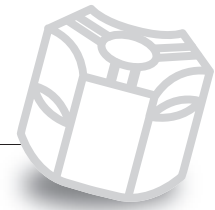


# KPH-3 series

Gripper innovation! **promano**



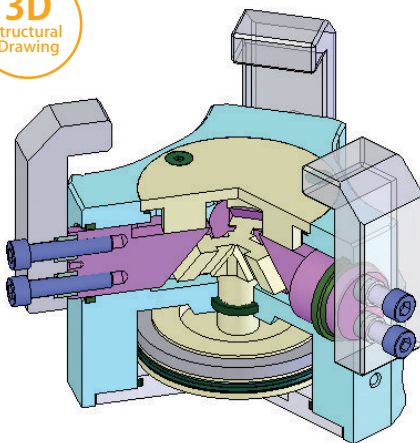
3-Jaw Parallel Gripper with Sealed Body

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

# KPH 148 - 3NB

Series ※1		Size		Number of Jaws		Safety device ※2		Proximity Switch Bracket ※3	
KPH-3	NBR seals	083	098	3	3-Jaw	N	Without device	N	Without bracket
FPH-3	FKM seals	118	148			A	For internal gripping	B	With brackets
						C	For external gripping		

### Notes

- 1 Operating temperature for FKM seals is same as for NBR seals.
- 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 / 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.

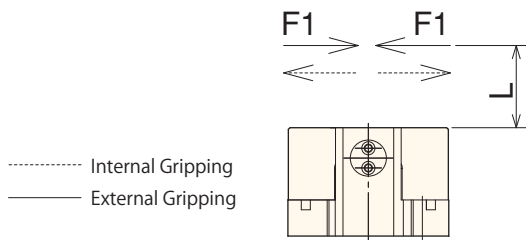
Specifications

Model	Jaw Stroke (diameter) (mm)	Gripping Force (F)*1			Repeatability (mm)	Net Weight (kg)	Air Consumption (/reciprocating)	Air Pressure*2 (MPa)	Operating Temperature (°C)
		Measured Distance (mm)	External Gripping (N)	Internal Gripping (N)					
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	
KPH118-3	20	20	1695	1770		2.3	108		
KPH148-3	24	20	2949	3030		3.8	225		

\*1 At Air Pressure 0.6MPa

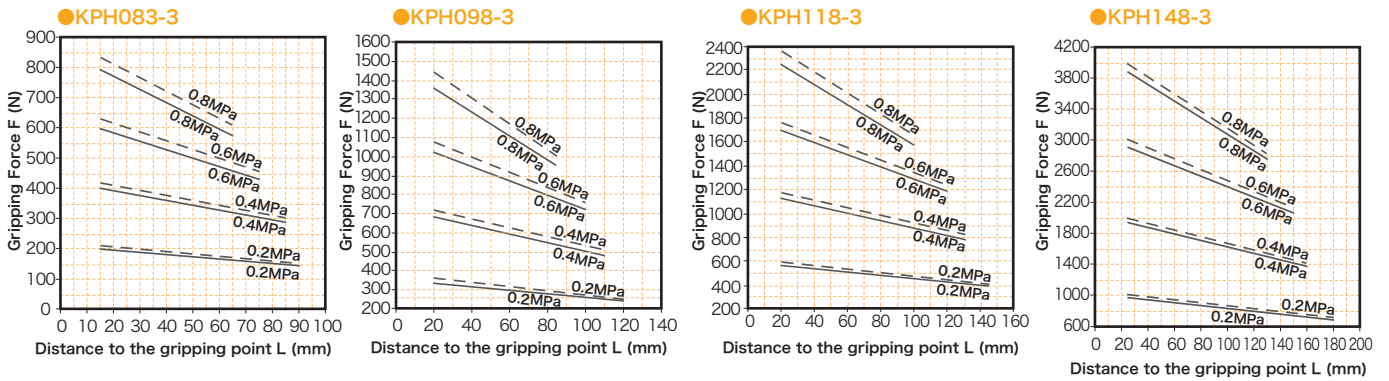
\*2 WITHOUT Safety Device. Please refer to the specification table of Option - Safety Device for Air Pressure WITH Safety Device.

Gripping Characteristic Graph

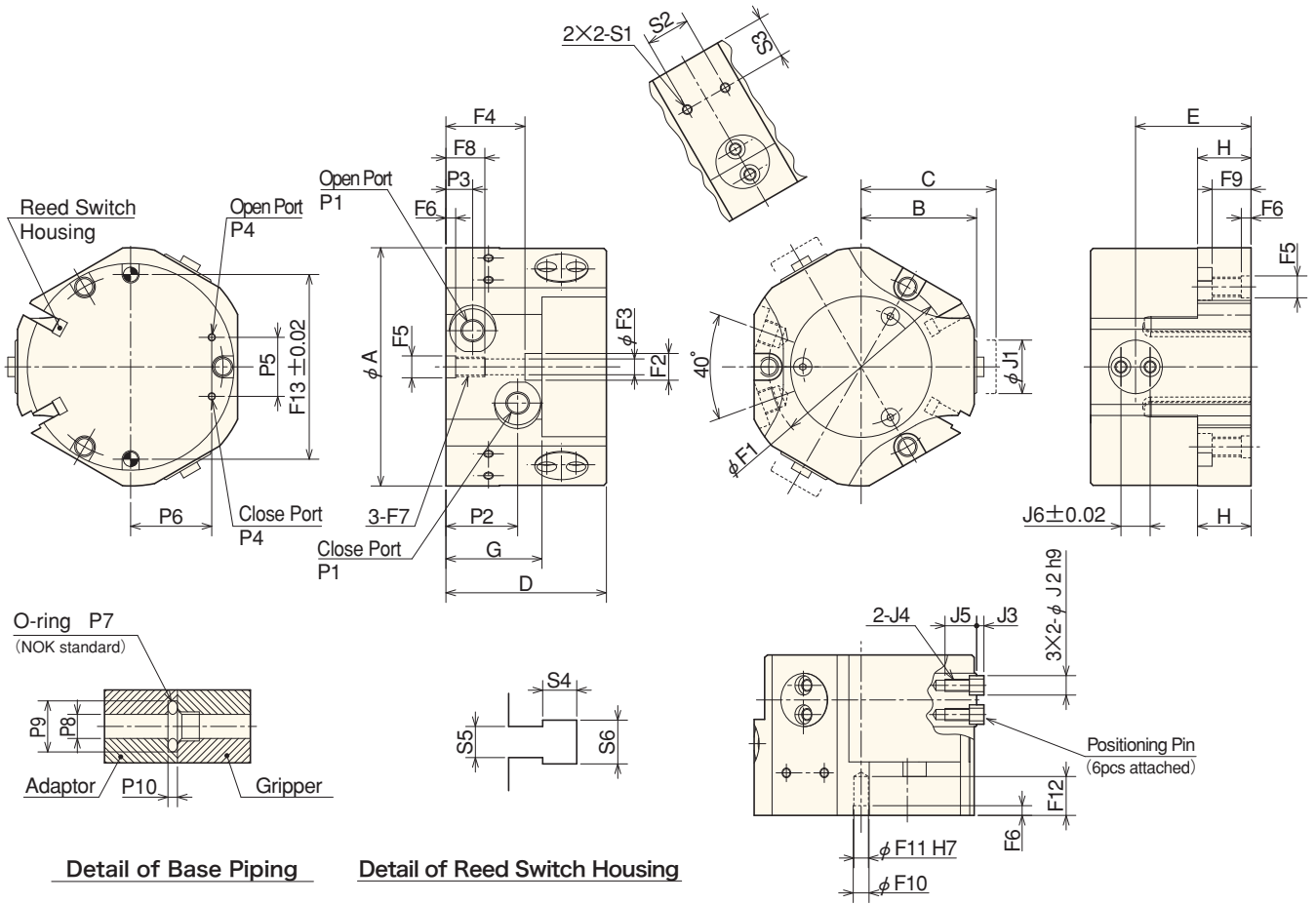


The gripping force "F" shows the actual measured value per jaw "F1" × the number of jaws. (F=F1×3)

The point to be measured gripping force



## Dimensional Drawings



## Dimensions

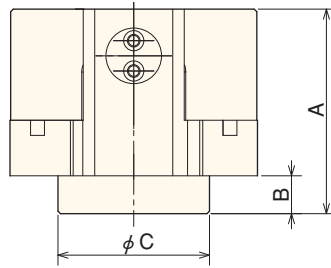
Model	Outline Dimensions							Dimensions of Jaw Mounting					
	A	B	C	D	E	G	H	J1	J2 Diameter (H9)	J3	J4 Diameter	J5	J6 (±0.02)
KPH083-3	φ 83	40	46	57	40.5	34	18	φ 18	φ 6	3	M4	9	10
KPH098-3	φ 98	47.5	55.5	66	47.5	39.5	22	φ 22	φ 8	3	M5	11	12
KPH118-3	φ 118	57.5	67.5	79	56	43	22	φ 28	φ 10	4	M6	13	14
KPH148-3	φ 148	71	83	94	68	48	28	φ 32	φ 12	4	M8	16	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	φ 63	9	φ 5.2	28.5	7	3.5	M6	12.5	12.5	φ 5	φ 4	10	63
KPH098-3	φ 76	11	φ 6.5	32.5	9	4	M8	16	16	φ 6.5	φ 6	12	76
KPH118-3	φ 94	11	φ 6.5	36	9	4	M8	16	15.5	φ 6.5	φ 6	12	94
KPH148-3	φ 122	14	φ 8.5	40	11	4.5	M10	19.5	20	φ 9	φ 8	16	122

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
KPH083-3	M5	26.5	7.5	M3	18.5	25.37	S4	φ 3	φ 6.6	1	M4	18	14.5	3.6	5.2	6.5
KPH098-3	G1/8	29.5	11	M3	24.3	33.36	S4	φ 3	φ 6.6	1	M4	18	17.5	3.6	5.2	6.5
KPH118-3	G1/8	33	11	M4	30.1	41.35	S6	φ 4	φ 8.3	1	M4	18	21	3.6	5.2	6.5
KPH148-3	G1/8	38	11	M5	38.7	53.09	S8	φ 5	φ 10.3	1	M4	18	28	3.6	5.2	6.5

Option

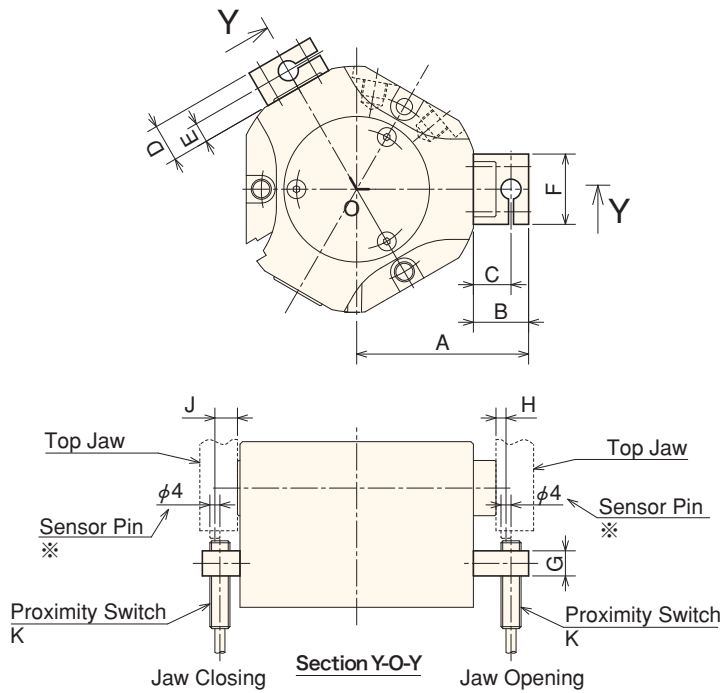
Safety Device



Safety Device

Model	Specifications				Outline Dimensions		
	Measured Distance L (mm)	Spring Force (N)	Net Weight (kg)	Air Pressure (Mpa)	A	B	C
KPH083-3A/C	10	144~234	0.96		70.5	13.5	φ 45
KPH098-3A/C	20	276~348	1.33	0.3~0.8	81	15	φ 60
KPH118-3A/C	20	408~630	2.51		99	20	φ 68
KPH148-3A/C	20	702~1080	4.25		119	25	φ 88

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.