

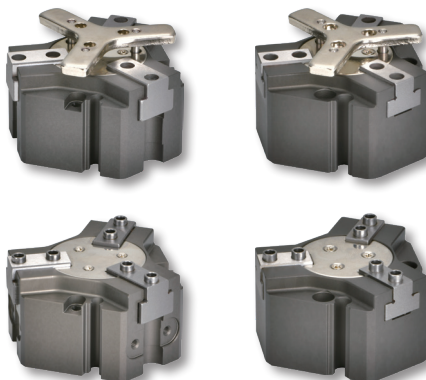
HMQ series 3-Finger Heavy-load Type Air Gripper

Product features/ Code of order

CHELIC

Feature

- Wedge slider type
- Built-in magnet
- Large output and good stability



Specification

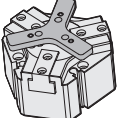
Item	Bore size (mm)		Ø25	Ø32	Ø44	Ø55	Ø70	Ø92	Ø125	Ø160
Action			Double acting							
Fluid			Air							
Pressure range kgf / cm² (kPa)			2 ~ 8 (200 ~ 800)							
Ambient and fluid temperature ° C			5 ~ 80							
Stroke per Jaw mm			2.5	4	6	8	10	13	15	20
Lubrication			Lubrication free type							
Gripping force	Gripper close	N	129	239	377	731	1195	1814	3649	6011
	Gripper open	N	157	265	431	810	1306	2266	3927	6434
Recommend workpiece weight kg			0.8	1.3	2.2	4.1	6.6	11.5	20	32.8
Opening/ closing time S			0.025	0.03	0.05	0.1	0.2	0.25	0.3	0.35
Repeatability mm			±0.01					±0.02		±0.05
Port size			M3X0.5P	M5X0.8P			PT1/8		PT1/4	
Sensing device			With magnet							

Note: Gripping force is with pressure 5kgf / cm² during open or close.

Code of order **HMQ 55 - P - 8G 2 - N8 2**

1 2 3 4 5 6

1	Mark	Bore size (mm)
	25	Ø25
	32	Ø32
	44	Ø44
	55	Ø55
	70	Ø70
	92	Ø92
	125	Ø125
	160	Ø160

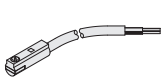
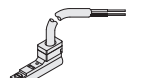
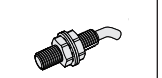
2	Mark	Ejector module
	None	Without ejector module
	P	

4	Mark	Sensor quantity
	1	With 1 sensor switch
	2	With 2 sensor switches

6	Mark	Proximity sensor quantity
	1	With 1 sensor switch
	2	With 2 sensor switches

5	Mark	Proximity sensor
	None	Without proximity switch
	N8	NS-8

3	Mark	Sensor switch
	None	Without sensor switch
	8G	CS-8G
	8B	CS-8B

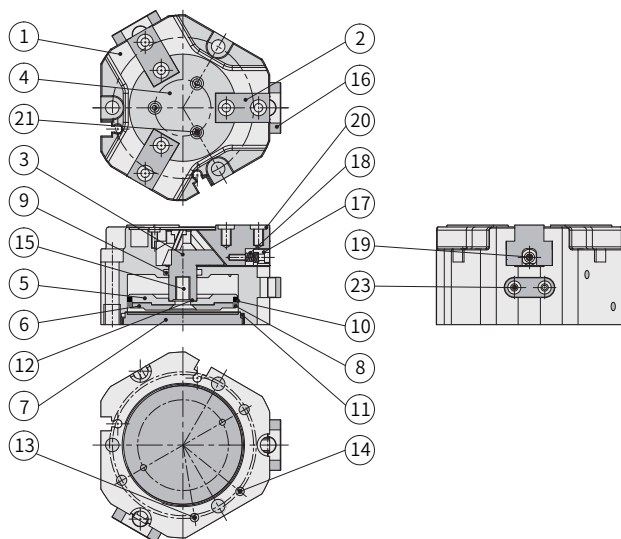
Image
 Please refer to P.8-2.14 CS-8G
 Please refer to P.8-2.14 CS-8B
 Please refer to P.8-2.38 NS-8

HMQ series 3-Finger Heavy-load Type Air Gripper

Product features/ Code of order

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Internal structure



Product weight

Model	Weight (kg)
HMQ Ø25	0.15
HMQ Ø32	0.30
HMQ Ø44	0.58
HMQ Ø55	0.87
HMQ Ø70	1.47
HMQ Ø92	2.69
HMQ Ø125	5.28
HMQ Ø160	9.73

Note: All of above are theoretical data. Weight tolerance about $\pm 5\%$

Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	13	Screw	Alloy steel
02	Finger	Carbon steel	14	Absorbing rubber	NBR
03	Sliding rod	Alloy steel	15	Screw	Alloy steel
04	Finger cap	Stainless steel	16	Proximity sensor holder	Aluminum alloy
05	Piston	Aluminum alloy	17	Proximity sensor adjusting block	Iron
06	Magnetic cap	Aluminum alloy	18	Adjusting block spring	Stainless steel
07	Rear cover	Aluminum alloy	19	Adjusting block screw	Alloy steel
08	Magnetic	Rare earth metal	20	Centering sleeve	Carbon steel
09	Body X-ring	NBR	21	Cap screw	Alloy steel
10	Piston Packing	NBR	22	Finger screw	Alloy steel
11	Rear cover O-ring	NBR	23	Sensor holder screw	Alloy steel
12	Sliding rod O-ring	NBR			

Packing and O-ring material list

Unit: mm

Item	9 Body X-ring	9 Shaft packing	10 Piston packing	10 Piston X-ring	11 Rear cover O-ring	12 Sliding rod O-ring
Model \ Quantity	1	1	1	1	1	1
HMQ Ø25	7.65x11.21x1.78	-	-	20.35x23.91x1.78	Ø26 x Ø1.36	Ø4 x Ø1
HMQ Ø32	10.82x14.38x1.78	-	-	28.3x31.86x1.78	Ø34.5 x Ø1.2	Ø5 x Ø1
HMQ Ø44	12.37x17.61x2.62	-	PSD-44	-	Ø46 x Ø1.5	Ø6 x Ø1
HMQ Ø55	13.95x19.19x2.62	-	-	48.9x54.14x2.62	Ø56.87 x Ø1.78	Ø8 x Ø1
HMQ Ø70	-	MY-16A	-	63.1x70.16x3.53	Ø72.75 x Ø1.78	Ø10 x Ø1
HMQ Ø92	-	MY-20A	-	85.32x92.38x3.53	Ø94.97 x Ø1.78	Ø10 x Ø1
HMQ Ø125	32.99x38.23x2.62	-	-	117.07x124.13x3.53	Ø126.67 x Ø2.62	Ø12 x Ø1
HMQ Ø160	40.95x46.19x2.62	-	-	152x159.06x3.53	Ø164.77 x Ø2.62	Ø12 x Ø1

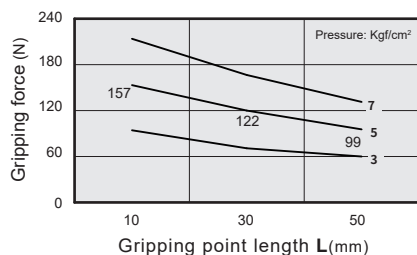
HMQ series 3-Finger Heavy-load Type Air Gripper

Characteristics graph

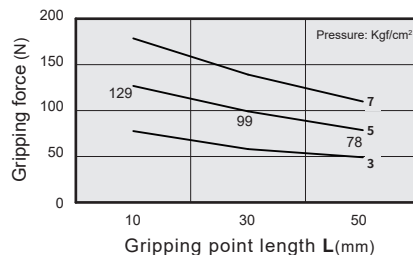
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Characteristics graph

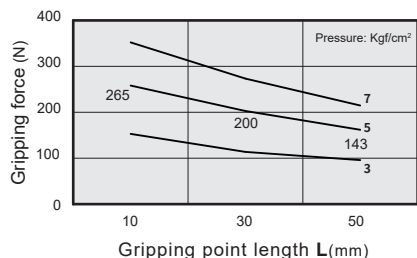
HMQ 25 - OPEN



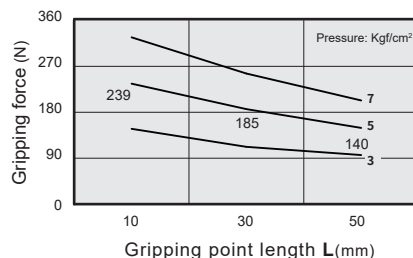
HMQ 25 - CLOSE



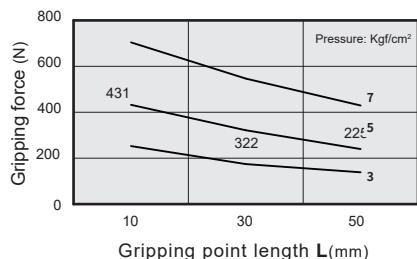
HMQ 32 - OPEN



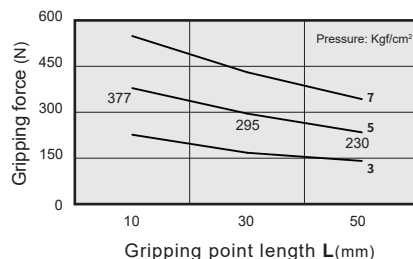
HMQ 32 - CLOSE



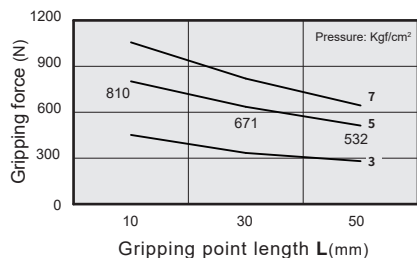
HMQ 44 - OPEN



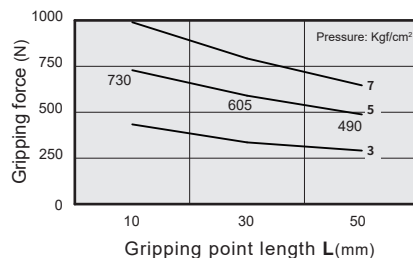
HMQ 44 - CLOSE



HMQ 55 - OPEN



HMQ 55 - CLOSE

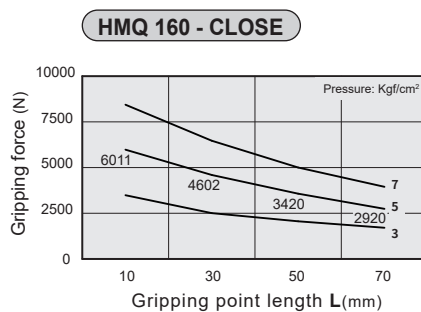
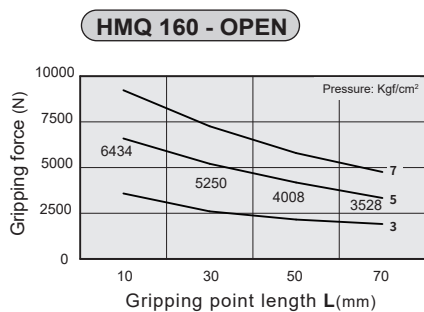
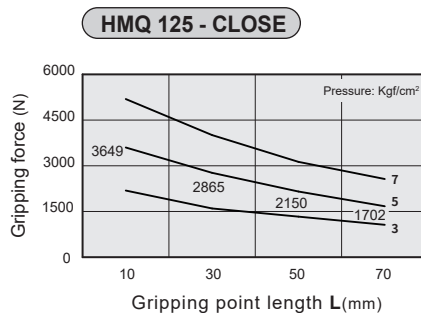
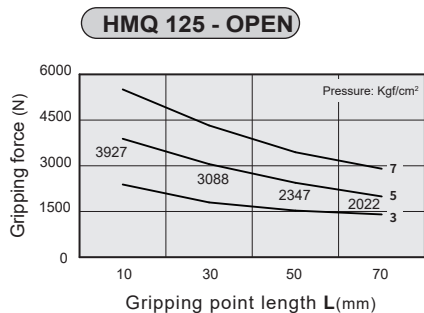
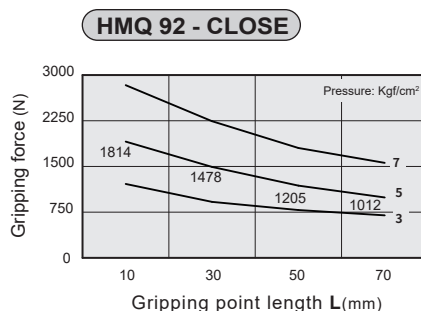
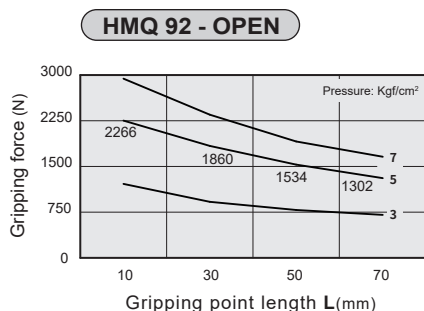
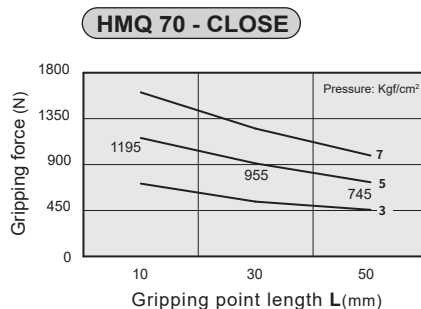
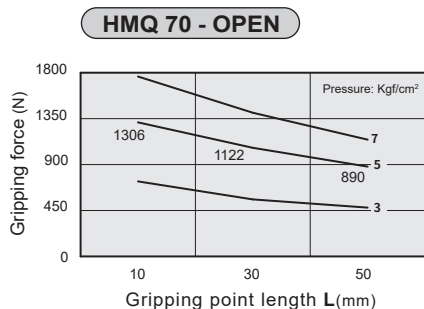


HMQ series 3-Finger Heavy-load Type Air Gripper

Characteristics graph

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Characteristics graph



HDQ

HDQT

HDQM

HMQ

HMT

HDL

HDT

HDF

RM

RB

HMQ series 3-Finger Heavy-load Type Air Gripper

Operating type and data, Mounting type

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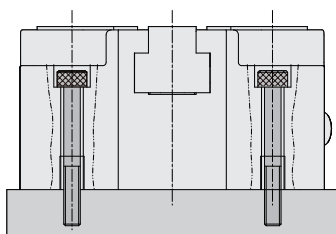
Operating type and data

Action	Model	Bore size (mm)	The smallest operating pressure (kgf/cm ²)	Thread port (mm)	Effective gripping force (N)	
Double acting	HMQ 25	25	2	6-M2.5x0.45Px6.5dp	Open	157
					Close	129
	HMQ 32	32	2	6-M3x0.5Px8.5dp	Open	265
					Close	239
	HMQ 44	44	2	6-M4x0.7Px7dp	Open	431
					Close	377
	HMQ 55	55	2	6-M5x0.8Px9dp	Open	810
					Close	731
	HMQ 70	70	2	6-M6x1.0Px12dp	Open	1306
					Close	1195
	HMQ 92	92	2	6-M6x1.0Px14dp	Open	2266
					Close	1814
	HMQ 125	125	2	9-M10x1.5Px19dp	Open	3927
					Close	3649
	HMQ 160	160	2	9-M10x1.5Px19dp	Open	6434
					Close	6011

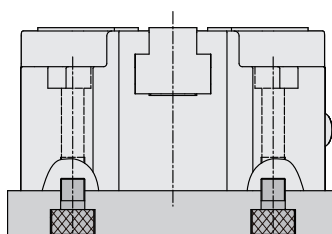
Note: The gripping force is the force of open and close gripper, the acting pressure is 0.5Mpa

Mounting type

1. Apply the screw to through-holes of body



2. Apply the screw from bottom thread hole

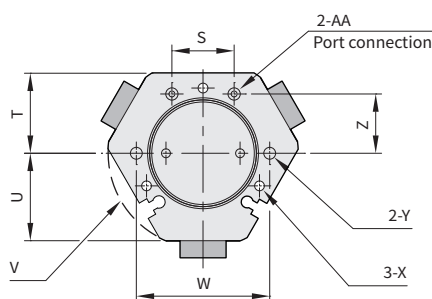
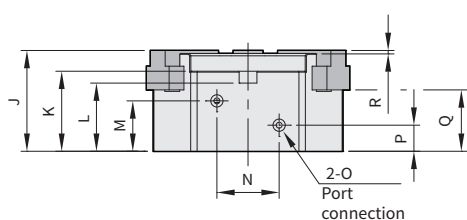
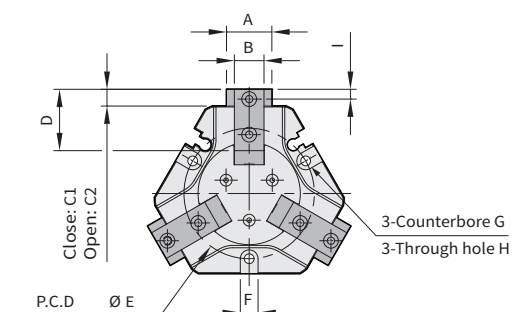


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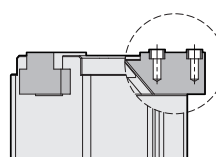
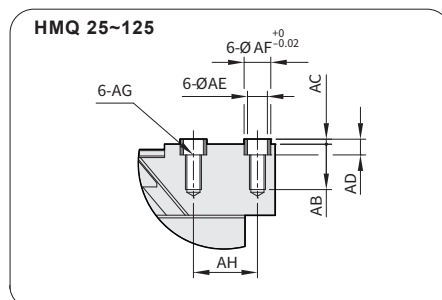
Dimensions

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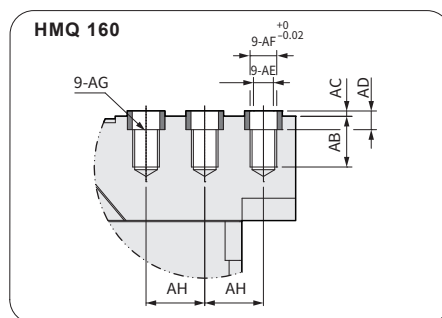
HMQ 25 ~ 160



Close-up of centering sleeve



Close-up of centering sleeve



Unit: mm

Mark Model	A	B	C1	C2	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HMQ 25	12.2	6.8	0.3	2.8	14.7	34.5	-	Ø6x3.5dp	3.2	3.3	27.2	22	-	14	18	M3	6.3	17.7	0.7	18	21.5
HMQ 32	15.6	10	1.4	4.5	20.7	44	6	-	3.3	3.3	34	27	23.5	17	21	M5	8.8	20.7	1	21	27
HMQ 44	18.8	12	0.6	6.1	21.7	56	9	-	5.1	4	43.3	34.3	28.8	21.5	22	M5	8.5	26.5	1	22	32.5
HMQ 55	22.8	14.4	0.1	8.1	26.7	70	11	-	6.8	5	49.3	37.5	31	24.8	26	M5	9	29.3	1	26	40.5
HMQ 70	27	17.8	0.9	10.9	32	90	11	-	6.8	6	59.3	47.5	41	29.5	30	PT1/8	10	35.3	1	30	50.5
HMQ 92	34.8	19.4	0.6	13.6	40	112	14	-	8.5	7.4	67	55.2	46.7	32.5	30	PT1/8	10	38.3	1	30	63
HMQ 125	42	26	0	15	50	147	13.5	-	8.5	9	80	59	49	39	40	PT1/4	12	48	1	40	81
HMQ 160	45	28	0	20	67.5	185	16.5	-	10.5	12	101	80	68	54	50	PT1/4	15	62	1	50	100

Unit: mm

Mark Model	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
HMQ 25	24	R25.5	36	M4	Ø2x6dp	15	M3	6.5	2	4	Ø2.8	Ø4	M2.5	8
HMQ 32	29.5	R32	45	M4	Ø3x6dp	20	M5	8.5	2	4	Ø3.3	Ø5	M3	12
HMQ 44	34.5	R37.5	56	M6	Ø4x8dp	28	M5	7	3	5	Ø4.3	Ø6	M4	13
HMQ 55	43	R46	70	M8	Ø5x16dp	33	M5	9	3	5	Ø5.3	Ø8	M5	16
HMQ 70	53	R57	90	M8	Ø5x16dp	40	M5	12	4	6	Ø6.3	Ø10	M6	20
HMQ 92	66	R70	112	M10	Ø6x20dp	53	M5	14	4	6	Ø6.3	Ø10	M6	24
HMQ 125	84.9	R87.5	147	M10	Ø6x20dp	71	PT1/8	19	2	7	Ø10.3	Ø14	M10	32
HMQ 160	105.8	R110	185	M12	Ø6x20dp	90	PT1/8	19	2	7	Ø10.3	Ø14	M10	22

HMQ series 3-Finger Heavy-load Type Air Gripper

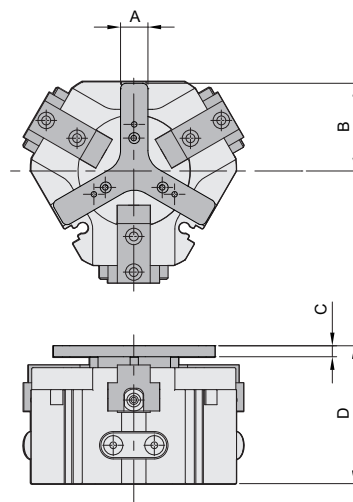
Dimensions, Mounting type and operation of sensor switch

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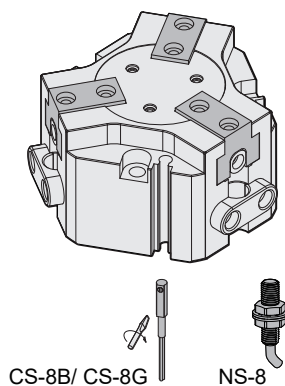
Ejector module

Unit: mm

Mark Model	A	B	C	D
HMQ 25	8	21	3	32.5
HMQ 32	10	27	4	40.5
HMQ 44	10	32	4	50.3
HMQ 55	12	40	4	57.3
HMQ 70	12	50	4	67.3
HMQ 92	15	62.5	4	76.8
HMQ 125	20	74	4	90
HMQ 160	24	98	4	110.9



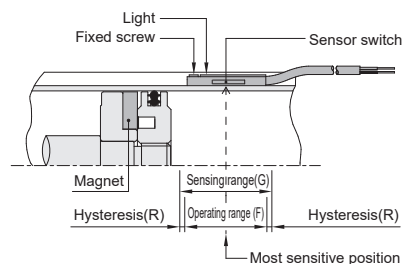
Sensor switch mounting type



Sensing range

Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

Sensor switch setting and operating range

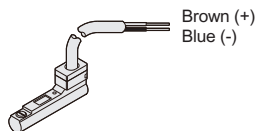


Sensor switch introduction

CS-8G



CS-8B



Voltage: DC 5~30V