promano

Gripper by KITAGAWA

Gripper innovation!

Gripper Innova

KITAGAWA is continuing our technical development based on our "Workholding soution" by supplying the ultimate automation solution.

promano
Gripper by KITAGAWA

Innovation

KITAGAWA is continuing our technical development based on our "Workholding solution" by supplying the ultimate automation solution. Our gripper "Promano" supplies an innovative automation solution to increase your productivity.

Character

The compact body provides a stable gripping force and high repeatability. A lightweight and rigid body design is made capable by using a high-tensile alloy. The high quality and original design makes maintenance, disassembly and cleaning easy.

Universal Design

Promano responds to your requirements with a high quality, easy-to-use and wide ranging series of Grippers. Designed for any industry with competitive pricing and fast delivery.

Global Standard

"Promano" is a global standard gripper. Constant research and development ensure that "Promano" meets current and future automation requirements. High quality and competitively priced "Promano" is supplied by KITAGAWA anywhere in the world to meet your production needs.

tion

Tough

High load bearing T-slot

with a special long lasting alloy master jaw provides a stable gripping force.

Compact

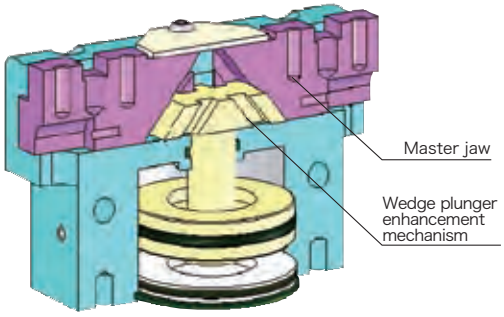
Compact body

of high-tensile alloy is light weight and provides high rigidity at the same time. The compactness enables you to grip a workpiece within a limited space without interference.

Powerful

Wedge mechanism

guarantees high power transfer enabling positive gripping without work piece slippage.



Reliable

Robust mechanism

designed with minimal parts reduces the need for maintenance.

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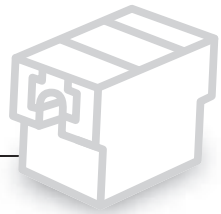
KTS2 series

Gripper innovation! promano

2-Jaw Parallel Gripper

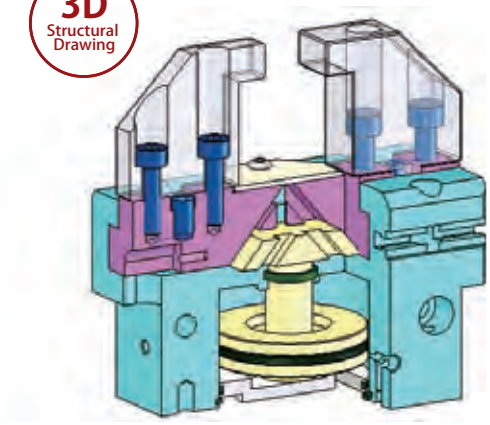


Standard model for various automation operations

Features

- Standard model of Grippers suitable for various automation operations
- Multiple variations and jaw options available
- Light weight and Compact body
- High repeatability and Long operating life

3D Structural Drawing



How to Order

K T S 2 0 5 N A B

KTS2 series

Size		
05	06	08
10	12	16

Gripping Force ※1	
N	Standard force
S	High force

Safety device ※2	
N	Without device
A	For internal gripping
C	For external gripping

Proximity Switch Bracket ※3	
N	Without bracket
B	With brackets

Notes

1 High force model can supply higher gripping force than standard model. However, the high force model will have shorter strokes than the standard model.

2 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.

3 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.

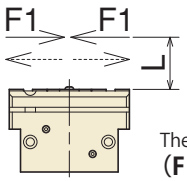
4 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Gripping Force Type	Jaw Stroke (diameter) (mm)	Gripping Force (F)* Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)	Repeatability (mm)	Net Weight (kg)	Air Consumption (cm³/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KTS205N		8	10	116	132		0.16	2.9		
KTS206N		12	10	200	222		0.28	7.3		
KTS208N	Standard	16	10	348	382	±0.01	0.5	16.5	0.2～0.8	5～60
KTS210N		20	20	536	584		0.84	31.9		
KTS212N		24	20	760	820		1.5	59.4		
KTS216N		32	20	1226	1312		2.4	118		
KTS205S		4	10	228	260		0.16	2.9		
KTS206S		6	10	400	442		0.28	7.3		
KTS208S	High Gripping Force	8	10	690	754	±0.01	0.5	16.5	0.2～0.8	5～60
KTS210S		10	20	1056	1152		0.84	31.9		
KTS212S		12	20	1506	1626		1.5	59.4		
KTS216S		16	20	2420	2592		2.4	118		

*At Air Pressure 0.6MPa

Gripping Characteristic Graph

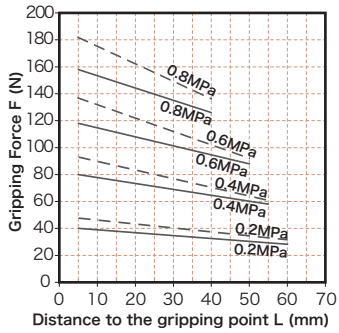


Internal Gripping
External Gripping

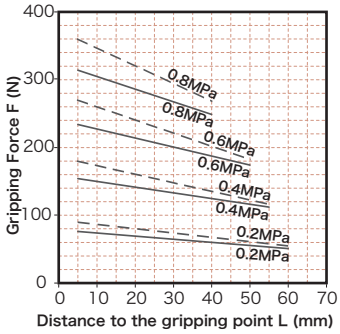
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×2)

The point to be measured gripping force

●KTS205N



●KTS205S



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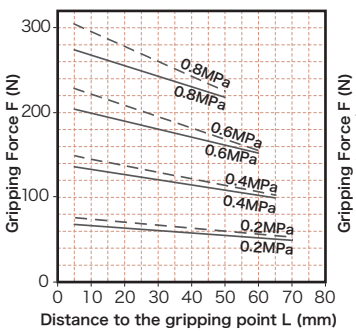

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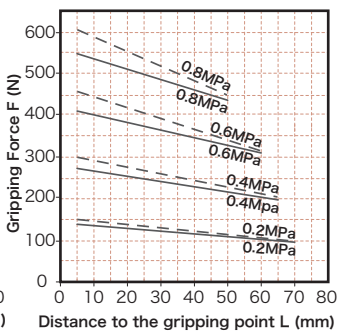

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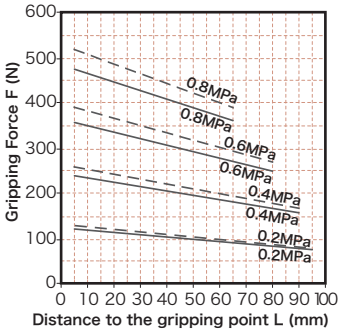

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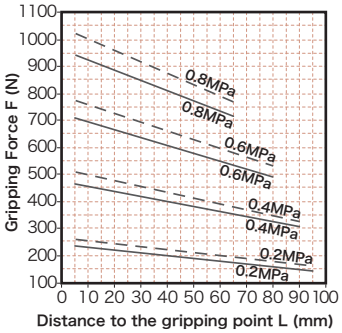

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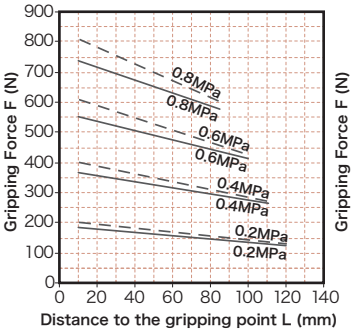

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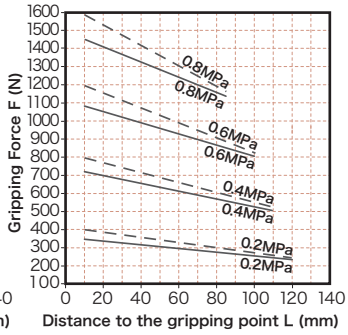

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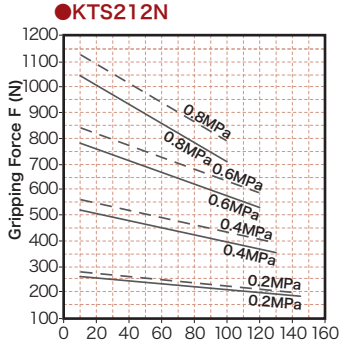

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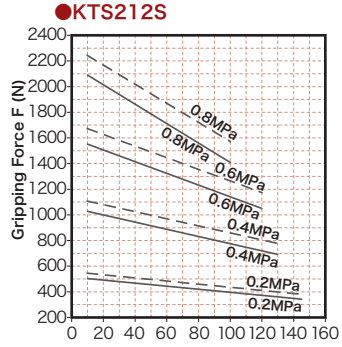

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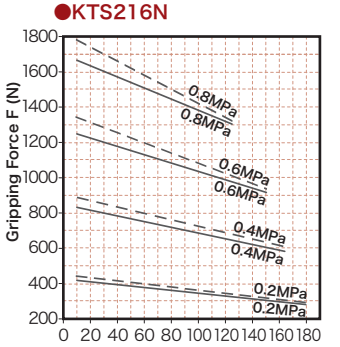

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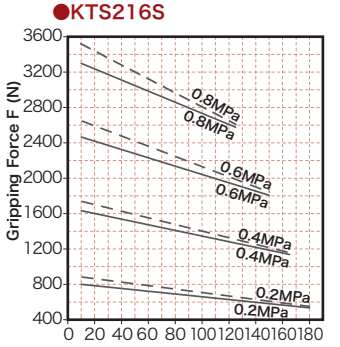
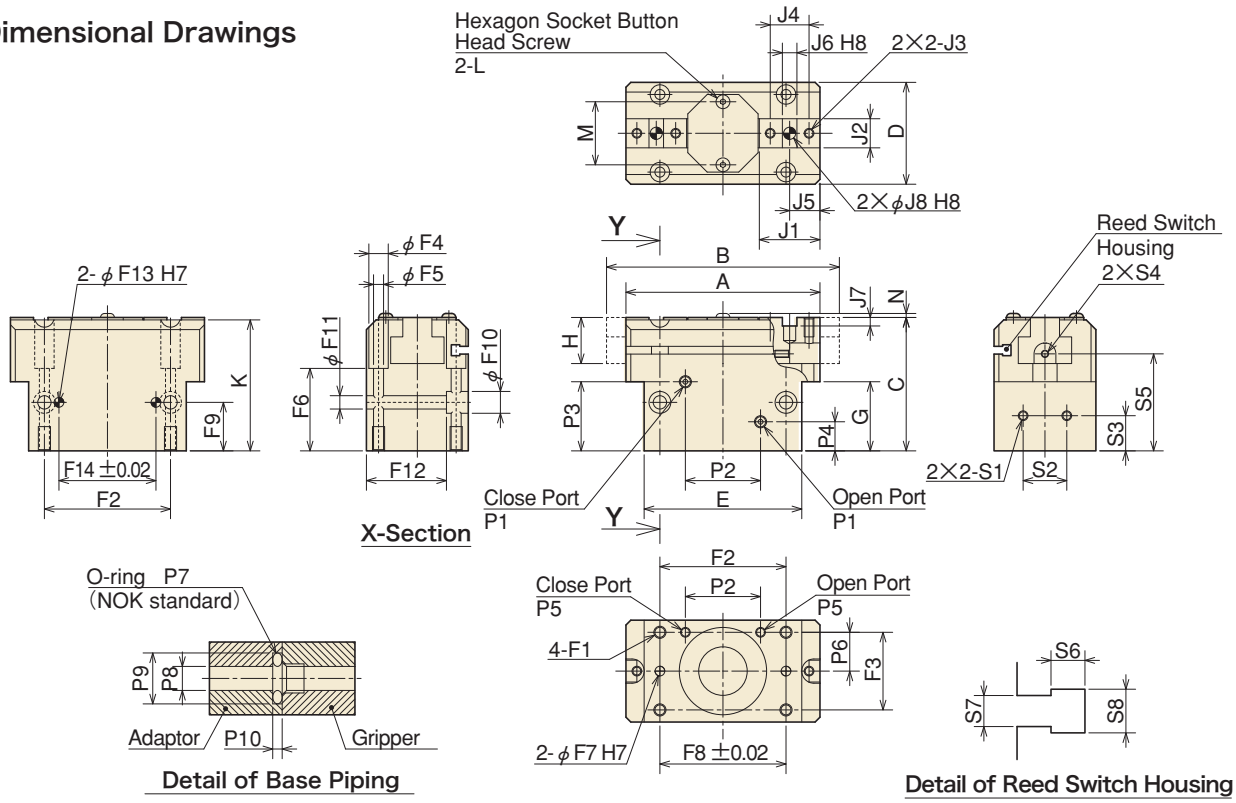


Dimensional Drawings



Dimensions

Model	Outline Dimensions											
	A	B		C	D	E	G	H	K	L	M	N
		Standard	High Gripping Force									
KTS205N／S	50	58	54	36.5	32	42	16	15	35.5	M3	19	1.7
KTS206N／S	65	77	71	44.5	36	52	21.5	16.5	43.5	M3	22	1.7
KTS208N／S	80	96	88	55	42	65	28.5	19	54	M3	26	1.7
KTS210N／S	100	120	110	63	50	82	32	22.5	61.5	M4	32	2.2
KTS212N／S	125	149	137	74	60	105	38.5	26	72	M4	36	2.2
KTS216N／S	160	192	176	88	72	125	45.5	30.5	86	M4	42	2.2

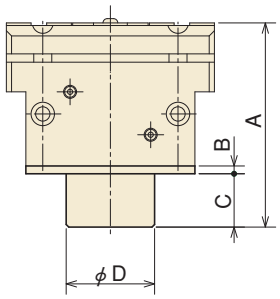
Model	Dimensions of Jaw Mounting									
	J1	J2	J3		J4	J5	J6 (H7)	J7	J8	
			Diameter	Depth					Diameter (H8)	Depth
KTS205N／S	18	8	M3	6	12	9	5	2.5	φ4	5.5
KTS206N／S	21	10	M4	8	13	10.5	5	3	φ4	6
KTS208N／S	25	12	M4	8	16	12.5	6	3.5	φ5	6
KTS210N／S	32	16	M5	10	20	16	8	4	φ6	8
KTS212N／S	40	19	M6	12	24	20	8	4.5	φ6	8
KTS216N／S	50	22	M8	16	32	25	10	4.5	φ8	12

Model	Dimensions of Body Fixed Part															
	F1		F2	F3	F4	F5	F6	F7		F8 (±0.02)	F9	F10	F11	F12	F13		F14 (±0.02)
	Diameter	Depth						Diameter (H7)	Depth						Diameter (H7)	Depth	
KTS205N／S	M4	6	35	22	φ6	φ3.2	20	φ3	5	35	9	φ6	φ3.4	24.4	φ3	6	24
KTS206N／S	M5	9	42	27	φ7.5	φ4.2	29	φ4	5.5	42	18	φ8	φ4.5	29	φ4	8	20
KTS208N／S	M5	10	52	32	φ8	φ4.2	34	φ4	6	52	20	φ9	φ5.5	33	φ4	8	40
KTS210N／S	M6	12	66	38	φ9	φ5.2	37.5	φ5	8	66	25	φ11	φ6.5	40	φ5	8	50
KTS212N／S	M8	16	82	45	φ11	φ6.4	46	φ6	10	82	30	φ14	φ8.5	49	φ6	10	60
KTS216N／S	M8	16	100	56	φ11	φ6.4	56	φ6	10	100	28	φ14	φ8.5	60	φ6	10	76

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part							
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	Proximity Switch					Reed Switch		
											S1	S2	S3	S4	S5	S6	S7	S8
KTS205N／S	M5	18	17.5	7	M3	10.5	S4	φ3	φ6.6	1	M3	14	4.5	M3	24.5	3.5	3.2	4.2
KTS206N／S	M5	24	23	9.5	M3	12	S4	φ3	φ6.6	1	M4	18	12	M3	32	3.5	3.2	4.2
KTS208N／S	M5	31	28.5	12	M4	16	S6	φ4	φ8.3	1	M4	18	14.5	M3	40	3.5	3.2	4.2
KTS210N／S	M5	38	32	13	M4	19	S6	φ4	φ8.3	1	M4	18	18	M3	44.5	3.5	3.2	4.2
KTS212N／S	G1／8	48	35	13.5	M5	21	S8	φ5	φ10.3	1	M4	18	23	M3	52	3.5	3.2	4.2
KTS216N／S	G1／8	56	42	14	M5	26	S8	φ5	φ10.3	1	M4	18	36.5	M3	61.5	3.5	3.2	4.2

◎Option

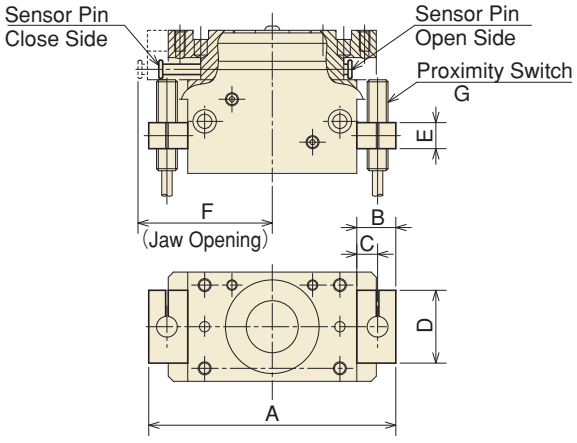
■Safety Device



Safety Device

Model	Specifications				Outline Dimensions			
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C	D
	Measured Distance L(mm)	Spring Force (N)						
KTS205NA／C	10	40～54	0.19		53.5	2.5	14.5	ϕ19
KTS206NA／C	10	64～96	0.35		59	3	11.5	ϕ26
KTS208NA／C	10	92～176	0.65	0.4～0.7	78.5	3	20.5	ϕ34
KTS210NA／C	20	158～264	1.15		89	3.5	22.5	ϕ42
KTS212NA／C	20	256～406	1.9		104	4	26	ϕ52
KTS216NA／C	20	350～480	3.1		129	4	37	ϕ60
KTS205SA／C	10	78～108	0.19		53.5	2.5	14.5	ϕ19
KTS206SA／C	10	124～188	0.35		59	3	11.5	ϕ26
KTS208SA／C	10	186～344	0.65		78.5	3	20.5	ϕ34
KTS210SA／C	20	312～522	1.15	0.4～0.7	89	3.5	2.5	ϕ42
KTS212SA／C	20	508～804	1.9		104	4	26	ϕ52
KTS216SA／C	20	694～952	3.1		129	4	37	ϕ60

■Proximity Switch Bracket



Attaching Proximity Switch

Model	Outline Dimensions							
	A	B	C	D	E	F		G
						Standard	High Gripping Force	
KTS205※※B	65	11.5	6	22	8	33	31	M5
KTS206※※B	82	15	8	28	10	44	41	M8
KTS208※※B	95	15	8	28	10	50.5	46.5	M8
KTS210※※B	112	15	8	28	10	62.5	57.5	M8
KTS212※※B	135	15	8	28	10	76	70	M8
KTS216※※B	179	27	20	28	10	102	94	M8

KPG2 series

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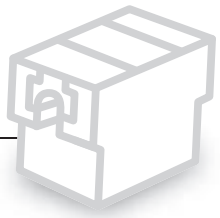
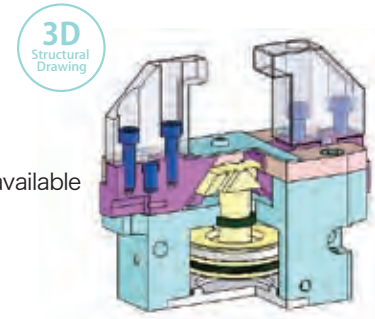
2-Jaw Parallel Gripper with Split Body



Easy maintenance : cleaning and parts replacement

Features

- Split body enables easy cleaning and parts replacement
- Multiple variations and jaw options available
- Light weight and Compact body
- High repeatability and Long operating life



How to Order

K P G 2 0 5 N A B

KPG2 series

Size			
05	06	08	10
12	16	20	30

Gripping Force	
N	Standard force
S	High force

Safety device	
N	Without device
A	For internal gripping
C	For external gripping

Proximity Switch Bracket	
N	Without bracket
B	With brackets

Notes

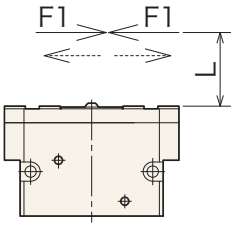
1 High force model can supply higher gripping force than standard model. However, the high force model will have shorter strokes than the standard model.
2 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.
3 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.
4 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Gripping Force Type	Jaw Stroke (diameter) (mm)	Gripping Force (F)*			Repeatability (mm)	Net Weight (kg)	Air Consumption (ℓ/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
			Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)					
KPG205N	Standard	8	10	116	132	±0.01	0.18	2.9	0.2～0.8	5～60
KPG206N		12	10	200	222		0.32	7.3		
KPG208N		16	10	348	382		0.58	16.5		
KPG210N		20	20	536	584		1	31.9		
KPG212N		24	20	828	892		1.7	59.4		
KPG216N		32	20	1226	1312		2.8	118		
KPG220N		40	20	2280	2388		6	267		
KPG230N		58	20	4600	4760		19	801		
KPG205S	High Gripping Force	4	10	228	260	±0.01	0.18	2.9	0.2～0.8	5～60
KPG206S		6	10	400	442		0.32	7.3		
KPG208S		8	10	690	754		0.58	16.5		
KPG210S		10	20	1056	1152		1	31.9		
KPG212S		12	20	1638	1766		1.7	59.4		
KPG216S		16	20	2420	2592		2.8	118		
KPG220S		20	20	4506	4720		6	267		
KPG230S		29	20	9092	9410		19	801		

*At Air Pressure 0.6MPa

Gripping Characteristic Graph

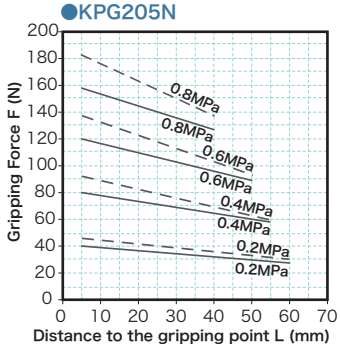


Internal Gripping
External Gripping

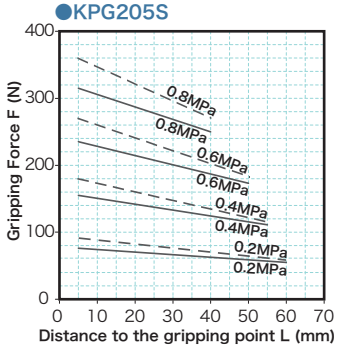
The point to be measured gripping force

The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×2)

●KPG205N



●KPG205S



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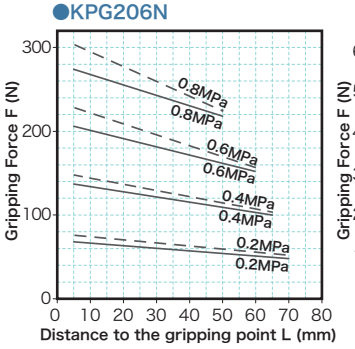

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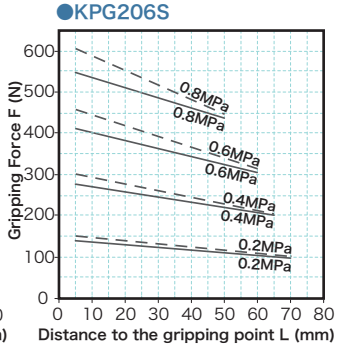

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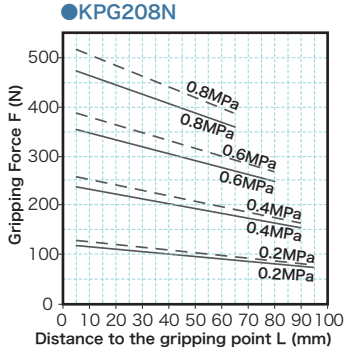
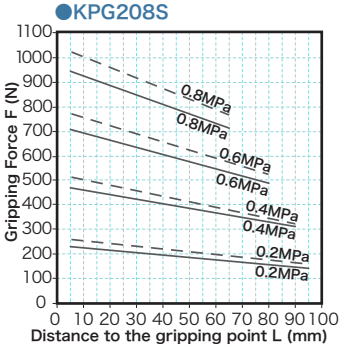


●KPG208S



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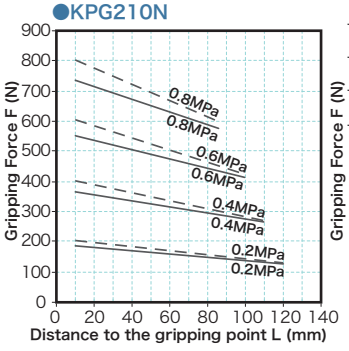

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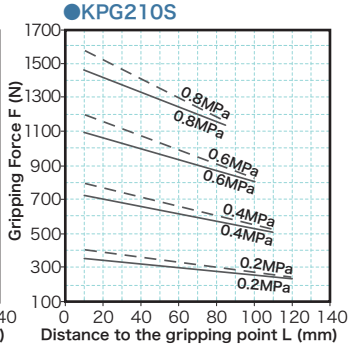

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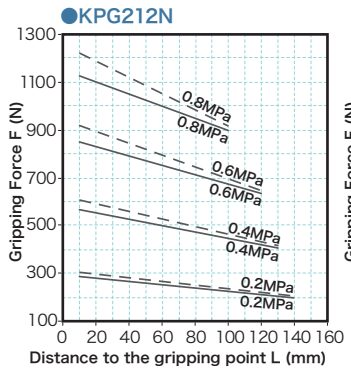

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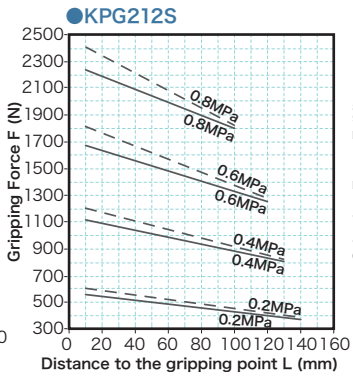

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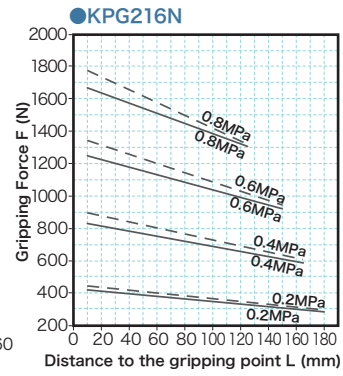

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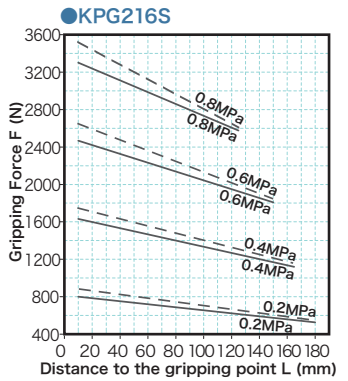

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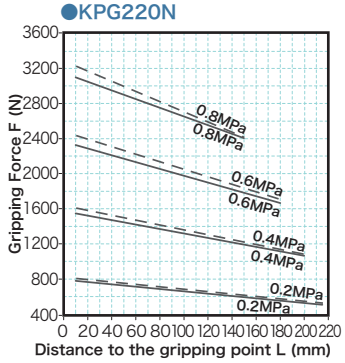

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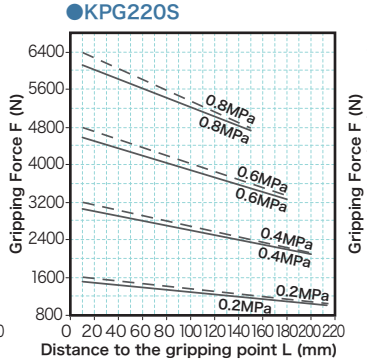

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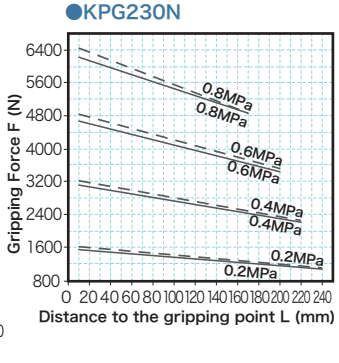

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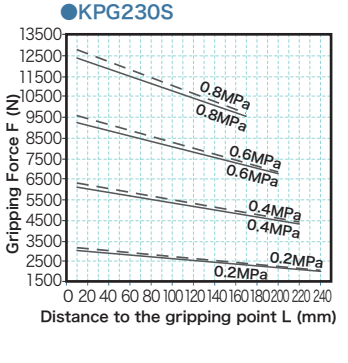
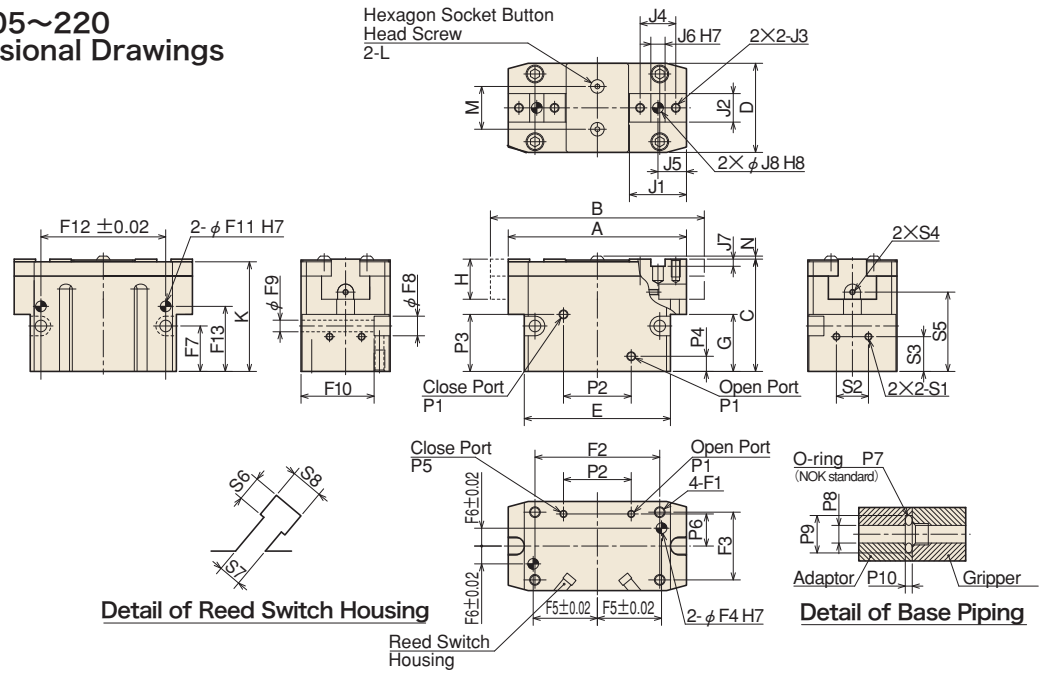
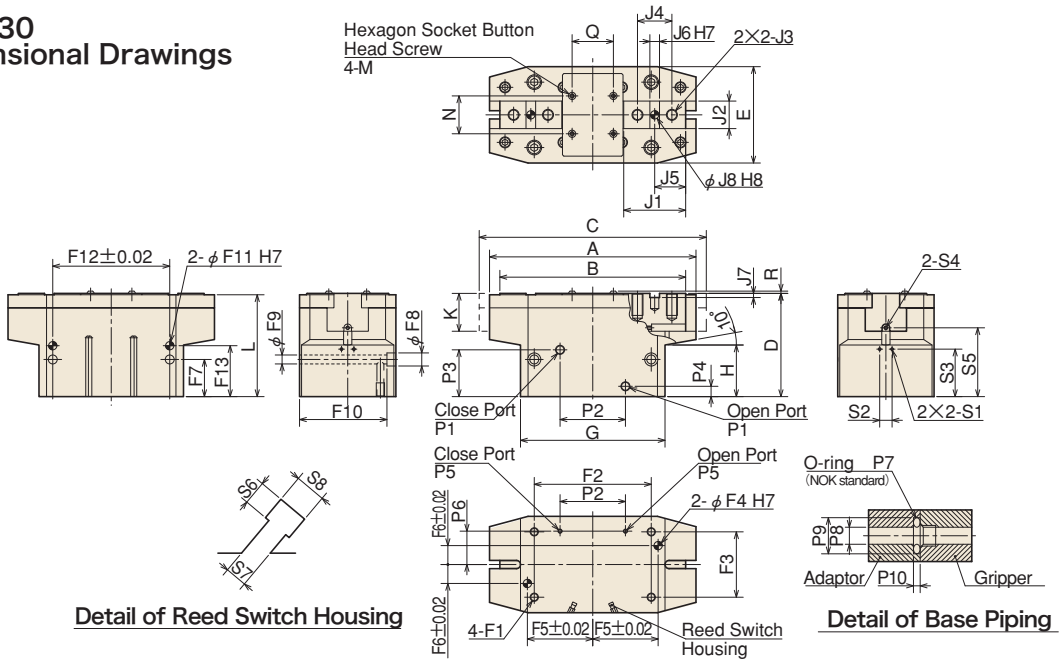


KPG205～220 Dimensional Drawings



KPG230 Dimensional Drawings



KPG205～220 Dimensions

Model	Outline Dimensions											
	A	B		C	D	E	G	H	K	L	M	N
		Standard	High Gripping Force									
KPG205N／S	50	58	54	41	32	42	20.5	15	40	M3	12	1.7
KPG206N／S	65	77	71	47	36	52	24	16.5	46	M3	15	1.7
KPG208N／S	80	96	88	55	42	65	28.5	19	54	M4	20	2.2
KPG210N／S	100	120	110	63	50	82	32	22.5	61.5	M4	24	2.2
KPG212N／S	125	149	137	74	60	105	38.5	26	72	M4	27	2.2
KPG216N／S	160	192	176	88	72	125	45.5	30.5	86	M4	35	2.2
KPG220N／S	200	240	220	108	100	160	55	38	106	M6	46	3.3

Model	Dimensions of Jaw Mounting									
	J1	J2	J3		J4	J5	J6 (H7)	J7	J8	
			Diameter	Depth					Diameter (H8)	Depth
KPG205N／S	18	8	M3	6	12	9	5	2.5	ϕ4	5.5
KPG206N／S	21	10	M4	8	13	10.5	5	3	ϕ4	6
KPG208N／S	25	12	M4	8	16	12.5	6	3.5	ϕ5	6
KPG210N／S	32	16	M5	10	20	16	8	4	ϕ6	8
KPG212N／S	40	19	M6	12	24	20	8	4.5	ϕ6	8
KPG216N／S	50	22	M8	16	32	25	10	4.5	ϕ8	12
KPG220N／S	65	30	M10	20	40	32.5	12	5	ϕ10	15

Model	Dimensions of Body Fixed Part															
	F1		F2	F3	F4		F5 (±0.02)	F6 (±0.02)	F7	F8	F9	F10	F11		F12 (±0.02)	F13
	Diameter	Depth			Diameter (H7)	Depth							Diameter (H7)	Depth		
KPG205N／S	M4	8	35	23	φ3	6	19	5	17	6	φ3.2	25.5	φ3	6	35	23
KPG206N／S	M5	10	44	27	φ4	8	23	6.5	19.5	8	φ4.5	29	φ4	8	44	27.5
KPG208N／S	M5	10	54	32	φ5	10	29	8	22	φ9	φ5.5	34.5	φ5	8	54	32
KPG210N／S	M6	12	70	38	φ6	12	36	10	25.5	11	φ6.5	41	φ6	9	70	36.5
KPG212N／S	M8	16	90	46	φ8	12	46	11	31	14	φ8.5	49	φ8	12	90	43
KPG216N／S	M8	16	95	56	φ8	12	55	15	32	φ14	φ8.5	60	φ8	12	95	44
KPG220N／S	M10	18	120	70	φ10	15	70	20	38	φ17	φ11	80	φ10	15	120	52

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part							
											Proximity Switch					Reed Switch		
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	S1	S2	S3	S4	S5	S6	S7	S8
KPG205N／S	M5	16	22	7.5	M3	10.5	S4	φ3	φ6.6	1	M3	14	12.5	M3	29	3.6	5.2	6.5
KPG206N／S	M5	24	25.5	7.5	M3	12	S4	φ3	φ6.6	1	M4	18	13.5	M3	34.5	3.6	5.2	6.5
KPG208N／S	M5	31	28.5	8	M3	15	S4	φ3	φ6.6	1	M4	18	17	M3	40	3.6	5.2	6.5
KPG210N／S	M5	38	32	8.5	M4	18	S6	φ4	φ8.3	1	M4	18	19.5	M3	44.5	3.6	5.2	6.5
KPG212N／S	G1／8	48	35	11	M5	21	S8	φ5	φ10.3	1	M4	18	24	M3	52	3.6	5.2	6.5
KPG216N／S	G1／8	56	42	12	M5	25.5	S8	φ5	φ10.3	1	M4	18	39	M3	61.5	3.6	5.2	6.5
KPG220N／S	G1／8	75	50	13	M6	33	S9	φ6	φ12.3	1	M4	18	49	M3	74	3.6	5.2	6.5

KPG230 Dimensions

Model	Outline Dimensions													
	A	B	C		D	E	G	H	K	L	M	N	Q	R
			Standard	High Gripping Force										
KPG230N／S	270	300	328	299	151	140	210	75	55	148	M6	55	60	3.3

Model	Dimensions of Jaw Mounting								
	J1	J2	J3		J4	J5	J6 (H7)	J7	J8	
			Diameter	Depth					Diameter (H8)	Depth
KPG230N／S	90	40	M16	32	50	60	14	6	φ12	15

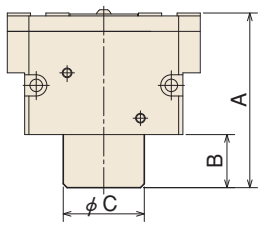
Model	Dimensions of Body Fixed Part															
	F1		F2	F3	F4		F5 (±0.02)	F6 (±0.02)	F7	F8	F9	F10	F11		F12 (±0.02)	F13
	Diameter	Depth			Diameter (H7)	Depth							Diameter (H7)	Depth		
KPG230N／S	M12	24	170	95	φ12	20	95	27.5	54	φ19	φ13	127	φ12	18	170	74

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part							
											Proximity Switch					Reed Switch		
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	S1	S2	S3	S4	S5	S6	S7	S8
KPG230N／S	G1／4	95	68	15	M6	48.5	S9	φ6	φ12.3	1	M4	18	69	M5	100	3.6	5.2	6.5

◎Option

Safety Device

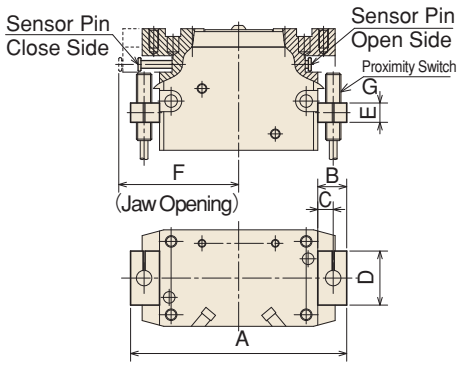
Model	Specifications				Outline Dimensions		
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C
	Measured Distance L(mm)	Spring Force (N)					
KPG205NA／C	10	40～54	0.19		51	10	φ19
KPG206NA／C	10	64～96	0.35		60	13	φ26
KPG208NA／C	10	92～176	0.65		78.5	23.5	φ34
KPG210NA／C	20	158～264	1.15	0.4～0.7	90.5	27.5	φ42
KPG212NA／C	20	266～406	1.9		104	30	φ52
KPG216NA／C	20	350～480	3.1		129	41	φ60
KPG220NA／C	20	506～898	6.5		135	47	φ70
KPG230NA／C	20	1392～2504	20.3	0.45～0.7	158	50	φ110
KPG205SA／C	10	78～108	0.19		51	10	φ19
KPG206SA／C	10	124～188	0.35		60	13	φ26
KPG208SA／C	10	186～344	0.65		78.5	23.5	φ34
KPG210SA／C	20	312～522	1.15	0.4～0.7	90.5	27.5	φ42
KPG212SA／C	20	508～804	1.9		104	30	φ52
KPG216SA／C	20	694～952	3.1		129	41	φ60
KPG220SA／C	20	1000～1776	6.5		135	47	φ70
KPG230SA／C	20	2750～4952	20.3	0.45～0.7	158	50	φ110



Safety Device

Proximity Switch Bracket

Model	Outline Dimensions							
	A	B	C	D	E	F		G
						Standard	High Gripping Force	
KPG205※※B	65	11.5	6	22	8	33	31	M5
KPG206※※B	82	15	8	28	10	44	41	M8
KPG208※※B	95	15	8	28	10	50.5	46.5	M8
KPG210※※B	112	15	8	28	10	62.5	57.5	M8
KPG212※※B	135	15	8	28	10	76	70	M8
KPG216※※B	179	27	20	28	10	102	94	M8
KPG220※※B	214	27	20	28	10	123.5	113.5	M8
KPG230※※B	264	27	20	28	10	158	136	M8



Attaching Proximity Switch

KPGT2 series

Gripper innovation! promano

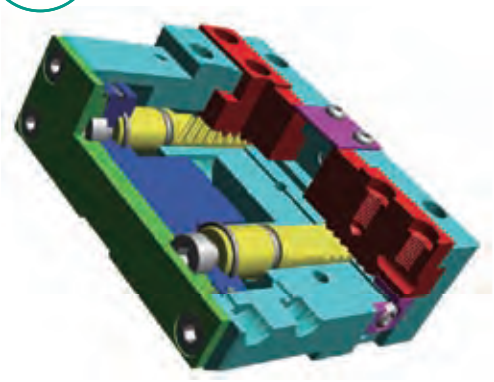
2-Jaw Parallel Gripper with Low Profile Body

High specification series

Features

- Low profile body and high gripping force
- Multiple variations and jaw options available
- High repeatability and Long operating life

3D Structural Drawing



How to Order

K P G T 2 0 8 C B

KPGT2 series

Size		
08	10	12
16	20	30

Safety device ※1	
N	Without device
C	For external gripping

Proximity Switch Bracket ※2	
N	Without bracket
B	With brackets

Notes

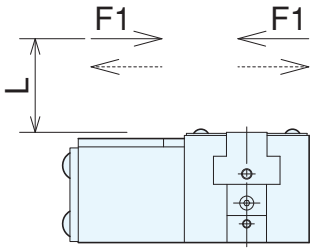
1 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.
2 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.
3 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Jaw Stroke (diameter) (mm)	Gripping Force (F)* Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)	Repeatability (mm)	Net Weight (kg)	Air Consumption (ℓ/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KPGT208	16	10	650	520		0.8	28		
KPGT210	20	10	1010	840		1.35	56		
KPGT212	26	20	1620	1360	0.01	2.3	115	0.3～1.2	5～60
KPGT216	32	20	2600	2180		4.2	228		
KPGT220	40	20	4040	3540		8	452		
KPGT230	60	20	8100	7460		22	1392		

*At Air Pressure 0.6MPa

Gripping Characteristic Graph

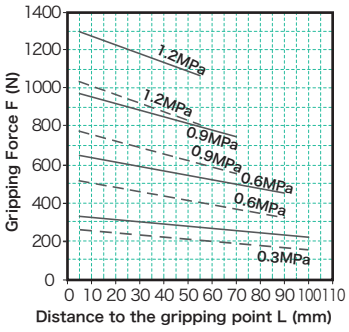


Internal Gripping
External Gripping

The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×2)

The point to be measured gripping force

●KPGT208



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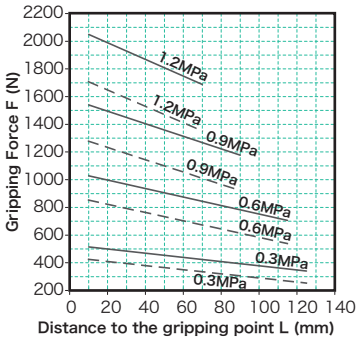

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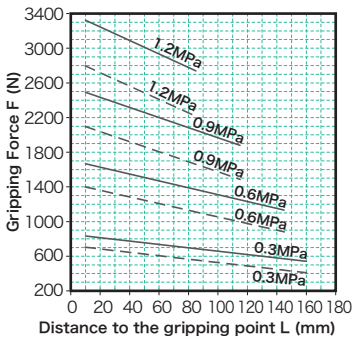
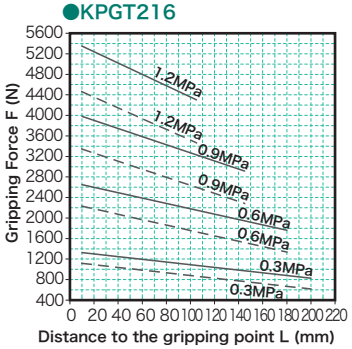
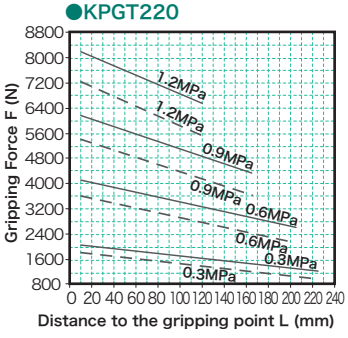


●KPGT216



●KPGT220



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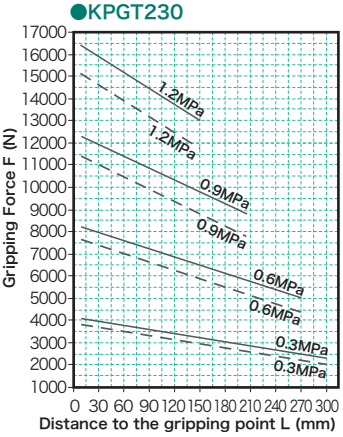
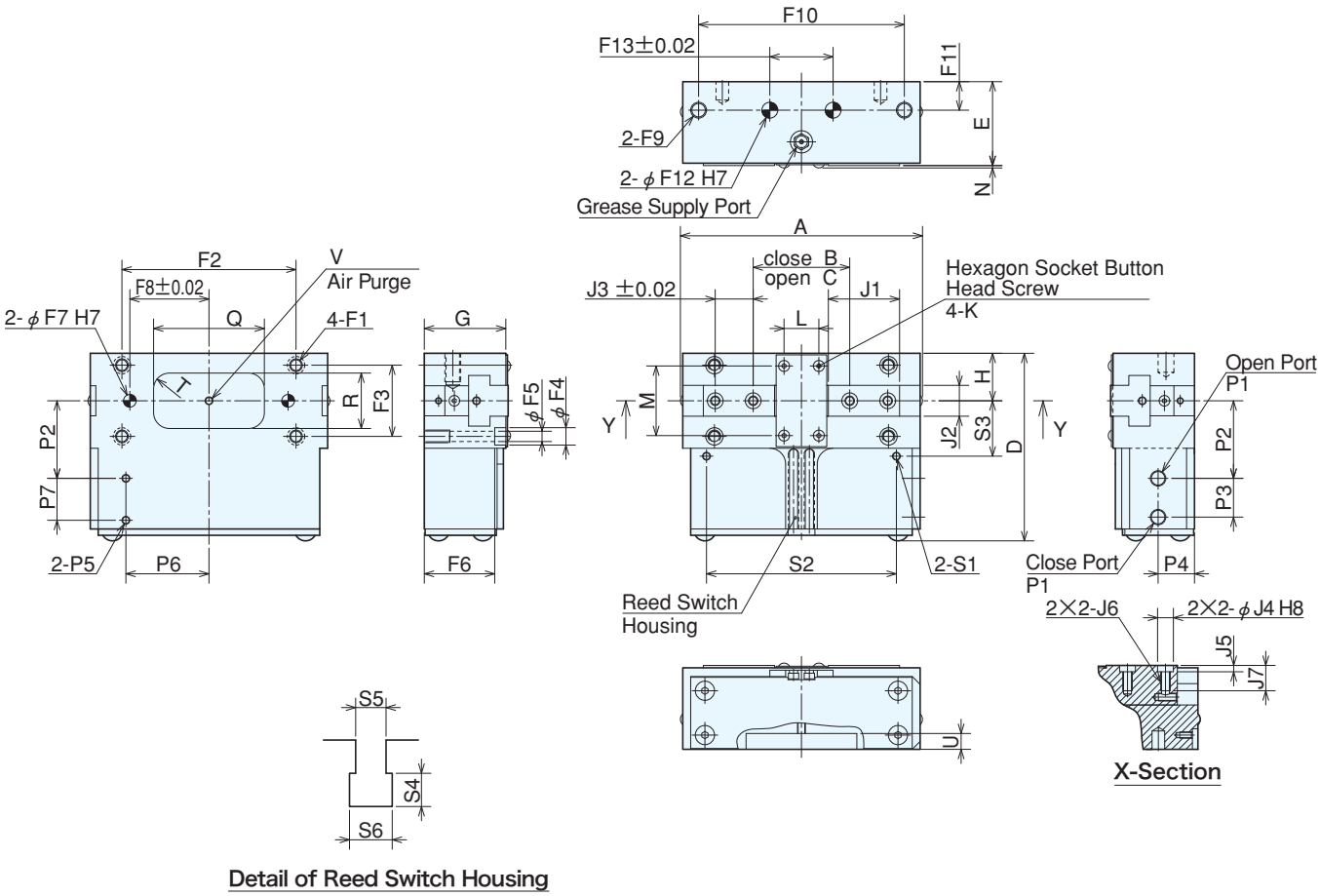


Dimensional Drawings



Dimensions

Model	Outline Dimensions															
	A	B	C	D	E	G	H	K	L	M	N	Q	R	T	U	V
KPGT208	100	37	53	83.5	39	37.5	21	M4	11	30	1.5	40	25	8	7	M5
KPGT210	123	47	67	95	45	43.5	25	M4	15	34	1.5	50	30	10	9	M5
KPGT212	153	61	87	119	53	51.5	30	M4	22	44	1.5	70	35	10	10	M5
KPGT216	193	77	109	140	63	61.5	36	M5	28	56	2	90	40	12.5	12	G1/8
KPGT220	237	86	126	174	77	75	50	M5	36	74	1.5	110	45	15	14	G1/8
KPGT230	332	135	195	235	102	100	70	M5	55	115	2	150	60	20	20	G1/8

Model	Dimensions of Jaw Mounting						
	J1	J2	J3 (±0.02)	J4 Diameter (H7)	J5 Depth	J6 Diameter	J7
KPGT208	30	12.5	16	φ8	3	M5	13
KPGT210	37	16.5	20	φ10	4	M6	14
KPGT212	45	19.5	24	φ10	4	M6	16
KPGT216	58	22.5	32	φ14	5	M10	20
KPGT220	72.5	30.5	40	φ16	5	M12	23
KPGT230	99	40.5	46	φ22	8	M16	32

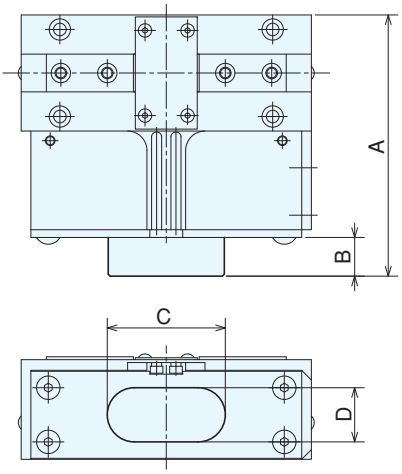
Model	Dimensions of Body Fixed Part																
	F1		F2	F3	F4	F5	F6	F7		F8 (±0.02)	F9		F10	F11	F12		F13 (±0.02)
	Diameter	Depth						Diameter (H7)	Depth		Diameter	Depth			Diameter (H7)	Depth	
KPGT208	M5	10	72	32	φ8	φ4.2	32	φ5	8	32.5	M6	12	86	12.5	φ6	8	22
KPGT210	M6	12	86	38	φ9	φ5.2	37.5	φ6	10	40	M8	14	102	15	8	10	32
KPGT212	M8	16	110	45	φ11	φ6.5	44.5	φ8	11	50	M10	18	130	18	10	12	40
KPGT216	M10	20	140	55	φ14	φ8.5	53	φ10	12	65	M12	22	165	22	12	14	50
KPGT220	M12	24	170	70	φ17	φ10.5	64	φ12	12	80	M12	24	200	28	12	14	70
KPGT230	M16	32	230	96	φ19	φ13	88	φ16	15	110	M16	30	280	40	16	18	100

Model	Dimensions of Air Supplying Part							Dimensions of Switch Attaching Part					
	P1 Diameter	P2	P3	P4	P5 Diameter	P6	P7	Proximity Switch			Reed Switch		
								S1	S2	S3	S4	S5	S6
KPGT208	G1/8	34.5	17.5	15.5	M3	32.5	20	M4	78	25	3.6	5.2	6.5
KPGT210	G1/8	39.5	20	18.5	M3	41.5	22.5	M5	96	30	3.6	5.2	6.5
KPGT212	G1/8	49	24.5	23	M5	52.5	26.5	M5	120	35	3.6	5.2	6.5
KPGT216	G1/4	57	29	28.5	M5	66.5	32.5	M6	154	42	3.6	5.2	6.5
KPGT220	G1/4	68	35.5	35	M6	84	38	M6	191	56	3.6	5.2	6.5
KPGT230	G1/4	95.5	52	49	M8	120	53	M6	266	76	3.6	5.2	6.5

◎Option

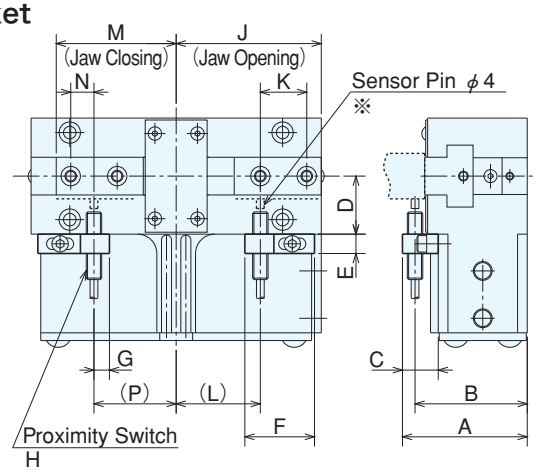
■Safety Device

Model	Specifications				Outline Dimensions			
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C	D
	Measured Distance L(mm)	Spring Force (N)						
KPGT208C	10	156～226	0.82	0.4～0.8	83.5	-	-	-
KPGT210C	10	204～420	1.38		95	-	-	-
KPGT212C	20	280～624	2.36		115	-	-	-
KPGT216C	20	428～974	4.35		136	-	-	-
KPGT220C	20	844～1200	8.40		190	20	92	40
KPGT230C	20	1336～2484	22.20		255	20	140	60



Safety Device

■Proximity Switch Bracket



Attaching Proximity Switch

Model	Outline Dimensions													
	A	B	C	D	E	F	G	H	J Jaw Opening	K	L	M Jaw Closing	N	P
KPGT208※B	50.5	44	19.5	21	8	27	8	M8×1	49	16	(26.5)	41	8	(26.5)
KPGT210※B	56.5	50	19.5	25	10	33	8	M8×1	60	20	(33.5)	50	10	(33.5)
KPGT212※B	64.5	58	18.5	30	10	36	8	M8×1	75	24	(43.5)	62	12	(42.5)
KPGT216※B	74.5	68	17.5	36	12	42.5	8	M8×1	95	32	(54.5)	79	16	(54.5)
KPGT220※B	88.5	82	18.5	50	12	52.5	8	M8×1	117.5	40	(63.0)	97.5	20	(63.0)
KPGT230※B	113.5	107	15.5	70	12	67.5	8	M8×1	165	46	(97.5)	135	23	(90.5)

※Sensor pins will be prepared by the customer.

KPH-2 series

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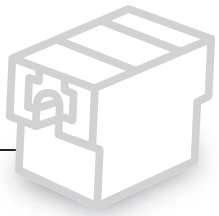


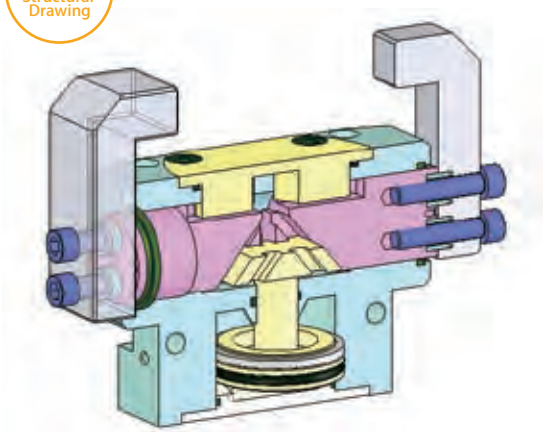
2-Jaw Parallel Gripper with Sealed Body

Waterproof and dustproof design to endure the most severe conditions

Features

- Waterproof and dustproof design to endure the most severe conditions
- Light weight and Compact body
- High repeatability and Long operating life

3D Structural Drawing



How to Order

K P H 0 7 3 - 2 N B

KPH-2 series

Size	
073	088
108	133

Number of Jaws	
2	2-Jaw

Safety device ※1	
N	Without device
A	For internal gripping
C	For external gripping

Proximity Switch Bracket ※2	
N	Without bracket
B	With brackets

Notes

1 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.

2 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.

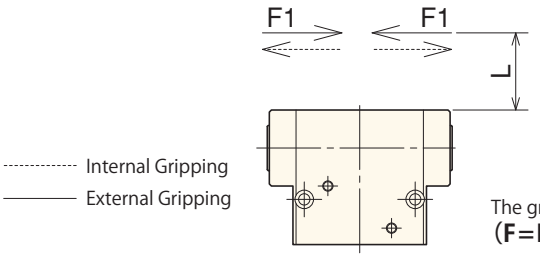
3 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Jaw Stroke (diameter) (mm)	Gripping Force (F)* Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)	Repeatability (mm)	Net Weight (kg)	Air Consumption (ℓ/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KPH073-2	12	10	200	222		0.48	7.3		
KPH088-2	16	10	348	382	±0.01	0.7	16.5	0.2～0.8	5～60
KPH108-2	20	20	536	584		1.4	31.9		
KPH133-2	24	25	817	880		2.3	59.4		

*At Air Pressure 0.6MPa

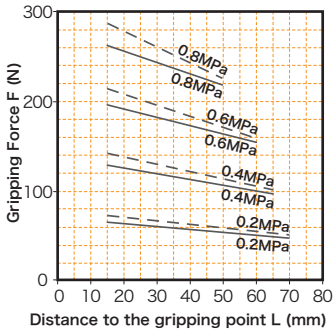
Gripping Characteristic Graph



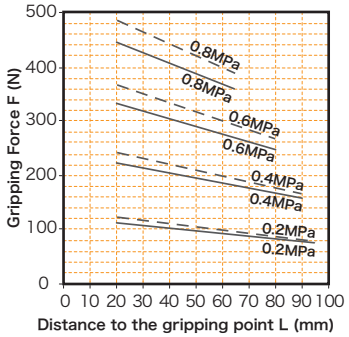
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×2)

The point to be measured gripping force

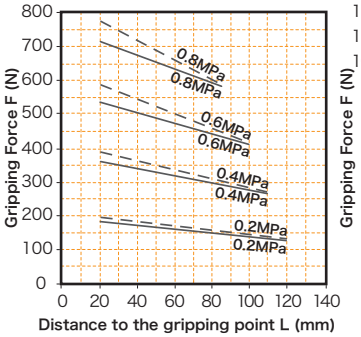
●KPH073



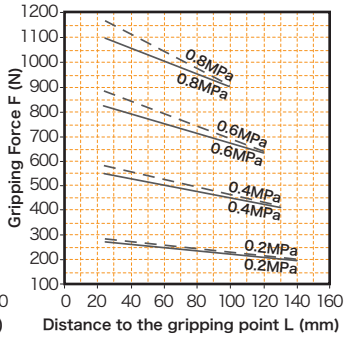
●KPH088



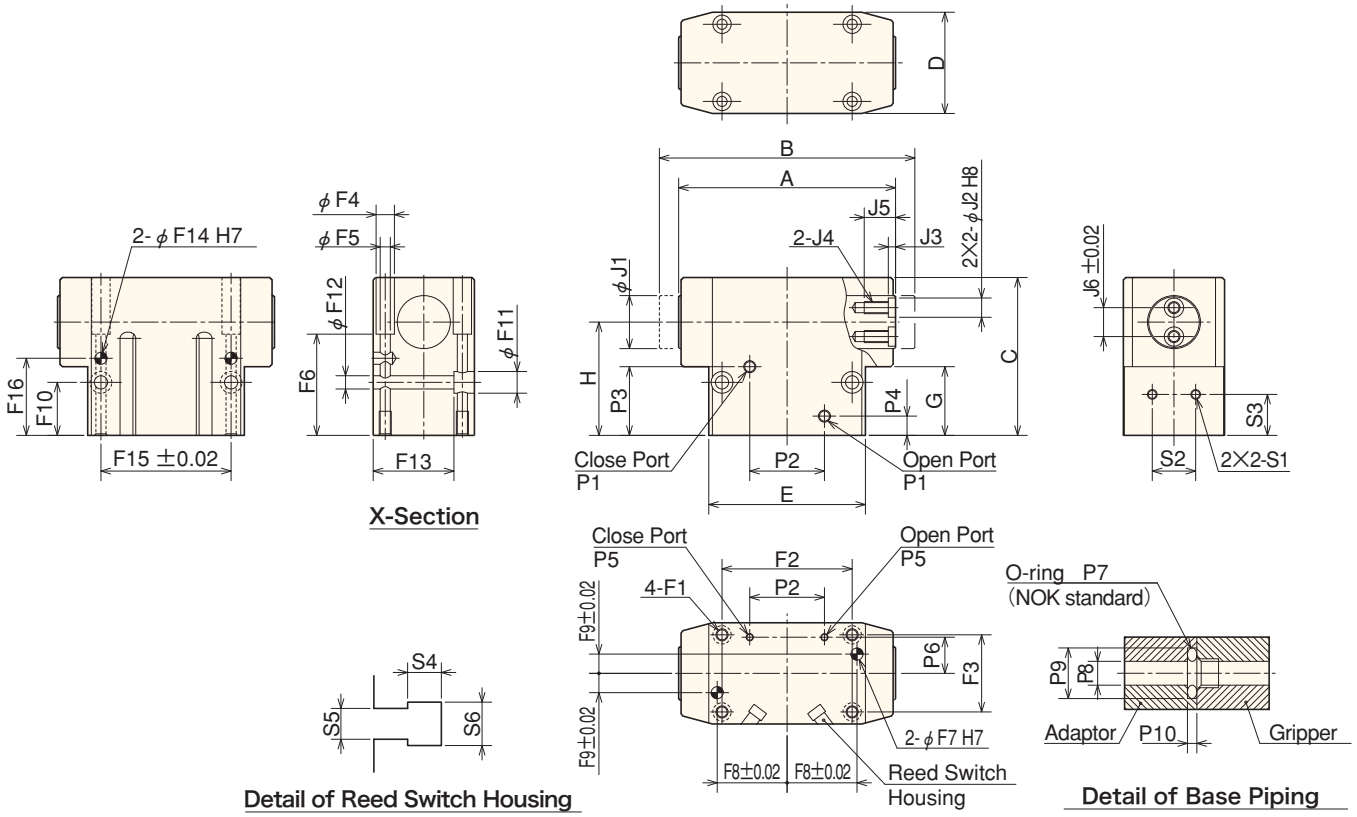
●KPH108



●KPH133



Dimensional Drawings



Dimensions

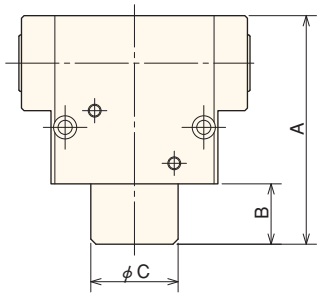
Model	Outline Dimensions							Dimensions of Jaw Mounting					
	A	B	C	D	E	G	H	J1 Diameter (H8)	J2 Diameter (H8)	J3 Depth	J4 Diameter	J5	J6 (±0.02)
KPH073-2	75	87	56	36	52	24	39.5	φ18	φ6	3	M4	11	10
KPH088-2	90	106	65.5	42	65	28.5	47	φ22	φ8	3	M5	13	12
KPH108-2	110	130	77.5	50	82	32	54.5	φ28	φ10	4	M6	16	14
KPH133-2	135	159	90	60	105	38.5	64	φ32	φ12	4	M8	20	16

Model	Dimensions of Body Fixed Part																	
	F1 Diameter	F1 Depth	F2	F3	F4	F5	F6	F7 Diameter (H7)	F7 Depth	F8 (±0.02)	F9 (±0.02)	F10	F11	F12	F13	F14 Diameter (H7)	F14 Depth	F15 (±0.02)	F16 (±0.02)
KPH073-2	M5	10	44	27	φ7.6	φ4.2	42	φ4	8	23	6.5	19.5	8	φ4.5	29	φ4	8	44	27.5
KPH088-2	M5	10	54	32	φ7.4	φ4.2	42	φ5	10	29	8	22	φ9	φ5.5	34.5	φ5	8	54	32
KPH108-2	M6	12	70	38	φ9	φ5.2	61	φ6	12	36	10	25.5	11	φ6.5	41	φ6	9	70	36.5
KPH133-2	M8	16	90	46	φ11	φ6.2	71	φ8	12	46	11	31	14	φ8.5	19	φ8	12	90	43

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part					
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	Proximity Switch S1	Proximity Switch S2	Proximity Switch S3	Reed Switch S4	Reed Switch S5	Reed Switch S6
KPH073-2	M5	24	25.5	7.5	M3	12	S4	φ3	φ6.6	1	M4	18	13.5	3.6	5.2	6.5
KPH088-2	M5	31	28.5	8	M3	15	S4	φ3	φ6.6	1	M4	18	17	3.6	5.2	6.5
KPH108-2	M5	38	32	8.5	M4	18	S4	φ3	φ6.6	1	M4	18	19.5	3.6	5.2	6.5
KPH133-2	G1／8	48	35	11	M5	21	S6	φ4	φ8.3	1	M4	18	24	3.6	5.2	6.5

◎Option

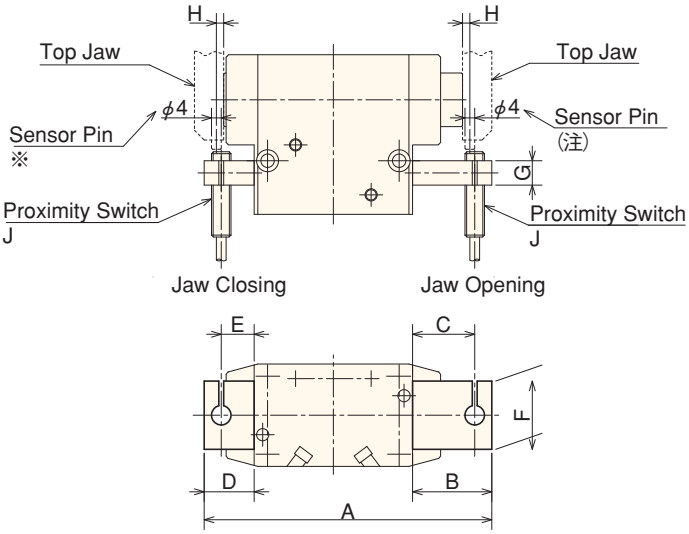
■Safety Device



Safety Device

Model	Specifications				Outline Dimensions		
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C
	Measured Distance L(mm)	Spring Force (N)					
KPH073-2A/C	10	64～96	0.51	0.4～0.8	69	13	ϕ26
KPH088-2A/C	10	92～176	0.77		89	23.5	ϕ34
KPH108-2A/C	20	158～264	1.55		105	27.5	ϕ42
KPH133-2A/C	20	256～406	2.5		120	30	ϕ52

■Proximity Switch Bracket



Attaching Proximity Switch

Model	Outline Dimensions								
	A	B	C	D	E	F	G	H	J
KPH073-2※B	101	29.5	22.5	19.5	12.5	28	10	3	M8
KPH088-2※B	118	32.5	25.5	20.5	13.5	28	10	3	M8
KPH108-2※B	140	36	29	22	15	28	10	3	M8
KPH133-2※B	167	39	32	23	16	28	10	3	M8

※Sensor pins will be prepared by the customer.

KTS3 series

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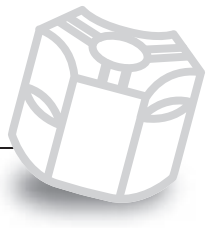
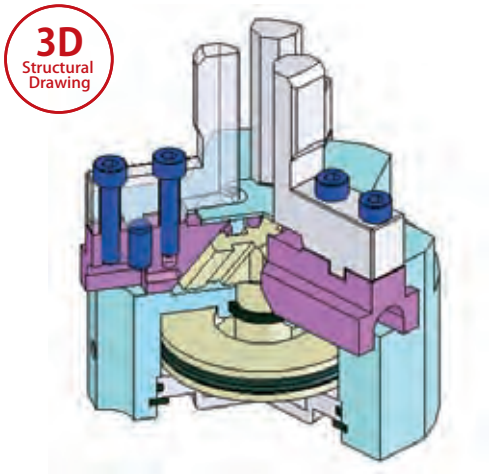
3-Jaw Parallel Gripper



Standard model for various automation operations

Features

- Standard model of Grippers suitable for various automation operations
- Multiple variations and jaw options available
- Light weight and Compact body
- High repeatability and Long operating life



How to Order

K T S 3 0 6 N A B

KTS3 series

Size		
06	07	09
11	13	17

Gripping Force ※1	
N	Standard force
S	High force

Safety device ※2	
N	Without device
A	For internal gripping
C	For external gripping

Proximity Switch Bracket ※3	
N	Without bracket
B	With brackets

Notes

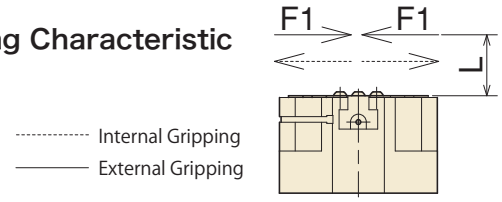
1 High force model can supply higher gripping force than standard model. However, the high force model will have shorter strokes than the standard model.
2 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.
3 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.
4 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Gripping Force Type	Jaw Stroke (diameter) (mm)	Gripping Force (F)*			Repeatability (mm)	Net Weight (kg)	Air Consumption (cc/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
			Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)					
KTS306N	Standard	8	10	321	351	±0.01	0.26	8.4	0.2～0.8	5～60
KTS307N		12	10	570	639		0.6	22.1		
KTS309N		16	20	900	948		0.85	45.5		
KTS311N		20	20	1695	1770		1.3	108		
KTS313N		24	20	2616	2730		2.4	201		
KTS317N		32	20	4695	4884		5	485		
KTS306S	High Gripping Force	4	10	630	690	±0.01	0.26	8.4	0.2～0.8	5～60
KTS307S		6	10	1125	1179		0.6	22.1		
KTS309S		8	20	1755	1875		0.85	45.5		
KTS311S		10	20	3351	3504		1.3	108		
KTS313S		12	20	5175	5400		2.4	201		
KTS317S		16	20	9276	9660		5	485		

*At Air Pressure 0.6MPa

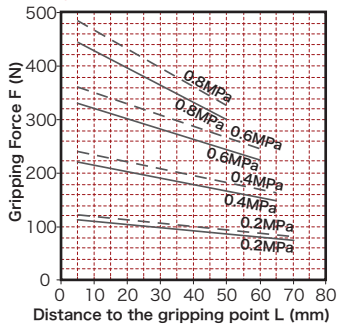
Gripping Characteristic Graph



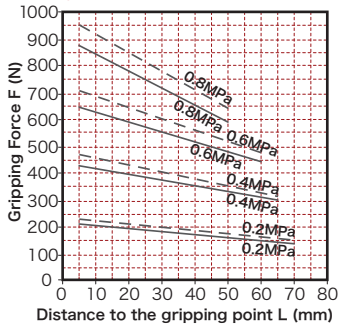
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×3)

The point to be measured gripping force

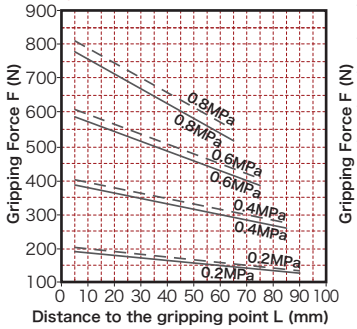
●KTS306N



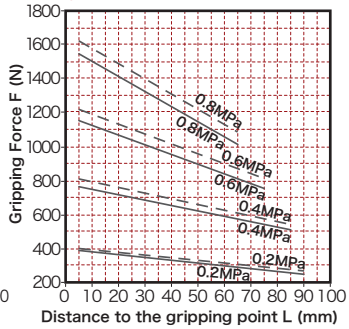
●KTS306S



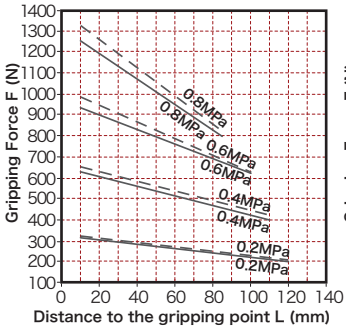
●KTS307N



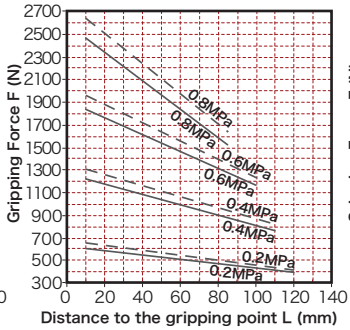
●KTS307S



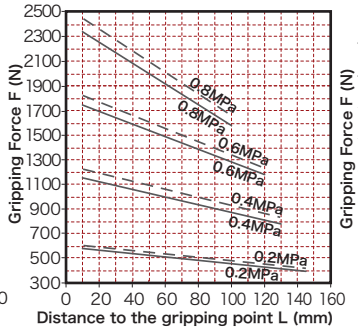
●KTS309N



●KTS309S



●KTS311N



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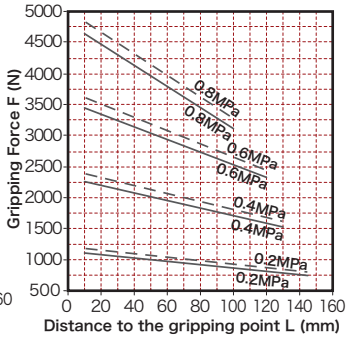

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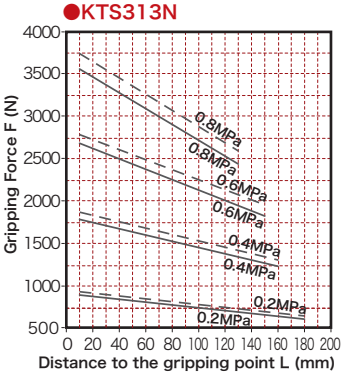
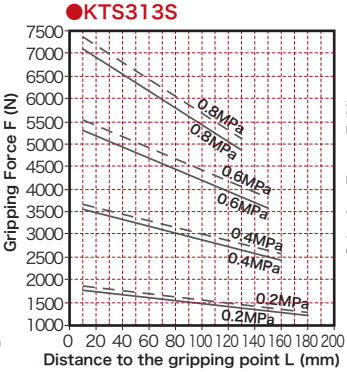
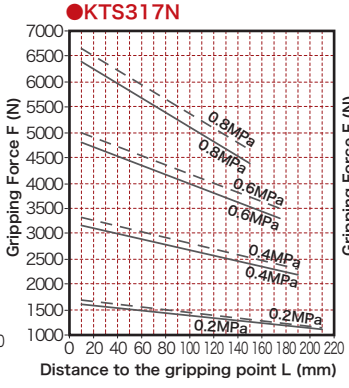


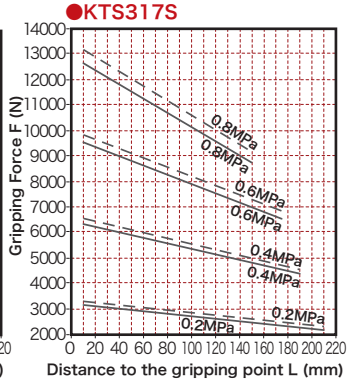
●KTS313S



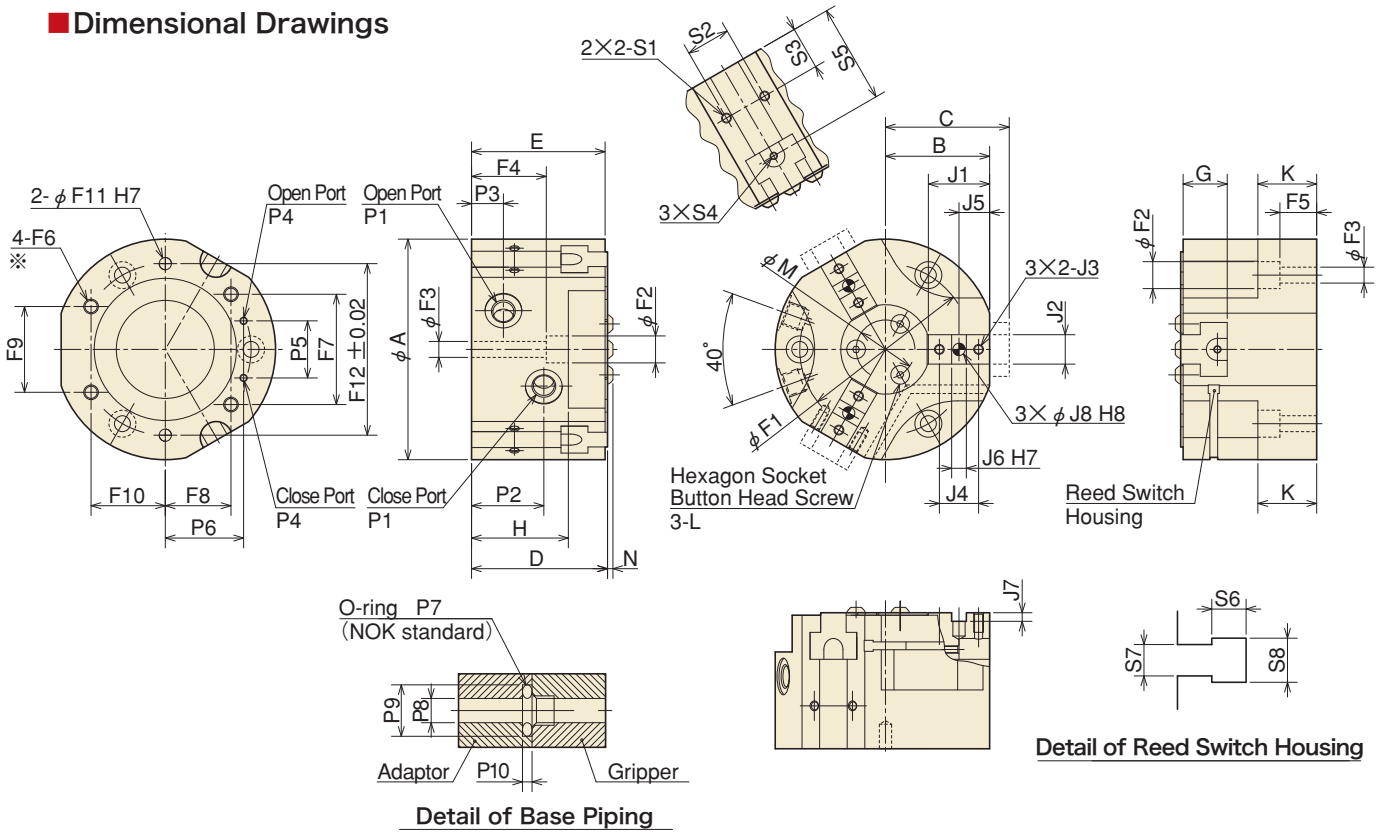
●KTS317N



●KTS317S



Dimensional Drawings



Detail of Base Piping

Detail of Reed Switch Housing

Dimensions

Model	Outline Dimensions											
	A	B	C Standard	C High Gripping Force	D	E	G	H	K	L	M	N
KTS306N／S	φ60	27.5	31.5	29.5	42	41	15	28.5	16	M3	φ15	1.7
KTS307N／S	φ75	35	41	38	47	46	16.5	32	32	M3	φ18	1.7
KTS309N／S	φ90	42.5	50.5	46.5	55.5	54.5	19	39.5	24	M4	φ24	2.2
KTS311N／S	φ110	52.5	62.5	57.5	64.5	63	22.5	43	22	M4	φ32	2.2
KTS313N／S	φ138	66	78	72	78	76	26	48	28	M4	φ40	2.2
KTS317N／S	φ178	85	101	93	95	93	30.5	60	35	M6	φ55	3.3

Model	Dimensions of Jaw Mounting								
	J1	J2	J3 Diameter	J3 Depth	J4	J5	J6 (H7)	J7	J8 Diameter (H8)	J8 Depth
KTS306N／S	18	8	M3	6	12	9	5	2.5	φ4	6
KTS307N／S	21	10	M4	8	13	10.5	5	3	φ4	5
KTS309N／S	25	12	M4	8	16	12.5	6	3.5	φ5	6
KTS311N／S	32	16	M5	10	20	16	8	4	φ6	8
KTS313N／S	40	19	M6	12	24	20	8	4.5	φ6	8
KTS317N／S	50	22	M8	16	32	25	10	4.5	φ8	12

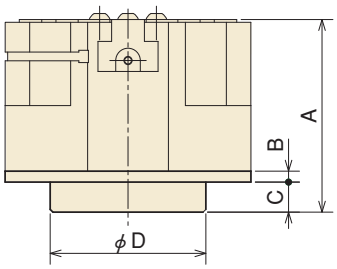
Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5	F6 Diameter	F6 Depth	F7	F8	F9	F10	F11 Diameter (H7)	F11 Depth	F12 (±0.02)
KTS306N／S	φ44	φ6	φ3.2	25	12.5	M4	8	28.3	16.85	22	19.05	φ3	6	45
KTS307N／S	φ56	φ9	φ5.5	26.5	26.5	M5	9	36	21.45	28	24.25	φ4	8	56
KTS309N／S	φ70	φ11	φ6.5	30.5	15	M6	11	45	26.8	35	30.3	φ5	10	70
KTS311N／S	φ90	φ11	φ6.5	36.5	15.5	M6	11	57.9	34.5	45	39	φ5	10	90
KTS313N／S	φ112	φ14	φ8.5	39	19	M8	16	72	42.9	56	48.5	φ6	12	112
KTS317N／S	φ146	φ14	φ8.5	51.5	26.5	M8	16	93.85	55.9	73	63.2	φ6	12	146

※The tapping thread "F6" can not be used when the gripper is with Saftey Device model.
Please use the spot facing threads "F2" and "F3" to fix the guripper body.

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part							
											Proximity Switch					Reed Switch		
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	S1	S2	S3	S4	S5	S6	S7	S8
KTS306N／S	M5	22	10	M3	14.7	20.2	S4	φ3	φ6.6	1	M3	14	13.5	M3	30	3.5	3.2	4.5
KTS307N／S	M5	25.5	11.5	M3	19.15	26.3	S4	φ3	φ6.6	1	M4	18	13.5	M3	34.5	3.5	3.2	4.5
KTS309N／S	G1/8	29.5	13	M3	23.3	31.95	S4	φ3	φ6.6	1	M4	18	17.5	M3	40.5	3.5	3.2	4.5
KTS311N／S	G1/8	33	13.5	M4	30.1	41.35	S6	φ4	φ8.3	1	M4	18	23	M3	46	3.5	3.2	4.5
KTS313N／S	G1/8	38	16	M5	38.65	53.1	S8	φ5	φ10.3	1	M4	18	31	M3	56	3.5	3.2	4.5
KTS317N／S	G1/8	49	18.5	G1/8	52	71.4	S12	φ10	φ14.3	1	M4	18	43.5	M3	68.5	3.5	3.2	4.5

◎Option

■Safety Device

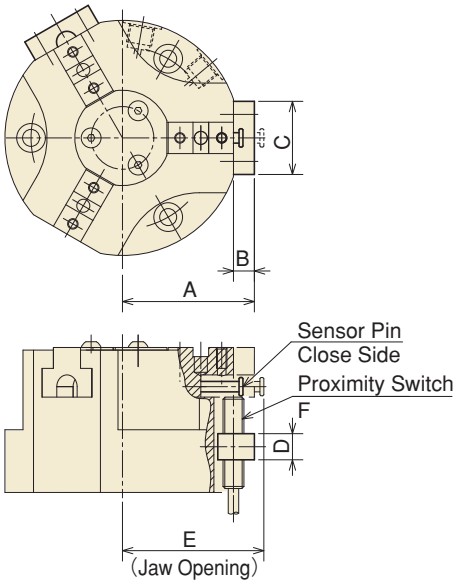


Safety Device

Model	Specifications				Outline Dimensions			
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C	D
	Measured Distance L(mm)	Spring Force (N)						
KTS306NA／C	10	62～86	0.32		53.5	3	8.5	ϕ30
KTS307NA／C	10	96～156	0.74		61.5	3.5	11	ϕ45
KTS309NA／C	20	184～232	1.13	0.3～0.7	70.5	4	11	ϕ57
KTS311NA／C	20	272～420	1.81		84.5	4	16	ϕ68
KTS313NA／C	20	468～720	3.25		103	5.5	19.5	ϕ88
KTS317NA／C	20	924～1926	7.3	0.4～0.7	130	5.5	29.5	ϕ128
KTS306SA／C	10	122～170	0.32		53.5	3	8.5	ϕ30
KTS307SA／C	10	190～310	0.74		61.5	3.5	11	ϕ45
KTS309SA／C	20	362～458	1.13	0.3～0.7	70.5	4	11	ϕ57
KTS311SA／C	20	538～832	1.81		84.5	4	16	ϕ68
KTS313SA／C	20	924～1424	3.25		103	5.5	19.5	ϕ88
KTS317SA／C	20	1828～3810	7.3	0.4～0.7	130	5.5	29.5	ϕ130

■Proximity Switch Bracket

Model	Outline Dimensions						
	A	B	C	D	E		F
					Standard	High Gripping Force	
KTS306※※B	33.5	6	22	8	35	33	M5
KTS307※※B	43	8	28	10	45	42	M8
KTS309※※B	50.5	8	28	10	52.5	48.5	M8
KTS311※※B	60.5	8	28	10	65	60	M8
KTS313※※B	74	8	28	10	80	74	M8
KTS317※※B	93	8	28	10	104.5	96.5	M8

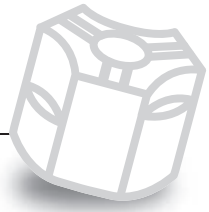


Attaching Proximity Switch

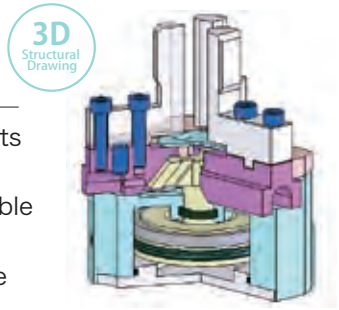
KPG3 series

Gripper innovation! promano

3-Jaw Parallel Gripper with Split Body



Easy maintenance : cleaning and parts replacement



Features

- Split body enables easy cleaning and parts replacement
- Multiple variations and jaw options available
- Light weight and Compact body
- High repeatability and Long operating life

How to Order

K P G 3 0 6 N A B P

KPG3 series

Size			
06	07	09	11
13	17	22	30

Gripping Force ※1	
N	Standard force
S	High force

Safety device ※2	
N	Without device
A	For internal gripping
C	For external gripping

Proximity Switch Bracket ※3	
N	Without bracket
B	With brackets

Pusher ※4	
N	Without pusher
P	With pusher

Notes

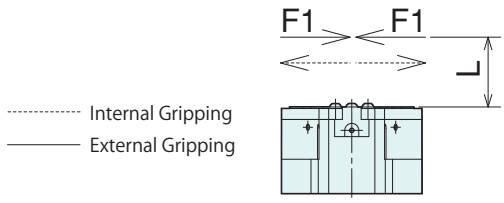
1 High force model can supply higher gripping force than standard model. However, the high force model will have shorter strokes than the standard model.
2 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.
3 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.
4 Pusher is the pushing part to stably supply workpieces to the next machine.
5 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Gripping Force Type	Jaw Stroke (diameter) (mm)	Gripping Force (F)* Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)	Repeatability (mm)	Net Weight (kg)	Air Consumption (cm³/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KPG306N	Standard	8	10	321	351	±0.01	0.3	8.4	0.2～0.8	5～60
KPG307N		12	10	609	639		0.68	23.4		
KPG309N		16	20	1020	1080		1	52.3		
KPG311N		20	20	1695	1770		1.6	108		
KPG313N		24	20	2949	3030		2.8	225		
KPG317N		32	20	5331	5520		6	549		
KPG322N		40	20	7485	7758		12	949		
KPG330N		60	20	14181	14664		30	2692		
KPG306S	High Gripping Force	4	10	630	690	±0.01	0.3	8.4	0.2～0.8	5～60
KPG307S		6	10	1206	1266		0.68	23.4		
KPG309S		8	20	2025	2145		1	52.3		
KPG311S		10	20	3351	3504		1.6	108		
KPG313S		12	20	5829	5991		28	225		
KPG317S		16	20	10539	10914		6	549		
KPG322S		20	20	14796	15336		12	949		
KPG330S		30	20	28029	28989		30	2692		

*At Air Pressure 0.6MPa

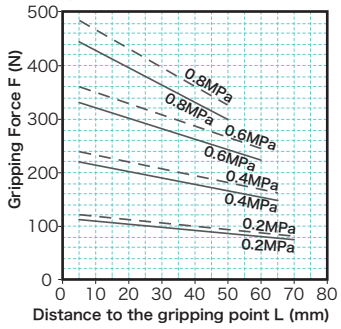
Gripping Characteristic Graph



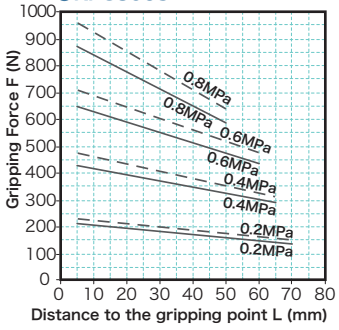
The point to be measured gripping force

The gripping force "F" shows the actual measured value per jaw
"F1" × the number of jaws.
(F=F1×3)

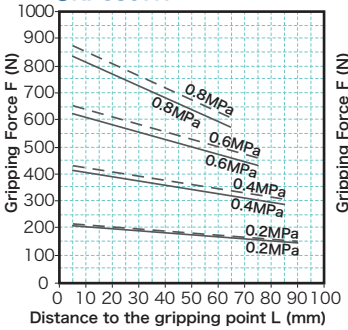
●KPG306N



●KPG306S



●KPG307N



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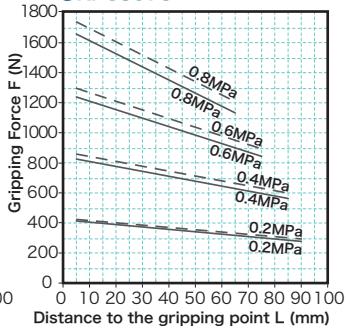

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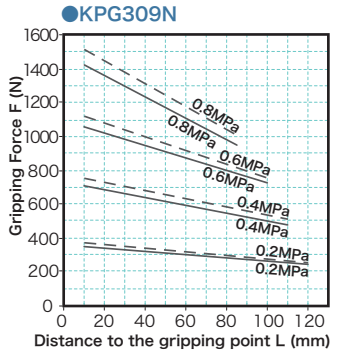

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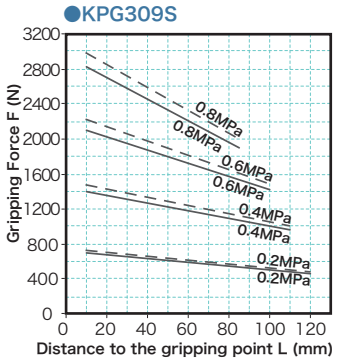

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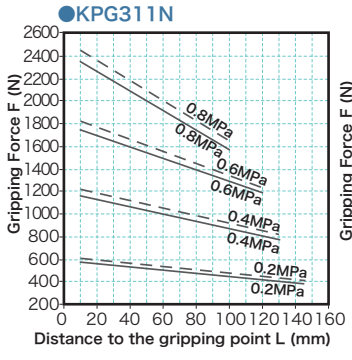
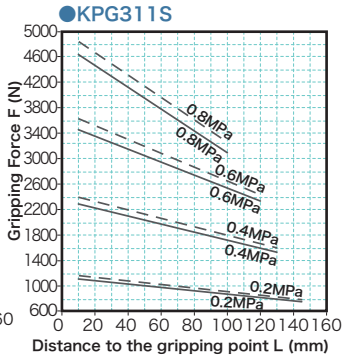


●KPG311S



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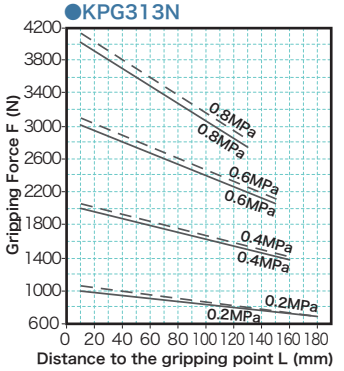

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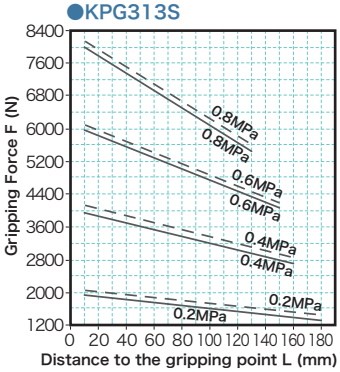
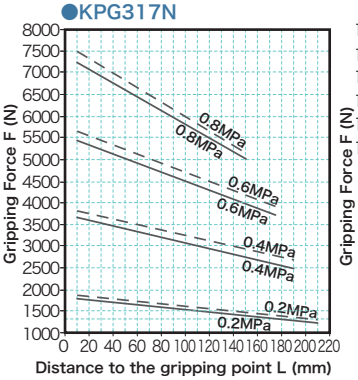
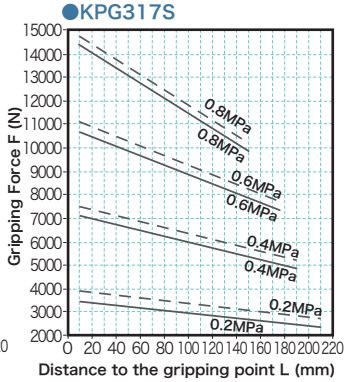


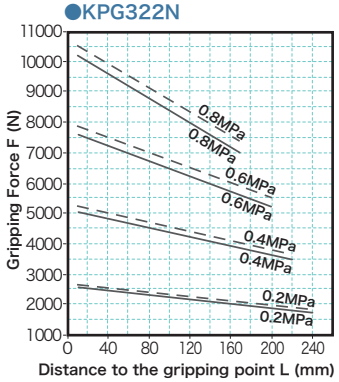
●KPG317N



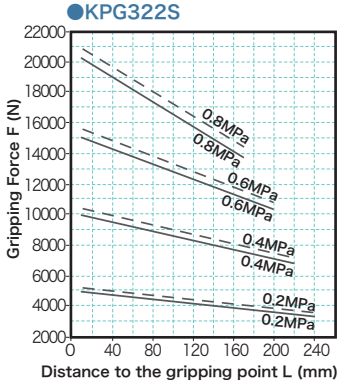
●KPG317S



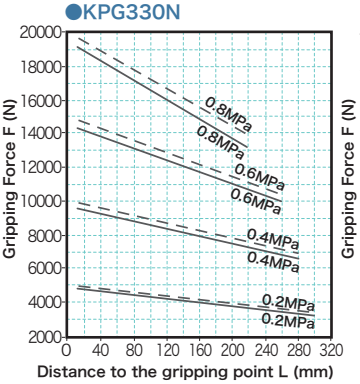
●KPG322N



●KPG322S



●KPG330N



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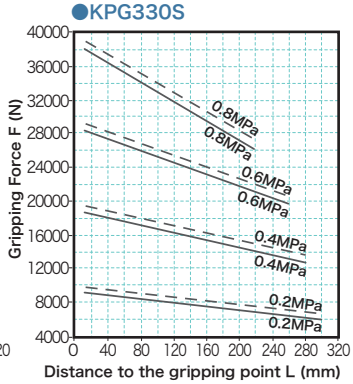
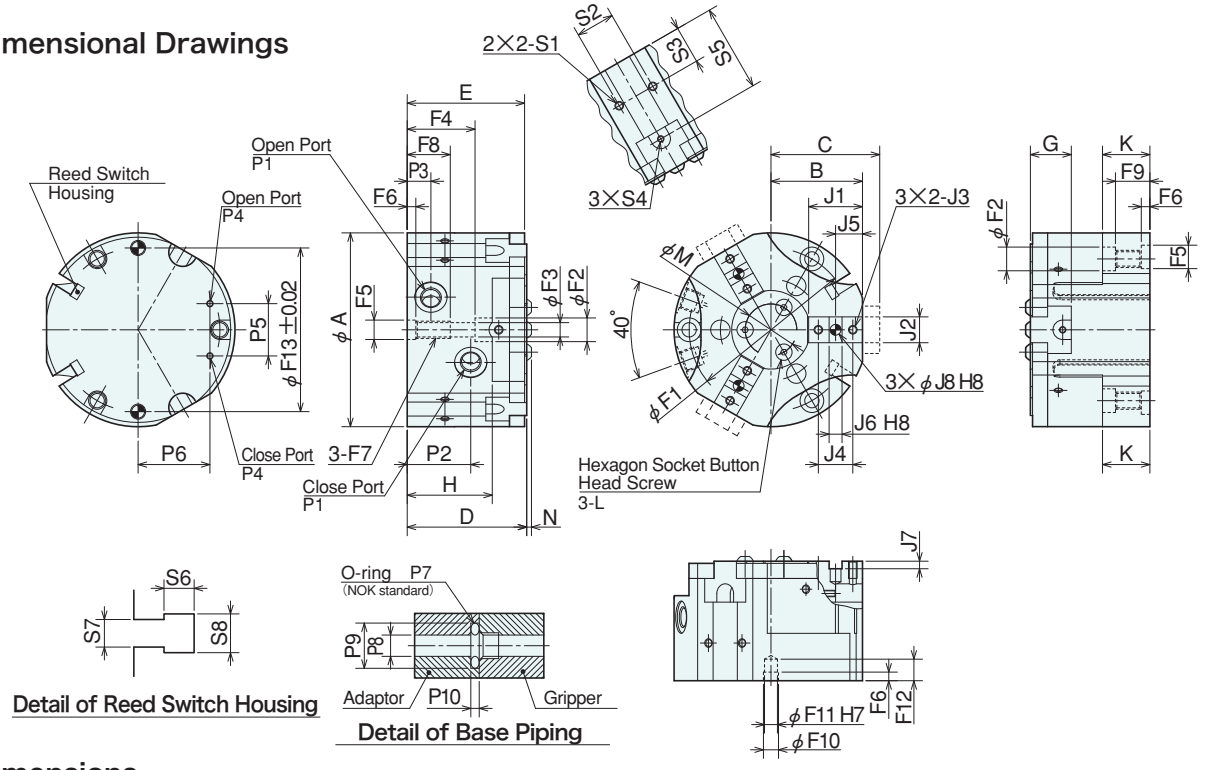


Dimensional Drawings



Dimensions

Model	Outline Dimensions											
	A	B	C Standard	C High Gripping Force	D	E	G	H	K	L	M	N
KPG306N／S	φ60	27.5	31.5	29.5	43	42	15	30	16	M3	φ15	1.7
KPG307N／S	φ75	35	41	38	48	47	16.5	34	18	M3	φ18	1.7
KPG309N／S	φ90	42.5	50.5	46.5	55.5	54.5	19	39.5	22	M4	φ24	2.2
KPG311N／S	φ110	52.5	62.5	57.5	64.5	63	22.5	43	22	M4	φ32	1.7
KPG313N／S	φ138	66	78	72	78	76	26	48	28	M4	φ40	2.2
KPG317N／S	φ178	85	101	93	95	93	30.5	60	35	M6	φ55	3.3
KPG322N／S	φ218	105	125	115	115	113	38	70	40	M6	φ70	3.3
KPG330N／S	φ298	145	175	160	165	163	55	98	50	M6	φ97	3.3

Model	Dimensions of Jaw Mounting								
	J1	J2	J3 Diameter	J3 Depth	J4	J5	J6 (H7)	J7	J8 Diameter (H8)	J8 Depth
KPG306N／S	18	8	M3	6	12	9	5	2.5	φ4	6
KPG307N／S	21	10	M4	8	13	10.5	5	3	φ4	5
KPG309N／S	25	12	M4	8	16	12.5	6	3.5	φ5	6
KPG311N／S	32	16	M5	10	20	16	8	4	φ6	8
KPG313N／S	40	19	M6	12	24	20	8	4.5	φ6	8
KPG317N／S	50	22	M8	16	32	25	10	4.5	φ8	12
KPG322N／S	65	30	M10	20	40	32.5	12	5	φ10	15
KPG330N／S	90	40	M16	32	50	45	14	6	φ12	15

Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11 Diameter (H7)	F12	F13 (±0.02)
KPG306N／S	φ50	φ8	φ4.2	25	6	3	M5	11.5	11.5	4	φ3	9	50
KPG307N／S	φ63	φ9	φ5.2	27.5	7	3.5	M6	11.5	11.5	5	φ4	10	63
KPG309N／S	φ76	φ11	φ6.5	31.5	9	4	M8	16	16	7	φ6	12	76
KPG311N／S	φ94	φ11	φ6.5	36	9	4	M8	16	16	7	φ6	12	94
KPG313N／S	φ122	14	φ8.5	39	12	4.5	M10	20	20	9	φ8	16	122
KPG317N／S	φ161	17	φ10.5	50	13	8	M12	25	25	10	φ8	20	161
KPG322N／S	φ193	φ19	φ12.5	57	15	8.5	M14	30	27	11	φ10	25	193
KPG330N／S	φ265	φ25	φ16.5	81.5	19	12	M18	33.5	33.5	13	φ12	36	265

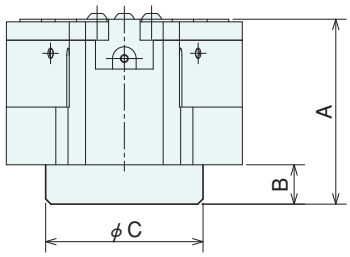
Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part							
											Proximity Switch					Reed Switch		
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	S1	S2	S3	S4	S5	S6	S7	S8
KPG306N／S	M5	23.5	8	M3	14.4	19.73	S4	φ3	φ6.6	1	M3	14	14.5	M3	31	3.5	3.2	4.2
KPG307N／S	M5	26.5	7.5	M3	18.5	25.37	S4	φ3	φ6.6	1	M4	18	14.5	M3	35.5	3.6	5.2	6.5
KPG309N／S	G1／8	29.5	11	M3	24.3	33.36	S4	φ3	φ6.6	1	M4	18	17.5	M3	40.5	3.6	5.2	6.5
KPG311N／S	G1／8	33	11	M4	30.1	41.35	S6	φ4	φ8.3	1	M4	18	23	M3	46	3.6	5.2	6.5
KPG313N／S	G1／8	38	11.5	M5	38.7	53.09	S8	φ5	φ10.3	1	M4	18	31	M3	56	3.6	5.2	6.5
KPG317N／S	G1／8	49	15.5	G1／8	52	71.42	S12	φ10	φ14.3	1	M4	18	43.5	M3	68.5	3.6	5.2	6.5
KPG322N／S	G1／8	57	16	G1／8	61.2	84.1	S12	φ10	φ14.3	1	M4	18	56	M3	81	3.6	5.2	6.5
KPG330N／S	G1／4	83	23	G1／4	83.8	115.11	S16	φ13	φ18.3	1	M4	18	89	M5	115	3.6	5.2	6.5

◎Option

Safety Device

Model	Specifications				Outline Dimensions		
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C
	Measured Distance L(mm)	Spring Force (N)					
KPG306NA／C	10	62～86	0.32		53.5	10.5	ϕ30
KPG307NA／C	10	96～156	0.74		61.5	13.5	ϕ45
KPG309NA／C	20	184～232	1.13	0.3～0.7	70.5	15	ϕ60
KPG311NA／C	20	272～420	1.81		84.5	20	ϕ68
KPG313NA／C	20	468～720	3.25		103	25	ϕ88
KPG317NA／C	20	924～1926	7.3	0.4～0.7	128	35	ϕ130
KPG322NA／C	20	1432～2272	14.4		162	47	ϕ150
KPG306SA／C	10	122～170	0.32		53.5	10.5	ϕ30
KPG307SA／C	10	190～310	0.74		61.5	13.5	ϕ45
KPG309SA／C	20	362～458	1.13	0.3～0.7	70.5	15	ϕ60
KPG311SA／C	20	538～832	1.81		84.5	20	ϕ68
KPG313SA／C	20	924～1424	3.25		103	25	ϕ88
KPG317SA／C	20	1828～3810	7.3	0.4～0.7	128	35	ϕ130
KPG322SA／C	20	2834～4492	14.4		162	47	ϕ150

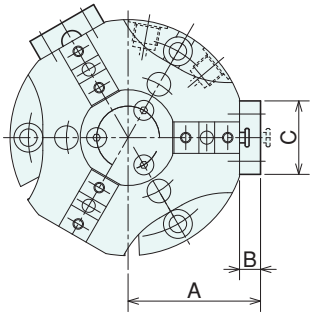
※Safety Device for KPG330 is produced by order.

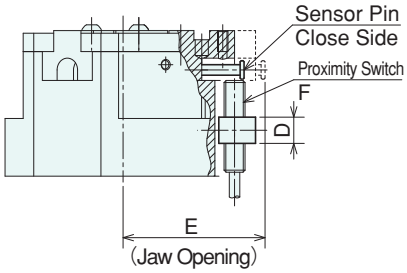


Safety Device

Proximity Switch Bracket

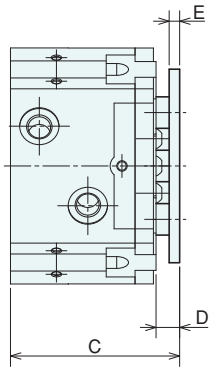
Model	Outline Dimensions						
	A	B	C	D	E		F
					Standard	High Gripping Force	
KPG306※※B	33.5	6	22	8	35	33	M5
KPG307※※B	43	8	28	10	45	42	M8
KPG309※※B	50.5	8	28	10	52.5	48.5	M8
KPG311※※B	60.5	8	28	10	65	60	M8
KPG313※※B	74	8	28	10	80	74	M8
KPG317※※B	93	8	28	10	104.5	96.5	M8
KPG322※※B	113	8	28	10	128.5	118.5	M8
KPG330※※B	153	8	28	10	178.5	163.5	M8

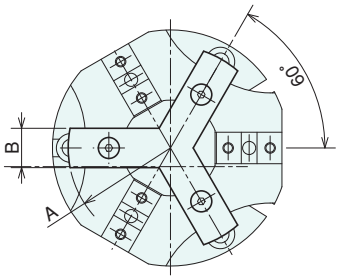




Attaching Proximity Switch

Pusher





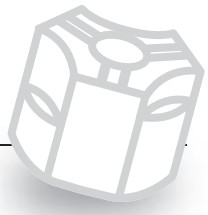
Pusher

Model	Specifications		Outline Dimensions					
	Stroke (mm)	Spring Force (N)	A	B	C	D		E
					MAX	MIN	MAX	
KPG306※※※P	3	9～44	R24	10	52	6	9	3
KPG307※※※P	4	18～42	R31.5	10	57.5	5.5	9.5	3.5
KPG309※※※P	4	15～78	R39	12	65.5	6	10	4
KPG311※※※P	4	19～97	R49	15	74.5	6	10	4
KPG313※※※P	5	85～206	R62	20	90	7	12	5
KPG317※※※P	6	188～375	R78	25	108	7	13	5
KPG322※※※P	6	300～500	R98	25	129	8	14	6
KPG330※※※P	8	268～610	R134	30	183	10	18	8

KPGB3 series

Gripper innovation! promano

3-Jaw Parallel Gripper wtith Thru-Hole

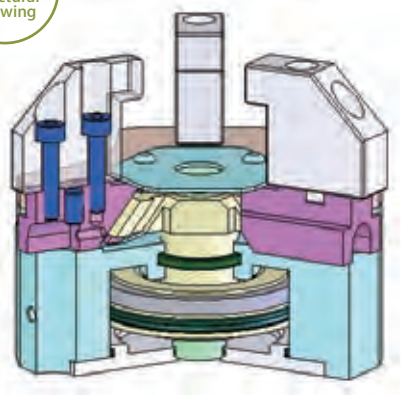


Suitable for attaching air sensing and air blast

Features

- Large thru-hole
- Light weight and Compact body
- High repeatability and Long operating life

3D Structural Drawing



How to Order

K P G B 3 0 9 N B

KPGB3 series

Size		
09	11	13

Gripping Force ※1	
N	Standard force
S	High force

Proximity Switch Bracket ※2	
N	Without bracket
B	With brackets

Notes

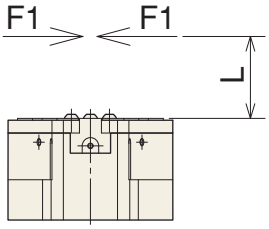
1 High force model can supply higher gripping force than standard model. However, the high force model will have shorter strokes than the standard model.
2 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.
3 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Gripping Force Type	Jaw Stroke (diameter) (mm)	Gripping Force (F)* Measured Distance (mm)	Gripping Force (F)* External Gripping (N)	Repeatability (mm)	Net Weight (kg)	Air Consumption (cm³/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KPGB309N	Standard	12	10	690	±0.01	0.85	28.5	0.2～0.8	5～60
KPGB311N		16	20	1155		1.3	66		
KPGB313N		20	20	1830		2	130		
KPGB309S	High Gripping Force	6	10	1365	±0.01	0.85	28.5	0.2～0.8	5～60
KPGB311S		8	20	2310		1.3	66		
KPGB313S		10	20	3600		2	130		

*At Air Pressure 0.6MPa

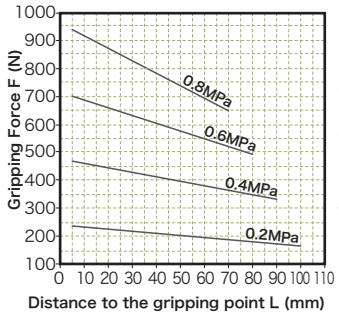
Gripping Characteristic Graph



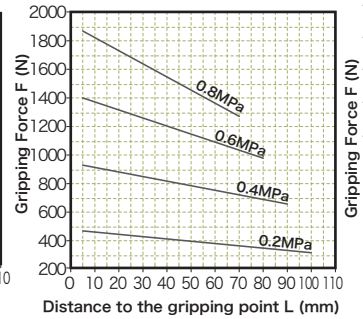
The point to be measured gripping force

The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×3)

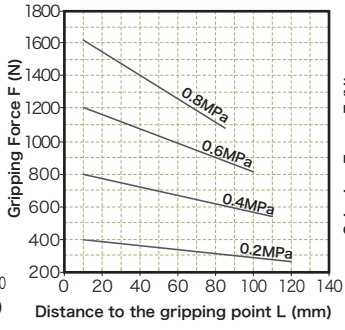
●KPGB309N



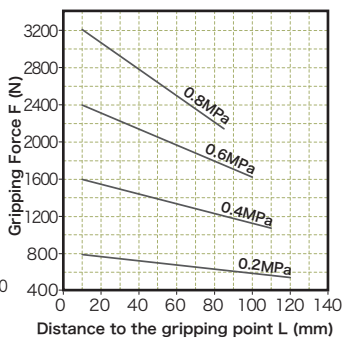
●KPGB309S



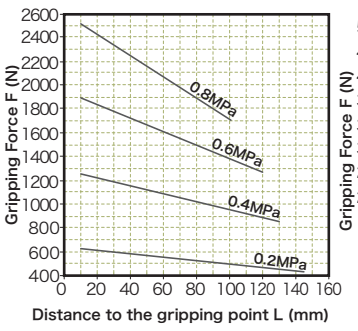
●KPGB311N



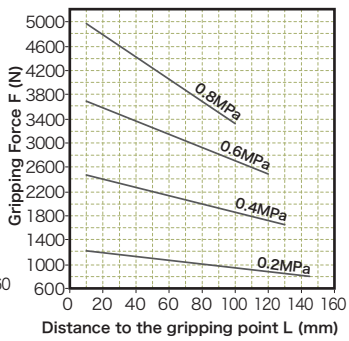
●KPGB311S



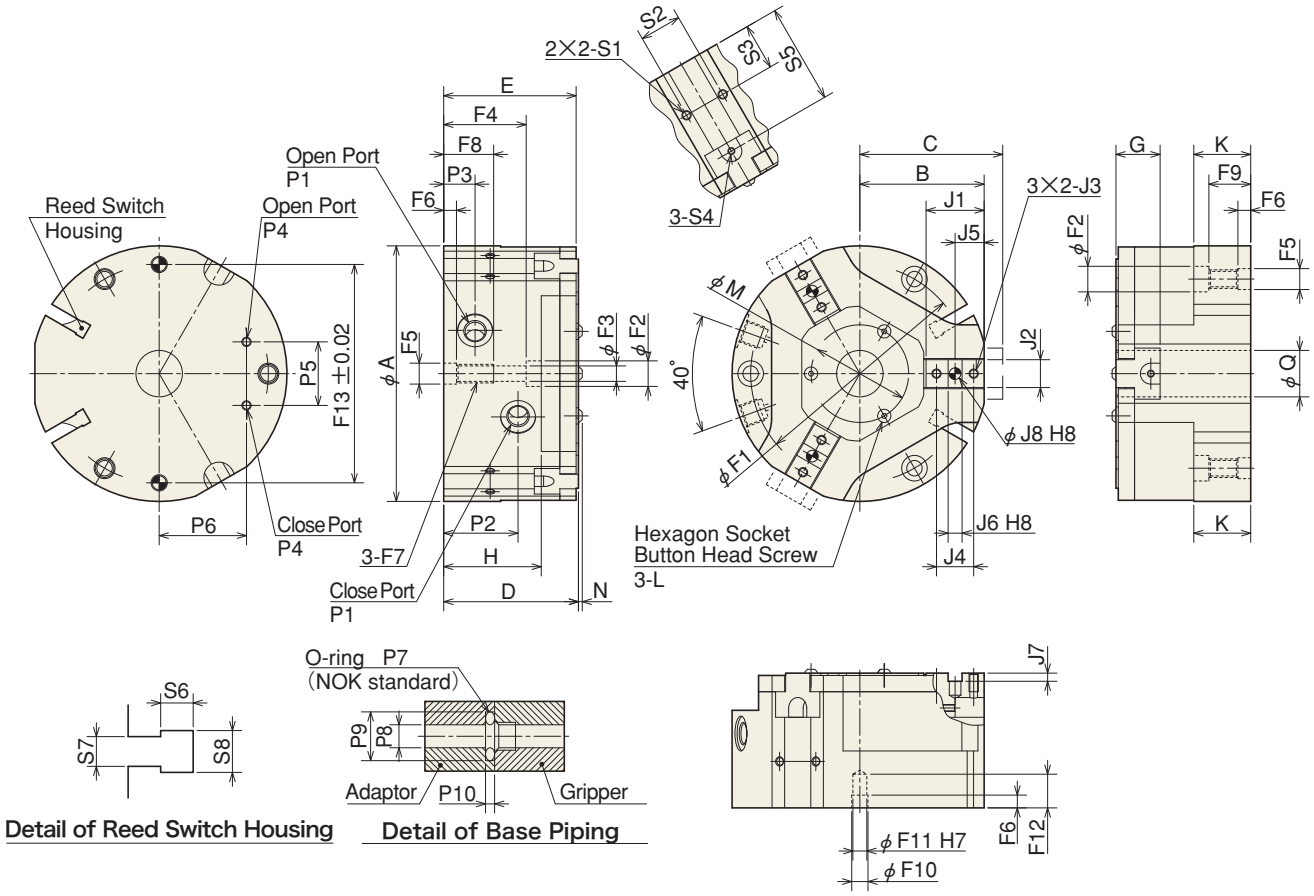
●KPGB313N



●KPGB313S



Dimensional Drawings



Dimensions

Model	Outline Dimensions												
	A	B	C Standard	C High Gripping Force	D	E	G	H	K	L	M	N	Q Thru-Hole
KPGB309N／S	φ90	42.5	48.5	45.5	48	47	16.5	34	18	M3	φ31	1.7	φ12
KPGB311N／S	φ110	53.5	61.5	57.5	58	57	19	42	24.5	M3	φ42	1.7	φ20
KPGB313N／S	φ138	66	76	71	67	65.5	22.5	45.5	28.5	M3	φ54	1.7	φ25

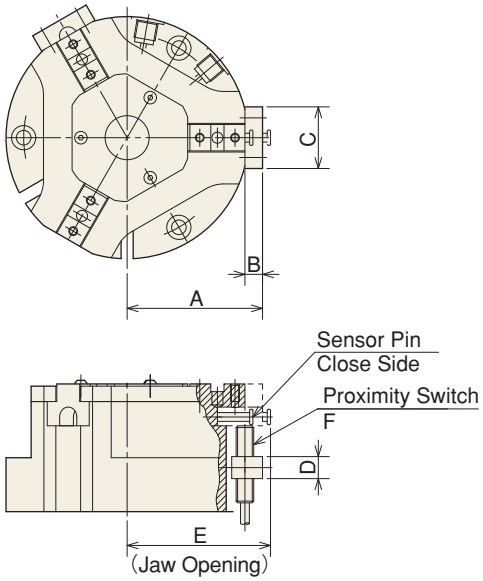
Model	Dimensions of Jaw Mounting									
	J1	J2	J3 Diameter	J3 Depth	J4	J5	J6 (H7)	J7	J8 Diameter (H8)	J8 Depth
KPGB309N／S	21	10	M4	8	13	10.5	5	3	φ4	5
KPGB311N／S	25	12	M4	8	16	12.5	6	3.5	φ5	6
KPGB313N／S	32	16	M5	10	20	16	8	4	φ6	8

Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11 Diameter (H7)	F12	F13 (±0.02)
KPGB309N／S	φ76	φ11	φ6.5	27.5	11	3.5	M8	11.5	11.5	9	φ6	10	76
KPGB311N／S	φ94	φ11	φ6.5	35.5	9	5.5	M8	18	18	φ7	φ6	14.5	94
KPGB313N／S	φ122	14	φ8.5	37			M10	20	20		φ8	12	122

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part							
											Proximity Switch					Reed Switch		
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	S1	S2	S3	S4	S5	S6	S7	S8
KPGB309N／S	G1／8	26.5	9.5	M3	20.52	28.19	S4	φ3	φ6.6	1	M4	18	14.5	M3	35.5	3.6	5.2	6.5
KPGB311N／S	G1／8	32	13.5	M4	27.4	37.6	S6	φ4	φ8.3	1	M4	18	20	M3	43	3.6	5.2	6.5
KPGB313N／S	G1／8	35.5	13.5	M5	33.52	46.04	S8	φ5	φ10.3	1	M4	18	25.5	M3	48.5	3.6	5.2	6.5

◎Option

■Proximity Switch Bracket

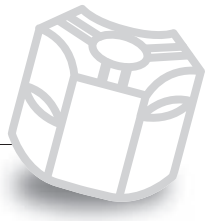


Attaching Proximity Switch

Model	Outline Dimensions						
	A	B	C	D	E Standard	E High Gripping Force	F
KPGB309※※B	50.5	8	28	10	52.5	49.5	M8
KPGB311※※B	61.5	8	28	10	63.5	59.5	M8
KPGB313※※B	74	8	28	10	78.5	73.5	M8

KPH-3 series

Gripper innovation! promano



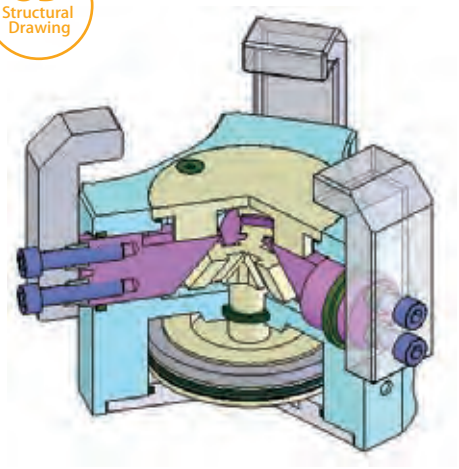
3-Jaw Parallel Gripper with Sealed Body

Endurable for the severe condition by waterproof and dustproof design

Features

- Waterproof and dustproof design to endure the most severe conditions
- Light weight and Compact body
- High repeatability and Long operating life

3D Structural Drawing



How to Order

K P H 0 8 3 - 3 N B

KPH-3 series

Size	
083	098
118	148

Number of Jaws	
3	3-Jaw

Safety device ※1	
N	Without device
A	For internal gripping
C	For external gripping

Proximity Switch Bracket ※2	
N	Without bracket
B	With brackets

Notes

1 The safety device will ensure a minimum gripping force is maintained via a mechanical mechanism if there is a loss of pneumatic pressure.

2 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.

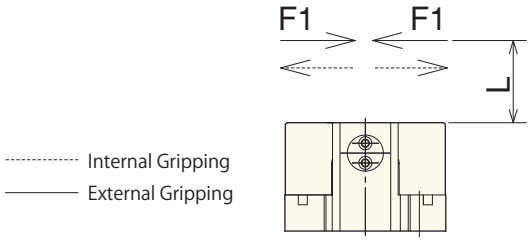
3 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

Specifications

Model	Jaw Stroke (diameter) (mm)	Gripping Force (F)* Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)	Repeatability (mm)	Net Weight (kg)	Air Consumption (cm³/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KPH083-3	12	10	609	639		0.9	23.4		
KPH098-3	16	20	1020	1080	±0.01	1.2	52.3	0.2～0.8	5～60
KPH118-3	20	20	1695	1770		2.3	108		
KPH148-3	24	20	2949	3030		3.8	225		

*At Air Pressure 0.6MPa

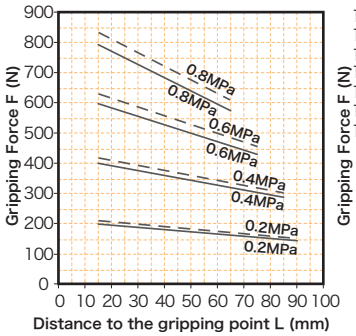
Gripping Characteristic Graph



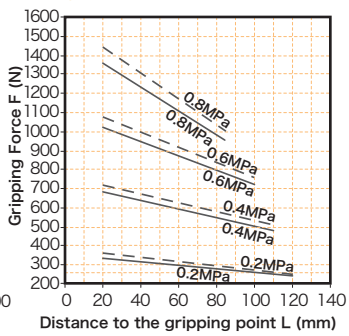
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×3)

The point to be measured gripping force

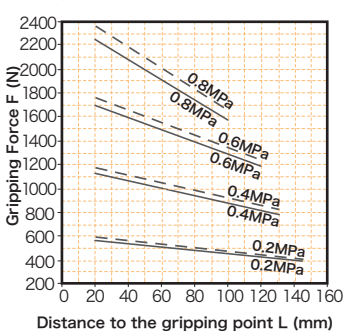
●KPH083-3



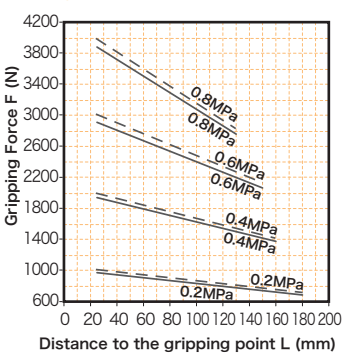
●KPH098-3



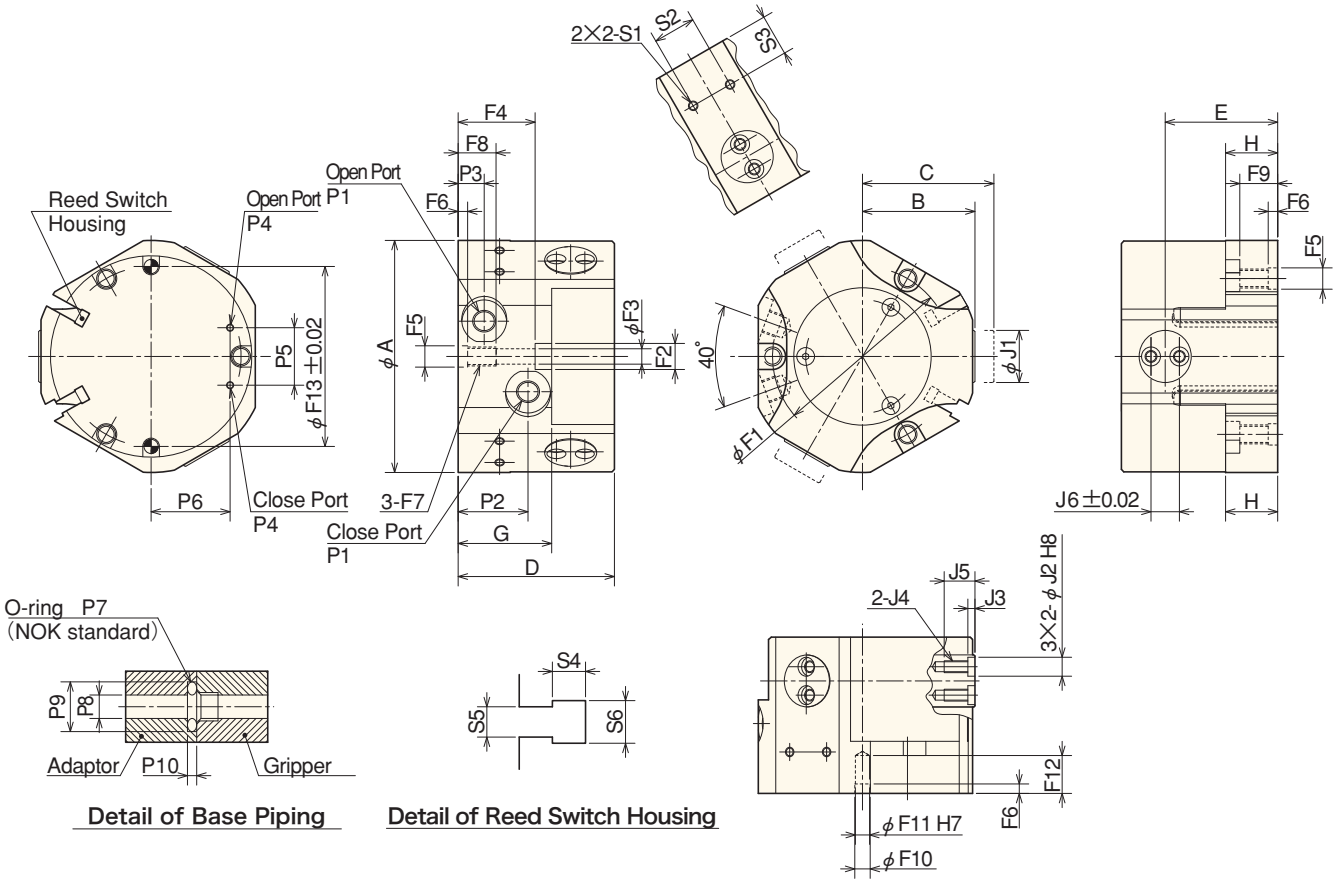
●KPH118-3



●KPH148-3



Dimensional Drawings



Detail of Base Piping

Detail of Reed Switch Housing

Dimensions

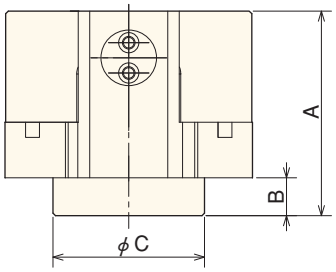
Model	Outline Dimensions							Dimensions of Jaw Mounting					
	A	B	C	D	E	G	H	J1	J2 Diameter (H8)	J3 Depth	J4 Diameter	J5	J6 (±0.02)
KPH083-3	φ83	40	46	57	40.5	34	18	φ18	φ6	3	M4	11	10
KPH098-3	φ98	47.5	55.5	66	47.5	39.5	22	φ22	φ8	3	M5	13	12
KPH118-3	φ118	57.5	67.5	79	56	43	22	φ28	φ10	4	M6	16	14
KPH148-3	φ148	71	83	94	68	48	28	φ32	φ12	4	M8	20	16

Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5	F6	F7 Diameter	F8 Depth	F9 Depth	F10	F11 Diameter (H7)	F12 Depth	F13 (±0.02)
KPH083-3	φ63	9	φ5.2	28.5	7	3.5	M6	15.5	12.5	φ5	φ4	10	63
KPH098-3	φ76	11	φ6.5	32.5	9	4	M8	16	16	φ6.5	φ6	12	76
KPH118-3	φ94	11	φ6.5	36	9	4	M8	20	15.5	φ6.5	φ6	12	94
KPH148-3	φ122	14	φ8.5	40	11	4.5	M10	24.5	20	φ9	φ8	16	122

Model	Dimensions of Air Supplying Part										Dimensions of Switch Attaching Part					
											Proximity Switch			Reed Switch		
	P1	P2	P3	P4	P5	P6	P7 (NOK standard)	P8	P9	P10	S1	S2	S3	S4	S5	S6
KPH083-3	M5	26.5	7.5	M3	18.5	25.37	S8	φ5	φ10.3	1	M4	18	14.5	3.6	5.2	6.5
KPH098-3	G1/8	29.5	11	M3	24.3	33.36	S12	φ10	φ14.3	1	M4	18	17.5	3.6	5.2	6.5
KPH118-3	G1/8	33	11	M4	30.1	41.35	S12	φ10	φ14.3	1	M4	18	21	3.6	5.2	6.5
KPH148-3	G1/8	38	11	M5	38.7	53.09	S16	φ13	φ18.3	1	M4	18	28	3.6	5.2	6.5

◎Option

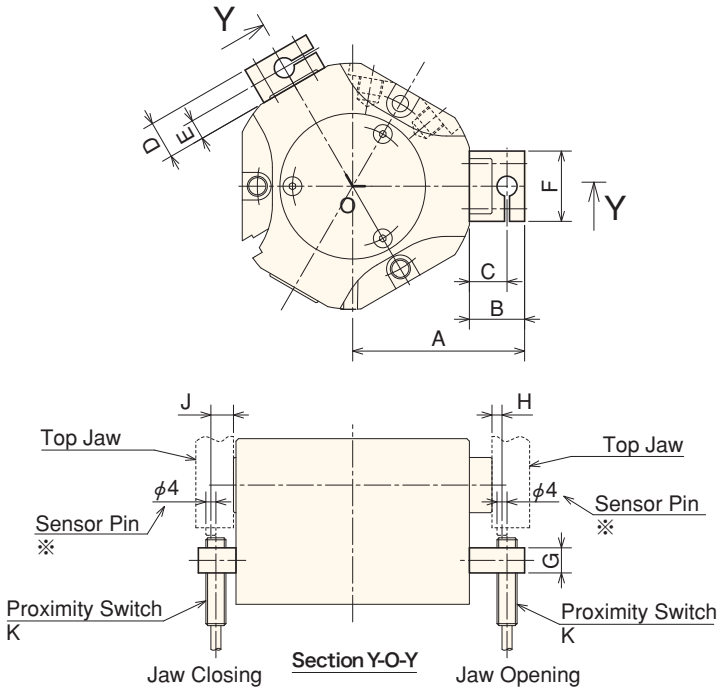
■Safety Device



Safety Device

Model	Specifications				Outline Dimensions		
	Gripping Force		Net Weight (kg)	Air Pressure (Mpa)	A	B	C
	Measured Distance L(mm)	Spring Force (N)					
KPH083-3A／C	10	96～156	0.96		70.5	13.5	ϕ45
KPH098-3A／C	20	184～232	1.33	0.3～0.8	81	15	ϕ60
KPH118-3A／C	20	272～420	2.51		99	20	ϕ68
KPH148-3A／C	20	468～720	4.25		119	25	ϕ68

■Proximity Switch Bracket



Attaching Proximity Switch

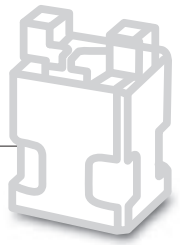
Model	Outline Dimensions									
	A	B	C	D	E	F	G	H	J	K
KPH083-3※B	58.5	19.5	12.5	15	8	28	10	3.5	9	M8
KPH098-3※B	68.5	22	15	15	8	28	10	4	9	M8
KPH118-3※B	79.5	23	16	15	8	28	10	3	9	M8
KPH148-3※B	95	25	18	15	8	28	10	3	9	M8

※Sensor pins will be prepared by the customer.

KOG5 series

Gripper innovation! promano

2-Jaw Toggle Gripper

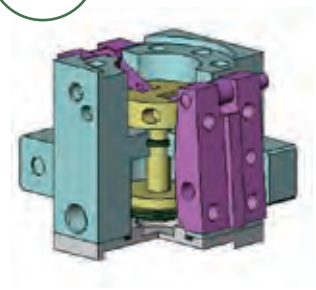


Standard model with 3 point fulcrum jaws for various manufacturing operations

Features

- Toggle mechanism enables high gripping torque with a compact body
- Available for both external and internal gripping

3D Structural Drawing



How to Order

KOG5 10 - 75 B

KOG5 series

Size		
10	30	50
65	70	75

Jaw Opening Angle ※1	
75	7.5°
80	8.0°
85	8.5°

Proximity Switch Bracket ※2	
N	Without bracket
B	With brackets

Notes

1 This table shows jaw opening angles per jaw.

Jaw Opening Angle Compatibility Table

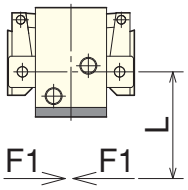
Model	Jaw Opening Angle		
	7.5°	8.0°	8.5°
KOG510	●		
KOG530	●		
KOG550	●		
KOG565	●		
KOG570			●
KOG575		●	

2 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.

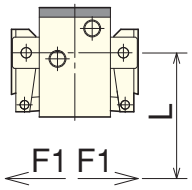
Specifications

Model	Jaw Opening Angle (Both Sides)	Repeatability (mm)	Net Weight (kg)	Air Consumption (ℓ/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KOG510-75	0°～15°		0.17	2.7		
KOG530-75	0°～15°		0.28	5		
KOG550-75	0°～15°	±0.05	0.63	11.5	0.2～0.8	5～60
KOG565-75	0°～15°		1.2	26		
KOG570-85	0°～17°		2.55	48.5		
KOG575-80	0°～16°		6.5	195		

■Gripping Characteristic Graph



The point to be measured gripping force
(External Gripping)

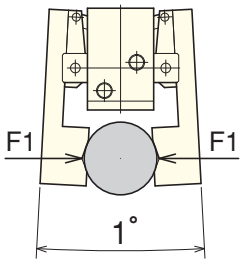


The point to be measured gripping force
(Internal Gripping)

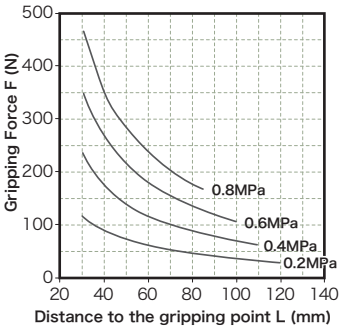
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×2)

(1) KOG series can be converted the way of gripping (internal or external gripping) by changing the body fixing side.
(2) The gripping force is very different depends on the angle when gripping a workpiece.

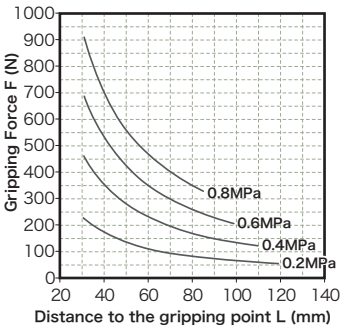
●1° Jaw Opening



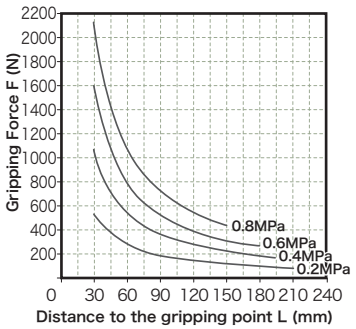
●KOG510-75(1° Jaw Opening)



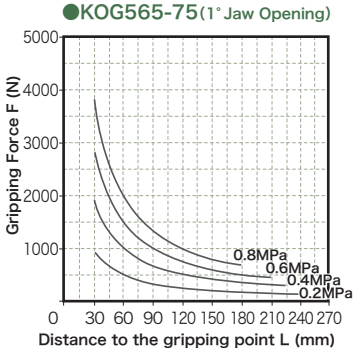
●KOG530-75(1° Jaw Opening)



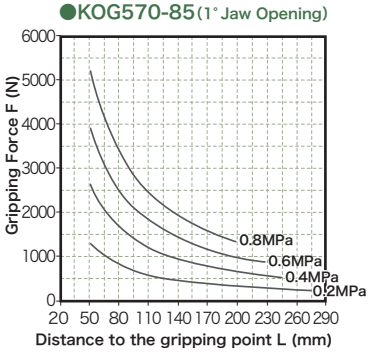
●KOG550-75(1° Jaw Opening)



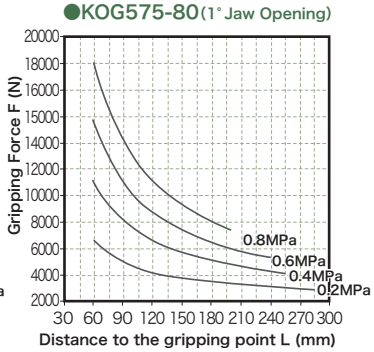
●KOG565-75(1° Jaw Opening)



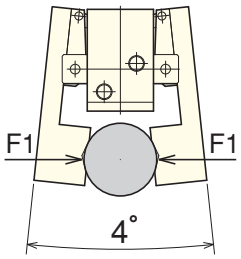
●KOG570-85(1° Jaw Opening)



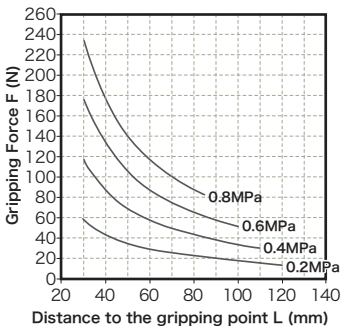
●KOG575-80(1° Jaw Opening)



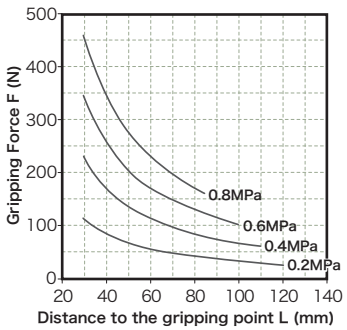
●4° Jaw Opening



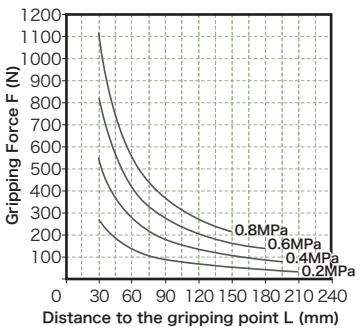
●KOG510-75(4° Jaw Opening)



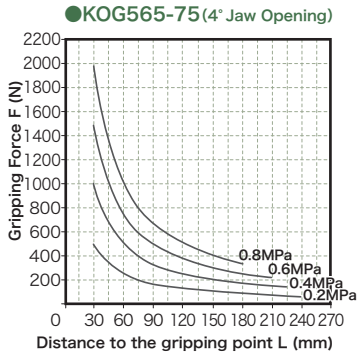
●KOG530-75(4° Jaw Opening)



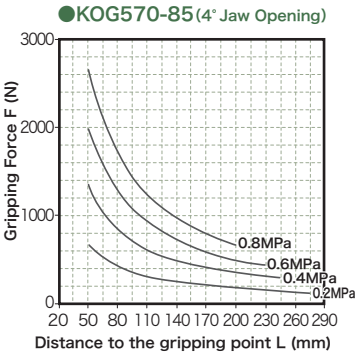
●KOG550-75(4° Jaw Opening))



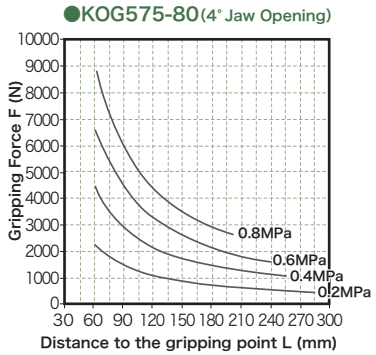
●KOG565-75(4° Jaw Opening)



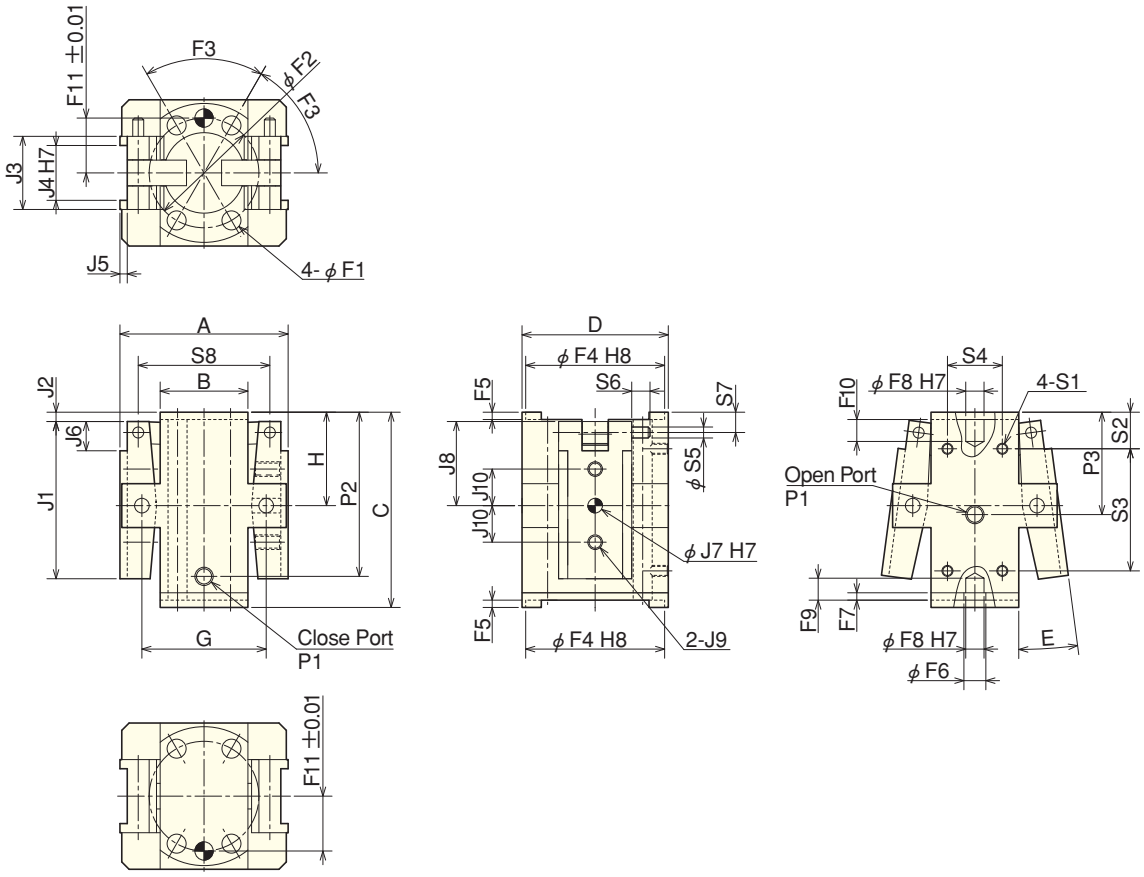
●KOG570-85(4° Jaw Opening)



●KOG575-80(4° Jaw Opening)



■KOG510／530 Dimensional Drawings



■KOG510／530 Dimensions

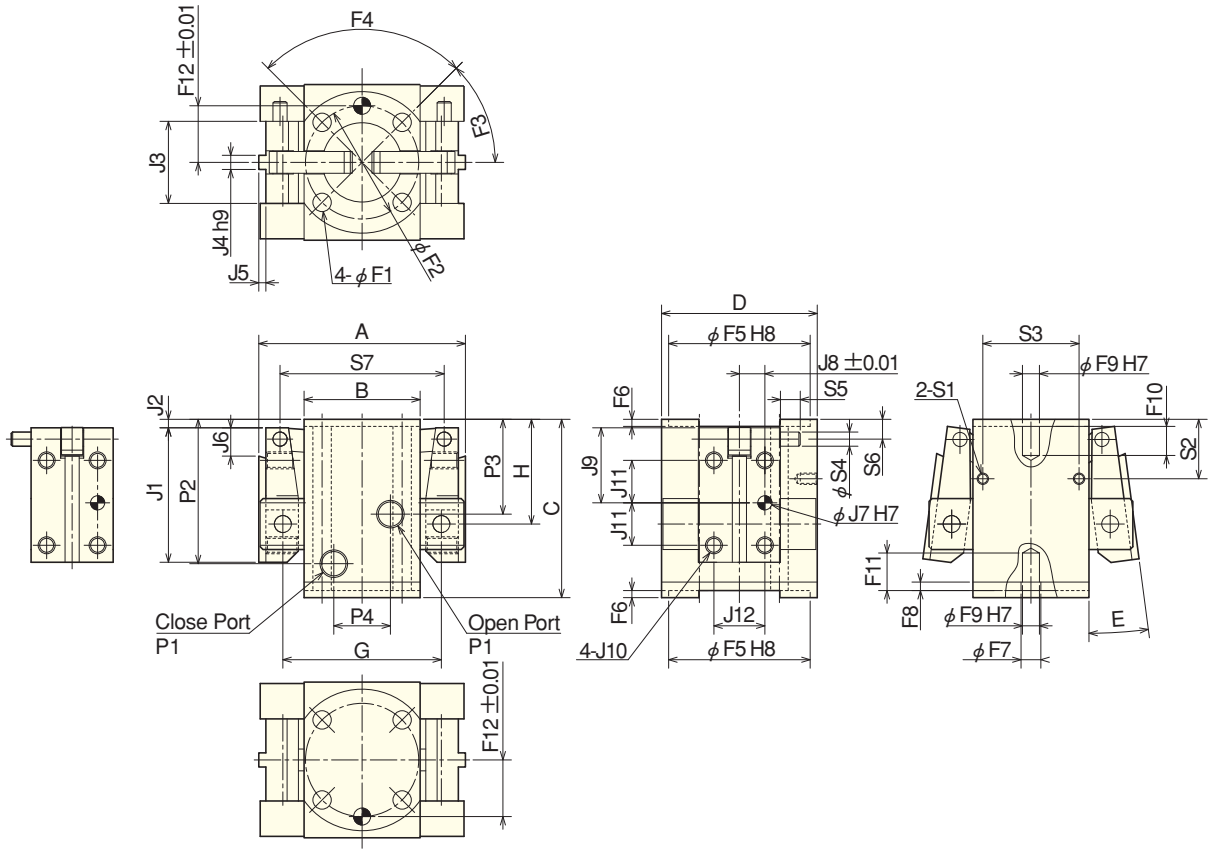
Model	Outline Dimensions						
	A	B	C	D	E	G	H
KOG510-75	39	20	45.8	34	0°～7.5°	35	20.5
KOG530-75	46	24	53.4	40	0°～7.5°	42	25.6

Model	Dimensions of Jaw Mounting											
	J1	J2	J3	J4 (H7)	J5	J6	J7 Diameter (H7)	J7 Depth	J8	J9 Diameter	J9 Depth	J10
KOG510-75	38	2.5	16	12	2	8	φ4	6.5	23	M4	6	10
KOG530-75	43	2.6	20	15	2	8	φ4	7.5	23	M4	6.5	10

Model	Dimensions of Body Fixed Part										
	F1 Diameter	F2	F3	F4 Diameter (H8)	F5 Depth	F6	F7	F8 Diameter (H7)	F9	F10	F11 (±0.01)
KOG510-75	φ4.5	φ24	60°	φ32	2	φ4.5	2	φ4	6	6	12
KOG530-75	φ5.2	φ30	60°	φ38	2	φ5.5	2	φ5	6	6	15

Model	Dimensions of Air Supplying Part			Dimensions of Switch Attaching Part (Proximity Switch)							
	P1	P2	P3	S1	S2	S3	S4	S5	S6	S7	S8
KOG510-75	M5	37.8	24.1	M3	8	29.8	12	φ3	5	5.5	30
KOG530-75	M5	44.9	28	M3	10	33.4	15	φ3	5	5.6	36

■KOG550-75／575-80 Dimensional Drawings



■KOG550-75／575-80 Dimensions

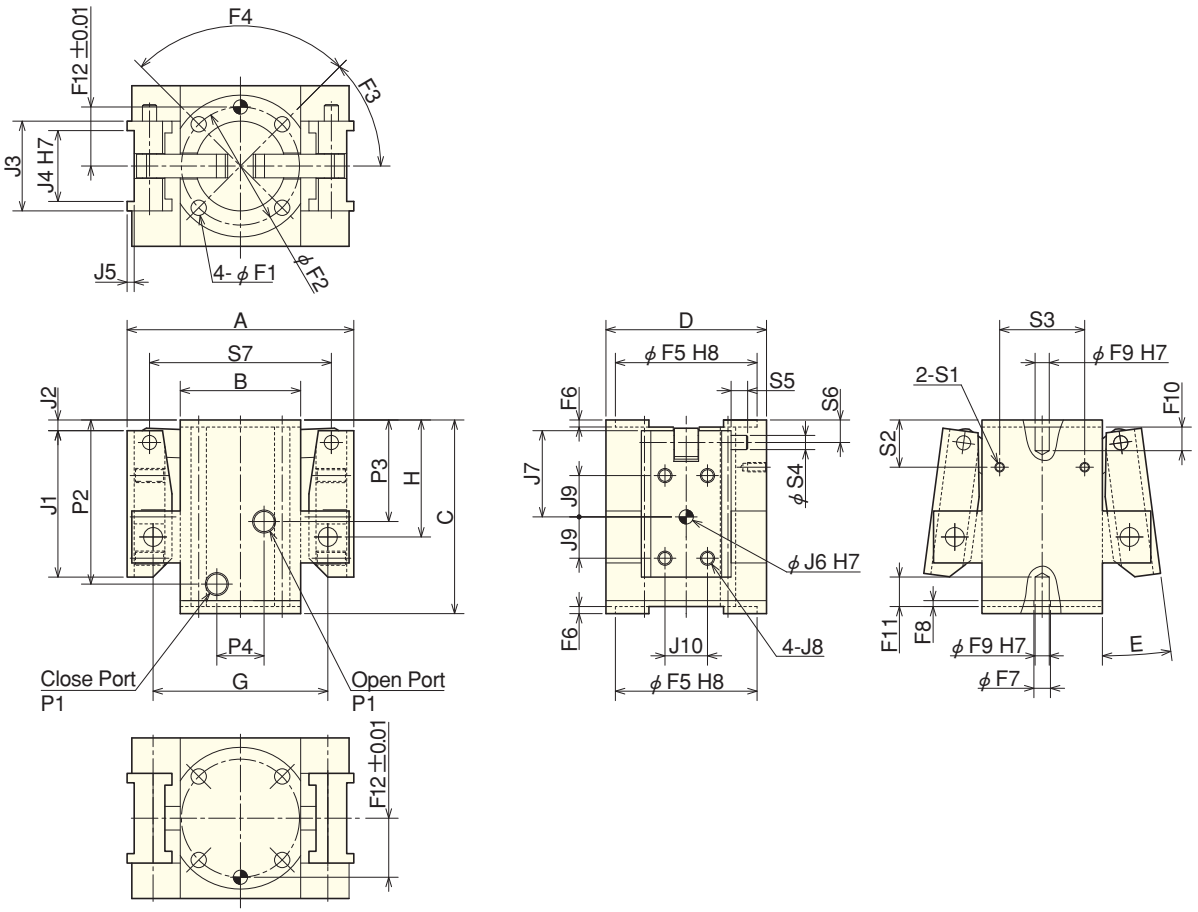
Model	Outline Dimensions						
	A	B	C	D	E	G	H
KOG550-75	73	41	63	55	0°～7.5°	56	37
KOG575-80	180	100	135	115	0°～8.0°	145	87.5

Model	Dimensions of Jaw Mounting													
	J1	J2	J3	J4	J5	J6	J7 Diameter (H7)	J7 Depth	J8 (±0.01)	J9	J10 Diameter	J10 Depth	J11	J12
KOG550-75	47.5	3	29	5 h9	2.5	9.8	φ5	11	9	26.5	M6	9	15	18
KOG575-80	111	4	55	10 h8	5	21	φ8	7	17.5	66	M10	20.5	35	35

Model	Dimensions of Body Fixed Part											
	F1 径	F2	F3	F4	F5 Diameter (H8)	F6 Depth	F7	F8	F9 Diameter (H7)	F10	F11	F12 (±0.01)
KOG550-75	φ6.5	φ40	45°	90°	φ50	2.5	φ6.5	3	φ6	10	13	20
KOG575-80	φ10.5	φ85	45°	90°	φ105	3.5	8.5	4.5	φ8	12.5	16.5	42.5

Model	Dimensions of Air Supplying Part				Dimensions of Switch Attaching Part (Proximity Switch)						
	P1	P2	P3	P4	S1	S2	S3	S4	S5	S6	S7
KOG550-75	G1/8	51	33.5	20	M4	21	34	φ5	7	7	34
KOG575-80	G1/4	118	75.5	30	M4	31	80	φ8	15	12.5	150

■KOG565-75 Dimensional Drawings



■KOG565-75 Dimensions

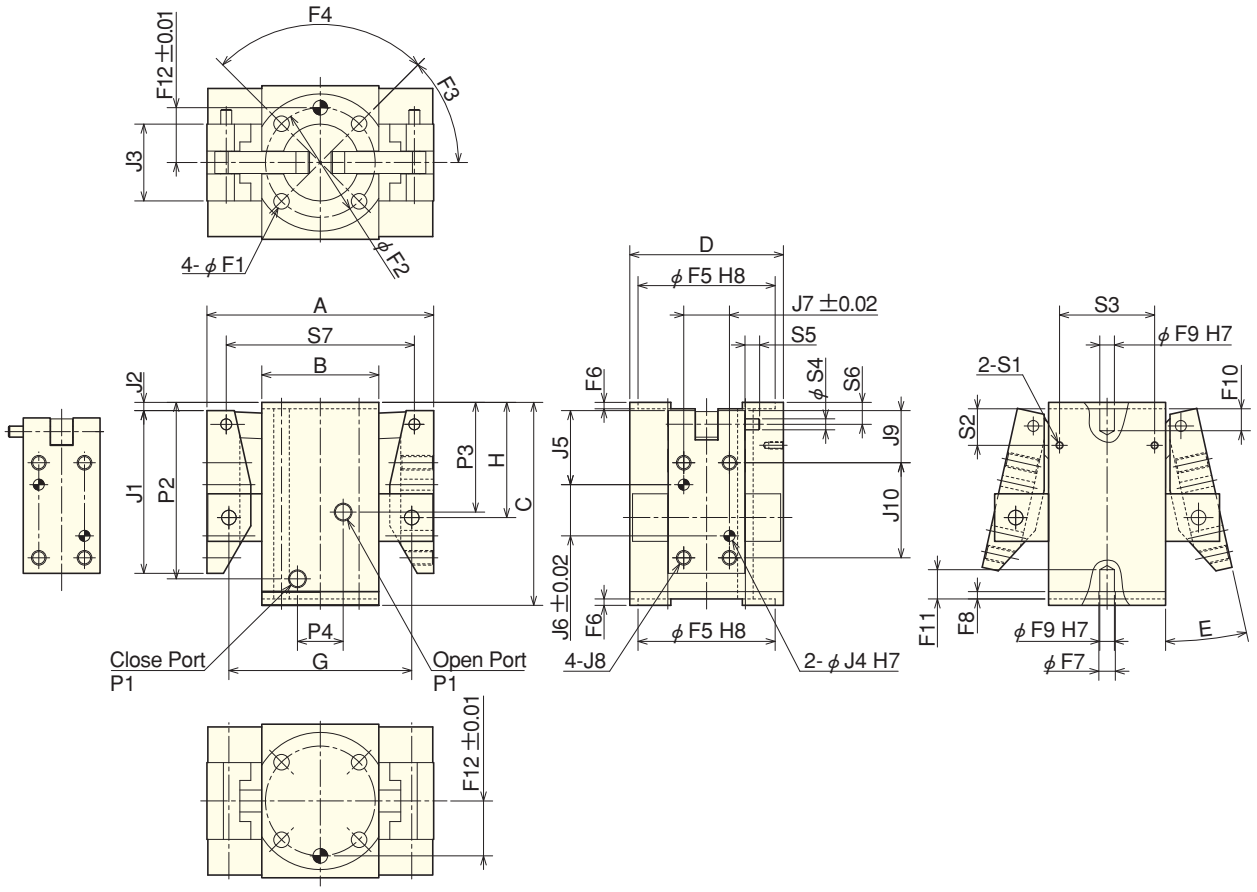
Model	Outline Dimensions						
	A	B	C	D	E	G	H
KOG565-75	96	51	82	68	0°～7.5°	74	49.5

Model	Dimensions of Jaw Mounting											
	J1	J2	J3	J4 (H7)	J5	J6 Diameter(H7)	J6 Depth	J7	J8 Diameter	J8 Depth	J9	J10
KOG565-75	62	4.5	38	30	3	ϕ6	13	36.5	M6	13	17.5	18

Model	Dimensions of Body Fixed Part											
	F1 Diameter	F2	F3	F4	F5 Diameter(H8)	F6 Depth	F7	F8	F9 Diameter(H7)	F10	F11	F12 (±0.01)
KOG565-75	ϕ6.5	ϕ50	45°	90°	ϕ60	3	ϕ6.5	2.5	ϕ6	10	12.5	25

Model	Dimensions of Air Supplying Part				Dimensions of Switch Attaching Part						
					Proximity Switch						
	P1	P2	P3	P4	S1	S2	S3	S4	S5	S6	S7
KOG565-75	G1/8	69.5	43	20	M4	20	36	ϕ6	7	11.5	77

■KOG570-85 Dimensional Drawings



■KOG570-85 Dimensions

Model	Outline Dimensions						
	A	B	C	D	E	G	H
KOG570-85	118	64	97	84	0°～8.5°	94	59

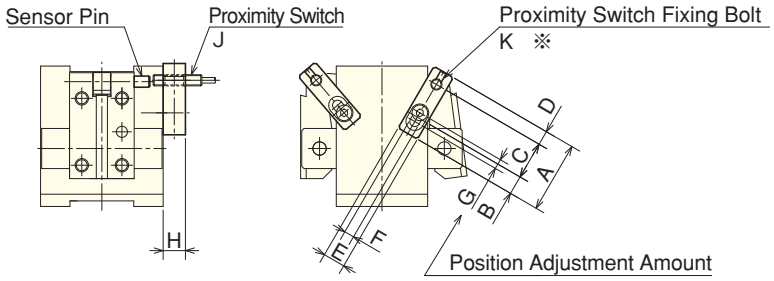
Model	Dimensions of Jaw Mounting											
	J1	J2	J3	J4		J5	J6 (±0.02)	J7 (±0.02)	J8		J9	J10
				Diameter (H7)	Depth				Diameter	Depth		
KOG570-85	85	4.5	42	φ6	9.5	36.5	28	25	M8	9.5	24.5	52

Model	Dimensions of Body Fixed Part											
	F1 Diameter	F2	F3	F4	F5 Diameter (H8)	F6 Depth	F7	F8	F9 Diameter (H7)	F10	F11	F12 (±0.01)
KOG570-85	φ8.5	φ60	45°	90°	φ75	3.5	φ8.5	4	φ8	12	16	30

Model	Dimensions of Air Supplying Part				Dimensions of Switch Attaching Part						
	P1	P2	P3	P4	Proximity Switch						
					S1	S2	S3	S4	S5	S6	S7
KOG570-85	G1/8	82.5	53	25	M4	23.5	52	φ6	8	12	96.7

◎Option

■Proximity Switch Bracket



Attaching Proximity Switch

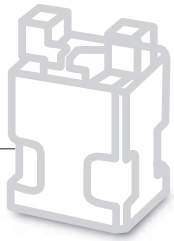
Model	Outline Dimensions									
	A	B	C	D	E	F	G	H	J	K
KOG510-75B	22	7	8.5	6.5	9	3.5	3.5	8	M5×0.5	M3
KOG530-75B	23.5	7	10	6.5	9	3.5	3.5	8	M5×0.5	M3
KOG550-75B	32	8.5	17	6.5	10	4.5	4.5	10	M5×0.5	M3
KOG565-75B	39	10	22.5	6.5	10	4.5	7.5	10	M5×0.5	M3
KOG570-85B	42	12	23.5	6.5	10	4.5	11.5	10	M5×0.5	M3
KOG575-80B	56	12	35	9	12	4.5	11.5	12	M8×1	M4

※Proximity switch fixing bolts "K"will be prepared by the customer.

KOG_A series

Gripper innovation! promano

2-Jaw Wide Angle Toggle Gripper

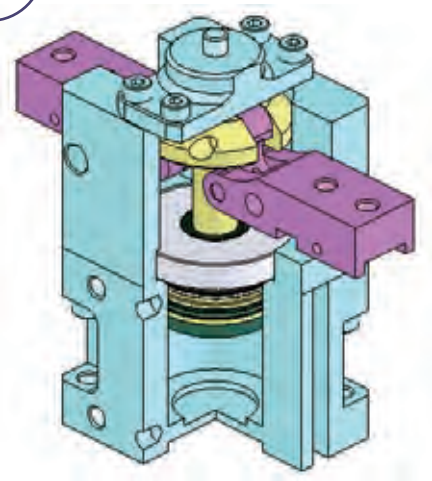


Wide Jaw opening and secure gripping

Features

- Toggle mechanism enables high gripping torque with a compact body
- 180° wide jaw opening

3D Structural Drawing



How to Order

K O G 1 6 A B

KOG_A series

Size			
16	20	25	32
40	50	63	80

Jaw Opening Angle	
A	90°

Proximity Switch Bracket ※1	
N	Without bracket
B	With brackets

Notes

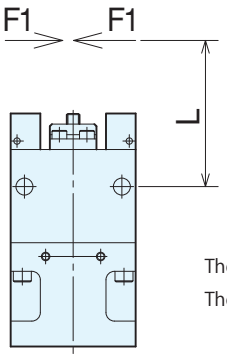
1 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets", 1 set of brackets (1 opening side and 1 closing side) is supplied. In case that reed switches are needed, they can be attached on the switch housing on the external body. Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.

2 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

■Specifications

Model	Jaw Opening Angle (Both Sides)	Repeatability (mm)	Net Weight (kg)	Air Consumption (ℓ/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KOG16A			0.2	5.5		
KOG20A			0.24	8.3		
KOG25A			0.46	18		
KOG32A	0°～180°	±0.05	0.8	38.5	0.2～0.8	5～60
KOG40A			1.8	77		
KOG50A			3	151		
KOG63A			4.5	288		
KOG80A			8	585		

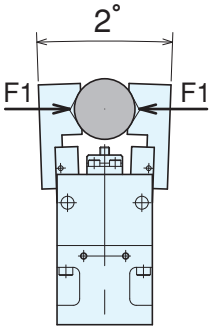
■Gripping Characteristic Graph

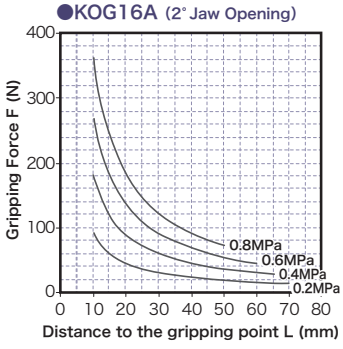


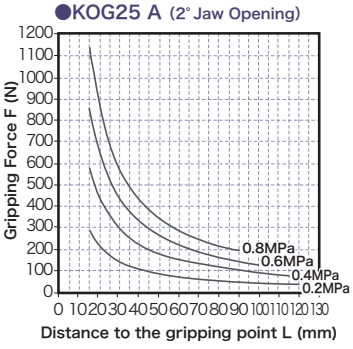
The point to be measured gripping force

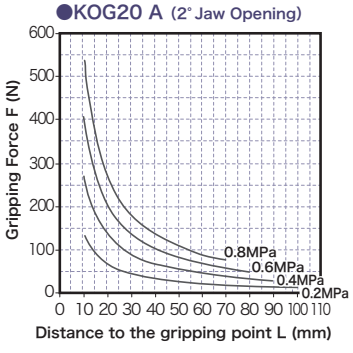
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws. **(F=F1×2)**
The gripping force is very different depends on the angle when gripping a workpiece.

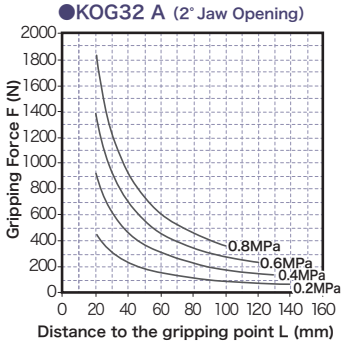
●2°Jaw Opening

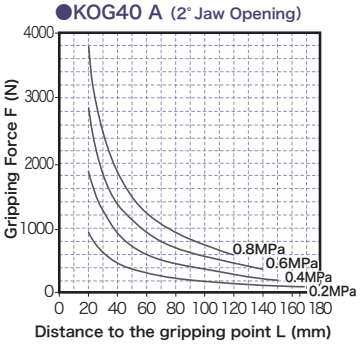




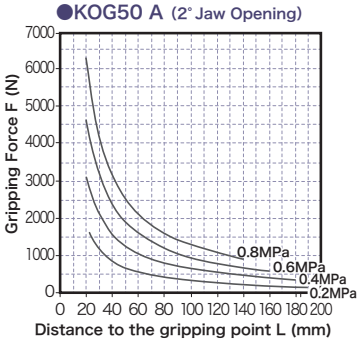




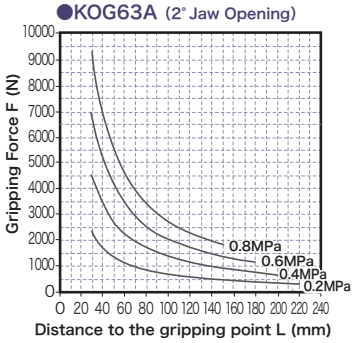




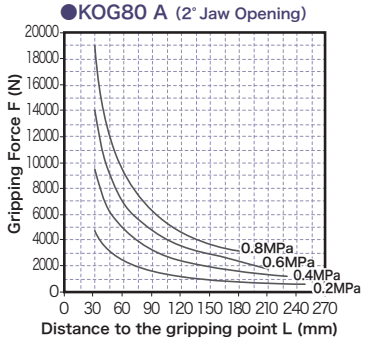
●KOG50 A (2° Jaw Opening)



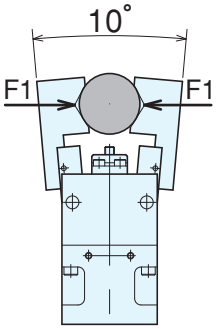
●KOG63A (2° Jaw Opening)



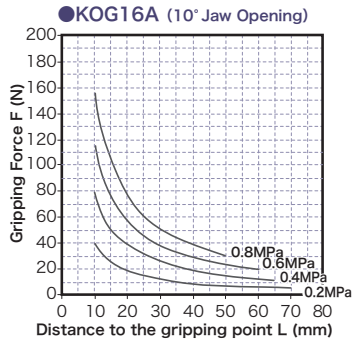
●KOG80 A (2° Jaw Opening)



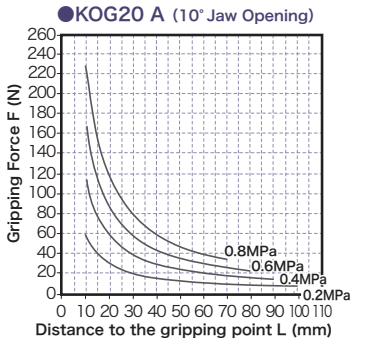
●10°Jaw Opening



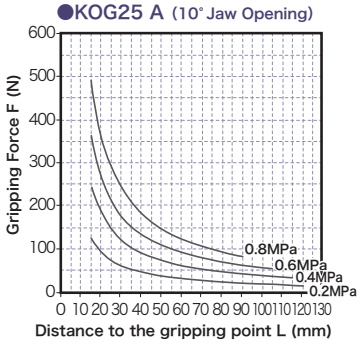
●KOG16A (10° Jaw Opening)



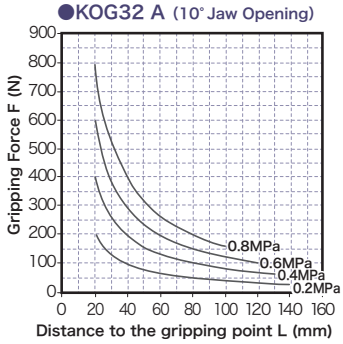
●KOG20 A (10° Jaw Opening)



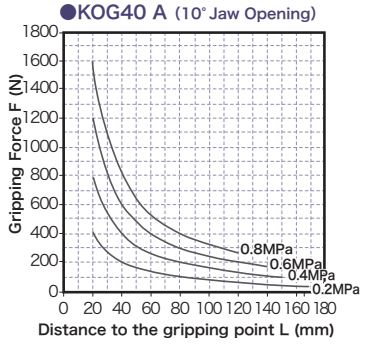
●KOG25 A (10° Jaw Opening)



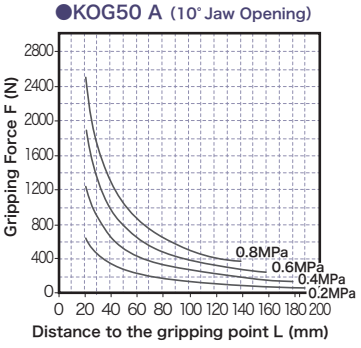
●KOG32 A (10° Jaw Opening)



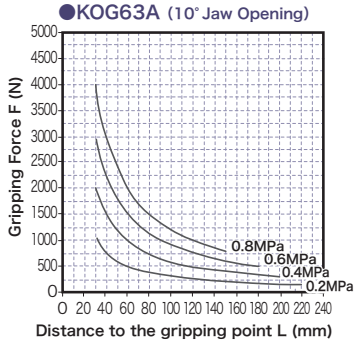
●KOG40 A (10° Jaw Opening)



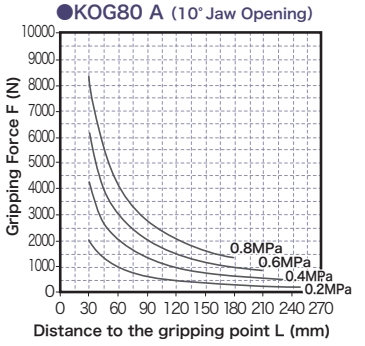
●KOG50 A (10° Jaw Opening)



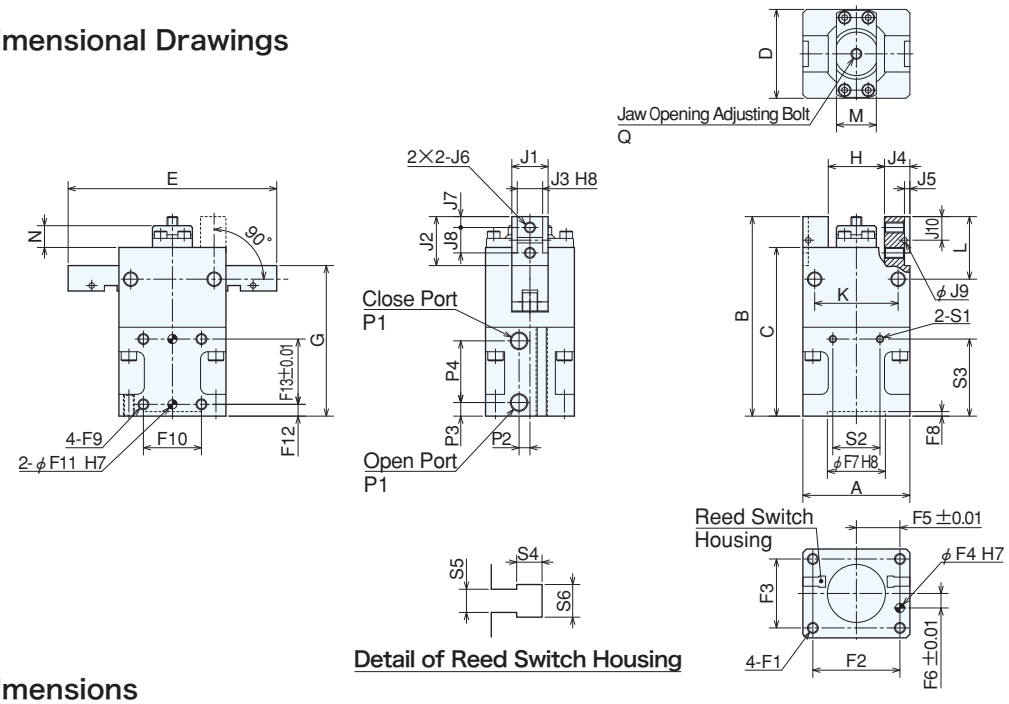
●KOG63A (10° Jaw Opening)



●KOG80 A (10° Jaw Opening)



Dimensional Drawings



Dimensions

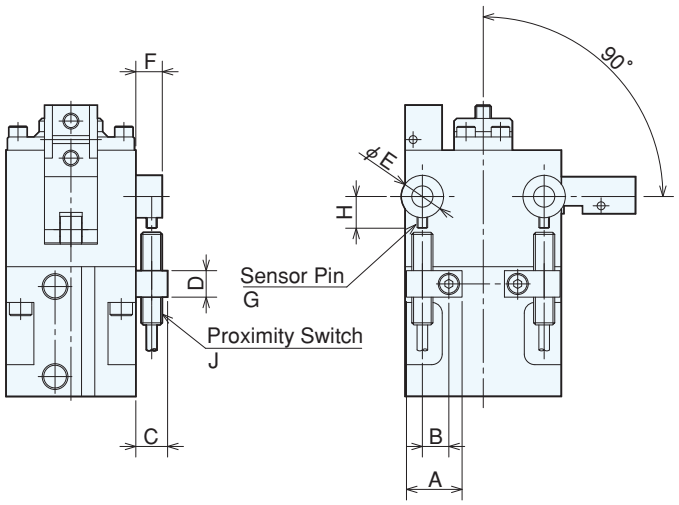
Model	Outline Dimensions											
	A	B	C	D	E	G	H	K	L	M	N	Q
KOG16A	34	70	62	30	62	57	16	26	18	15	7	M4
KOG20A	38	75	62	32	74	57	18	28	23	16	8	M5
KOG25A	47	90	76	41	91	69	23	36	27.5	20	10	M6
KOG32A	59	110	93	49	115	83	31	46	34.5	22	12	M6
KOG40A	73	135	113	57	146	99.5	41	58	44	36	14	M8
KOG50A	89	160	134	68	176	117.5	53	72	52	36	14	M8
KOG63A	108	190	158	84	216	138	61	88	64	48	16	M10
KOG80A	134	225	189	106	260	164	82	110	75	48	16	M10

Model	Dimensions of Jaw Mounting							
	J1	J2	J3 (H8)	J4	J5	J6	J7	J8
KOG16A	11	13	7	9	2	M3	3	6
KOG20A	12	17	8	10	3	M4	4	8
KOG25A	16	21	10	12	3	M5	5	10
KOG32A	20	27	14	14	3	M6	6	14
KOG40A	25	35	16	16	3.5	M8	8	18
KOG50A	30	42	20	18	5	M10	10	22
KOG63A	35	50	25	23.5	5	M10	12	25
KOG80A	40	60	25	26	5	M12	14	30

Model	Dimensions of Body Fixed Part																
	F1		F2	F3	F4		F5 (±0.01)	F6 (±0.01)	F7	F8	F9		F10	F11		F12	F13 (±0.02)
	Diameter	Depth			Diameter(H7)	Depth			Diameter(H8)	Depth	Diameter	Depth		Diameter(H7)	Depth		
KOG16A	M5	10.5	25	20	φ4	8	12.5	3	φ16	2.5	M4	6	15	φ4	5	4.5	28
KOG20A	M5	10.5	28	22	φ4	8	14	4	φ20	2.5	M4	7	18	φ4	5	4.5	28
KOG25A	M6	10	36	30	φ5	10	18	5	φ25	2.5	M5	7	20	φ4	5	5.5	32
KOG32A	M6	12	48	38	φ5	10	24	8	φ32	2.5	M6	10	32	φ5	5	6.5	36
KOG40A	M8	14	59	43	φ6	12	29.5	8	φ40	3	M8	14	40	φ5	5	8.5	43
KOG50A	M8	16	75	54	φ6	12	37.5	12	φ50	3	M8	14.5	50	φ5	5	8.5	52
KOG63A	M10	18	91	67	φ8	12	45.5	15	φ63	3	M10	17	60	φ5	6.5	10	57
KOG80A	M10	22	116	88	φ8	12	58	20	φ80	4	M10	18	80	φ8	8	12	70

Model	Dimensions of Air Supplying Part				Dimensions of Switch Attaching Part					
	P1	P2	P3	P4	Proximity Switch			Reed Switch		
					S1	S2	S3	S4	S5	S6
KOG16A	M5	4	7.5	24.5	M4	12	32.5	3.6	5.2	6.5
KOG20A	M5	4.5	7.5	24.5	M4	14	32.5	3.6	5.2	6.5
KOG25A	M5	5	7.5	29.5	M4	16	37.5	3.6	5.2	6.5
KOG32A	G1/8	6	7.5	34	M4	26	42.5	3.6	5.2	6.5
KOG40A	G1/8	7	8.5	41	M4	30	52	3.6	5.2	6.5
KOG50A	G1/4	10	10.5	48.5	M4	44	75	3.6	5.2	6.5
KOG63A	G1/4	12	10.5	56.5	M4	54	91	3.6	5.2	6.5
KOG80A	G1/4	15	10.5	70.5	M4	76	115	3.6	5.2	6.5

◎Option



Attaching Proximity Switch

■Proximity Switch Bracket

Model	Outline Dimensions								
	A	B	C	D	E	F	G	H	J
KOG16AB	18	7	12	10	ϕ10	10	M3	9.5	M8
KOG20AB	18	7	12	10	ϕ10	10	M3	10	M8
KOG25AB	21	10	12	10	ϕ15	10	M4	14	M8
KOG32AB	21	10	12	10	ϕ16	10	M4	15	M8
KOG40AB	25	14	12	10	ϕ16	10	M4	19	M8
KOG50AB	25	14	12	10	ϕ20	10	M5	19	M8
KOG63AB	28	17	12	10	ϕ20	10	M5	20	M8
KOG80AB	28	17	12	10	ϕ24	10	M6	21	M8

KOG5-3 series

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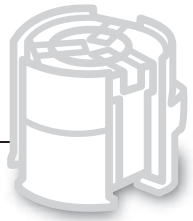


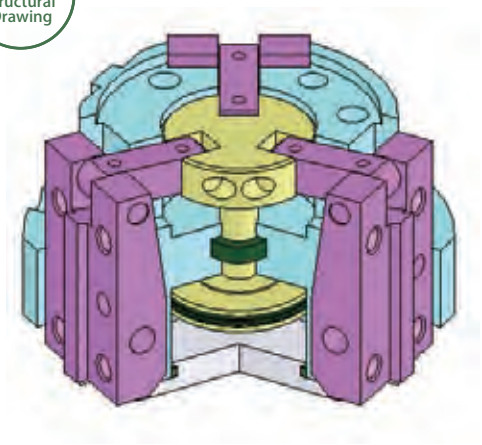
3-Jaw Toggle Gripper

Standard model with 3 point fulcrum jaws for various manufacturing operations

Features

- Toggle mechanism enables high gripping torque with a compact body
- Available for both external and internal gripping

3D Structural Drawing



How to Order

K O G 5 3 0 - 3 B

KOG5-3 series

Size		
30	50	70

Number of Jaws	
3	3-Jaw

Proximity Switch Bracket ※1	
N	Without bracket
B	With brackets

Notes

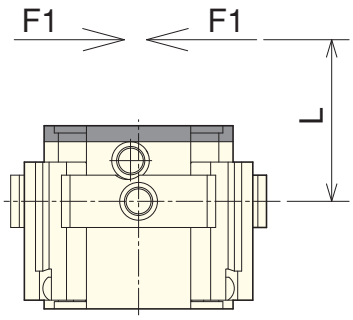
1 Proximity Switch Bracket attaches the proximity switch on the body for confirmation of jaw opening and closing. Choosing option "B" means "with brackets",1 set of brackets (1 opening side and 1 closing side) is supplied.
Proximity switches and reed switches can be chosen referring to the "Switch Compatibility Table" on page 53.

2 The material of seals internal gripper is nitrile rubber (NBR). In case of fluoric seals are needed, please contact us seperately.

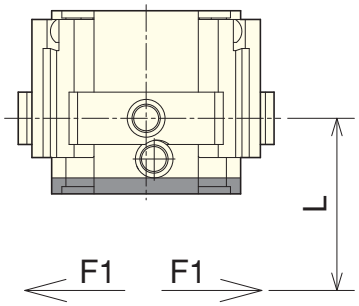
Specifications

Model	Jaw Opening Angle (Both Sides)	Repeatability (mm)	Net Weight (kg)	Air Consumption (cm³/reciprocating)	Air Pressure (MPa)	Operating Temparature (℃)
KOG530-3	0°～15°		0.5	8.5		
KOG550-3	0°～15°	±0.05	0.9	19	0.2～0.8	5～60
KOG570-3	0°～17°		3.8	76.5		

Gripping Characteristic Graph



The point to be measured gripping force
(External Gripping)

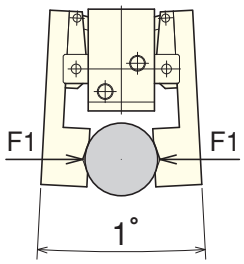


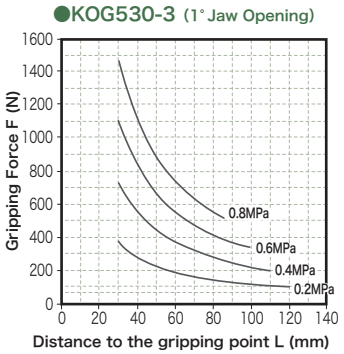
The point to be measured gripping force
(Internal Gripping)

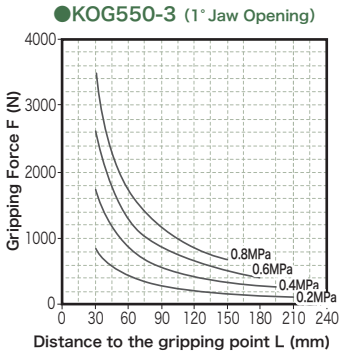
The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws.
(F=F1×3)

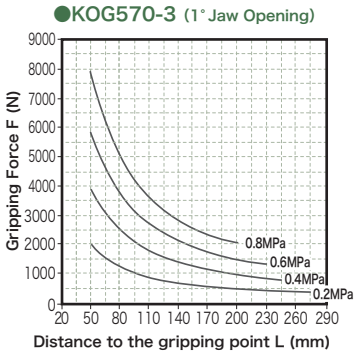
(1) KOG series can be converted the way of gripping (internal or external gripping) by changing the body fixing side.
(2) The gripping force is very different depends on the angle when gripping a workpiece.

●1° Jaw Opening

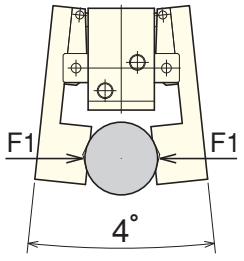


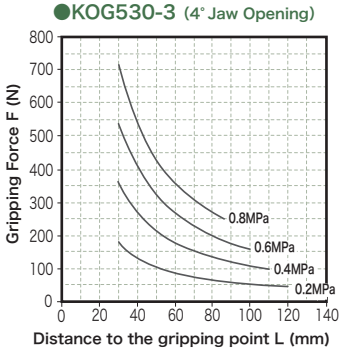


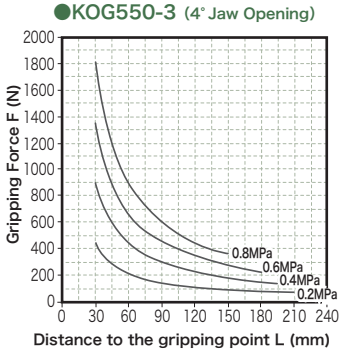


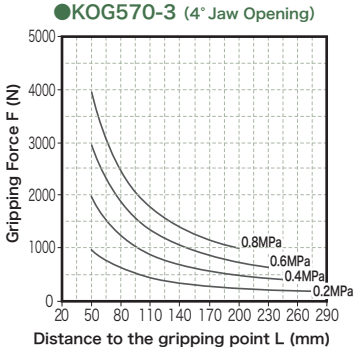


●4° Jaw Opening

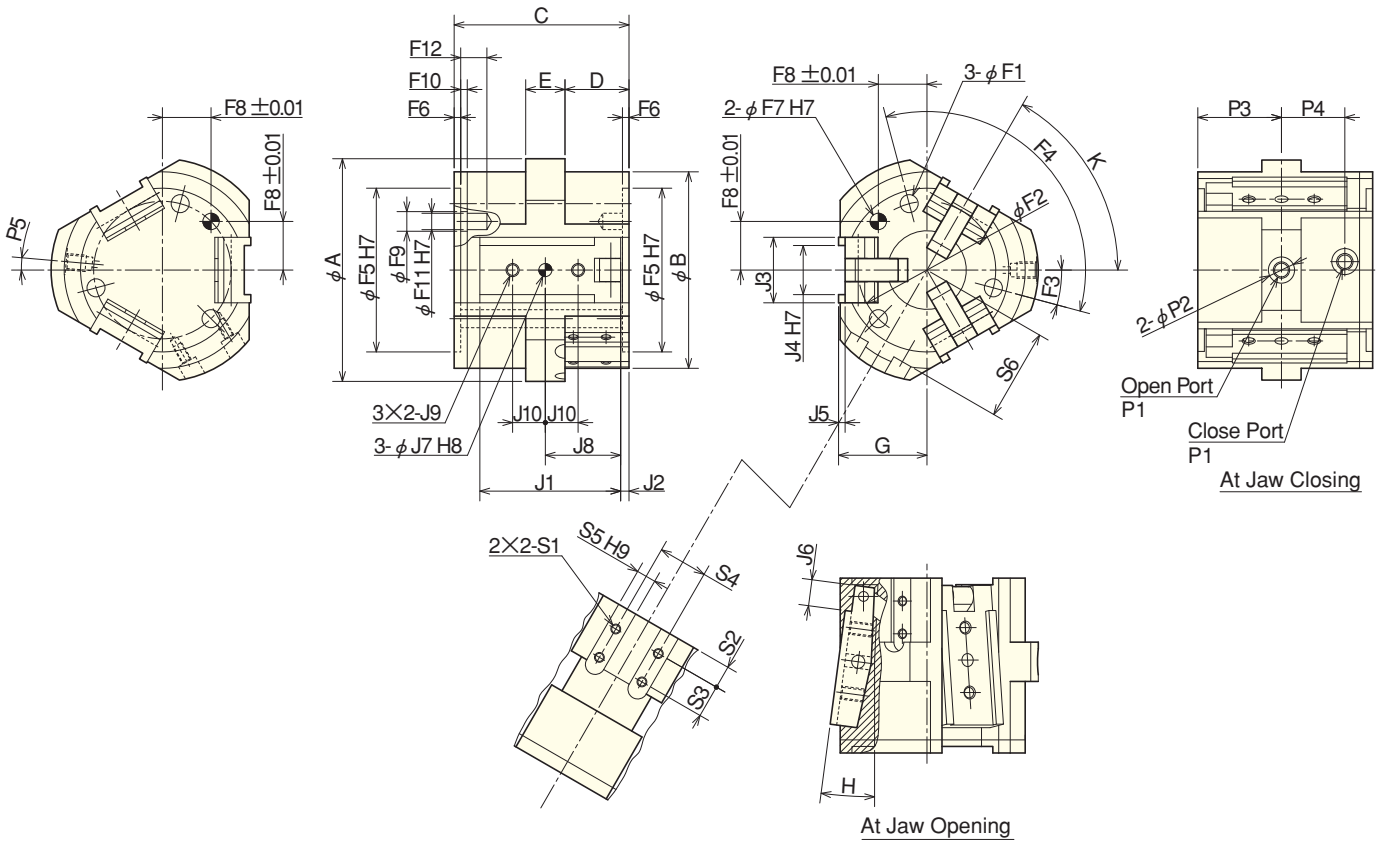








KOG530-3 Dimensional Drawings



KOG530-3 Dimensions

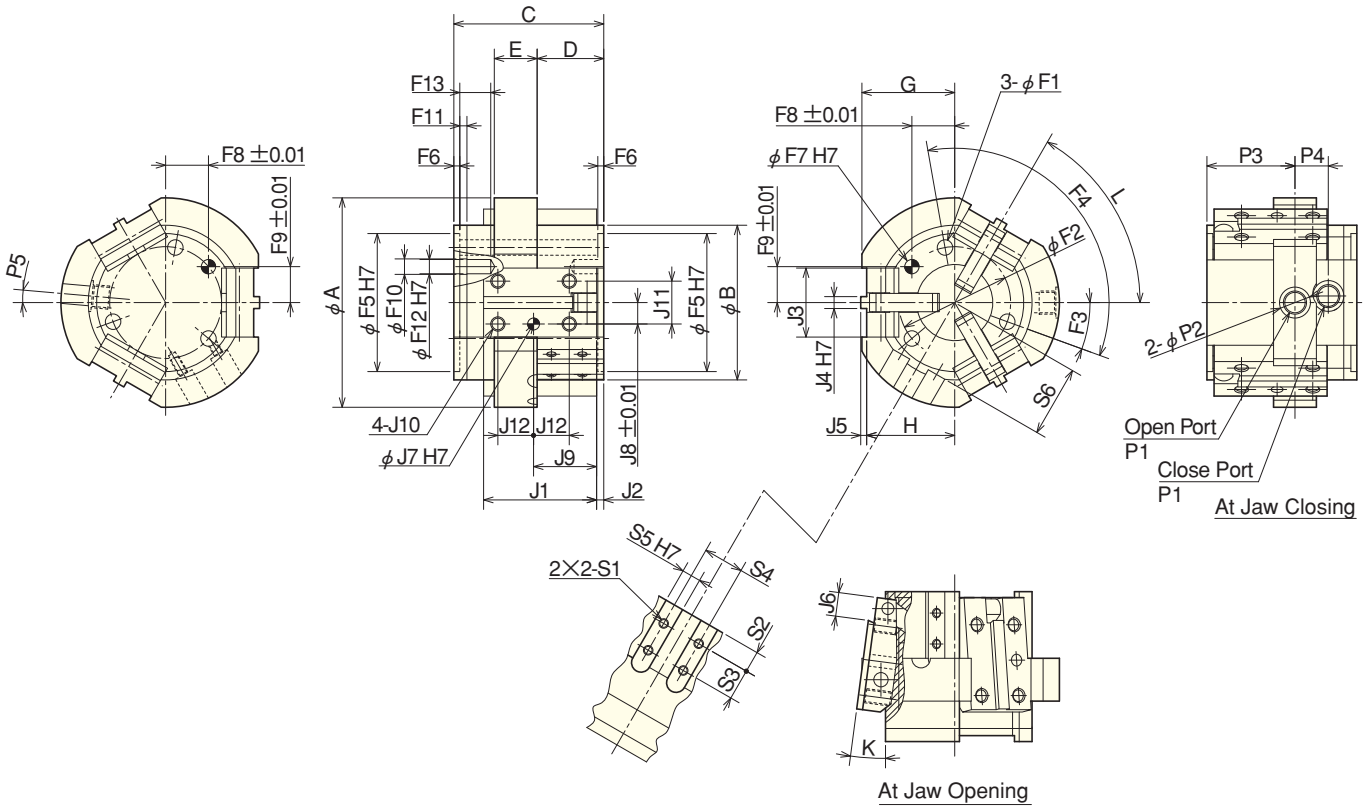
Model	Outline Dimensions							
	A	B	C	D	E	G	H	K
KOG530-3	ϕ68	ϕ60	53.4	19.6	12	27	0°～7.5°	60°

Model	Dimensions of Jaw Mounting											
	J1	J2	J3	J4 (H7)	J5 Depth	J6	J7 Diameter (H7)	J7 Depth	J8	J9 Diamete	J9 Depth	J10
KOG530-3	43	2.6	20	15	2	8	ϕ4	7.5	23	M4	6.5	10

Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5 Diameter (H7)	F6 Depth	F7 Diameter (H7)	F7 Depth	F8 (±0.01)	F9	F10	F11 (H7)	F12
KOG530-3	ϕ5.5	ϕ42	15°	120°	ϕ50	2	ϕ5	6	14.85	ϕ5.5	2	ϕ5	8

Model	Dimensions of Air Supplying Part					Dimensions of Switch Attaching Part					
						Proximity Switch					
	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5(H9)	S6
KOG530-3	M5	ϕ8	25.6	19.3	5°	M3	7	10	15	6	28

KOG550-3 Dimensional Drawings



KOG550-3 Dimensions

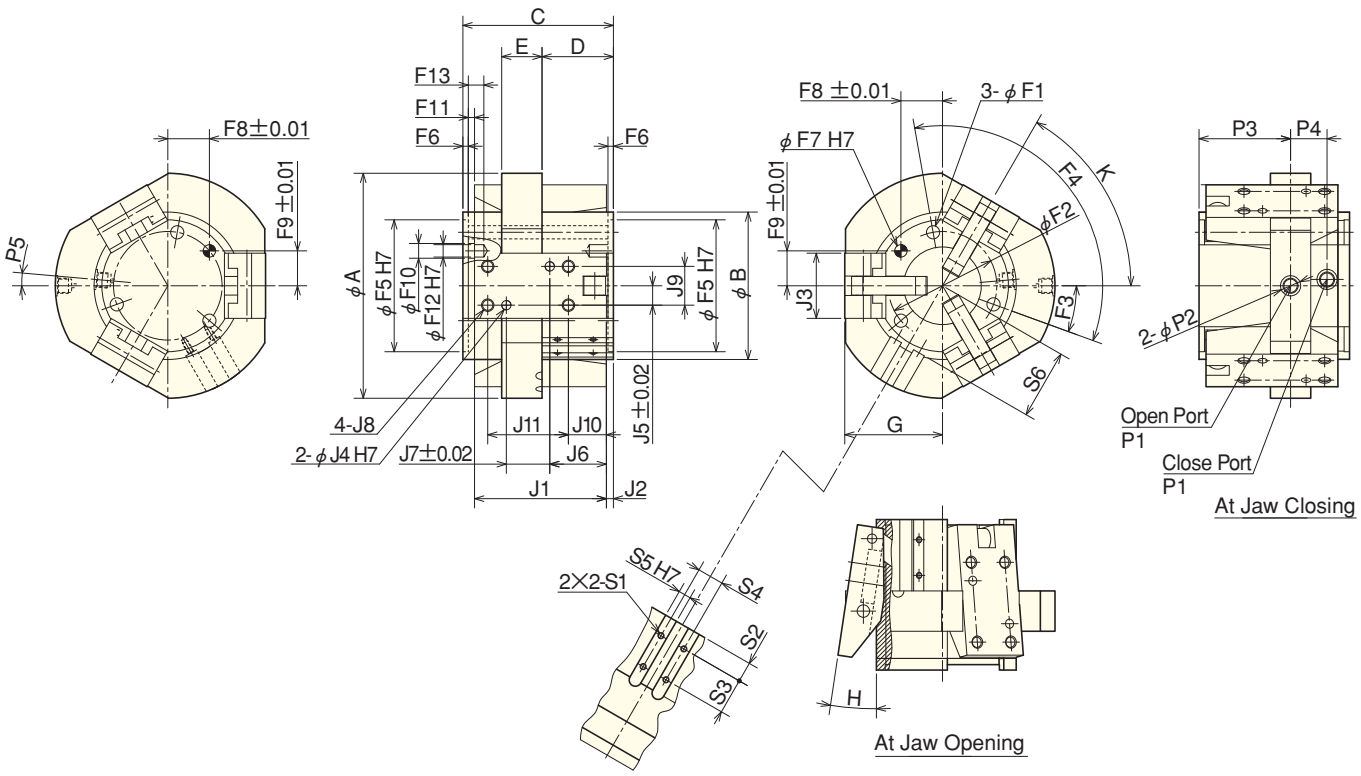
Model	Outline Dimensions								
	A	B	C	D	E	G	H	K	L
KOG550-3	φ88	φ65	63	28	18	39	37	0°～7.5°	60°

Model	Dimensions of Jaw Mounting												
	J1	J2	J3	J4 (H8)	J5	J6	J7 Diameter (H7)	J7 Depth	J8 (±0.01)	J9	J10 Diameter	J10 Depth	J11	J12
KOG550-3	47.5	3	29	5	2.5	9.5	φ5	11	9	26.5	M6	9	18	15

Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5 Diameter (H7)	F6 Depth	F7 Diameter (H7)	F7 Depth	F8 (±0.01)	F9 (±0.01)	F10	F11	F12 Diameter (H7)	F13
KOG550-3	φ6.5	φ47	15°	120°	φ58	2.5	φ6	10	18	15.1	φ6.5	3	φ6	10

Model	Dimensions of Air Supplying Part					Dimensions of Switch Attaching Part					
						Proximity Switch					
	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5 (H9)	S6
KOG550-3	G1/8	φ13	37	14	5°	M4	9	13	17	8	30

KOG570-3 Dimensional Drawings



KOG570-3 Dimensions

Model	Outline Dimensions							
	A	B	C	D	E	G	H	K
KOG570-3	φ145	φ95	97	46	26	63	0°～8.5°	60°

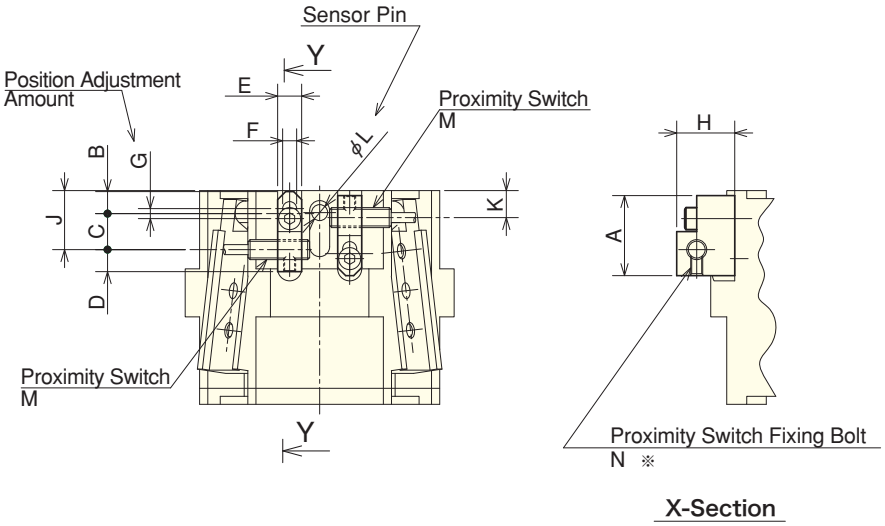
Model	Dimensions of Jaw Mounting											
	J1	J2	J3	J4		J5 (±0.02)	J6	J7 (±0.02)	J8		J9	J10	J11
				Diameter (H7)	Depth				Diameter	Depth			
KOG570-3	85	4.5	42	φ6	9.5	12.5	36.5	28	M8	9.5	25	24.5	52

Model	Dimensions of Body Fixed Part												
	F1	F2	F3	F4	F5 Diameter (H7)	F6 Depth	F7		F8 (±0.01)	F9 (±0.01)	F10	F11	F12 Diameter (H7)	F13
							Diameter (H7)	Depth						
KOG570-3	φ8.5	φ70	20°	120°	φ85	3.5	φ8	12	26.81	22.5	φ8.5	4	φ8	10

Model	Dimensions of Air Supplying Part					Dimensions of Switch Attaching Part					
						Proximity Switch					
	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5 (H9)	S6
KOG570-3	G1/8	φ13	59	23.5	5°	M4	13	23	17	8	45

◎Option

■Proximity Switch Bracket



Attaching Proximity Switch

Model	Outline Dimensions												
	A	B	C	D	E	F	G	H	J	K	L	M	N
KOG530-3B	20	5.5	8	6.5	6	3.5	2.5	14.5	15	8.7	ϕ4	M5×0.5	M3
KOG550-3B	25	6.5	12	6.5	8	4.5	2.5	20	21	10.5	ϕ5	M5×0.5	M3
KOG570-3B	34	6.5	21	6.5	8	4.5	2.5	25	34	15.2	ϕ5	M5×0.5	M3

※Proximity switch fixing bolts "N"will be prepared by the customer.

Switch Compatibility Table

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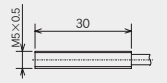
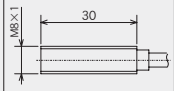
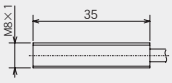
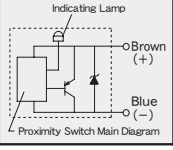
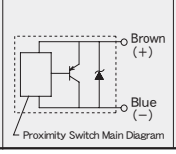
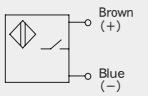
Switches to confirm the jaws open-close

※Proximity switch brackets will be required to attach the proximity switches. Please order the model of gripper with proximity switches.
※Reed switches will be attached on the switch housing on the external body. In this case, proximity switch brackets are not needed.

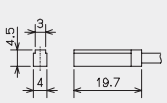
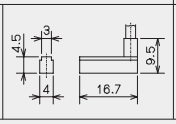
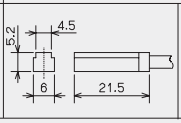
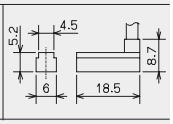
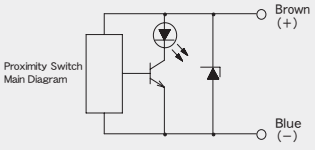
■Proximity Switch Specifications

Model	azbil (Yamatake)		B&PLUS (Balluff)
	FL7M-P8J6	FL7M-2J6HD-C	BR3-0801D-PU03
Indicator Lamps	N.O. type		N.O. type
Sensor Head Shape	M5×0.5	M8×1	M8×1
Usable Sensing Distance	0.8mm	2.0mm	1.5mm
Operating Voltage	DC10～30V		DC 10～30V
Connecting Cable Length	2m		3m
Connecting Cable Size	2×0.18mm²	2×0.12mm²	2×0.14mm²
Operating Temperature	-25℃～+70℃		-25℃～+70℃
Ingress Protection Code	IP67		IP67
Outline Dimensions			
Electrical Diagram			

Compatible Model

Type		azbil (Yamatake)		B&PLUS (Balluff)
		FL7M-P8J6	FL7M-2J6HD-C	BR3-0801D-PU03
2-Jaw Parallel	KTS2	205	206,208,216	210,212
	KPG2	205	206,208,210,216	212,220,230
	KPGT2	—	208,210,212	216,220,230
	KPH2	●	—	—
3-Jaw parallel	KTS3	306	307～317	—
	KPG3	306	307～330	—
	KPGB3	—	●	—
	KPH3	—	●	—
Toggle	KOG5-2	510～570	—	575
	KOG_A	—	●	—
	KOG5-3	●	—	—

■Reed Switch Specifications

Model	CKD			
	Noncontact/2-Wire System			
Model	F2H	F2V	T2H	T2V
Reed Wire Shape	Straight	L-Shape	Straight	L-Shape
Operating Voltage	DC10～30V			
Operating Current	5～20mA			
Reed Wire Length	3m			
Operating Temperature	-10℃～+60℃			
Ingress Protection Code	IP67			
Net Weight	30mg		50mg	
Outline Dimensions				
Electrical Diagram				

Compatible Model

Type		CKD	
		F2H F2V	T2H T2V
2-Jaw Parallel	KTS2	●	—
	KPG2	—	●
	KPGT2	—	●
	KPH2	—	●
3-Jaw parallel	KTS3	●	—
	KPG3	306	307～330
	KPGB3	—	●
	KPH3	—	●
Toggle	KOG5※	—	—
	KOG_A	—	●
	KOG5-3※	—	—

※KOG series can NOT attach reed switches.

Seal Kit
(A Maintenance Part)

Compatibility Table
Gripper innovation! promano

The material of our seal kit is nitrile rubber(NBR).
In case of fluoric seals are needed, please contact us seperately.

■2-Jaw Parallel

Gripper Model			Seal Kit Model
2-Jaw Parallel	KTS	205	KTS205K
		206	KTS206K
		208	KTS208K
		210	KTS210K
		212	KTS212K
		216	KTS216K
	KPG	205	KPG205K
		206	KPG206K
		208	KPG208K
		210	KPG210K
		212	KPG212K
		216	KPG216K
		220	KPG220K
		230	KPG230K
	KPGT	208	KPGT208K
		210	KPGT210K
		212	KPGT212K
		216	KPGT216K
		220	KPGT220K
		230	KPGT230K
	KPH	073-2	KPH073-2K
		088-2	KPH088-2K
		108-2	KPH108-2K
		133-2	KPH133-2K

■3-Jaw Parallel

Gripper Model			Seal Kit Model
3-Jaw parallel	KTS	306	KTS306K
		307	KTS307K
		309	KTS309K
		311	KTS311K
		313	KTS313K
		317	KTS317K
	KPG	306	KPG306K
		307	KPG307K
		309	KPG309K
		311	KPG311K
		313	KPG313K
		317	KPG317K
		322	KPG322K
		330	KPG330K
	KPGB	309	KPGB309K
		311	KPGB311K
		313	KPGB313K
	KPH	083-3	KPH083-3K
		098-3	KPH098-3K
		118-3	KPH118-3K
		148-3	KPH148-3K

■Toggle

Gripper Model			Seal Kit Model
Toggle	KOG	510-75	KOG510-75K
		530-75	KOG530-75K
		550-75	KOG550-75K
		565-75	KOG565-75K
		570-85	KOG570-85K
		575-80	KOG575-80K
	KOG	16A	KOG16AK
		20A	KOG20AK
		25A	KOG25AK
		32A	KOG32AK
		40A	KOG40AK
		50A	KOG50AK
		63A	KOG63AK
		80A	KOG80AK
	KOG	530-3	KOG530-3K
		550-3	KOG550-3K
		570-3	KOG570-3K

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