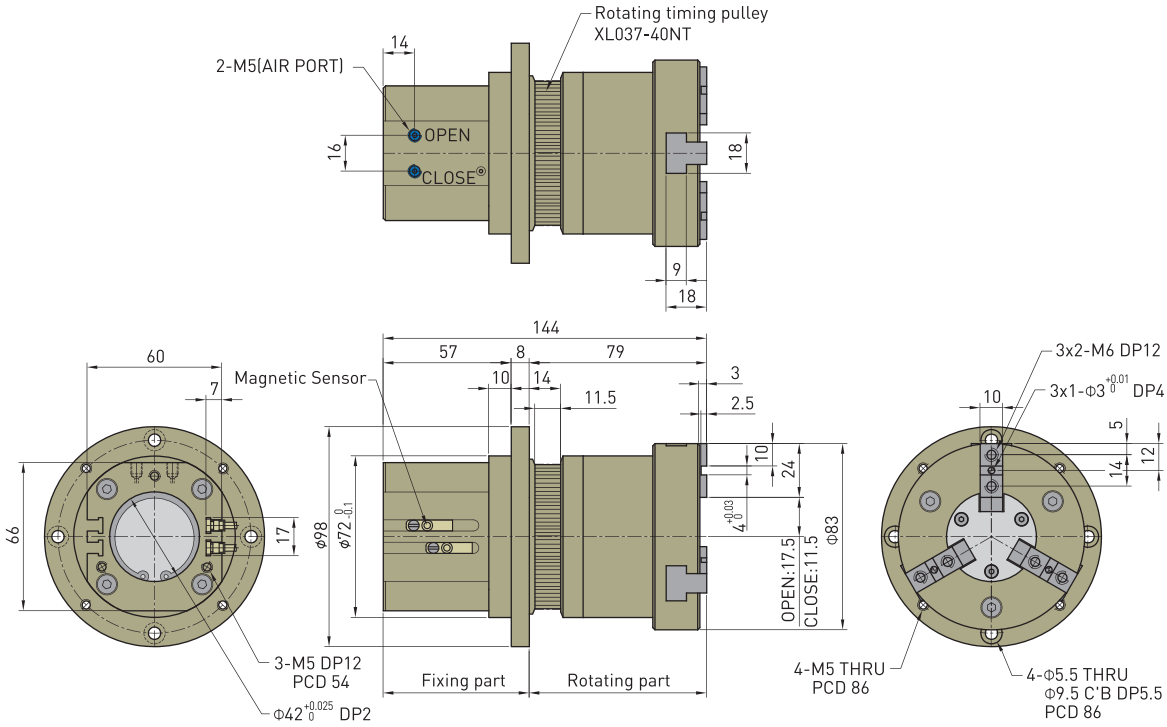
RAF56N-32-B



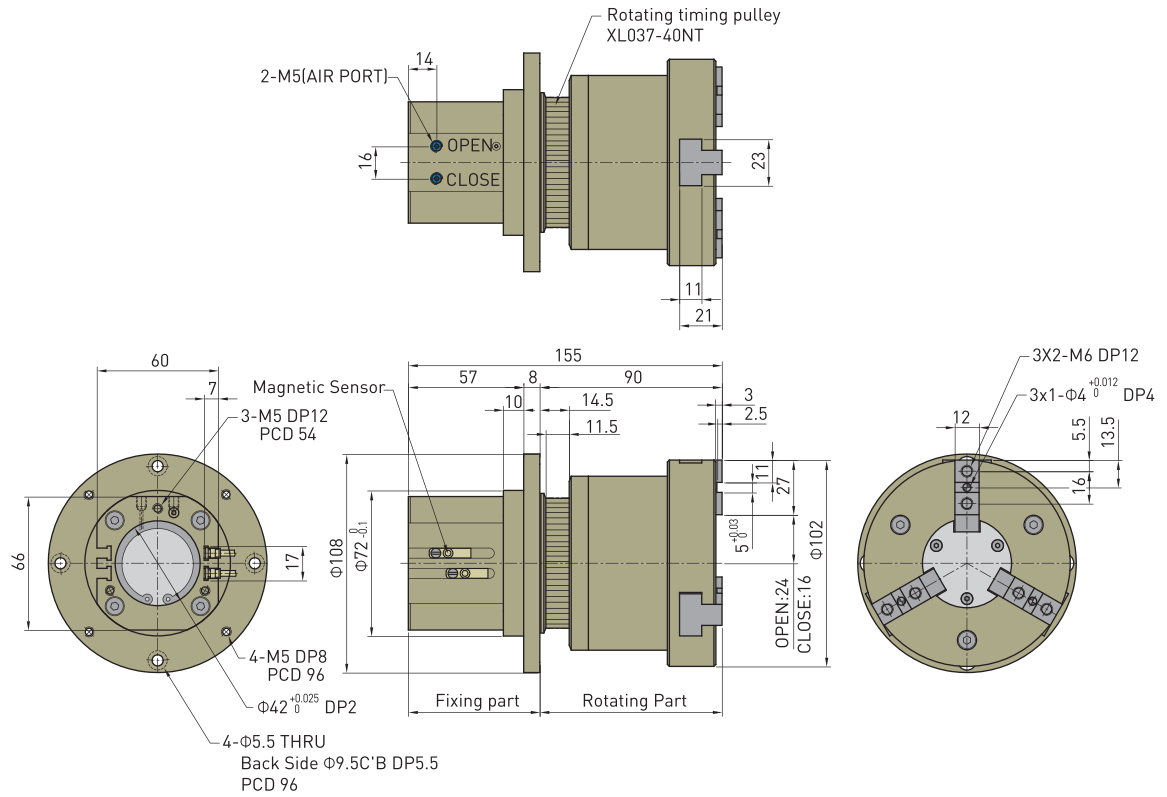
RAF56N-40-B



RAF56N-50-B



RAF56N-63-B



AF101
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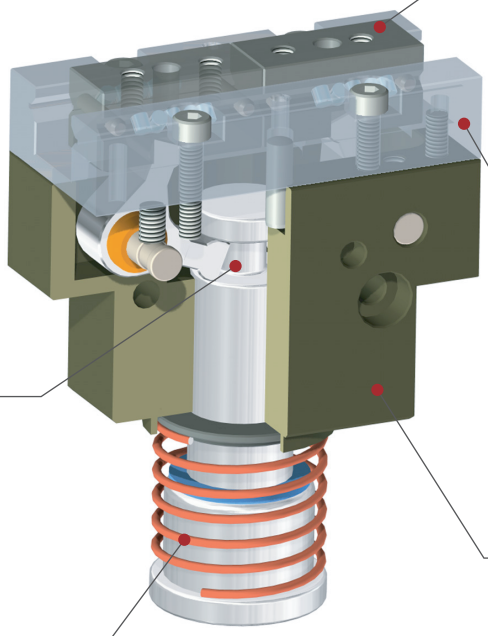
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30(SN)
AF30L
AF46(SN)
AF56L
RAF56N
MF16

MF16-S, M, L

특징 (Character)

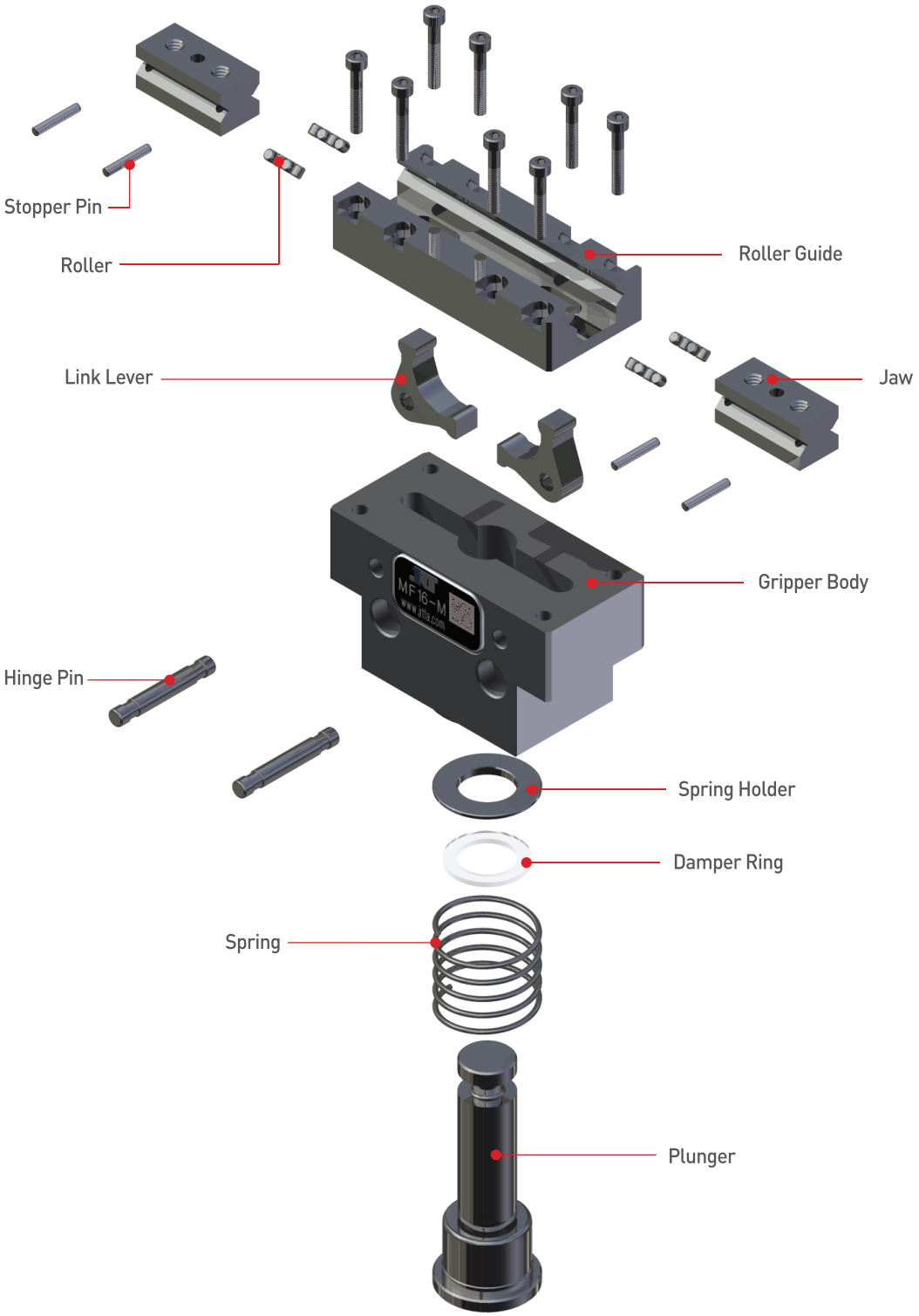
- 스프링에 의한 Normal closing 방식
  Normal closing gripper by spring
- 롤러 가이드의 병렬배치로 내구성 및 동작안정성 증가
  Increase durability and movement stability through roller guide parallel layout
- 비틀림에 강한 플런저
  Strong plunger is resitant to torsion
- 높은 반복 정밀도
  High iterative precision

메카니컬 방식 (Mechanical type)



부품분해도 (Exploded view)

※ 본 분해도는 한 제품을 예시하였으므로 기종별로 차이가 있을 수 있습니다.
※ This is exploded view illustrates a certain product only. The contents may vary by product models.



AF101
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AF04P
AF105P
AF10
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AF14
AF15
AF316
AF316L
AF416
AF17
AF117
AF24
AF26
AF28D
AF28DS
AF30 (SN)
AF30L
AF46 (SN)
AF56L
RAF56N
MF16

주문기호 (How to Order)

제품명 Product Name		크기 Size
MF16	-	M

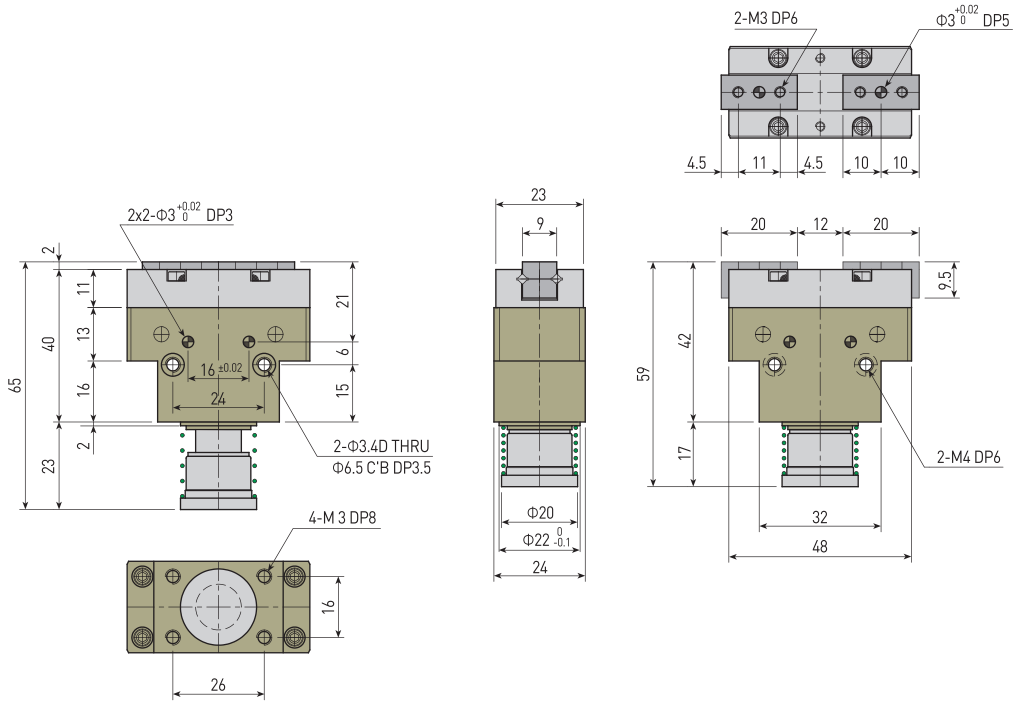
S - Small
M - Medium
L - Large

제품사양 (Specification)

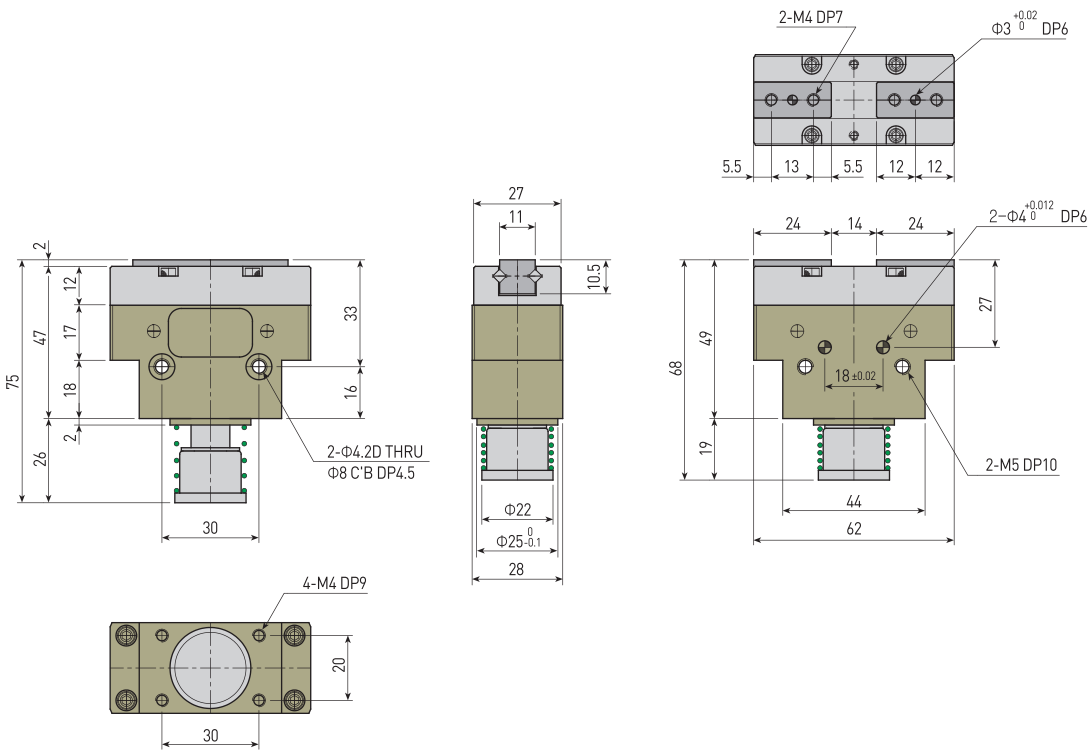
P=공기압력(bar), L=작용점까지의 거리(mm)
P = Air Pressure(bar), L = Gripping point distance(mm)

제품명칭 Products Name	MF16-S	MF16-M	MF16-L	단위 Unit
개폐범위 Stroke	12	14	16	mm
제품중량 Weight	0.2	0.34	0.5	kg
최대치구길이 Max. length attach	32	40	60	mm
파지력 : 닫힘시 Gripping force : Close	10 to 20	15 to 30	25 to 40	N
연속사용회수 Continuation usage amount	60	50	40	cpm
주위온도 Ambient temperature		-5 to 60		℃
윤활 Lubrication		불필요 Needless		

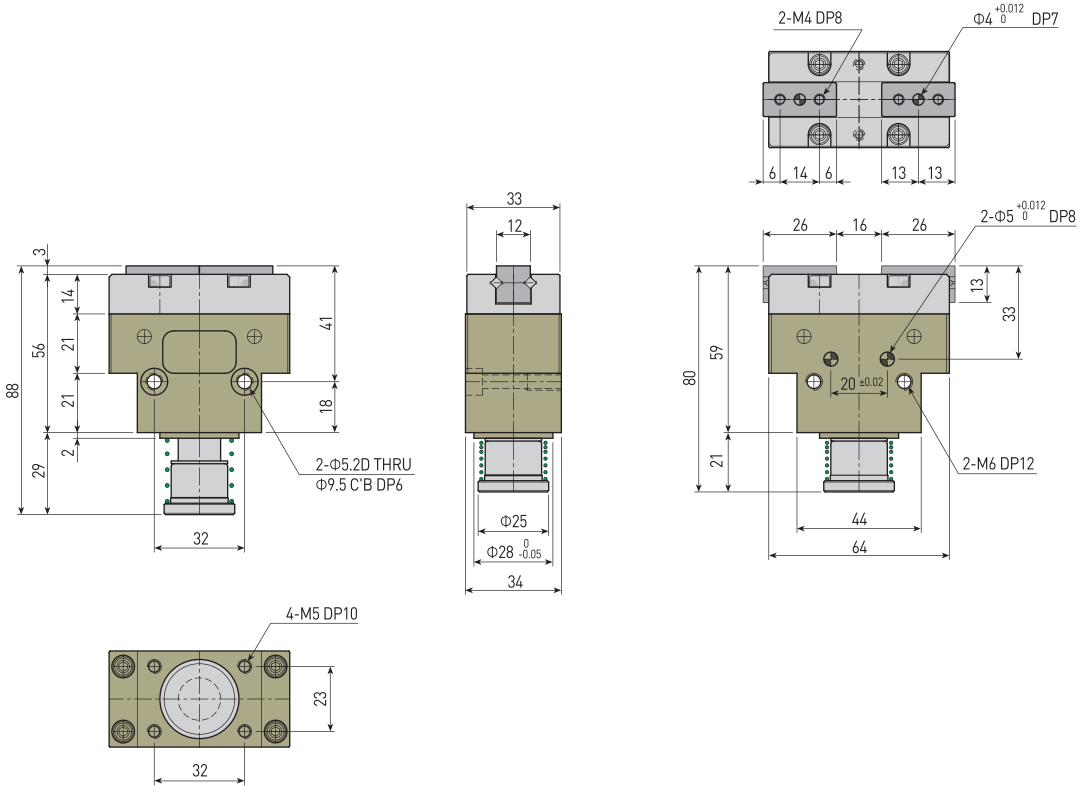
MF16-S


2-M3 DP6
Φ3 +0.02 0 DP5
4.5
11
4.5
10
10
2x2-Φ3 +0.02 0 DP3
2
11
13
16
2
40
65
23
21
6
15
16 ±0.02
24
2-Φ3.4D THRU
Φ6.5 C'B DP3.5
4-M 3 DP8
16
26
23
9
Φ20
Φ22 0 -0.1
24
20
12
20
9.5
59
42
17
2-M4 DP6
32
48

MF16-M


2-M4 DP7
Φ3 +0.02 0 DP6
5.5
13
5.5
12
12
2
12
17
18
2
75
47
26
33
16
2-Φ4.2D THRU
Φ8 C'B DP4.5
30
27
11
10.5
Φ22
Φ25 0 -0.1
28
24
14
24
2-Φ4 +0.012 0 DP6
68
49
19
27
18 ±0.02
2-M5 DP10
44
62
4-M4 DP9
20
30

MF16-L


2-M4 DP8
Φ4 +0.012 0 DP7
6
14
6
13
13
33
12
26
16
26
2-Φ5 +0.012 0 DP8
3
14
21
21
2
56
88
29
41
18
2-Φ5.2D THRU
Φ9.5 C'B DP6
32
Φ25
Φ28 0 -0.05
34
13
33
59
80
21
20 ±0.02
2-M6 DP12
44
64
4-M5 DP10
23
32

NOTE