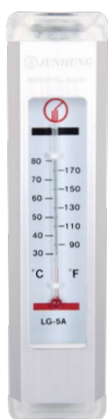


Accessories of Hydraulic Power Packs

Pressure Gauge / 6 Stations Pressure Selector / Fluid Level Gauge /
 Filler Breather Filter / Needle Valve / In-line Flow Control Valve / In-line Check Valve /
 Air Breather / End Cover / Gauge Damper / Pipe Clamp / Drive Coupling / Logic Valve



Contents

Accessories of Hydraulic Power Packs

Pressure Gauge	
PG-B	04
PG-R	05
ECG-LM	06
ECG-CBM	07
SDPG32-B	08
SDPG32-R	09
DPG	10
PLM	11
6 Stations Pressure Selector	
JSVM-6-G	12
Fluid Level Gauge	
LA	14
LG	15
LH	16
LS	17
HEX-GAS, OS, HEX-M	18
Filler Breather Filter	
FB	20
PFB	21
Needle Valve	
ST, SV	22
In-line Flow Control Valve	
TLC-P	24
TLC-M	25
TL, TLC, TLCZ	26
In-line Check Valve	
CV, CIT	27
CV-A, CV-B	28
CF	29
Air Breather	
AF	30
FB	31
End Cover	
TEC	32
Gauge Damper	
NU	33
Pipe Clamp	
PP Heavy Pipe Clamp / PPH	34
PP Heavy Pipe Clamp / PPL	35
PP Light Twin Pipe Clamp / PPL-T	36
PP Light Pipe Clamp Rail Mounting / PPR	37
Drive Coupling	
Super Flexible Coupling / NM	38
Roller Chain Flexible Coupling / HT	39
Logic Valve	
LVC	40

PG-B



PG-B series-PC
(with plastic clips)

SYMBOLS



ORDER CODES

PG-B - **2.5** - **160** - **1/2** **N** - **PC**

1 2 3 4 5 6

1	Model Name	PG-B	bottom entry
2	Gauge size	2.5	2.5" (63mm)
		4	4" (100mm)
3	Pressure Range (bar)	60, 160, 210, 350	
4	Thread Connection	1/4, 3/8, 1/2	
5	Thread Connection	P	PT
		N	NPT
		B	BSPP
		S	SAE
6	Accessory Optional	none	without plastic clips
		PC	with plastic clips

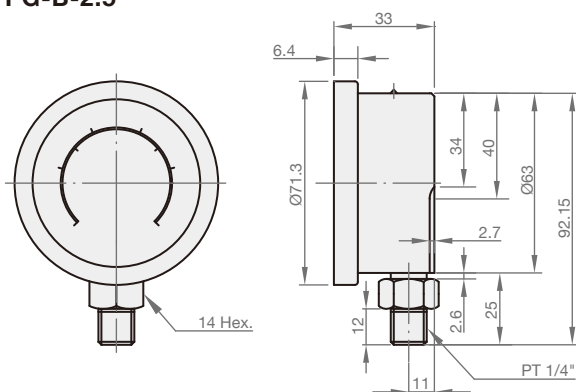
MODEL SPEC.

Model	PG-B-2.5	PG-B-4
Pressure Range	-1/0 to -1/+20 kgf/cm ² (bar) 0/1 to 0/1000 kgf/cm ² (bar)	
Accuracy	±1.5% full scale	
Gauge Size	2.5" (63mm)	4" (100mm)
Operating Temperature	-25 ~ 60°C	
Mounting Type	bottom entry	
Connection Thread and Size	PT, NPT, BSPP, SAE 1/4", 3/8", 1/2"	
Housing Material	stainless steel AISI 304	
Filling	glycerin	
Weight (kg)	0.26	0.8

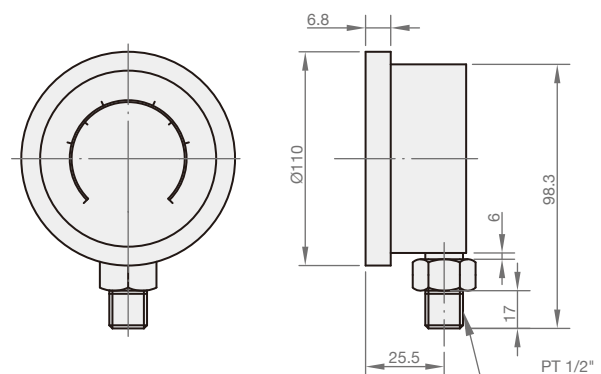
DIMENSION

(UNIT : mm)

PG-B-2.5



PG-B-4



PG-R



SYMBOLS



ORDER CODES

PG-R - **2.5** - **210** - **3/8** **P**

1

2

3

4

5

1	Model Name	PG-R	rear entry
2	Gauge size	2.5	2.5" (63mm)
		4	4" (100mm)
3	Pressure Range (bar)	60, 160, 210, 350	
4	Thread Connection	1/4, 3/8, 1/2	
5	Thread Connection	P	PT
		N	NPT
		B	BSPP
		S	SAE

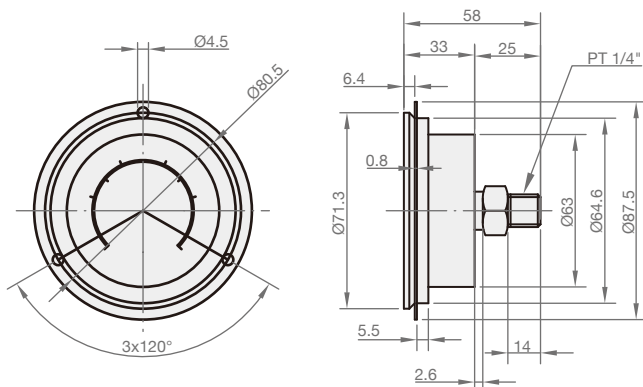
MODEL SPEC.

Model	PG-R-2.5	PG-R-4
Pressure Range	-1/0 to -1/+20 kgf/cm ² (bar) 0/1 to 0/1000 kgf/cm ² (bar)	
Accuracy	±1.5% full scale	
Gauge Size	2.5" (63mm)	4" (100mm)
Operating Temperature	-25 ~ 60°C	
Mounting Type	rear entry	
Connection Thread and Size	PT, NPT, BSPP, SAE 1/4", 3/8", 1/2"	
Housing Material	stainless steel AISI 304	
Filling	glycerin	
Weight (kg)	0.34	0.8

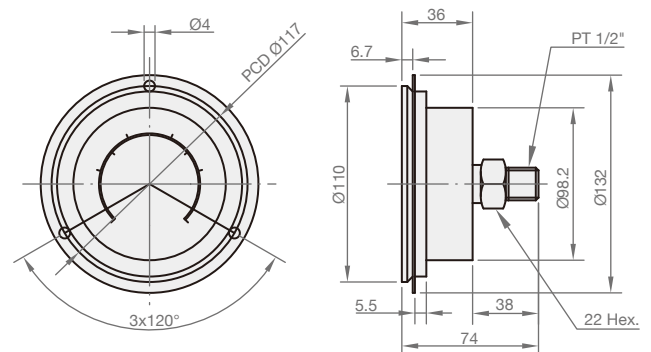
DIMENSION

(UNIT : mm)

PG-R-2.5



PG-R-4



ECG-LM



SYMBOLS



ORDER CODES

ECG - 03 - LM - NO

1

2

3

4

1	Model Name	ECG	
2	Gauge Size	03	75mm
		04	100mm
3	Mounting Type	LM	bottom entry
4	Contact Type	NO	normally open contact
		NC	normally closed contact

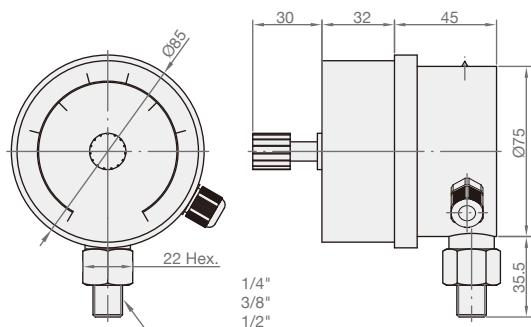
MODEL SPEC.

Model	ECG-03-LM	ECG-04-LM
Pressure Range	-1/0 kgf/cm ² (bar) 0/700 kgf/cm ² (bar)	
Accuracy	±1.0% full scale	
Operating Temperature	-25 ~ 60°C	
Connection Thread and Size	PT, NPT, BSPP 1/4", 3/8", 1/2"	
Connect Type	magnetic type	
Measure Device and Material	bourdon tube, AISI 316 ≤ 70kgf/cm ² (bar) C type tube > 70kgf/cm ² (bar) H type tube	
Optional Accessory	flange	
Weight (kg)	0.48	0.65

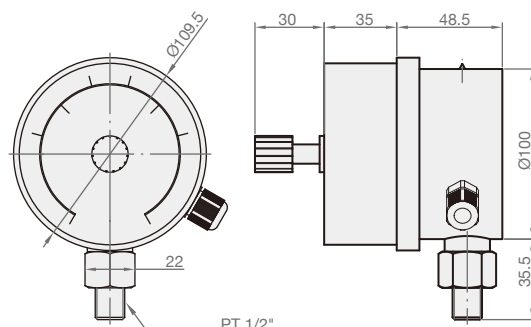
DIMENSION

(UNIT : mm)

► ECG-03-LM



► ECG-04-LM



ECG-CBM



SYMBOLS



ORDER CODES

ECG - 03 - CBM - NO

1

2

3

4

1	Model Name	ECG	
2	Gauge Size	03	75mm
		04	100mm
3	Mounting Type	CBM	rear entry
4	Contact Type	NO	normally open contact
		NC	normally closed contact

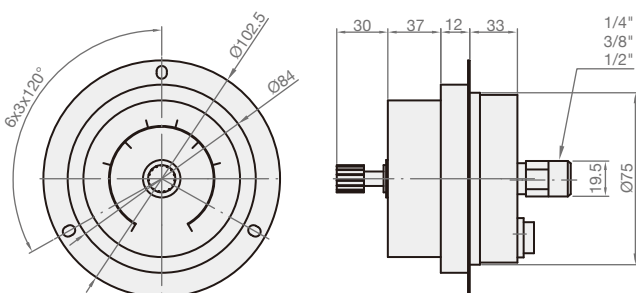
MODEL SPEC.

Model	ECG-03-CBM	ECG-04-CBM
Pressure Range	-1/0 kgf/cm ² (bar) 0/700 kgf/cm ² (bar)	
Accuracy	±1.0% full scale	
Operating Temperature	-25 ~ 60°C	
Connection Thread and Size	PT, NPT, BSPP 1/4", 3/8", 1/2"	
Connect Type	magnetic type	
Measure Device and Material	bourdon tube, AISI 316 ≤ 70kgf/cm ² (bar) C type tube > 70kgf/cm ² (bar) H type tube	
Optional Accessory	flange	
Weight (kg)	0.45	0.73

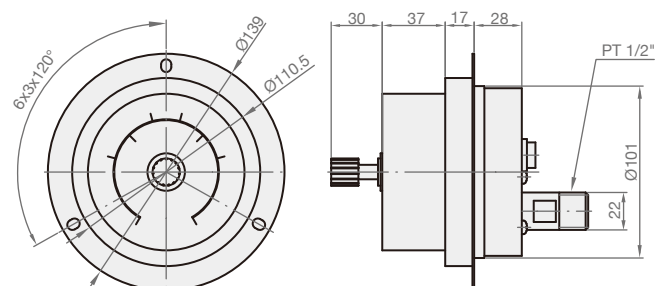
DIMENSION

(UNIT : mm)

► ECG-03-CBM



► ECG-04-CBM



SDPG32-B



Mini USB Port
(with cable USB 2.0)

ORDER CODES

SDPG32 - **B** - **600** - **S**

1 2 3 4

1	Model Name	SDPG-32	
2	Mounting Type	B	bottom entry
3	Pressure Range (PSI)	150, 600, 1500, 3500, 6000	
4	Thread Connection	P	1/4" PT
		N	1/4" NPT
		B	1/4" BSPP
		S	SAE 6

SYMBOLS

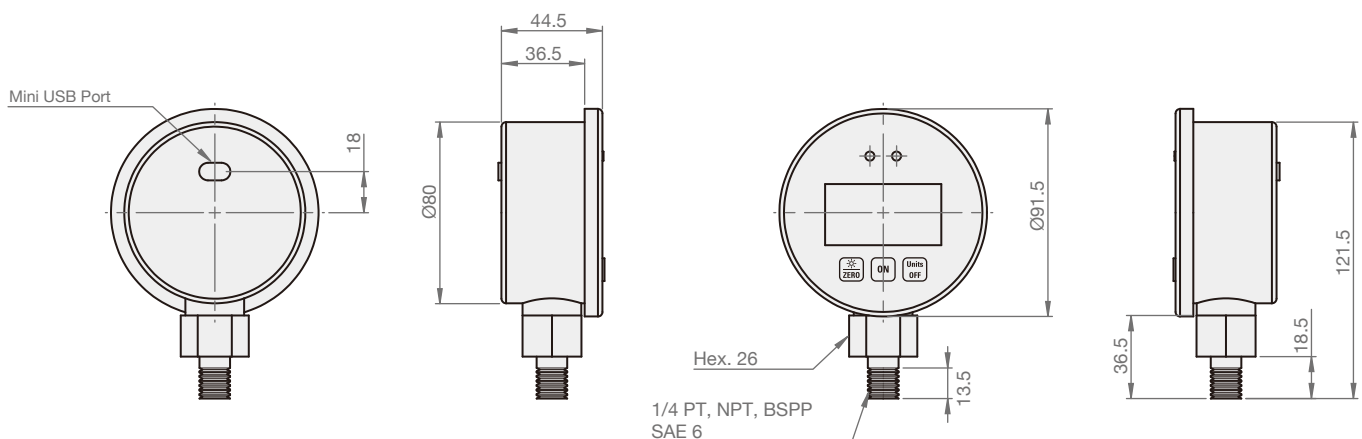


MODEL SPEC.

Model	SDPG32-B
Pressure Range (PSI)	150, 600, 1500, 3500, 6000
Accuracy	±0.2% full scale
Output Type	4 digits LCD
Keypad Operated Functions	peak hold, zero adjustment, memory, curve.
Supply Voltage	4.7V battery
Automatic Shutoff Time	3 minutes
Life Span	84000 hours (700 times x 120 hours)
Operating Temperature	-10 ~ 50°C with temperature compensated
Water Resistant Level	NEMA 4X (IP65)
Options of Pressure Unit	PSI, Bar, Mpa, kg/cm ²
Media Isolation	304L SS diaphragm
Thread Connection	304L SS, 1/4 PT, NPT, BSPP, SAE 6
Chemical Compatibilities	any gas or liquid with chemically compatible to 304L SS
Typical Applications	process control, refrigeration, fuel cells, pumps, hydraulics, pneumatics, compressors, waste water, agriculture
Weight (kg)	0.35

DIMENSION

(UNIT : mm)



SDPG32-R



**Mini USB Port
(with cable USB 2.0)**

ORDER CODES

SDPG32 - **R** - **1500** - **P**

1 2 3 4

1	Model Name	SDPG-32	
2	Mounting Type	R	rear entry
3	Pressure Range (PSI)	150, 600, 1500, 3500, 6000	
4	Thread Connection	P	1/4" PT
		N	1/4" NPT
		B	1/4" BSPP
		S	SAE 6

SYMBOLS

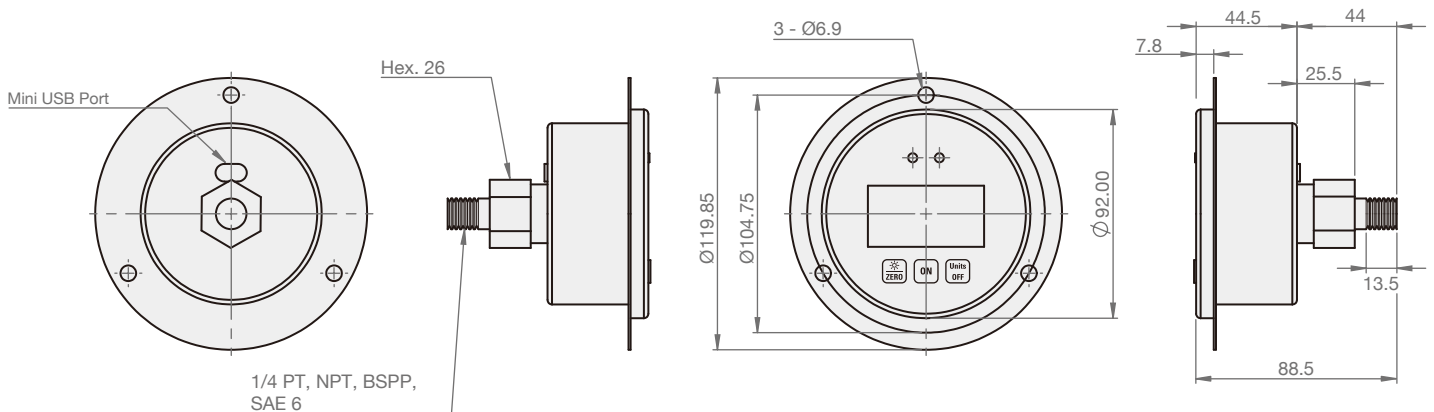


MODEL SPEC.

Model	SDPG32-R
Pressure Range (PSI)	150, 600, 1500, 3500, 6000
Accuracy	±0.2% full scale
Output Type	4 digits LCD
Keypad Operated Functions	peak hold, zero adjustment, memory, curve.
Supply Voltage	4.7V battery
Automatic Shutoff Time	3 minutes
Life Span	84000 hours (700 times x 120 hours)
Operating Temperature	-10 ~ 50°C with temperature compensated
Water Resistant Level	NEMA 4X (IP65)
Options of Pressure Unit	PSI, Bar, Mpa, kg/cm ²
Media Isolation	304L SS diaphragm
Thread Connection	304L SS, 1/4 PT, NPT, BSPP, SAE 6
Chemical Compatibilities	any gas or liquid with chemically compatible to 304L SS
Typical Applications	process control, refrigeration, fuel cells, pumps, hydraulics, pneumatics, compressors, waste water, agriculture
Weight (kg)	0.41

DIMENSION

(UNIT : mm)



DPG



SYMBOLS



ORDER CODES

DPG	-	500	-	A	-	9V
1		2		3		4

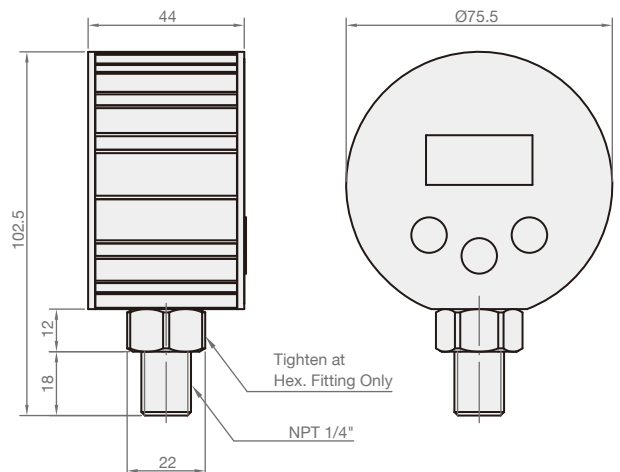
1	Model Name	DPG	
2	Pressure Range (PSI)	5, 15, 50, 75, 100, 200, 300, 500, 750, 1000, 1500, 2000, 3000, 5000	
3	Thread Connection	A	22mm 1/4 - 18NPT
		B	22mm 1/8 - 27NPT
4	Battery	9V	9V battery operated

MODEL SPEC.

Model	DPG
Pressure Range (PSI)	5, 15, 50, 75, 100, 200, 300, 500, 750, 1000, 1500, 2000, 3000, 5000
Accuracy	±0.25% full scale
Output Type	4 digits LCD
Keypad Operated Functions	peak hold, zero adjustment, high and low pressure set points. Note: ft of head option is available
Supply Voltage	9V battery
Automatic Shutoff Time	5 minutes
Operating Temperature	-10 ~ 60°C
Water Resistant Level	NEMA 4X (IP65)
Options of Pressure Unit	PSI, Bar, Mpa
Media Isolation	316L SS diaphragm
Thread Connection	304L SS port 22mm 1/4 - 18 NPT or 22mm 1/8 - 27 NPT
Chemical Compatibilities	any gas or liquid with chemically compatible to 304L SS and 316L SS
Typical Applications	process control, refrigeration, fuel cells, pumps, hydraulics, pneumatics, compressors, waste water, agriculture
Weight (kg)	0.35

DIMENSION

(UNIT : mm)



PLM



SYMBOLS



ORDER CODES

PLM - **63** - **A**

1

2

3

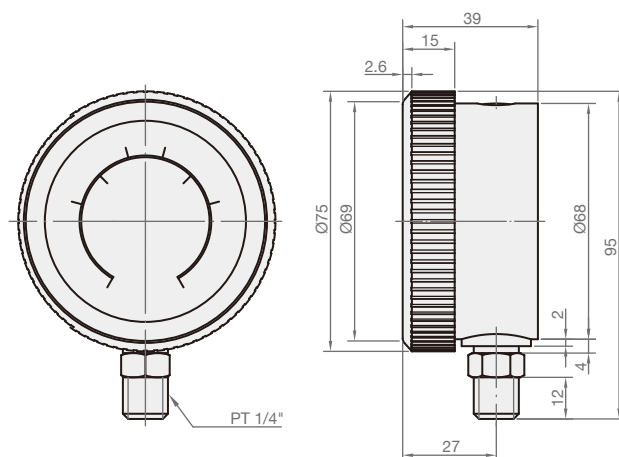
1	Model Name	PLM	
2	Gauge Size	63	75mm
3	Mounting Type	A	design code

MODEL SPEC.

Model	PLM
Normal Size	63mm (2.5")
Accuracy	1.5% ~ 1.0%
Range	-1 / 0 to -1 / +20 kgf/cm ² (bar) 0 / 1 to 0 / 1000 kgf/cm ² (bar)
Operating Temperature	-25 ~ 60°C
Connection Thread and Size	PT, NPT, BSPP 1/4", 3/8", 1/2"
Housing	stainless steel AISI 304
Filling	glycerin (99.5%)
Weight (kg)	0.25

DIMENSION

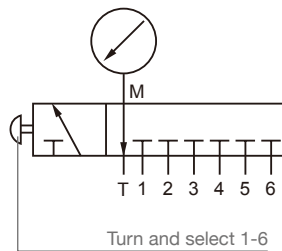
(UNIT : mm)



JSVM-6-G

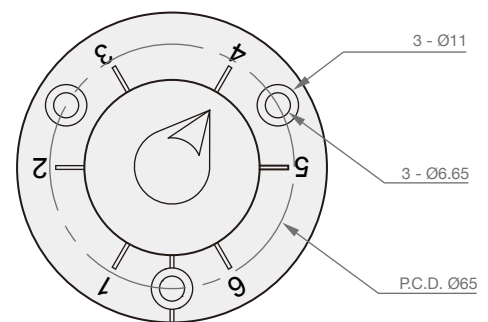


SYMBOLS



DIMENSION

(UNIT : mm)



FEATURES

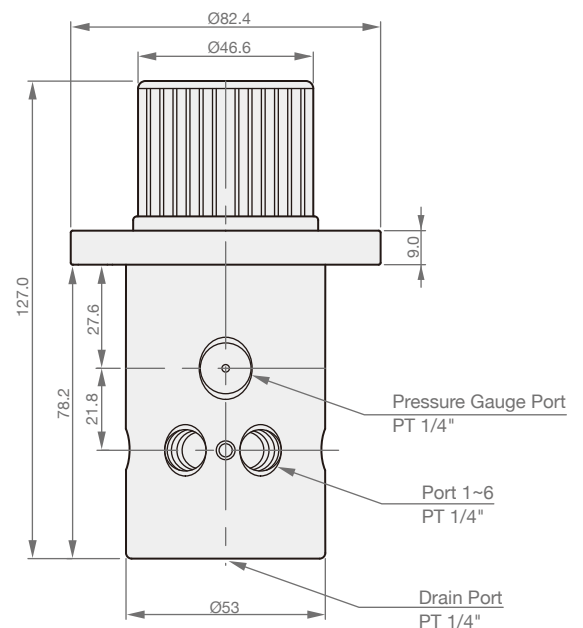
Through switching the pressure selector, you can notice six different pressure values by connecting one gauge on it. The advantages of this particular product are space saving, easy installation, and decent outlook for circuit design.

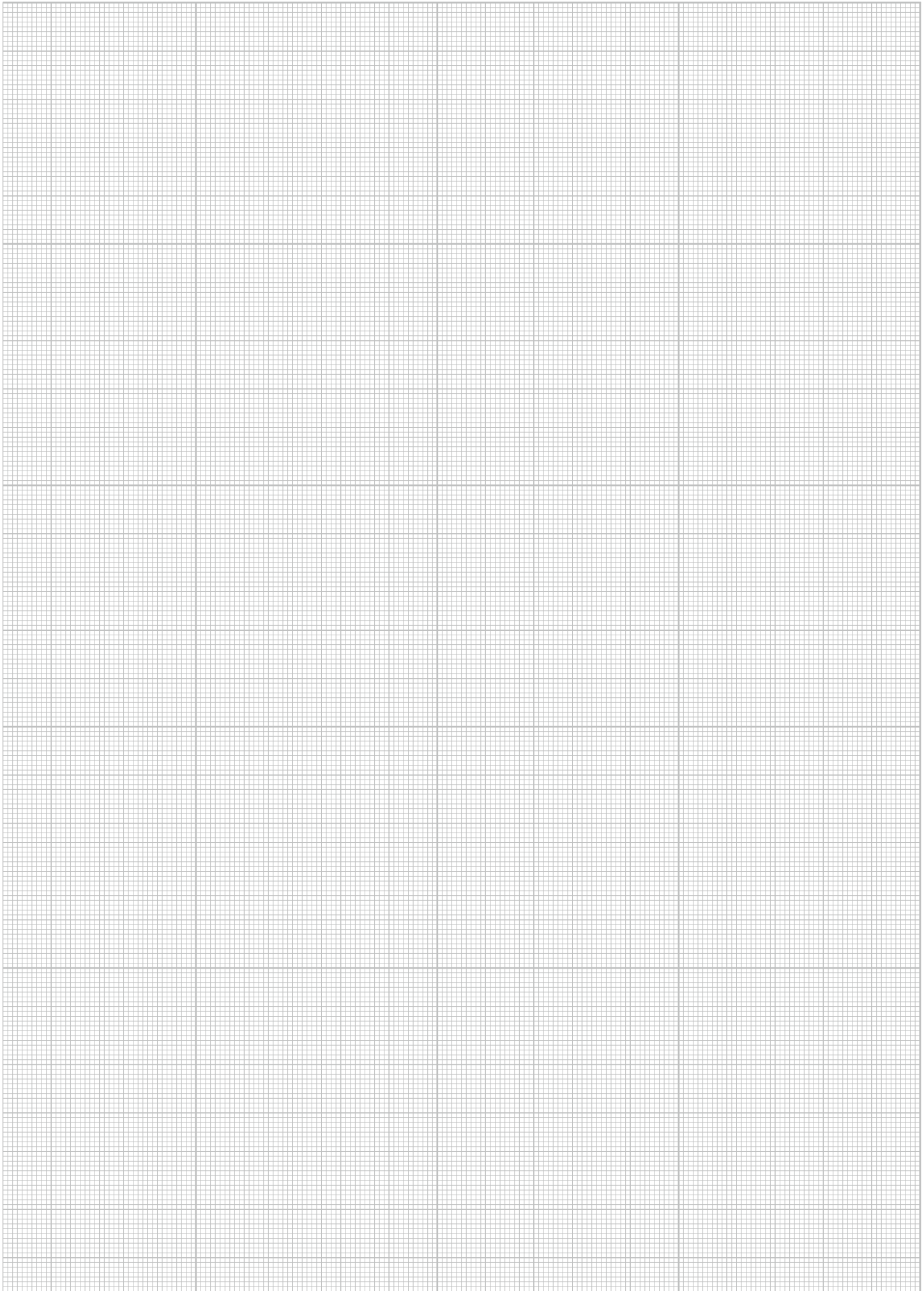
Both lids and turning part are made of aluminum alloy, and the main body is made of casting iron.

Max. operating pressure : 400 bar (407 kgf/cm²)

Temperature tolerance : -30 ~ 100°C

Weight : 1.50kg





LA

SYMBOLS



MODEL SPEC.

Model	Weight (kg)	Operating Temperature
LA-2"	0.12	80°C (176°F)
LA-3"	0.14	
LA-4"	0.14	
LA-5"	0.15	
LA-200	0.26	
LA-300	0.30	
LA-400	0.36	
LA-500	0.40	

LA-3", 4", 5"



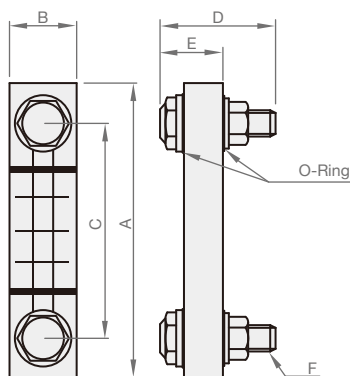
LA-200, 300, 400, 500



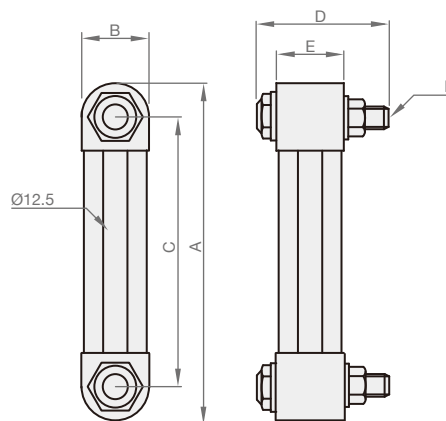
DIMENSION

(UNIT : mm)

► LA-3", 4", 5"



► LA-200, 300, 400, 500



Model	A	B	C	D	E	F
LA-2"	84	25	50	43	25	M10 P1.5
LA-3"	106	25	76	43	25	M10 P1.5
LA-4"	132	25	101.6	43	25	M10 P1.5
LA-5"	157	25	127	43	25	M10 P1.5
LA-200	225	25	200	53.5	25	M12 P1.75
LA-300	325	26	300	53.5	26	M12 P1.75
LA-400	425	26	400	53.5	26	M12 P1.75
LA-500	525	26	500	53.5	26	M12 P1.75

LG

SYMBOLS



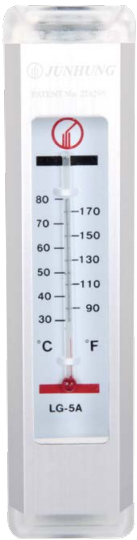
MODEL SPEC.

Model	Weight (kg)	Operating Temperature
LG-3A	0.10	80°C (176°F)
LG-5A	0.13	

LG-3A

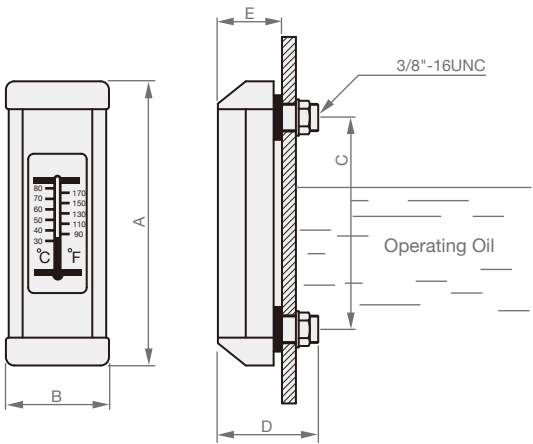


LG-5A



DIMENSION

(UNIT : mm)



Model	A	B	C	D	E
LG-3A	102	37	76	39	20
LG-5A	153	37	127	39	20

LH



SYMBOLS

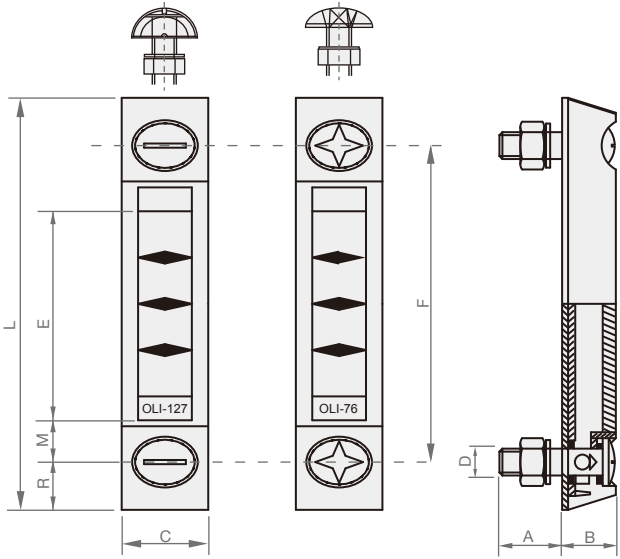


MODEL SPEC.

Model	Pitch (mm)		Tightening Torsion (Nm)	Weight (kg)	Operating Temperature
LH-76	76	+0.5 -0	8	0.075	120°C (248°F)
LH-127	127	+0.5 -0	8	0.132	

DIMENSION

(UNIT : mm)



Model	D	A	B	C	E	F	L	M	R
LH-76	M10	23	16	28	40	76	107	18	15.5
LH-127	M12	23	18	31.5	78	128	163	25	18

LS



SYMBOLS

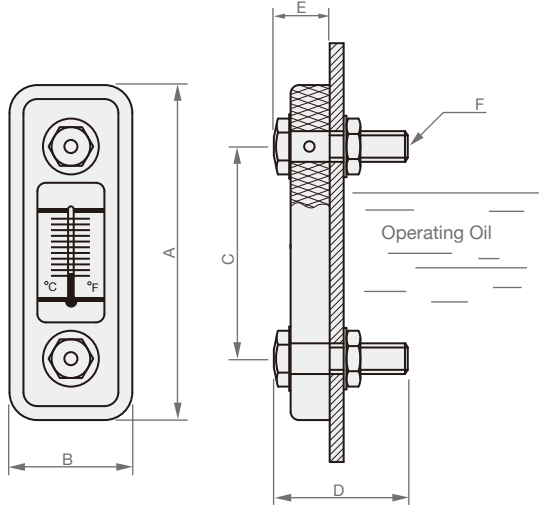


MODEL SPEC.

Model	Weight (kg)	Operating Temperature
LS-3R	0.2	80°C (176°F)
LS-3RL	0.2	
LS-5R	0.32	

DIMENSION

(UNIT : mm)



Model	A	B	C	D	E	F
LS-3R	120	44	76	49	20	M10 P1.5
LS-3RL	120	44	79	49	20	M10 P1.5
LS-5R	175	48	127	45	21	M12 P1.75

HEX-GAS, OS, HEX-M

SYMBOLS



MODEL SPEC.

► HEX-GAS

Model	Weight (g)
HEX-GAS 3/4	8

The integrative shaping body is made from polyamide. It is solvent and oil resistant with threads design. The max. temperature tolerance is 105°C. For installation, we recommend that use 10~1.5 Nm to tighten. Material of seal is N.B.R. rubber. 3/4 GAS thread.



HEX-GAS

► OS

Model	Weight (g)
OS26	4.1
OS30	7

The integrative shaping body is made from polyamide. It is solvent and oil resistant with none threads design. Please put it into the hole till the neck part of oil level. This type of product is only suitable for low pressure power units. The max. temperature tolerance is 105°C.



OS

► HEX-M

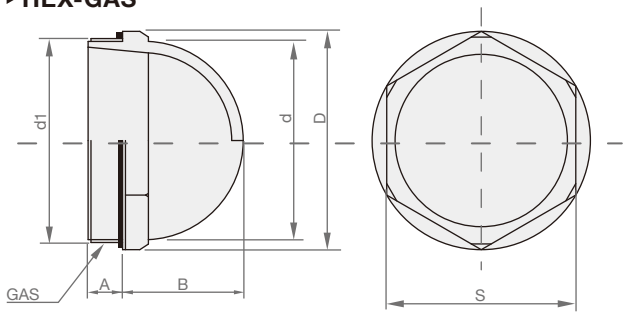
Model	Weight (g)
HEX-M30	8
HEX-M40	19

The integrative shaping body is made from polyamide. It is solvent and oil resistant with threads design. The max. temperature tolerance is 105°C. For installation, we recommend that use 1.5~1.85 kgf/cm² to tighten it.



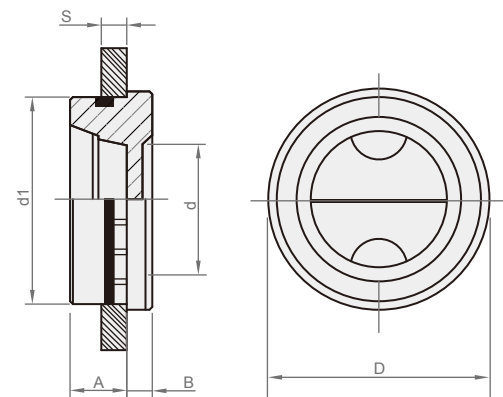
HEX-M

► HEX-GAS



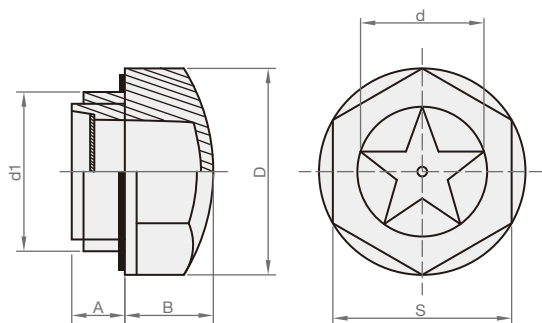
Model	d1	A	B	D	S	d
HEX-GAS 3/4	3/4 GAS	10	20	31.5	25.5	27

► OS



Model	d1	A	B	D	S	d
OS26	Ø26 +0.1 -0	7.5	3.5	28	6.5	18
OS30	Ø30 +0.1 -0	8.5	4	33	7.5	24

► HEX-M



Model	d1	A	B	D	S	d
HEX-M30	M30 P1.5	9	10	35	30	24.5
HEX-M40	M40 P1.5	11.5	13	47.5	41	31.5

FB



FB-18B



FB-18



FB-06S

SYMBOLS



MODEL SPEC.

Model	Fix Mode	Materials of Filters	Weight (kg)
FB-06S	3/6" x 1/2" x Ø46 x 3 holes	stainless steel	0.10
FB-10	3/6" x 1/2" x Ø72 x 6 holes	electroplated steel	0.36
FB-12	3/6" x 1/2" x Ø72 x 6 holes	plastics	0.24
FB-12S	3/6" x 1/2" x Ø72 x 6 holes	stainless steel	0.22
FB-18	solder	stainless steel	0.48
FB-18B	solder	stainless steel	0.54



FB-12S



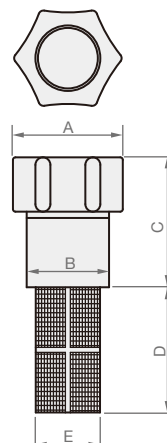
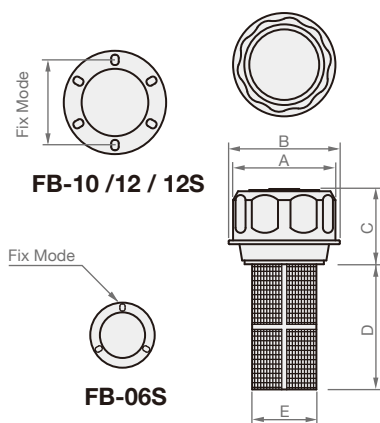
FB-12



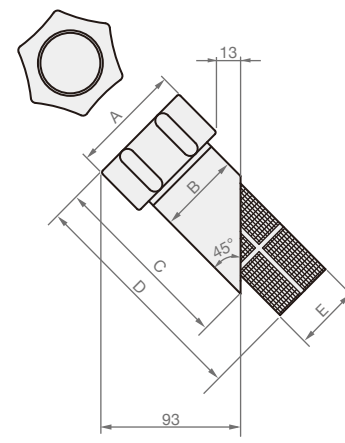
FB-10

DIMENSION

(UNIT : mm)



FB-18



FB-18B

Model	A	B	C	D	E
FB-06S	53	51	38	72	31
FB-10	80	88	55	135	49
FB-12	80	88	55	75	49
FB-12S	80	88	55	75	49
FB-18	85	60	80	75	49
FB-18B	85	60	120	140	49

PFB

SYMBOLS



PFB-10



PFB-12



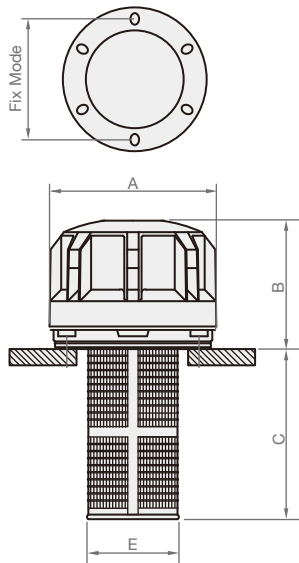
PFB-12S

MODEL SPEC.

Model	Fix Mode	Materials of Filters	Weight (kg)
PFB-10	3/6" x 1/2" x Ø72 x 3 holes	electroplated steel	0.28
PFB-12	3/6" x 1/2" x Ø72 x 6 holes	plastics	0.20
PFB-12S	3/6" x 1/2" x Ø72 x 6 holes	stainless steel	0.20

DIMENSION

(UNIT : mm)



Model	A	B	C	E
PFB-10	91	64	140	49
PFB-12	91	64	80	49
PFB-12S	91	64	80	49

ST, SV



ST series



SV series



SV-02-H

SYMBOLS



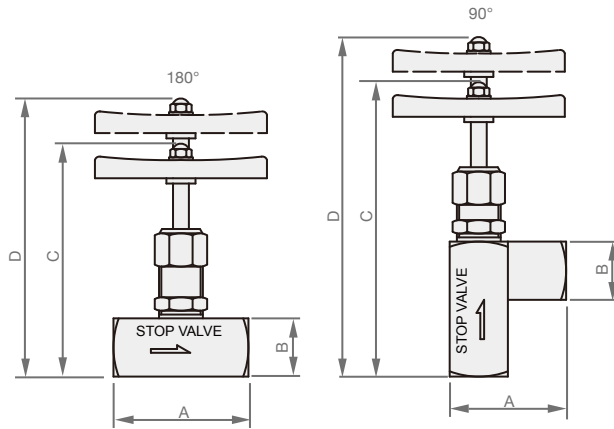
MODEL SPEC.

Model	Thread Connection (PT)	Max. Operating Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
ST-02-180°	1/4"	210	2	0.32
ST-03-180°	3/8"		21	0.30
ST-02-90°	1/4"		2	0.32
ST-03-90°	3/8"		21	0.30

Model	Thread Connection (PT)	Max. Operating Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
SV-02-180°	1/4"	350	2	0.29
SV-03-180°	3/8"		21	0.27
SV-02-90°	1/4"		2	0.32
SV-03-90°	3/8"		21	0.30
SV-04-180°	1/2"		30	0.72
SV-06-180°	3/4"		100	1.28
SV-08-180°	1"		300	2.22

Model	Thread Connection (PT)	Max. Operating Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
SV-02-H-90°	1/4"	350	2	0.48

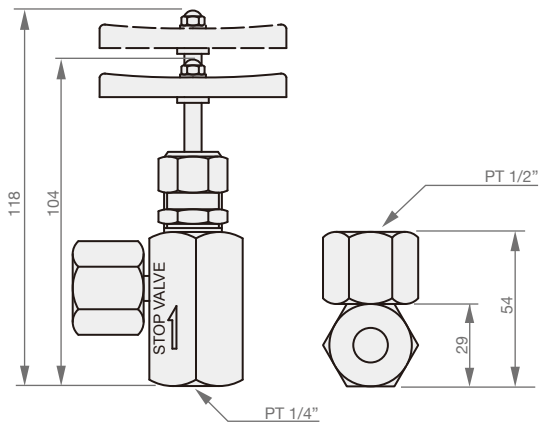
► **ST, SV**



Model	A	B	C	D
ST-02-180°	51	22	88	94
ST-03-180°	51	22	88	94
ST-02-90°	37	22	95	105
ST-03-90°	37	22	95	105

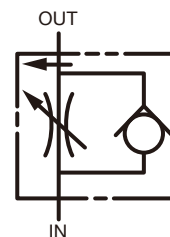
Model	A	B	C	D
SV-02-180°	51	22	87	100
SV-03-180°	51	22	87	100
SV-02-90°	37	22	99	116
SV-03-90°	37	22	99	116
SV-04-180°	65	32	110	118
SV-06-180°	84	38	149	167
SV-08-180°	102	51	149	167

► **SV-02-H-90**



TLC-P

SYMBOLS



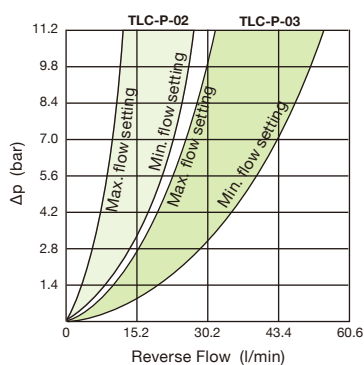
TLC-P : with pressure compensated

MODEL SPEC.

Model	Thread Connection (PT)	Max. Flow (l/min)	Min. Flow (l/min)	Reverse Flow Max. Thru Check (l/min)	Operating Pressure (kgf/cm ²)	Weight (kg)
TLC-P-02	1/4"	11	1	19	3.06	0.8
TLC-P-03	3/8"	23	2	39	3.06	1.0

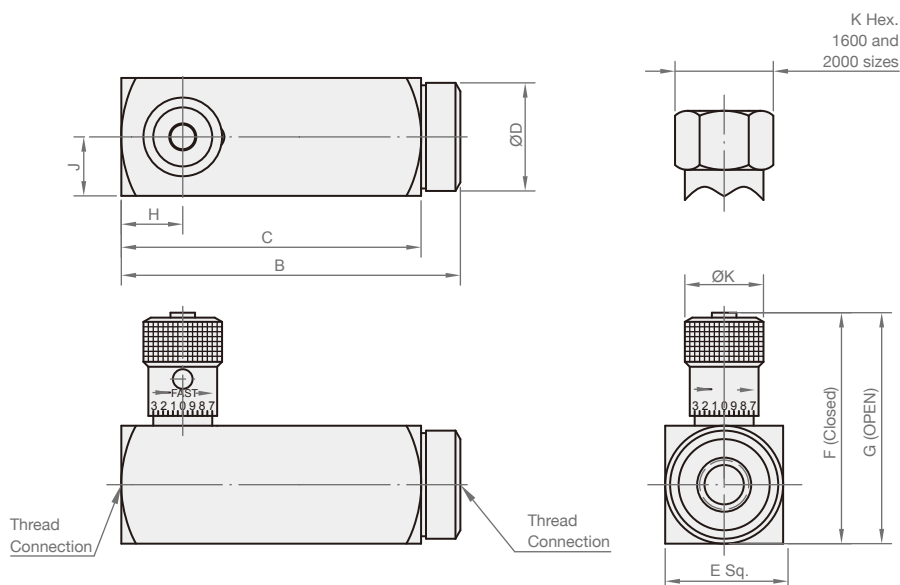
Max. operating pressure : 211.03 kgf/cm²Min. pressure to compensate : 7.03 kgf/cm² (6.9bar)

PERFORMANCE CURVES



DIMENSION

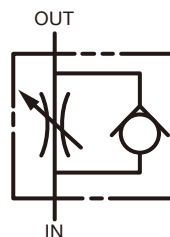
(UNIT : mm)



Model	B	C	D	E	F	G	H	J	K
TLC-P-02	92.2	81.0	28.7	35.1	64.0	69.3	16.8	17.5	20.6
TLC-P-03	105.7	93.0	31.8	38.1	73.7	80.0	17.5	19.1	25.4

TLC-M

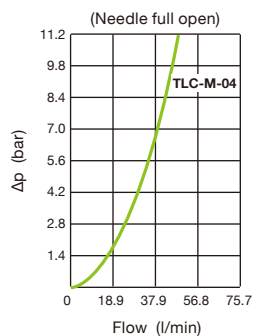
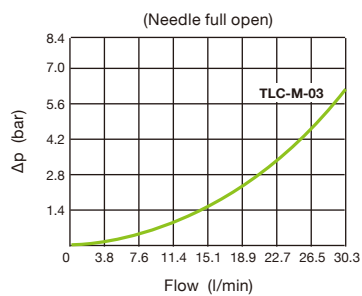
SYMBOLS



MODEL SPEC.

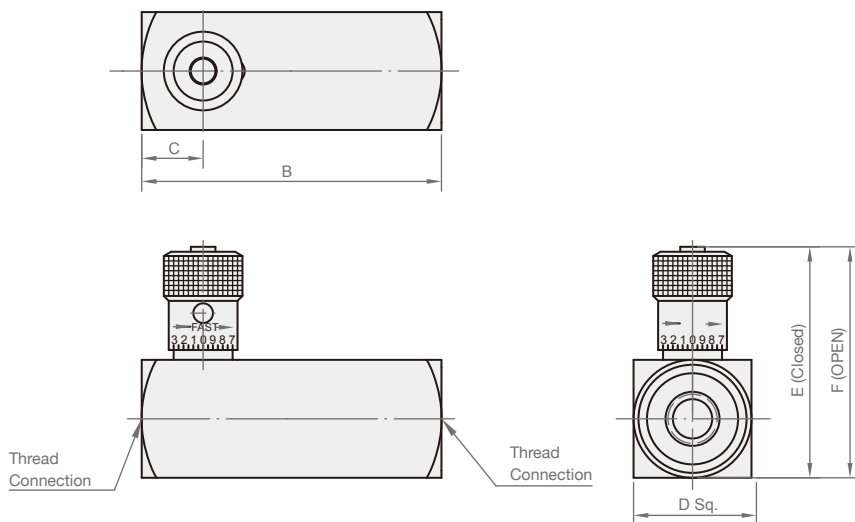
Model	Thread Connection (PT)	Max. Operating Pressure (kgf/cm ²)	Weight (kg)
TLC-M-03	3/8"	211	0.36
TLC-M-04	1/2"	211	0.63

PERFORMANCE CURVES



DIMENSION

(UNIT : mm)



Model	B	C	D	E	F
TLC-M-02	70.1	25.4	25.4	62.3	69.3
TLC-M-03	87.63	29.78	31.7	67.3	72.3

TL, TLC, TLCZ



TL series

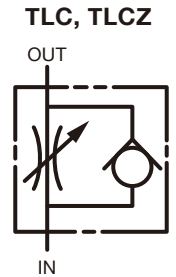
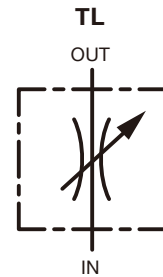


TLC series



TLCZ series

SYMBOLS



MODEL SPEC.

Model	Operating Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
TL-02	250	12	0.24
TL-03	250	20	0.30
TL-04	250	30	0.49
TL-06	250	48	0.60

Model	Operating Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
TLC-02	250	12	0.24
TLC-03	250	20	0.30
TLC-04	250	30	0.49
TLC-06	250	48	0.60

Model	Operating Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
TLCZ-02	250	12	0.24
TLCZ-03	250	20	0.30
TLCZ-04	250	30	0.49
TLCZ-06	250	48	0.60

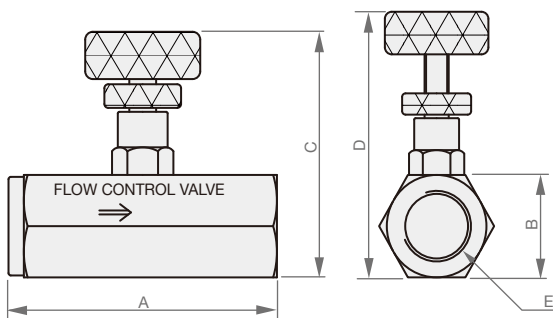
Max. Operating Pressure : 250 kgf/cm²

Max. Operating Temperature : 80°C

DIMENSION

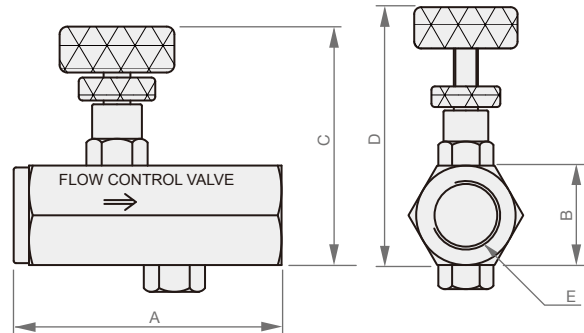
(UNIT : mm)

► TL



Model	A	B	C	D	E
TL-02	62	23	55	60	PT 1/4"
TL-03	70	26	60	66	PT 3/8"
TL-04	81	32	67	75	PT 1/2"
TL-06	92	41	80	88	PT 3/4"

► TLC, TLCZ



Model	A	B	C	D	E
TLC, TLCZ-02	62	23	55	60	PT 1/4"
TLC, TLCZ-03	70	26	60	66	PT 3/8"
TLC, TLCZ-04	81	32	67	75	PT 1/2"
TLC, TLCZ-06	92	41	80	88	PT 3/4"

CV, CIT



SYMBOLS

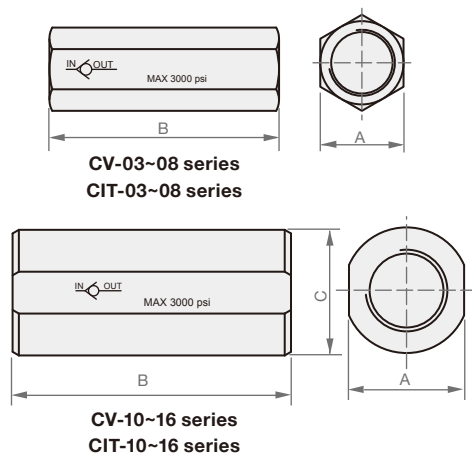


MODEL SPEC.

Model	Thread Connection	Operating Pressure (kgf/cm ²)	Cracking Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
CV-03	PT 3/8"	210 kgf/cm ² (3000 PSI)	05 : 0.5 50 : 5.0	40	0.18
CV-04	PT 1/2"			60	0.32
CV-06	PT 3/4"			100	0.48
CV-08	PT 1"			150	1.10
CV-10	PT 1 1/4"			200	1.88
CV-12	PT 1 1/2"			270	2.18
CV-16	PT 2"			400	3.90
CIT-03	PT 3/8" NPT. SAE	350 kgf/cm ² (5000 PSI)	05 : 0.5 50 : 5.0	40	0.32
CIT-04	PT 1/2" NPT.SAE			60	0.56
CIT-06	PT 3/4" NPT.SAE			100	0.81
CIT-08	PT 1" NPT.SAE			150	1.84
CIT-10	PT 1 1/4" NPT.SAE			200	2.40
CIT-12	PT 1 1/2" NPT.SAE			270	2.70
CIT-16	PT 2" NPT.SAE			400	4.80

DIMENSION

(UNIT : mm)



Model	A	B	C	Model	A	B	C
CV-03	23	74	-	CIT-03	27	76	-
CV-04	29	80	-	CIT-04	35	82	-
CV-06	35	90	-	CIT-06	41	96	-
CV-08	46	113	-	CIT-08	55	114	-
CV-10	55	133	60	CIT-10	60	133	65
CV-12	60	139	65	CIT-12	65	140	70
CV-16	75	154	80	CIT-16	85	154	88.9

CV-A, CV-B

SYMBOLS



CV-A



CV-B

MODEL SPEC.

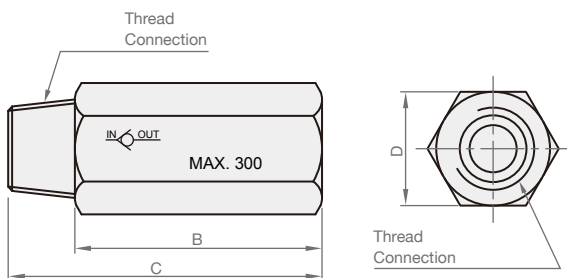
Model	Thread Connection (PT)	Operating Pressure (kgf/cm ²)	Cracking Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
CV-03A	3/8"	210 kgf/cm ² (3000 PSI)	05 : 0.5 50 : 5.0	40	0.22
CV-04A	1/2"			60	0.34

Model	Thread Connection (PT)	Operating Pressure (kgf/cm ²)	Cracking Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
CV-03B	3/8"	210 kgf/cm ² (3000 PSI)	05 : 0.5 50 : 5.0	40	0.36
CV-04B	1/2"			60	0.62
CV-06B	3/4"			100	1.00
CV-08B	1"			150	2.20

DIMENSION

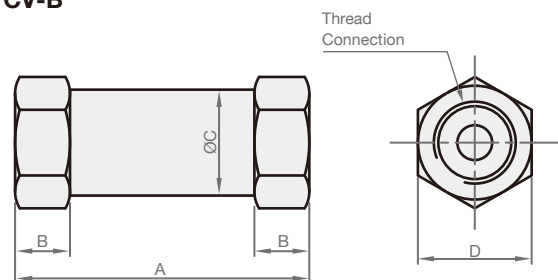
(UNIT : mm)

► CV-A



Model	B	C	D
CV-03A	58.5	74	23
CV-04A	63	80	29

► CV-B



Model	A	B	C	D
CV-03B	75	14	30	32
CV-04B	104	25	34	35
CV-06B	120	27	40	41
CV-08B	139	32	56	57

CF



SYMBOLS



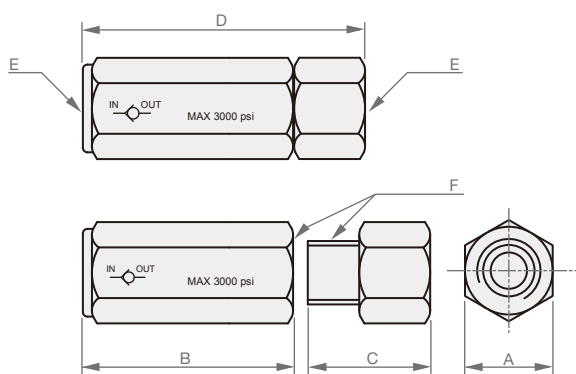
MODEL SPEC.

Model	Thread Connection (PT)	Operating Pressure (kgf/cm ²)	Cracking Pressure (kgf/cm ²)	Flow (l/min)	Weight (kg)
CF-03	3/8"	210 kgf/cm ² (3000 PSI)	05 : 0.5 50 : 5.0	40	0.22
CF-04	1/2"			60	0.34
CF-06	3/4"			100	0.58
CF-08	1"			150	1.26

* If you prefer the check valves without the crescent rings, please choose this type.

DIMENSION

(UNIT : mm)



Model	A	B	C	D	E	F
CF-03	23	64	33	83.5	PT 3/8"	BSPP 3/8"
CF-04	29	69.5	36	90.5	PT 1/2"	BSPP 1/2"
CF-06	35	80	40	100	PT 3/4"	BSPP 3/4"
CF-08	46	100	48.5	129	PT 1"	BSPP 1"

AF



AF (Regular)



AF (Nylon & Fiber)

SYMBOLS



MODEL SPEC.

Model	Thread Connection (PT)	Flow (l/min)	Weight (kg)
AF-06	3/4"	0.35	0.28
AF-08	1"	0.45	0.32
AF-12	1 1/2"	1.7	0.66
AF-16	2"	2.1	0.68
AF-20	2 1/2"	3.5	1.62
AF-24 *	3"	4.6	1.66
AF-32 *	4"	7.1	2.38

Air breathers AF series could equalize the pressures inside and outside of oil tank. To keep the hydraulic oil pressure system functional as usual.

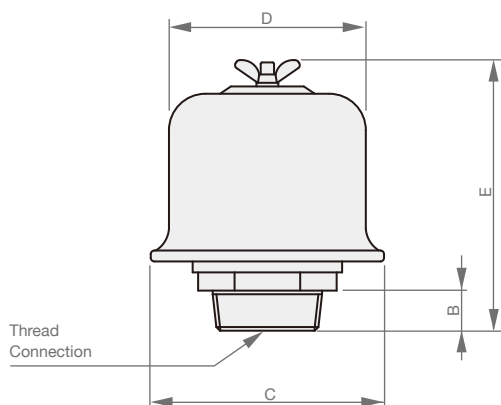
The 40-micron-filtration-precision element can block the dirt to get into the oil tank. It can maintain the cleanness of operating oil in the tank.



* Nylon & Fiber optional

DIMENSION

(UNIT : mm)



Model	B	C	D	E
AF-06	19	100	80	112
AF-08	19	100	80	112
AF-12	26	128	111	161
AF-16	26	128	111	161
AF-20	30	193	172	195
AF-24	30	193	172	195
AF-32	36	221	196	228

FB



SYMBOLS

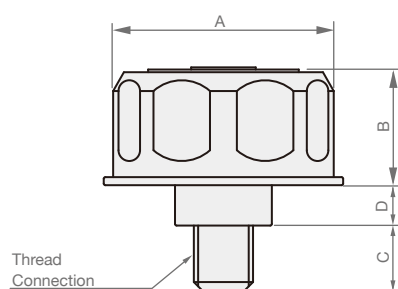


MODEL SPEC.

Model	Thread Connection (PT)	Flow (l/min)	Weight (kg)
FB-06-02	1/4"	0.1	0.08
FB-06-03	3/8"	0.1	0.08
FB-06-04	1/2"	0.1	0.12
FB-12-04	1/2"	0.4	0.18
FB-12-06	3/4"	0.4	0.24
FB-12-08	1"	0.4	0.30

DIMENSION

(UNIT : mm)



Model	A	B	C	D
FB-06-02	53	28	18	13
FB-06-03	53	28	22	13
FB-06-04	53	28	27	13
FB-12-04	80	38	27	13
FB-12-06	80	38	32	15
FB-12-08	80	38	38	30

TEC

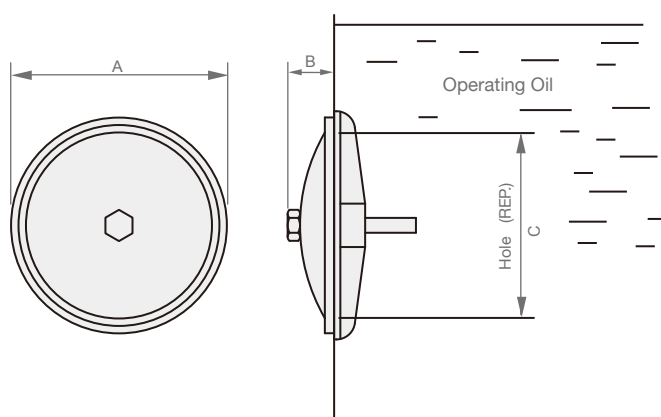


MODEL SPEC.

Model	Min. Thickness of Tank Side Plate (mm)	Max. Tightening Torque	Weight (kg)
TEC-08	4	-	2.64
TEC-10	4	2.7 ~ 4.2kg - m/20 ~ 30ft -1b	3.22
TEC-12	4	2.7 ~ 4.2kg - m/20 ~ 30ft -1b	4.46
TEC-14	5	2.7 ~ 4.2kg - m/20 ~ 30ft -1b	5.68
TEC-18	6	2.7 ~ 3.5kg - m/20 ~ 25ft - 1b	9.66

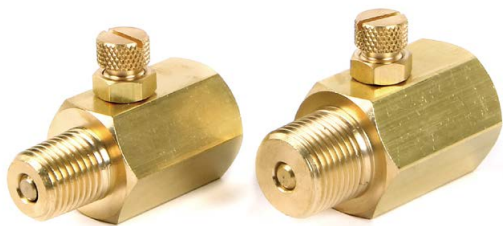
DIMENSION

(UNIT : mm)



Model	A	B	C
TEC-08	210	50	150
TEC-10	260	59	200
TEC-12	315	60	265
TEC-14	360	70	310
TEC-18	475	75	425

NU



SYMBOLS



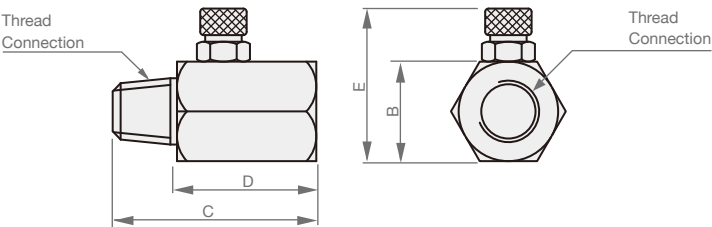
MODEL SPEC.

Model	Thread Connection (PT)	Flow (l/min)	Weight (kg)
NU-02	1/4"	0.5	0.10
NU-03	3/8"	1	0.12
NU-04	1/2"	2	0.19

Gauge Damper NU series are used on connecting oil pressure system and pressure gauges.
When the pumps are turned on, gauge dampers can reduce the pulse in a sudden and prolong the lifespan of pressure gauges.
Please pay attention to the highness of the adjusting knob to avoid leakages during the flow adjusting process.

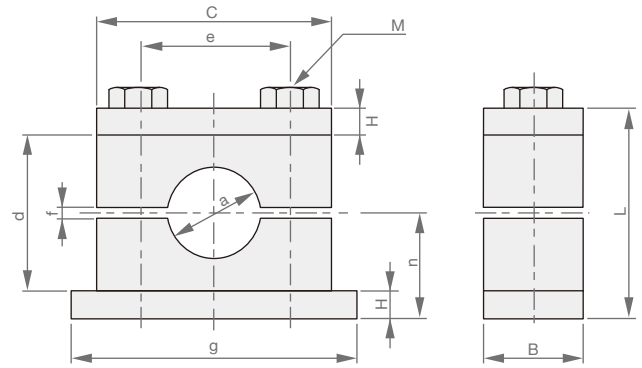
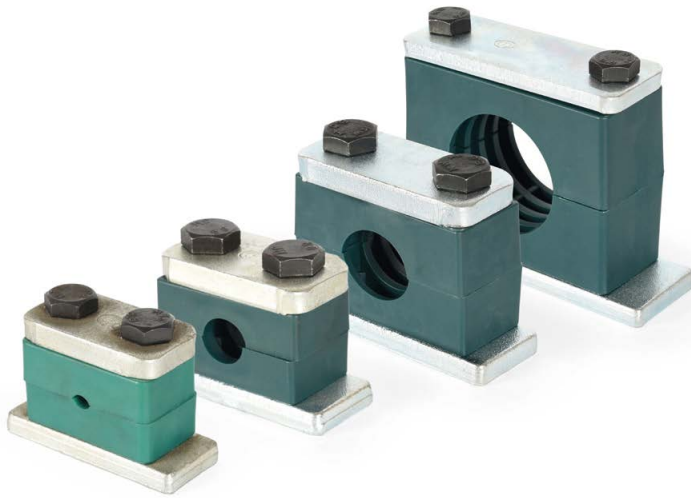
DIMENSION

(UNIT : mm)



Model	B	C	D	E
NU-02	21	43	29	35
NU-03	23	45	31	34
NU-04	27	53	35	38

PPH

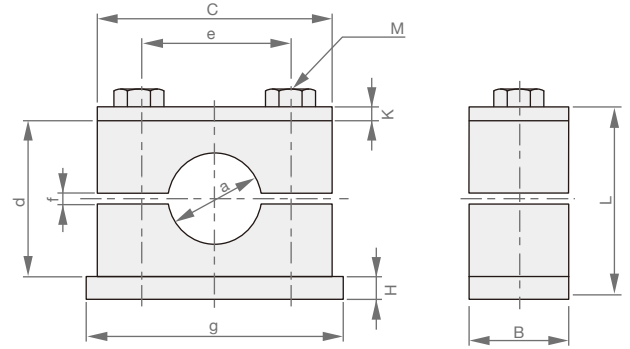


DIMENSION

(UNIT : mm)

Model	Size (inch)	Øa (mm)	Meter (mm)	B	C	d	e	f	g	H	L	n	M
PPH-06A	1/8"	10.5	8, 10, 12 12.7, 15, 16	30	55	32	33	2	73	8	48	24	M10 x L45
PPH-08A	1/4"	13.8											
PPH-10A	3/8"	17.2											
PPH-15A	1/2"	21.3	19, 20, 25	30	70	48	45	2	85	8	64	32	M10 x L60
PPH-20A	3/4"	26.7											
PPH-25A	1"	33.4	30, 32, 38	30	85	60	60	2	100	8	76	38	M10 x L70
PPH-32A	1 1/4"	42.2											
PPH-40A	1 1/2"	48.3	-	45	115	90	90	3	150	10	110	55	M12 x 100L
PPH-50A	2"	60.3											
PPH-65A	2 1/2"	76.1	-	60	152	114.5	122	3	180	10	140	70	M16 x L130
PPH-80A	3"	88.9											
PPH-90A	3 1/2"	102	-	80	205	174	168	3	225	15	200	100	M20 x L190
PPH-100A	4"	114.3											
PPH-125A	5"	141.3	-	80	245	200	205	4	270	15	230	115	M20 x L220
PPH-150A	6"	168.3											
PPH-200A	8"	219.1	-	120	320	270	265	4	340	25	320	160	M30 x L300

PPL

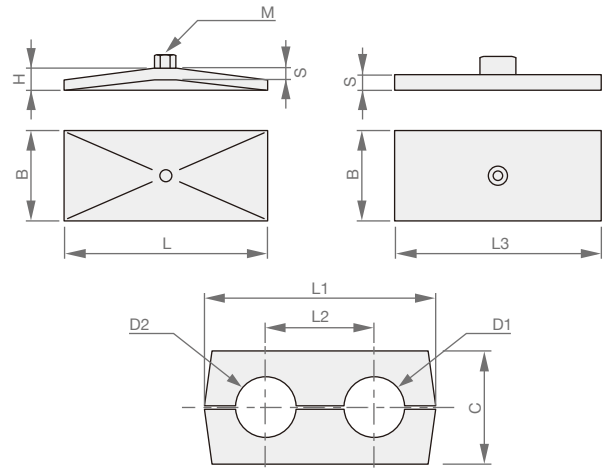


DIMENSION

(UNIT : mm)

Model	Øa (mm)	B	C	d	e	f	g	H	K	L	M
PPL-06	6	30	37	26	20	0.6	37	3	3	32	M6 x L30
PPL-6.4	6.4										
PPL-08	8										
PPL-9.5	9.5										
PPL-10	10										
PPL-12	12	30	42	32	26	0.6	50	4.5	3	38	M6 x L35
PPL-12.7	12.7										
PPL-13.5	13.5										
PPL-15	15										
PPL-16	16										
PPL-17.2	17.2	30	50	35.5	33	0.6	53	4.5	3	41.5	M6 x L40
PPL-18	18										
PPL-20	20										
PPL-21.3	21.3										
PPL-22	22										
PPL-25	25	30	59	41.5	40	0.6	59	4.5	3	49	M6 x L45
PPL-25.4	25.4										
PPL-26.9	26.9										
PPL-28	28										
PPL-30	30										
PPL-32	32	30	71	56.5	52	0.6	71	4.5	3	64	M6 x L60
PPL-33.7	33.7										
PPL-35	35										
PPL-38	38										
PPL-42	42										

PPL-T

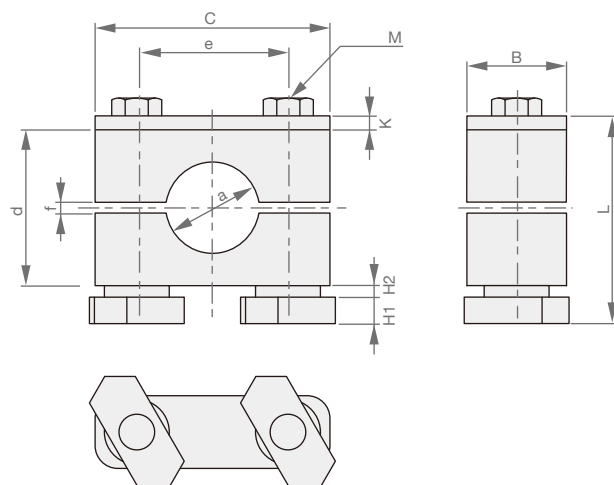


DIMENSION

(UNIT : mm)

Model	ØD1 (mm)	ØD2 (mm)	L1	L2	C	L	L3	B	H	S	M
PPL-T06	6	6	36	20	26	34	37	30	7	4	M6 x L35
PPL-T08	8	8									
PPL-T9.5	9.5	9.5									
PPL-T10	10	10									
PPL-T12	12	12									
PPL-T12.7	12.7	12.7	53	29	26	52	55	30	7	4	M8 x L35
PPL-T13.5	13.5	13.5									
PPL-T14	14	14									
PPL-T15	15	15									
PPL-T16	16	16									
PPL-T18	18	18	67	36	37	65	70	30	7	4	M8 x L45
PPL-T19	19	19									
PPL-T20	20	20									
PPL-T21.3	21.3	21.3									
PPL-T22	22	22									
PPL-T25	25	25	80	45	38	78	85	30	7	4	M8 x L50
PPL-T26.9	26.9	26.9									
PPL-T28	28	28									
PPL-T30	30	30									
PPL-T32	32	32									
PPL-T35	35	35	106	56	52	102	110	30	7	4	M8 x L60
PPL-T38	38	38									
PPL-T42	42	42									

PPR



DIMENSION

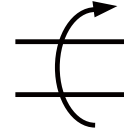
(UNIT : mm)

Model	Øa (mm)	B	C	d	e	f	H1	H2	K	L	M
PPR-06	6	30	37	26	20	0.6	5.5	2.3	3	39.8	M6 x L30
PPR-6.4	6.4										
PPR-08	8										
PPR-9.5	9.5										
PPR-10	10										
PPR-12	12	30	42	32	26	0.6	5.5	2.3	3	45.8	M6 x L35
PPR-12.7	12.7										
PPR-13.5	13.5										
PPR-15	15										
PPR-16	16										
PPR-17.2	17.2	30	50	35.5	33	0.6	5.5	2.3	3	49.3	M6 x L40
PPR-18	18										
PPR-20	20										
PPR-21.3	21.3										
PPR-22	22										
PPR-25	25	30	59	41.5	40	0.6	5.5	2.3	3	56.8	M6 x L45
PPR-25.4	25.4										
PPR-26.9	26.9										
PPR-28	28										
PPR-30	30										
PPR-32	32	30	71	56.5	52	0.6	5.5	2.3	3	71.8	M6 x L60
PPR-33.7	33.7										
PPR-35	35										
PPR-38	38										
PPR-42	42										

NM



SYMBOLS

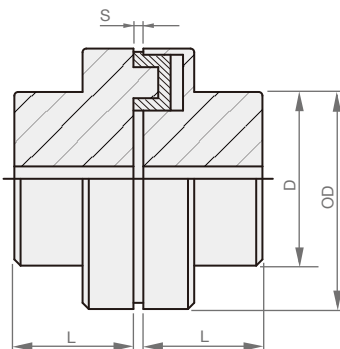


MODEL SPEC.

Model	Torque kg-m		Max. Speed (r.p.m.)	Bore DIA		Weight (kg)
	Normal	Max.		Min.	Max.	
NM50	1.3	2.3	13,500	7	19	0.48
NM67	2.2	4	10,000	9	28	1.02
NM82	5.0	9	8,000	10	32	1.88
NM97	10.5	19	7,000	12	42	3.54
NM112	16.7	30	6,000	14	48	5.40
NM128	26.7	48	5,000	18	55	8.10
NM148	41.7	75	4,500	22	65	13.50
NM168	69.5	125	4,000	28	75	19.30
NM194	112.0	200	3,500	32	85	26.30
NM214	167.0	300	3,000	45	95	35.70
NM240	267.0	480	2,750	60	110	46.70
NM265	417.0	750	2,500	70	120	66.30

DIMENSION

(UNIT : mm)

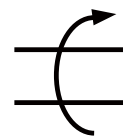


Model	D	OD	L	S
NM50	33	50	25	2.0 ± 0.5
NM67	46	67	30	2.0 ± 0.5
NM82	53	82	40	3.0 ± 1.0
NM97	69	97	50	3.0 ± 1.0
NM112	79	112	60	3.5 ± 1.0
NM128	90	128	70	3.5 ± 1.0

Model	D	OD	L	S
NM148	107	148	80	3.5 ± 1.0
NM168	126	170	90	3.5 ± 1.0
NM194	147	194	100	3.5 ± 1.5
NM214	157	214	110	4.0 ± 2.0
NM240	179	240	120	4.0 ± 2.0
NM265	198	265	140	5.5 ± 2.0

HT

SYMBOLS

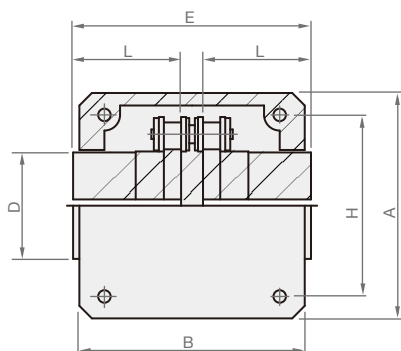


MODEL SPEC.

Model	Bore DIA		Metal Part Weight (kg)	Outer Covering Weight (kg)
	Min.	Max.		
HT4012	11	22	0.8	0.3
HT4016	15	30	1.4	0.4
HT5016	15	40	2.6	0.6
HT5018	19	45	3.5	0.7
HT6018	22	55	6.2	1.0
HT6022	25	75	9.8	1.2
HT8018	30	78	13.9	2.3
HT8022	35	95	20.2	2.4
HT10020	35	110	34.0	3.2
HT12018	48	120	51.0	5.6
HT12022	58	150	66.0	7.1

DIMENSION

(UNIT : mm)



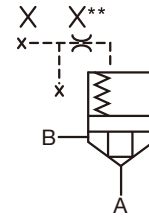
Model	A	B	E	L	D	H
HT4012	75	75	80	36	35	61
HT4016	92	75	80	36	50	77
HT5016	111	85	100	45	60	96
HT5018	122	85	100	45	70	106
HT6018	142	106	120	54	85	128
HT6022	167	106	120	54	110	152

Model	A	B	E	L	D	H
HT8018	186	130	150	67	115	170
HT8022	220	130	150	67	140	202
HT10020	248	152	201	91	160	228
HT12018	205	180	261	119	170	252
HT12022	355	180	261	119	210	300

LCV



SYMBOLS



ORDER CODES

LCV - **32** - **05** - **E**

1 2 3 3

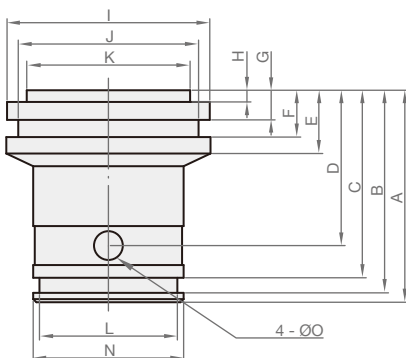
1	Model Name	LCV	
2	Valve Size	16, 25, 32, 40, 50, 63	
3	Cracking Pressure	05	0.35 kgf/cm ²
		20	2.0 kgf/cm ²
		50	4.5 kgf/cm ²
4	Valve Type	E	directional and flow control logic valve
		D	less shock logic valve
		B	relief logic valve

MODEL SPEC.

Model	Rated Flow (l/min)	Max. Operating Pressure (kgf/cm ²)	Checking Pressure (kgf/cm ²)	Ratio of Poppet Area (kgf/cm ²)	Weight (kg)
LCV-16	130	315	0.5 : 0.5 20 : 2.0 50 : 4.5	17:1	0.18
LCV-25	350				0.42
LCV-32	500				0.85
LCV-40	850				1.50
LCV-50	1400				2.50
LCV-63	2100				6.00

DIMENSION

(UNIT : mm)



Model	A	B	C	D	E	F	G	H	I	J	K	L	N	O
LCV-16	56	52	46.5	37	16	10.5	7	2.4	32	29.2	23.7	22.2	25	10
LCV-25	72	69	62.6	43	16	13.5	8.8	1.8	45	40.8	37	29.8	34	14
LCV-32	85	81	74.6	58	20	13.6	8	2.4	60	55	47.5	40.8	45	18
LCV-40	105	97	90.6	66.5	24	15.6	10	2.4	75	70	62	50.8	55	23.5
LCV-50	122	114	107.6	83	20	14.6	9	2.4	90	85	76.8	63.5	68	28
LCV-63	155	145.5	134	115	27	21	12	4.6	120	110	94	80	90	25

Steed Machinery Co., Ltd.

No. 28, Ruiguang St., South Dist.,
Taichung City 402006,
Taiwan
Tel : +886-4-2285-4867
Fax : +886-4-2285-2848
Email : info@steedmachinery.com.tw

more information
www.steedmachinery.com.tw

