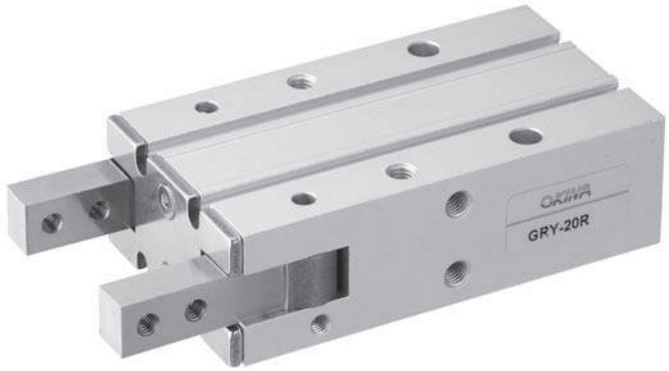
※ Bore Sizes ø10, 16,20 ,25mm
※ Compact Design and Light
※ Gripping forces via pistion/cam design.
※ Precision reference points on body and fingers are standard.
※ Maximum installation flexibility with mounting options on 4 sides and recessed auto switch grooves on either side of the gripper.
※ Resistant to Dusty Environments



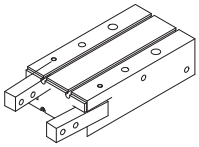
How to order

GRY-16-D 1 -RT -1

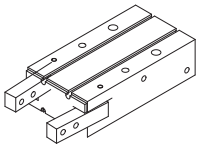
Type

Finger Option

— :Standard tap mounting



1:Opening/closing direction through hole



Number of auto switch

Auto switch type

Perpendicular	In-line	Style
RTV	RT	Reed switch
RTNV	RTN	NPN
RTPV	RTP	PNP

(Refer to P.79 for detailed auto switch specifications)

Specifications

Model		GRY-10	GRY-16	GRY-20	GRY-25
Cylinder bore(mm)		10	16	20	25
Fluid		Air			
Operating pressure(MPa)		0.2~0.6 (2.0~6.1 kgf/cm^2)			
*Effective force (Nm) at the pressure of 0.5 MPa		0.16	0.54	1.10	2.28
Opening angle (Both sides)	Opening side	180°~182°			
	Closing side	-3°			
Ambient and fluid temperature(°C)		-10°~60°			
Repeatability(mm)		± 0.2			
Max. operating frequency(c.p.m)		60			
Lubrication		No Lubrication			
Action		Double acting			
Weight (g)		80	150	320	600

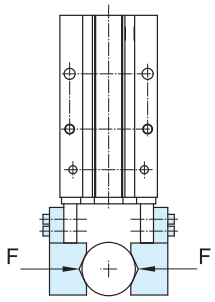
*Refer to P.55 for details of effective holding force and allowable overhanging distance.

Effective holding force

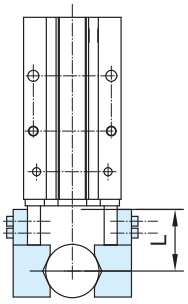
Indication of effective holding force

1. Although the condition differs according to the coefficient of friction between the attachment and work, select a model that can produce a holding force of 10 to 20 times the work weight.
2. The holding force shown in the tables represents the holding force of one finger when all fingers and attachments are in contact with the work.
3. Further allowance should be provided when great acceleration or impact is expected during work transfer.

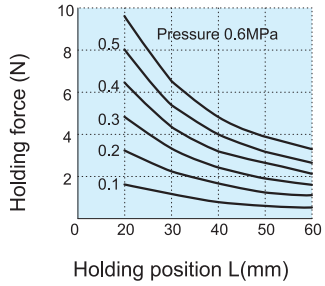
F:Thrust of one finger



L:Holding point

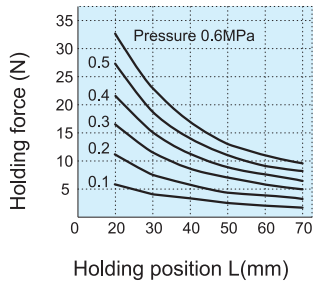


GRY-10D

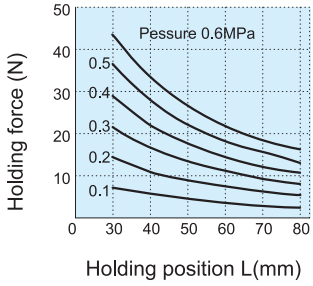


External hold

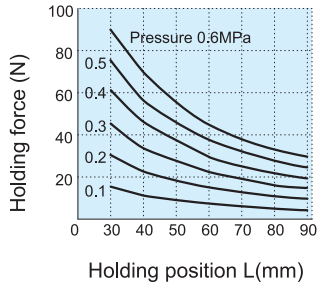
GRY-16D



GRY-20D

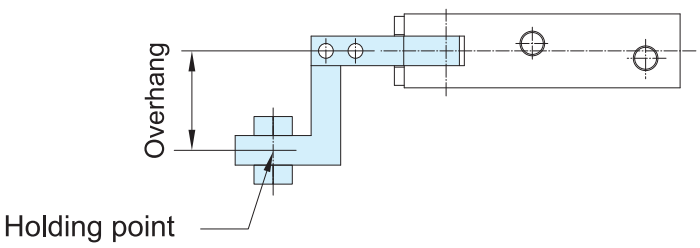


GRY-25D

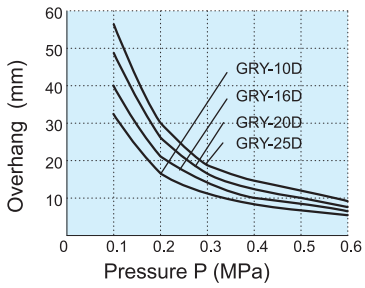


Confirmation of holding point

Work should be held at a point within the range of overhanging distance for a given pressure indicated in the tables.
When the work is held at a point outside of the recommended range for a given pressure, it may causes adverse effect on the gripper life.

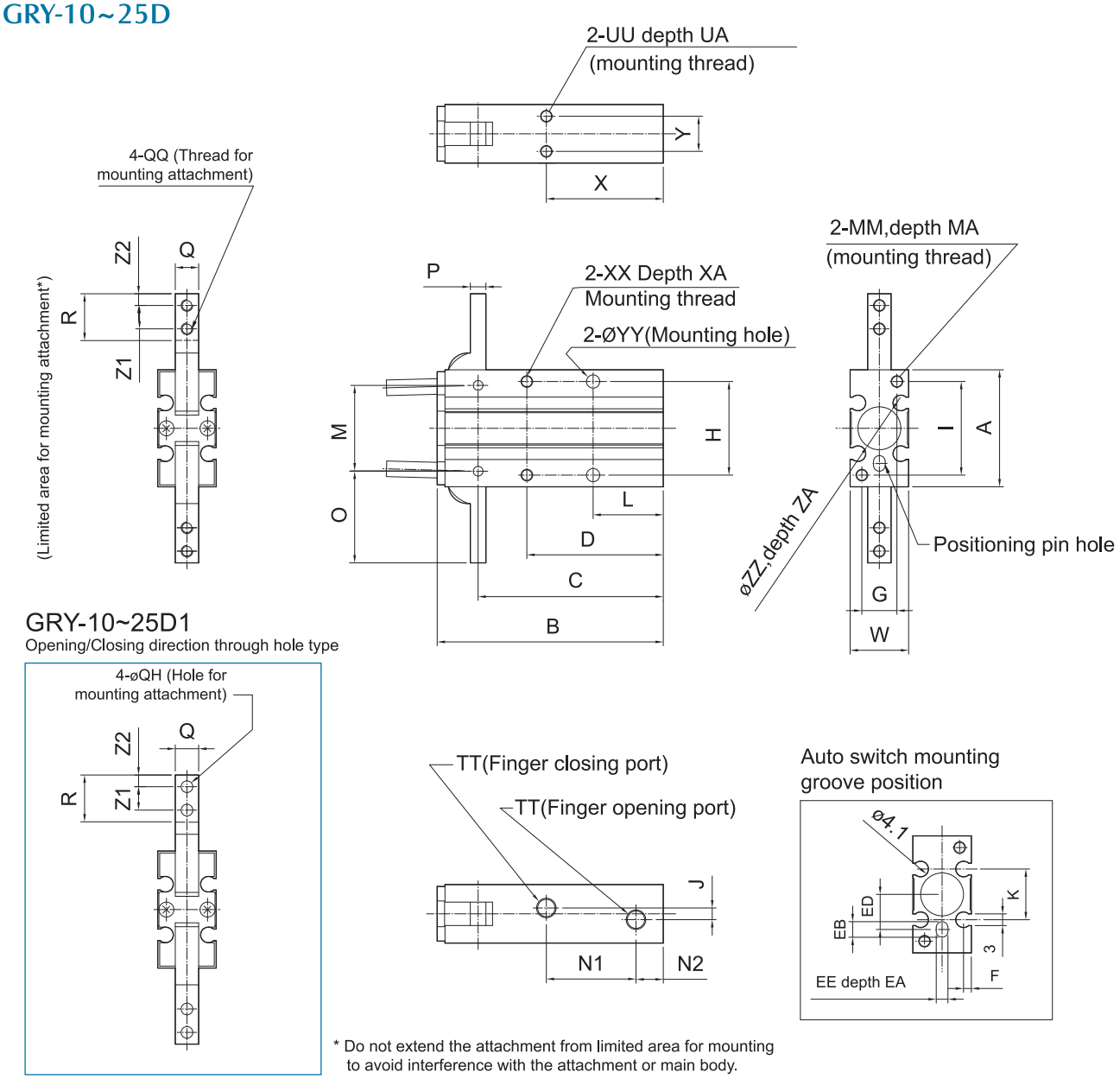


GRY



Dimensions

GRY-10~25D

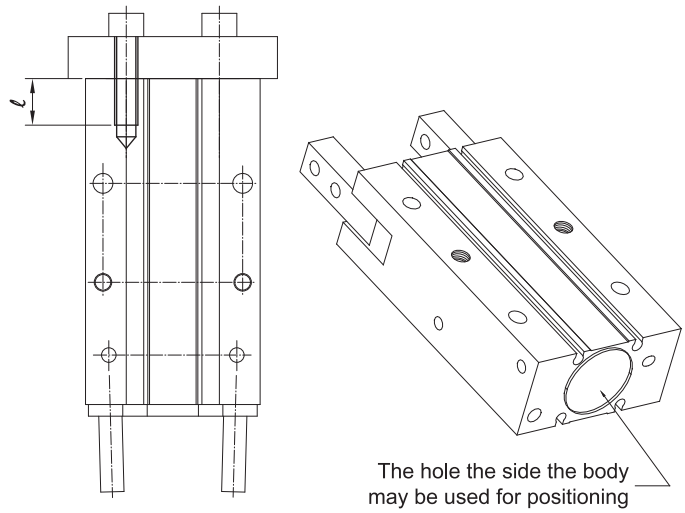


* Do not extend the attachment from limited area for mounting to avoid interference with the attachment or main body.

Model	A	B	C	D	EE	EA	EB	ED	F	G	H	I	J	K	L	M	MA	MM	N1	N2	O
GRY-10	30	58	47.5	35	3H9 $^{+0.025}_{-0}$	3	4	9	2	9	24	24	3	13	18	22	6	M3x0.5	23	7	23.5
GRY-16	38	69	55.5	41	3H9 $^{+0.025}_{-0}$	3	4	15	2.5	12	30	30	8	18	20	28	8	M4x0.7	25	7	28.5
GRY-20	48	86	69	51	4H9 $^{+0.030}_{-0}$	4	5	19	3	16	36	38	12	20	25	36	10	M5x0.8	32	8	37
GRY-25	58	107	86	60	4H9 $^{+0.030}_{-0}$	4	5	23	3	18	42	46	14	24	30	45	12	M6x1	42	8	45

Model	P	Q	QH	QQ	R	TT	UA	UU	W	X	XA	XX	Y	YY	Z1	Z2	ZA	ZZ
GRY-10	4	6 $^{-0.005}_{-0.025}$	3.4	M3x0.5	12	M5x0.8	4	M3x0.5	15	30	6	M3x0.5	9	3.4	6	3	1.5	11H9 $^{+0.043}_{-0}$
GRY-16	5	8 $^{-0.005}_{-0.025}$	3.4	M3x0.5	14	M5x0.8	5	M4x0.7	20	33	8	M4x0.7	12	4.5	7	4	1.5	17H9 $^{+0.043}_{-0}$
GRY-20	8	10 $^{-0.005}_{-0.025}$	4.5	M4x0.7	18	M5x0.8	8	M5x0.8	26	42	10	M5x0.8	14	5.5	9	5	1.5	21H9 $^{+0.052}_{-0}$
GRY-25	10	12 $^{-0.005}_{-0.025}$	5.5	M5x0.8	22.5	M5x0.8	10	M6x1	30	50	12	M6x1	16	6.6	12	6	1.5	26H9 $^{+0.052}_{-0}$

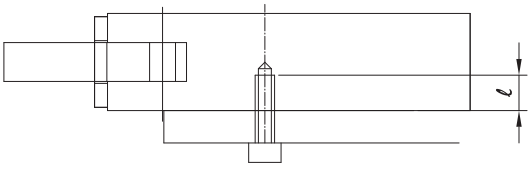
Mounting of air gripper



Axis Mounting (Body Tapped)

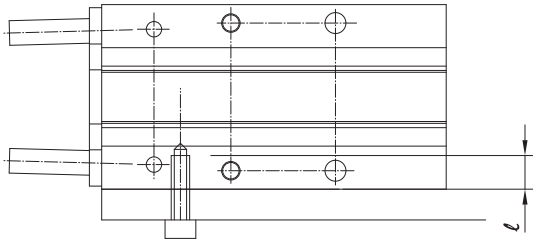
Model	Bolt	Maximum torque N.m	Max. screw depth ℓ (mm)
GRY-10D	M3x0.5	0.88	6
16D	M4x0.7	2.1	8
20D	M5x0.8	4.3	10
25D	M6x1	7.3	12

Model	Hole diameter (mm)	Height (mm)
GRY-10D	Ø 11H9 $^{+0.043}_{0}$	1.5
16D	Ø 17H9 $^{+0.043}_{0}$	1.5
20D	Ø 21H9 $^{+0.052}_{0}$	1.5
25D	Ø 26H9 $^{+0.052}_{0}$	1.5



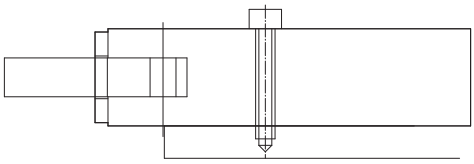
Lateral Mounting(Body Tapped, Body throught Hole) Body tapped

Model	Bolt	Maximum torque N.m	Max. screw depth ℓ (mm)
GRY-10D	M3x0.5	0.88	6
16D	M4x0.7	2.1	8
20D	M5x0.8	4.3	10
25D	M6x1	7.3	12



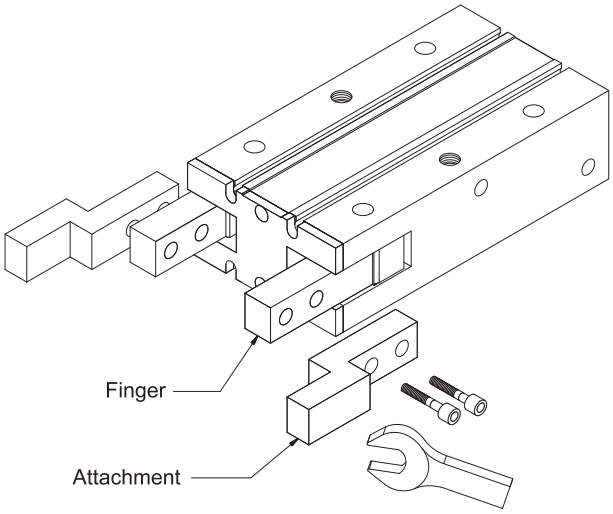
Vertical Mounting (Body Tapped)

Model	Bolt	Maximum torque N.m	Max. screw depth ℓ (mm)
GRY-10D	M3x0.5	0.59	4
16D	M4x0.7	1.3	5
20D	M5x0.8	3.3	8
25D	M6x1	5.9	10



Body through hole

Model	Bolt	Maximum torque N.m
GRY-10D	M3x0.5	0.88
16D	M4x0.7	2.1
20D	M5x0.8	4.3
25D	M6x1	7.3



How to Mount Attachment on fingers

To mount an attachment to a finger, make sure to use a wrench to support the attachment so as not to apply undue strain on the finger.
Refer to the table below for the proper tightening torque on the bolt used for securing the attachment to the finger.

Model	Bolt	Maximum torque N.m
GRY-10D	M3x0.5	0.59
16D	M3x0.5	0.59
20D	M4x0.7	1.4
25D	M5x0.8	2.8