



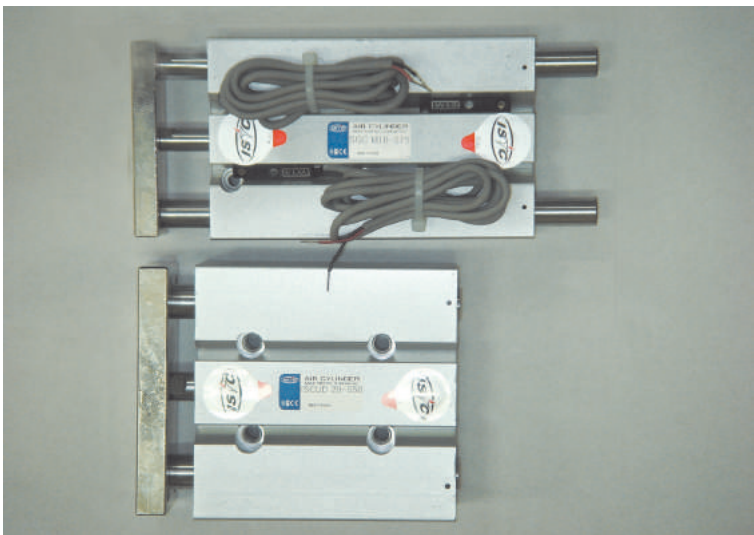
ISTC CO., LTD



Hydraulic Pneumatic Technology Products

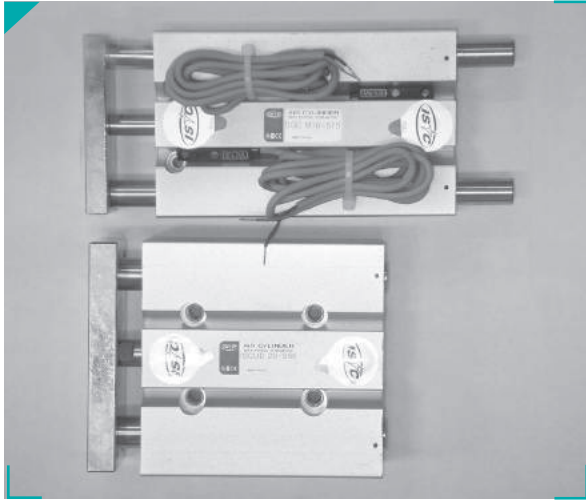
가이드 부착 박형 실린더 IGQ 시리즈

GUIDE-MOUNTED
THIN TYPE CYLINDER
IGQ SERIES



가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

형식 및 사양 Model & Specification



>표준사양 Standard Specification

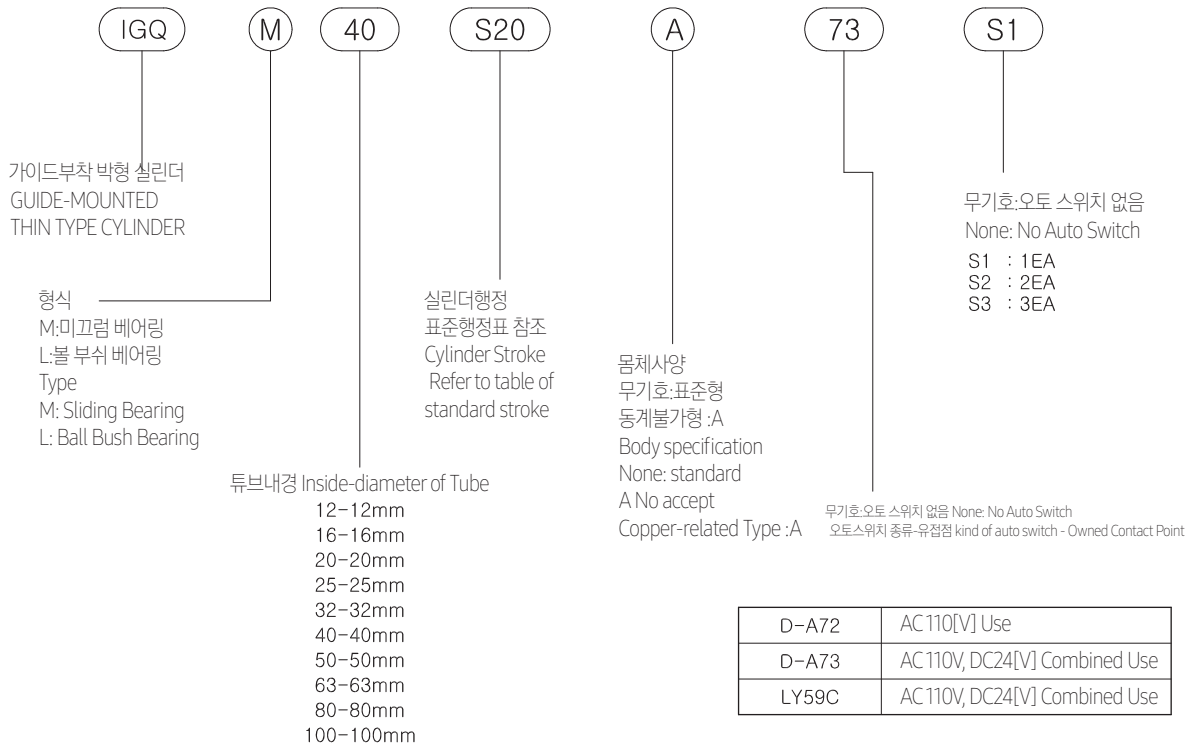
형식 Type	무급유형 Oilless Type	
사용유체 Working Fluid	Air	
시험압력 Test Pressure	15.3kgf/cm ²	
최고사용압력 Max. set pressure	9.9kgf/cm ²	
사용온도 Working Temperature	-10°C ~ +60°C	
쿠션 Cushion	Rubber cushion	
최저사용압력 Min. Working Pressure	∅12, ∅16	1.2kgf/cm ²
	∅25, ∅100	1.0kgf/cm ²
행정길이의 허용차 Allowance of stroke length	+1.5 0	
피스톤사용속도 Working Piston Speed	∅12, ∅16	50~500mm/s
	∅25, ∅100	50~400mm/s

>실린더표준행정표 Standard Stroke Table of Cylinder

I-D(mm)	Kinds	I-D(mm)	Standard Stroke(mm)
IGQM	Sliding Bearing	∅12~∅16	10, 20, 30, 40, 50, 75, 100
		∅20~∅25	20, 30, 40, 50, 75, 100
IGQL	Ball Bush Bearing	∅32~∅100	25, 50, 75, 100, 125, 150

※단 표준 행정 중간 행정은 스페이스를 장착하여 제작한다.
 예) IGQM20-25st 주문시 IGQM20-30st의 바디 내부를 5mm 스페이스 장착함
 Mid Stroke and Standard Stroke should be installed with Space.
 ex) When order IGQM20-25st, install 5mm Space in the Body of IGQM20-30st.

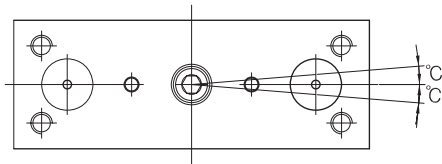
>형식표시방법 Indication of Model



가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

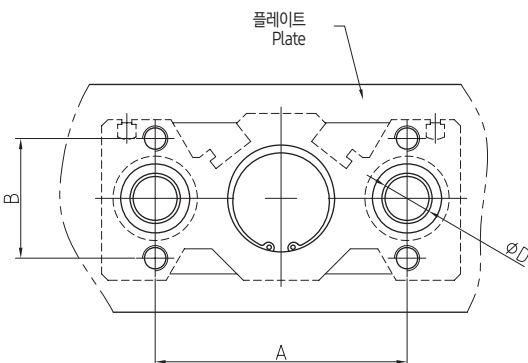
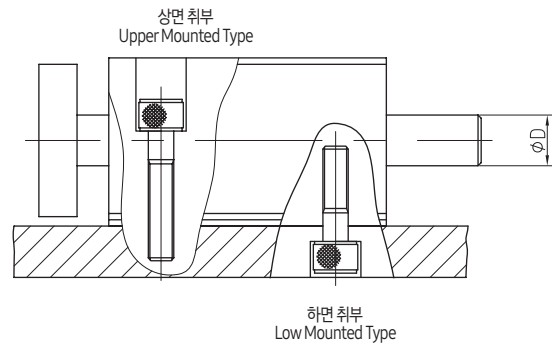
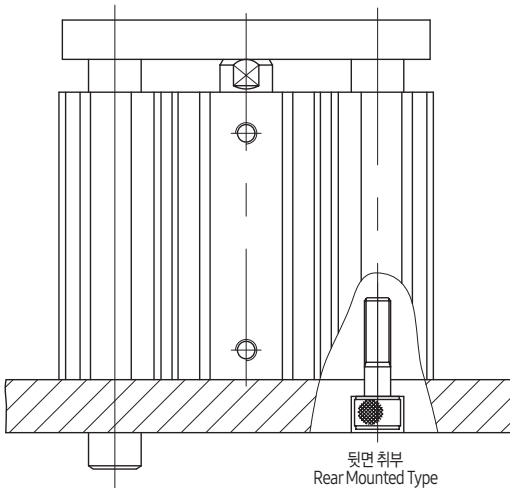
Ø12, Ø16, Ø20, Ø25, Ø32, Ø40, Ø50, Ø63, Ø80, Ø100

>플레이트 회전 정도 Revolution degree of Plate



I-D(mm)	Allowance for Revolution degree	
	IGQM	IGQL
12	±0.07	±0.10
16		
20	±0.06	±0.09
25		
32	±0.06	±0.08
40		
50	±0.05	±0.06
63		
80	±0.04	±0.05
100		

>취부방식 Mounted Type



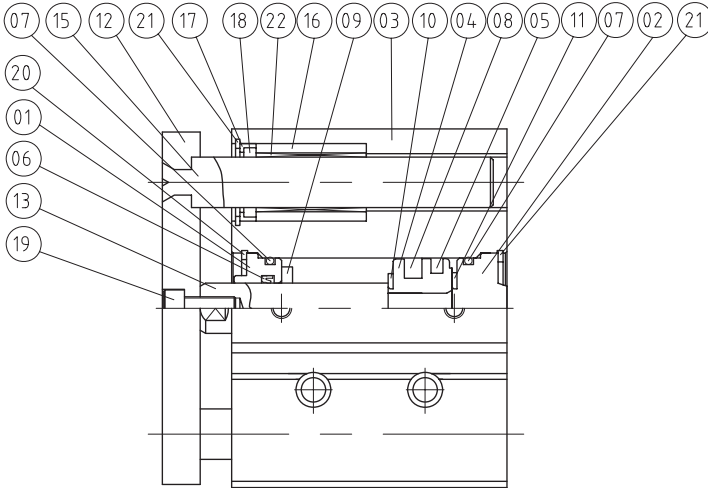
>취부볼트규격 Bolt Regulation of Fitting Surface

I-D(mm)	A (mm)	B (mm)	ØD		Wrench Bolt for fitting Surface
			IGQM	IGQL	
12	50	18	10	8	M4*0.7
16	56	22	12	10	M5*0.8
20	72	24	14	12	M5*0.8
25	82	30	18	15	M6*1.0
32	80	38	22	18	M8*1.25
40	90	38	22	18	M8*1.25
50	100	44	27	22	M10*1.5
63	110	44	27	22	M10*1.5
80	140	56	31	28	M12*1.75
100	170	62	39	33	M14*2.0

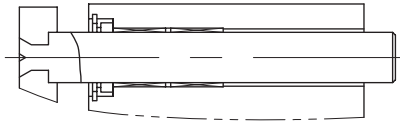
가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

내부구조도 Inside Structure Drawings

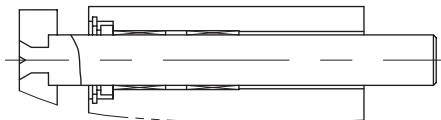
>내부구조도 Inside Structure Drawings IGQM Φ 12-25 30st 이하



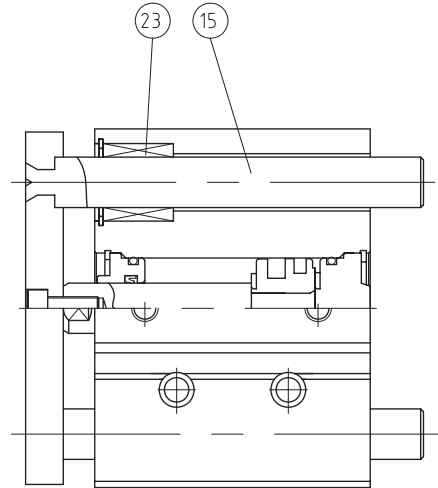
IGQM Φ 12~25 30st 초과



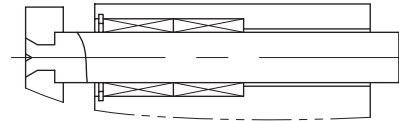
IGQM Φ 12~25 50st 초과



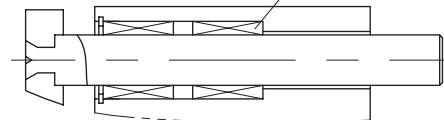
>내부구조도 Inside Structure Drawings IGQL Φ 12~25 30st 이하



IGQL Φ 12~25 30st 초과



IGQL Φ 12~25 50st 초과



>부품리스트 Parts List

No	Name	Materials	Remarks
1	ROD COVER	A6063	
2	HEAD COVER	A6063	
3	TUBE	A6063	
4	PISTON	AC4C	
8	MAGNET	NBR	
9	SPACER	A2024	
10	DAMPER-1	URETHANE	
11	DAMPER-2	URETHANE	
12	PLATE	S45C	
13	PISTON ROD	S45C	
14	GUIDE SPACER	A2024	

No	Name	Materials	Remarks
15	GUIDE ROD	S45C	IGQM
		SUJ2	IGQL
16	BUSH SLEEVE	S20C	
17	HOLDER	S45C	IGQM
18	FELT	WOOL	IGQM
19	PLATE BOLT	SCM4	
20	SNAP RING-1	SCM4	
21	SNAP RING-2	SCM4	
22	OILLESS BUSH	CU+OIL	
23	BOLL BUSH BEAR		

>패킹리스트 Packing List

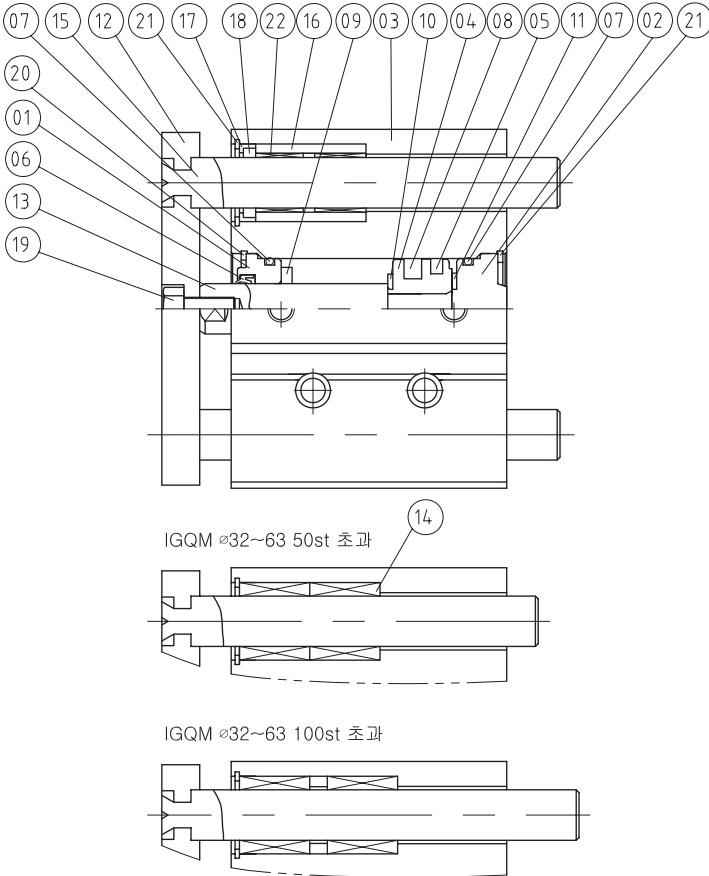
No	Name	Materials	I-D(mm)			
			Φ 12	Φ 16	Φ 20	Φ 25
5	PISTON PACKING	NBR	PSD-12	PSD-16	PSD-20	PSD-25
6	ROD PACKING	NBR	DYR-6	DYR-8	DYR-10SK	DYR-12
7	COVER O-RING	NBR	S10	S14	S18	S22.4

공기압 참고자료
공기압 도면기호
박형 실린더
소형 실린더
중형 실린더
대형 실린더
오토 스위치
가이드부착 실린더
부스터 실린더
유압실린더 시리즈

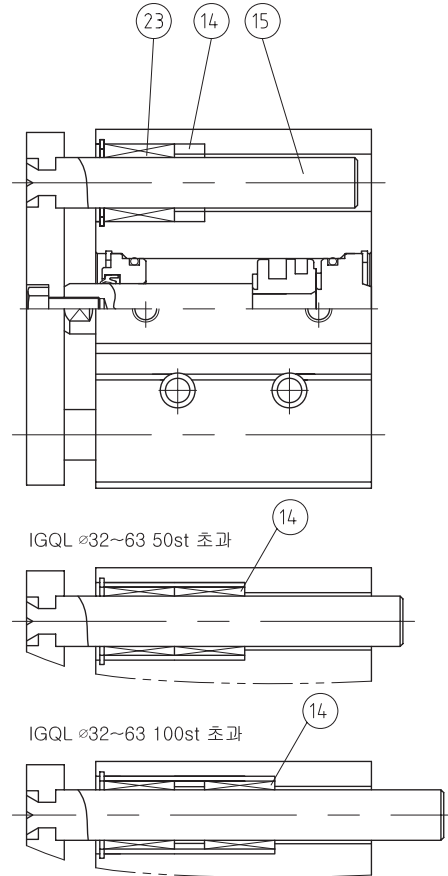
가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

내부구조도 Inside Structure Drawings

>내부구조도 Inside Structure Drawings IGQM ϕ 32~63 50st 이하



>내부구조도 Inside Structure Drawings IGQL ϕ 32~63 50st 이하



>부품리스트 Parts List

No	Name	Materials	Remarks
1	ROD COVER	A6063	
2	HEAD COVER	A6063	
3	TUBE	A6063	
4	PISTON	AC4C	
8	MAGNET	NBR	
9	SPACER	A2024	
10	DAMPER-1	URETHANE	
11	DAMPER-2	URETHANE	
12	PLATE	S45C	
13	PISTON ROD	S45C	
14	GUIDE SPACER	A2024	

No	Name	Materials	Remarks
15	GUIDE ROD	S45C	IGQM
		SUJ2	IGQL
16	BUSH SLEEVE	S20C	
17	HOLDER	S45C	IGQM
18	FELT	WOOL	IGQM
19	PLATE BOLT	SCM4	
20	SNAP RING-1	SCM4	
21	SNAP RING-2	SCM4	
22	OILLESS BUSH	CU+OIL	
23	BALL BUSH BEAR		

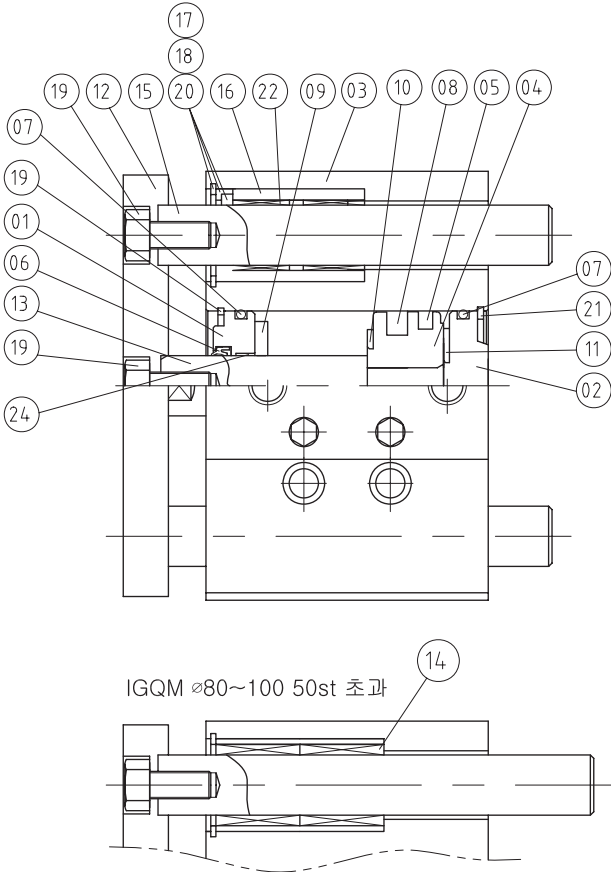
>패킹리스트 Packing List

No	Name	Materials	I-D(mm)			
			ϕ 32	ϕ 40	ϕ 50	ϕ 63
5	PISTON PACKING	NBR	PSD-32	PSD-40	PSD-50	PSD-63
6	ROD PACKING	NBR	DYR-16	DRP-16	DRP-20	DRP-20
7	COVER O-RING	NBR	S28	S37	S46	S60

가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

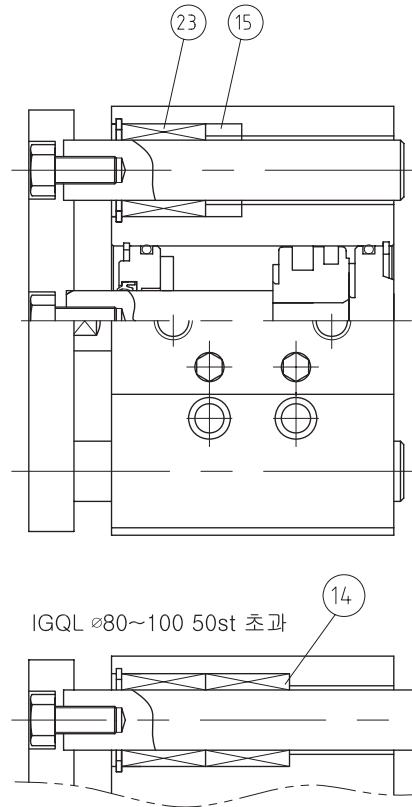
내부구조도 Inside Structure Drawings

>내부구조도 Inside Structure Drawings IGQM Φ 80~100 50st 이하



IGQM Φ 80~100 50st 초과

>내부구조도 Inside Structure Drawings IGQL Φ 80~100 50st 이하



IGQL Φ 80~100 50st 초과

>부품리스트 Parts List

No	Name	Materials	Remarks
1	ROD COVER	A6063	
2	HEAD COVER	A6063	
3	TUBE	A6063	
4	PISTON	AC4C	
8	MAGNET	NBR	
9	SPACER	A2024	
10	DAMPER-1	URETHANE	
11	DAMPER-2	URETHANE	
12	PLATE	S45C	
13	PISTON ROD	S45C	
14	GUIDE SPACER	A2024	

No	Name	Materials	Remarks
15	GUIDE ROD	S45C	IGQM
		SUJ2	IGQL
16	BUSH SLEEVE	S20C	
17	HOLDER	S45C	IGQM
18	FELT	WOOL	IGQM
19	PLATE BOLT	SCM4	
20	SNAP RING-1	SCM4	
21	SNAP RING-2	SCM4	
22	OILLESS BUSH	CU+OIL	
23	BALL BUSH BEAR		
24	DU BUSH		

>패킹리스트 Packing List

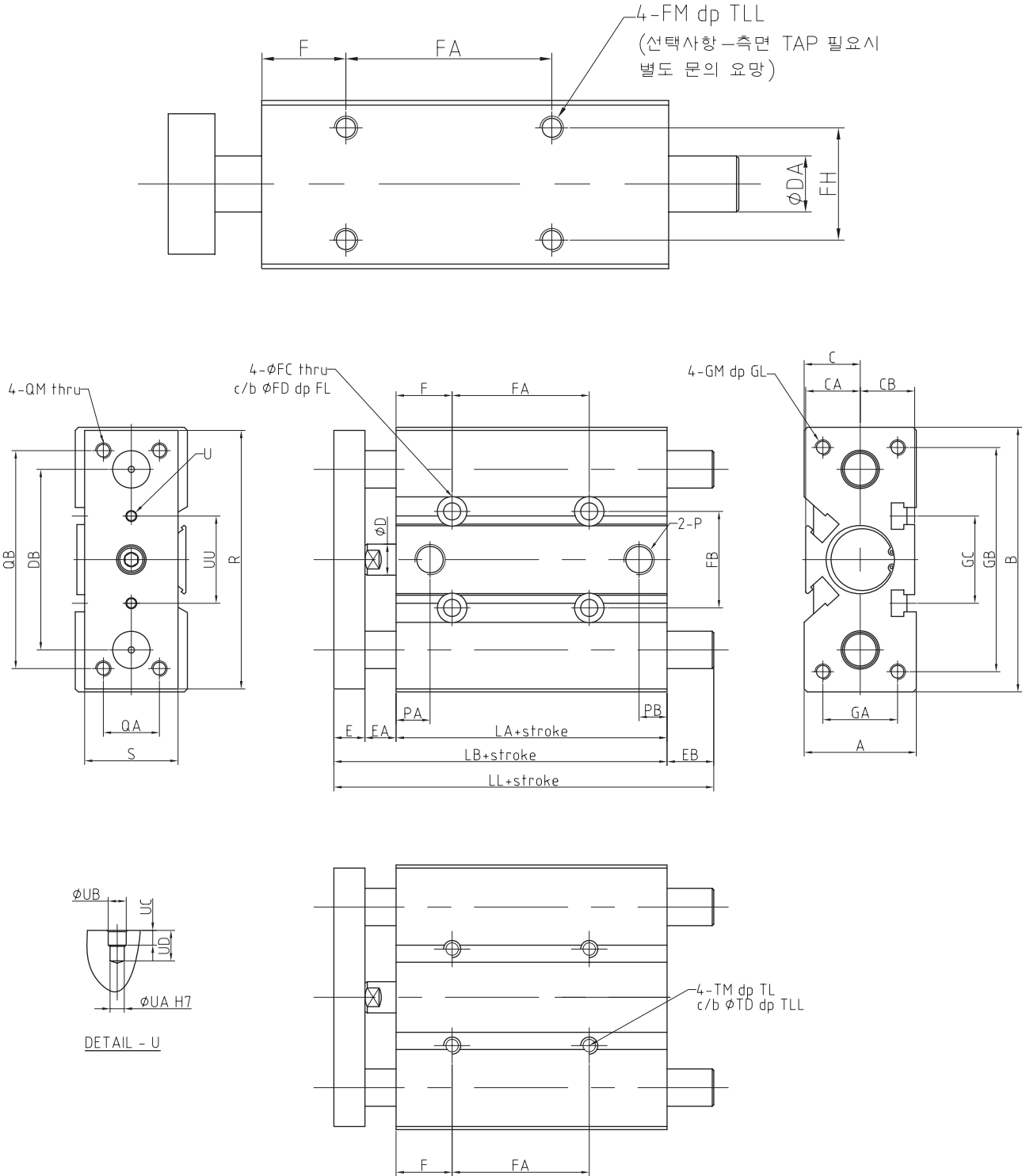
No	Name	Materials	I-D(mm)	
			Φ 80	Φ 100
5	PISTON PACKING	NBR	PSD-80	PSD-100
6	ROD PACKING	NBR	DRP-25	DRP-30
7	COVER O-RING	NBR	S75	S95

공기압 참고자료
공기압 도면기호
박형 실린더
소형 실린더
중형 실린더
대형 실린더
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부스터 실린더
유압실린더 시리즈

가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

일반형 General Type

> $\Phi 12 \sim \Phi 25$ IGQM / IGQL



공기압 최고저로
공기압 도면기호
박형 실린더
소형 실린더
중형 실린더
대형 실린더
오토 스위치
가이드부착 실린더
부스터 실린더
유압실린더 시리즈

가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

일반형 General Type

> Φ12~Φ25 IGQM / IGQL

단위 unit : mm

I-D (mm)	Stroke Range (mm)	A	B	C	CA	CB	D	DA		DB	E	EA	EB						F	FA			
								IGQM	IGQL				IGQM			IGQL							
																10ST	20ST	30ST				40-50ST	
12	~ 100	26	60	13	12.5	13	6	8	6	46	8	5	0	5	34	3	13	13	23	28	7	20	40
16	~ 100	30	67	15	14.5	15	8	10	8	50	8	5	0	5	34	5	20	20	30	35	7	24	44
20	~ 150	36	85	18	17.5	18	10	12	10	58	10	6	3	5	47	-	12	25	35	42	18	24	44
25	~ 150	42	95	21	20.5	21	12	16	13	68	10	6	3	5	47	-	18	18	37	48	18	24	44

단위 unit : mm

I-D (mm)	Stroke Range (mm)	FB	FC	FD	FL	FH	FM	FLL	GA	GB	GC	GD	GM	GL	LA	LB	P	PA	PB	QA
16	~ 100	27	4.3	8	12.5	22	M5x0.8	12	22	56	24	M3	M5x0.8	12	33	46	M5x0.8	11	8	16
20	~ 150	31	5.5	9.5	13.5	24	M5x0.8	13	24	72	28	M5	M5x0.8	13	37	53	Rc1/8	10.5	9	18
25	~ 150	35	5.5	9.5	14.5	30	M6x1.0	15	30	82	34	M5	M6x1.0	15	37.5	53.5	Rc1/8	11.5	9.5	26

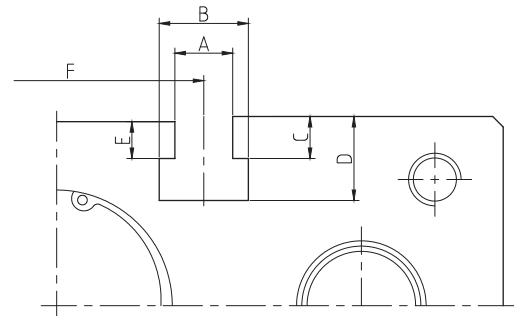
단위 unit : mm

I-D (mm)	Stroke Range (mm)	LL								QB	QM	R	S	TM	TL	TD	TLL	UU	UA	UB	UC	UD
		IGQM				IGQL																
						10ST	20ST	30ST	40-50ST													
12	~ 100	42	47	76	45	55	55	65	70	48	M4x0.7	58	22	M5x0.8		6	4.5	23	3	3.5	3	6
16	~ 100	46	51	80	51	66	66	76	81	54	M5x0.8	65	25	M5x0.8	10	6	4.8	24	3	3.5	3	6
20	~ 150	56	58	100	-	65	78	88	95	70	M5x0.8	83	30	M6x1.0	12	7	8	28	3	3.5	3	6
25	~ 150	56.5	58.5	100.5	-	71.5	71.5	90.5	100.5	78	M6x1.0	93	38	M6x1.0	12	7	8.2	34	4	4.5	3	6

> 고정용 구멍 Hole for fixing

아래 치수표 및 도면 설명부는 오토 스위치 및 기타 리드선을 결속하거나 단자대 등을 실린더에 직접 고정할 경우에 사용함.
Next dimension table and Explanation of Drawings are used directly to fix and connect Auto Switch and Reed Cable in the cylinder.

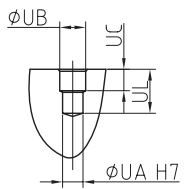
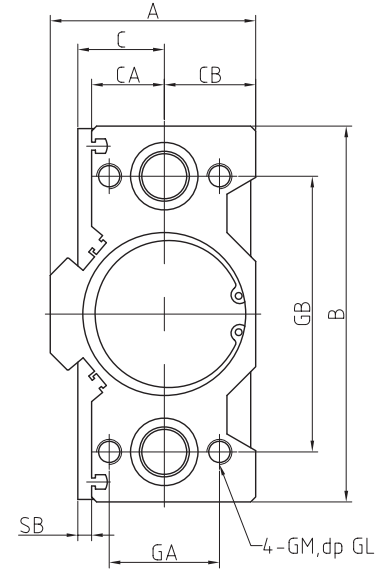
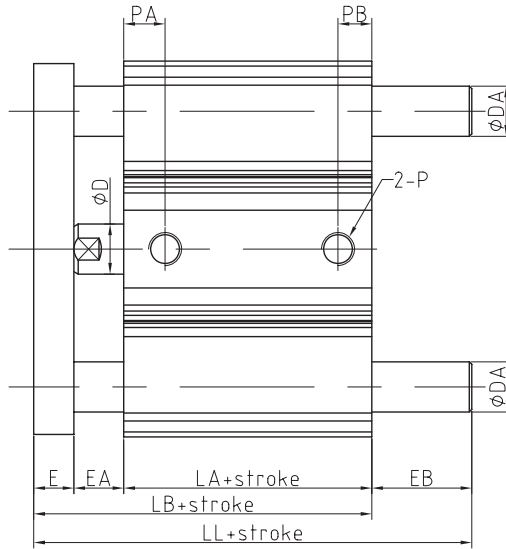
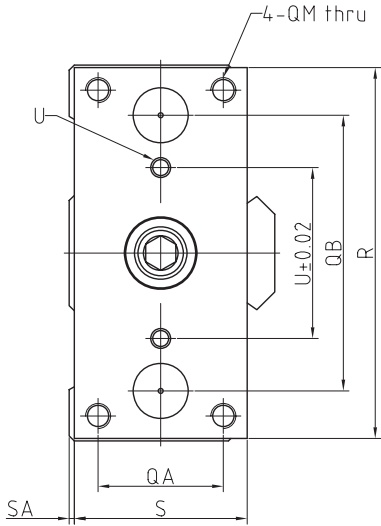
I-D(mm)	A	B	C	D	E	F	Bolt
∅12	3.5	6	2	4.3	1.5	23	M3
∅16	3.7	6.2	2	4.6	1.5	24	M3
∅20	5.5	8.5	3.5	7.8	3	28	M3
∅25	5.5	8.5	3.5	8	3	34	M5



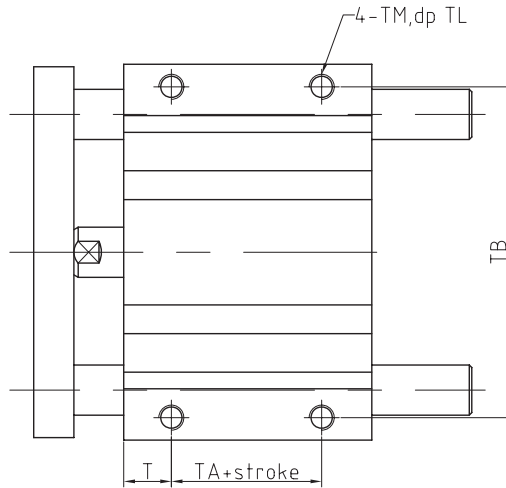
가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

일반형 General Type

>Φ32~Φ63 IGQM / IGQL



DETAIL - U



유압실린더 시리즈	가이드부착 실린더	중형 실린더	소형 실린더	박형 실린더	공기압 도면기호	공기압 참고자료
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가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

일반형 General Type

>Φ32~Φ63 IGQM / IGQL

단위 unit :mm

I-D (mm)	Stroke Range (mm)	A	B	C	CA	CB	D	DA		E	EA	EB											
								ISGCM	ISGCL			IGQM					IGQL						
												25ST	50ST	75ST	100ST	125ST	150ST	25ST	50ST	75ST	100ST	125ST	150ST
32	~ 150	53	114	27	25	26	16	20	16	12	10	23.2	41.2	46.2	46.2	51.2	51.2	4.4	41.4	46.4	46.4	66.4	66.4
40	~ 150	57	124	31	25	26	16	20	16	12	10	16.7	34.7	39.7	39.7	44.7	44.7	0	34.9	39.9	39.9	59.9	59.9
50	~ 150	69	140	39	29	30	20	25	20	16	12	27.7	39.7	49.7	49.7	54.7	54.7	2.9	44.9	49.9	49.9	69.9	69.9
63	~ 150	82	150	45.5	29	36.5	20	25	20	16	12	22.7	34.7	44.7	44.7	49.7	49.7	0	39.9	44.9	44.9	64.9	64.9

단위 unit :mm

I-D (mm)	Stroke Range (mm)	GA	GB	GL	GM	I	LA	LB	LL												P	PA
									IGQM						IGQL							
									25ST	50ST	75ST	100ST	125ST	150ST	25ST	50ST	75ST	100ST	125ST	150ST		
32	~ 150	38	80	20	M8x1.25	22	37.5	59.5	82.7	100.7	105.7	105.7	110.7	110.7	63.9	100.9	105.9	105.9	125.9	125.9	1/8	12.5
40	~ 150	38	90	20	M8x1.25	22	44	66	82.7	100.7	105.7	105.7	110.7	110.7	63.9	100.9	105.9	105.9	125.9	125.9	1/8	14
50	~ 150	44	100	25	M10x1.5	22	44	72	99.7	111.7	121.7	121.7	126.7	126.7	74.9	116.9	121.9	121.9	141.9	141.9	1/4	14
63	~ 150	44	100	25	M10x1.5	31	49	77	99.7	111.7	121.7	121.7	126.7	126.7	74.9	116.9	121.9	121.9	141.9	141.9	1/4	16.5

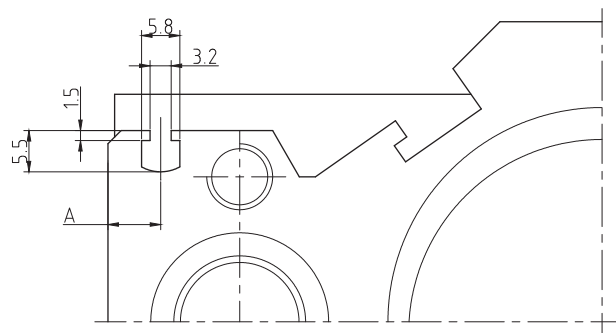
단위 unit :mm

I-D (mm)	Stroke Range (mm)	PB	QA	QB	QM	R	S	SA	SB	T	TA	TB	TL	TM	U	UA	UB	UC	UL
40	~ 150	10.5	30	106	M8x1.25	122	48	2	1	17	10	110	11	M8x1.25	50	4	4.5	3	6
50	~ 150	11	40	120	M10x1.5	138	56	2	1	17	10	124	12.5	M10x1.5	56	5	6	4	8
63	~ 150	13.5	50	130	M10x1.5	148	69	2	5.5	19	10	132	15	M10x1.5	66	5	6	4	8

>고정용구멍 Hole for fixing

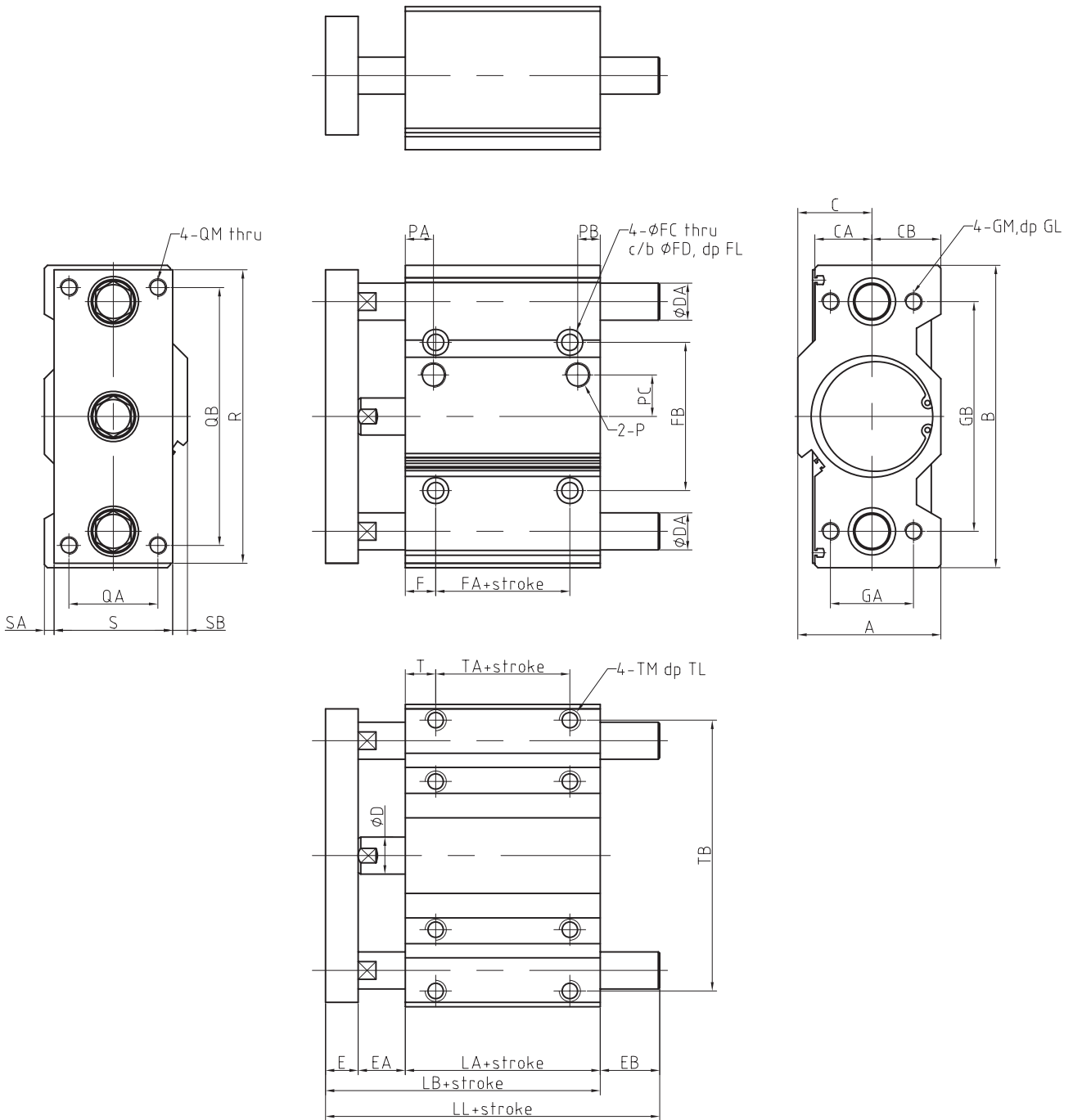
아래 치수표 및 도면 설명부는 오토 스위치 및 기타 리드선을 결속하거나 단자대 등을 실린더에 직접 고정할 경우에 사용함.
Next dimension table and Explanation of Drawings are used directly to fix and connect Auto Switch and Reed Cable in the cylinder.

I-D(mm)	A
∅32	8
∅40	8
∅50	8
∅63	8
∅80	10
∅100	10



가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES
일반형 General Type

>Φ80~Φ100 IGQM / IGQL



공기압 참고자료

공기압 도면기호

박형 실린더

소형 실린더

중형 실린더

대형 실린더

오토 스위치

가이드부착 실린더

부스터 실린더

유압실린더 시리즈

가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

일반형 General Type

> Φ80~Φ100 IGQM / IGQL

단위 unit : mm

I-D (mm)	Stroke Range (mm)	A	B	C	CA	CB	D	DA		E	EA	EB											
								TGQM	TGQL			IGQM						IGQL					
												25ST	50ST	75ST	100ST	125ST	150ST	25ST	50ST	75ST	100ST	125ST	150ST
80	~ 150	96.5	204	50	38.5	46.5	25	30	25	22	18	23.2	25.3	53.3	53.3	58.3	58.3	8.5	8.5	72.5	72.5	72.5	72.5
100	~ 150	114.5	238	58	41	56.5	30	35	30	25	20	18.8	23.8	48.8	48.8	53.8	53.8	4.0	4.0	73.0	73.0	73.0	73.0

단위 unit : mm

I-D (mm)	Stroke Range (mm)	F	FA	FB	FC	FD	FL	GA	GB	GL	LL												LA
											IGQM						IGQL						
											25ST	50ST	75ST	100ST	125ST	150ST	25ST	50ST	75ST	100ST	125ST	150ST	
80	~ 150	20.5	15.5	100	11	17.5	11	56	155	30	119.8	121.8	149.8	149.8	154.8	154.8	105	105	169	169	169	169	56.5
100	~ 150	20.5	25	120	13	20	13	62	184	35	129.8	134.8	159.8	159.8	164.8	164.8	115	115	184	184	184	184	66

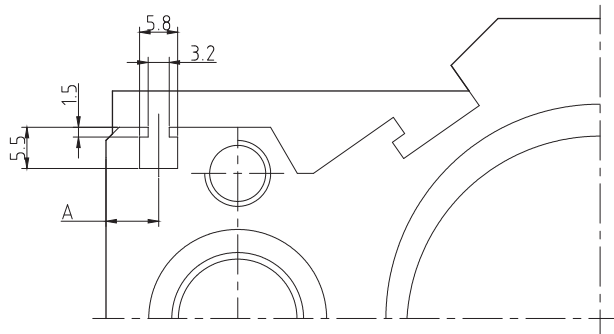
단위 unit : mm

I-D (mm)	Stroke Range (mm)	LB	GM	P	PA	PB	PC	QA	QB	QM	R	S	SA	SB	T	TA	TB	TL	QM
80	~ 150	96.5	M12x1.75	3/8	19	15.2	28	60	174	M12x1.75	198	80	6.5	10	20.5	15.5	182	18	M12x1.75
100	~ 150	111	M14x2	3/8	22.5	18.8	35	64	200	M14x2	231	95	9	10.5	20.5	25	211	21	M14x2.0

> 고정용 구멍 Hole for fixing

아래 치수표 및 도면 설명부는 오토 스위치 및 기타 리드선을 접속하거나 단자대 등을 실린더에 직접 고정할 경우에 사용함.
Next dimension table and Explanation of Drawings are used directly to fix and connect Auto Switch and Reed Cable in the cylinder.

I-D (mm)	A
∅32	8
∅40	8
∅50	8
∅63	8
∅80	10
∅100	10

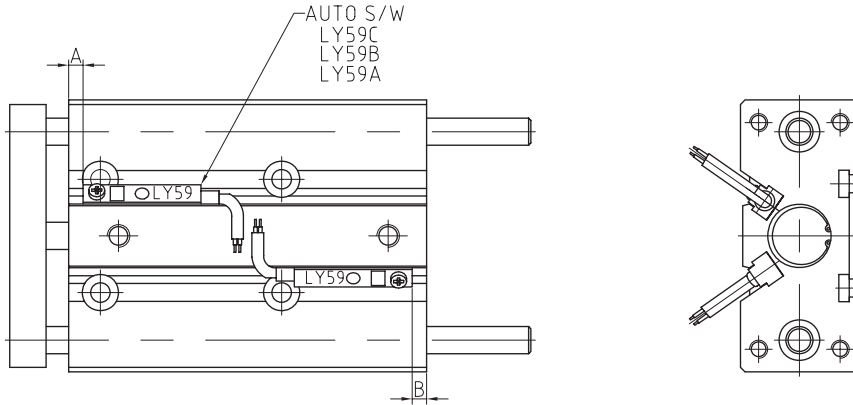


가이드 부착 박형 실린더 IGQ 시리즈 GUIDE-MOUNTED THIN TYPE CYLINDER IGQ SERIES

일반형 General Type

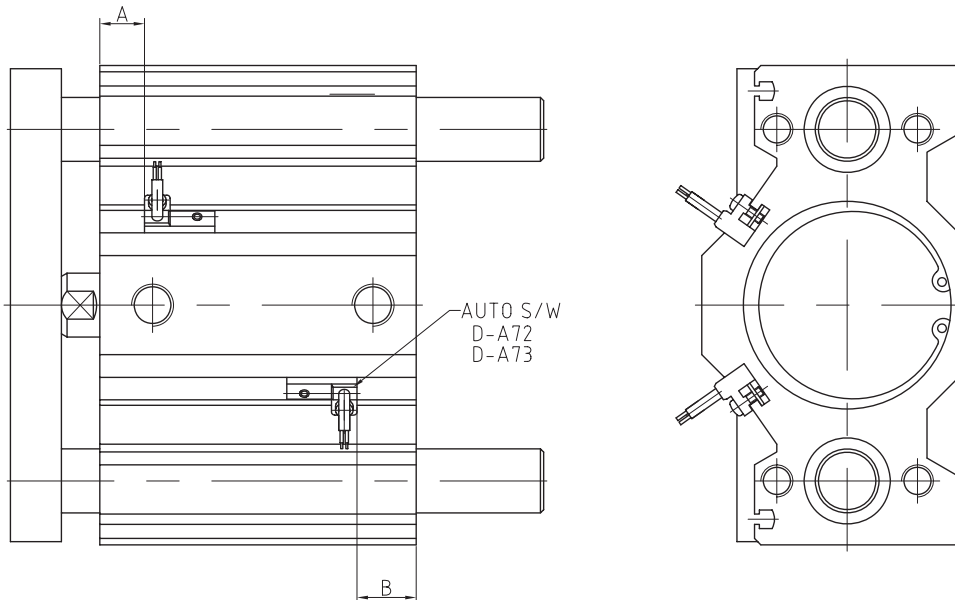
>AUTO S/W 부착 방법 Mounted Method of AUTO S/W

Φ12~Φ100 IGQM / IGQL



I-D (mm)	∅12	∅16	∅20	∅25	∅32	∅40	∅50	∅63	∅80	∅100
A	1.5	4.5	4	4.5	5.5	9.5	7.5	10	13	17.5
B	3	4	8	8	7	9.5	11.5	14	18.5	23.5

Φ32~Φ63 IGQM / IGQL



I-D (mm)	∅32	∅40	∅50	∅63
A	9.5	13.5	11.5	14
B	11.5	14	15.5	18.5

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