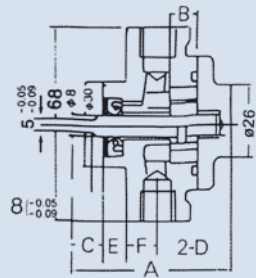
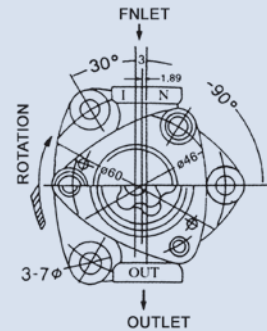
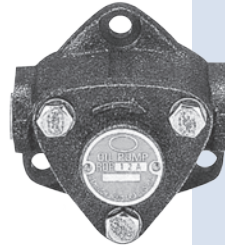


ONE WAY ROTATION OIL PUMP, ELECTRO-MAGNETIC COOLANT PUMP

One way rotation pump

FEATURES:

1. The model 1A oil pumps are the most suitable not only for various machine tools and industry machines, but also for various automotive and agricultural machinery engines which are needed by the unit of hundreds or thousands. The special type of the pump for fixtrue is also supplied by your requirement.
2. Relief valve is assembled on the top part of the pump. If you need the valve, please mark your order by indicating with relief valve, it is marked at the end of pump marking by symbol VB. The standard pressure setting is 3 kg/cm².



Specifications

Model	Delivery (lpm) AT 1000 rpm	Max. Pressure (bar)	Max. Runing speed (rpm)	Port Size (pt)	Weight (kg)
ROP-10A	0.8	5	3000	1/8"	0.55
ROP-11A	1.5	5	3000	1/8"	0.55
ROP-12A	2.5	5	2000	1/4"	0.62
ROP-13A	4.5	5	2000	3/8"	0.82

Dimensions

Model	A	B	C	E	F	Port size D (pt)
ROP-10A	57	5	11.5	8	11	1/8
ROP-11A	57	9	11.5	8	11	1/8
ROP-12A	64	15	11.5	8	11	1/4
ROP-13A	79	27	14.5	5	14	3/8

Electro-magnetic coolant pump

FEATURES:

Patented design: No motor needed unique electro-magnetic power system coolant is pumped using vibratory action cost 50% less than conventional pumps takes up very little space easily portable.

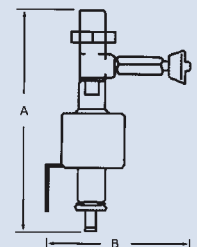
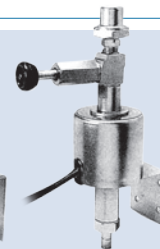
Designed for small lathes, grinder, milling and drill.

Pressure: Closed tip under 1 bar. The flow rate of the oil or lubricant used is directly proportional to its viscosity.

WL-1
WE-1

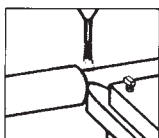


WL-2
WE-2

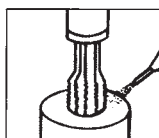


Specifications

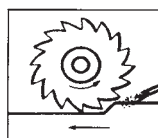
Model	Power (W)	Voltage (V)	Absorbent (M)	Flow (lpm)		Dimension		Weight (kg)
				Turbine oil #140	Engine oil #90	A	B	
WE-1	25	AC 110 or AC 220	1~1.5	25	10	148	84	0.90
WE-2						192	129	1.10
WL-1	13	AC 220		6	3	113	53	0.32
WL-2						150	98	0.42



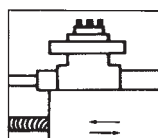
* LATHE
Cutting Oil
supply



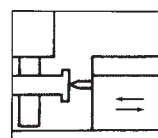
* DRILL
* TURBINE
Cutting Oil
supply



* NC WORKING
MACHINE
Slit face lubricant
supply

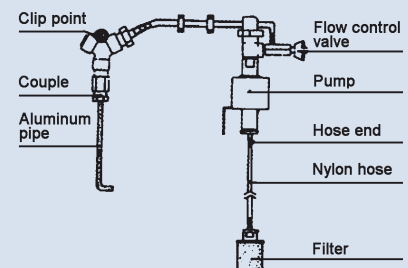


* MILLING
Cutting Oil
supply



* GRINDER
Slit face lubricant
supply

Fitting method



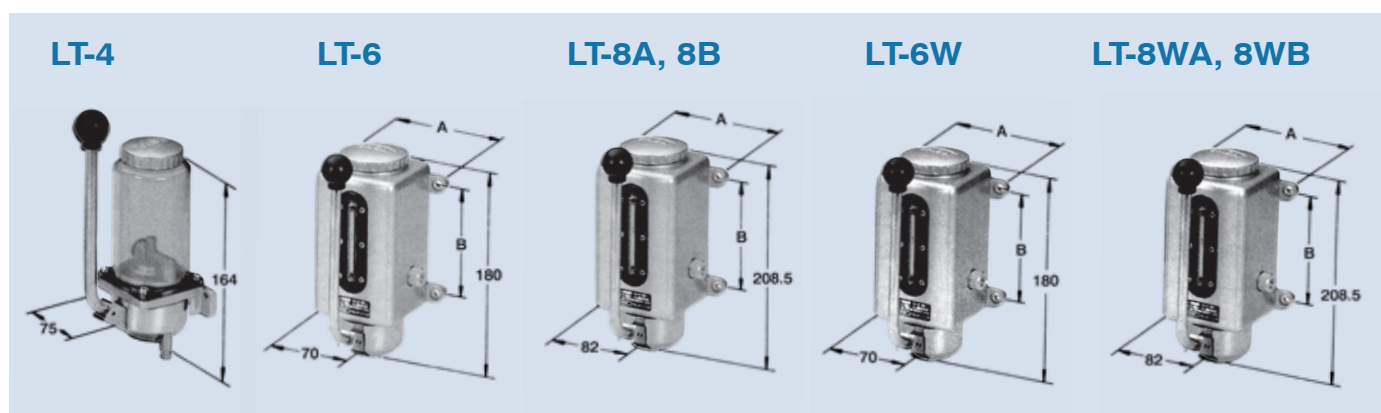
MANUAL OPERATED LUBRICATOR

How to order

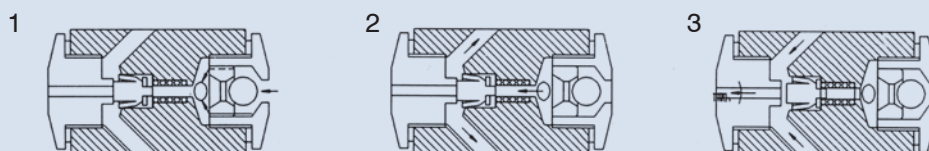
LT - 6 - ✖

1 2 3

1	Model	
2	Displacement cc/stroke	8A, 8B (see installation size) 6W, 8W (with pressure-relief)
3	Port size	



Features for 6W, 8W

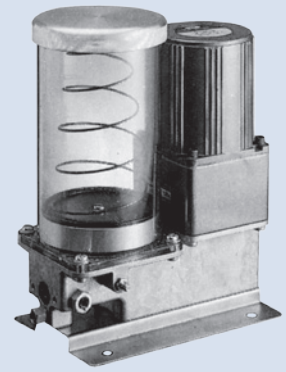


1. The piston valve is open for oil inflow and store it.
2. The stored oil is being distributed to each outlet port through the check valve.
3. The unused oil is returning to the relief port after the oil released by piston valve and the check valve is closed.

Specifications

Model	Displacement (cc/stroke)	Capacity (cc)	Max. Pressure (bar)	Installation Size (A x B)	Port Size	Weight (kg)
LT-4	4	230	15	75	4 or 6 mm	0.7
LT-6	6	350	15	85 x 85	1/8 PT	1.2
LT-8A	8	600	15	98 x 107	1/8 PT	1.6
LT-8B	8	650	15	100 x 110	1/8 PT	1.6
LT-6W	6	350	30	85 x 85	1/8 PT	1.2
LT-8WA	8	600	30	98 x 107	1/8 PT	1.6
LT-8WB	8	650	30	100 x 110	1/8 PT	1.6

MOTOR-TYPE ENGINE OIL/GREASE OILER



1	Motor	AC 110V/220V	50/60HZ	Single phase	MSK-601: AC110V	MSK-602: AC220V
2	Overload fuse	3A				
3	Application	For various machine lubrication				

Operation of time controller (YTCB) INT: For setting motor interval, OFF-TIME set is available for 1-99 minutes.
 DIS: For setting pump working, OFF-TIME set is available for 1-99 seconds.
 FEED: For manual oiling control (stop upon release)
 RST: For manual oiling according to seconds set by "DIS" key.

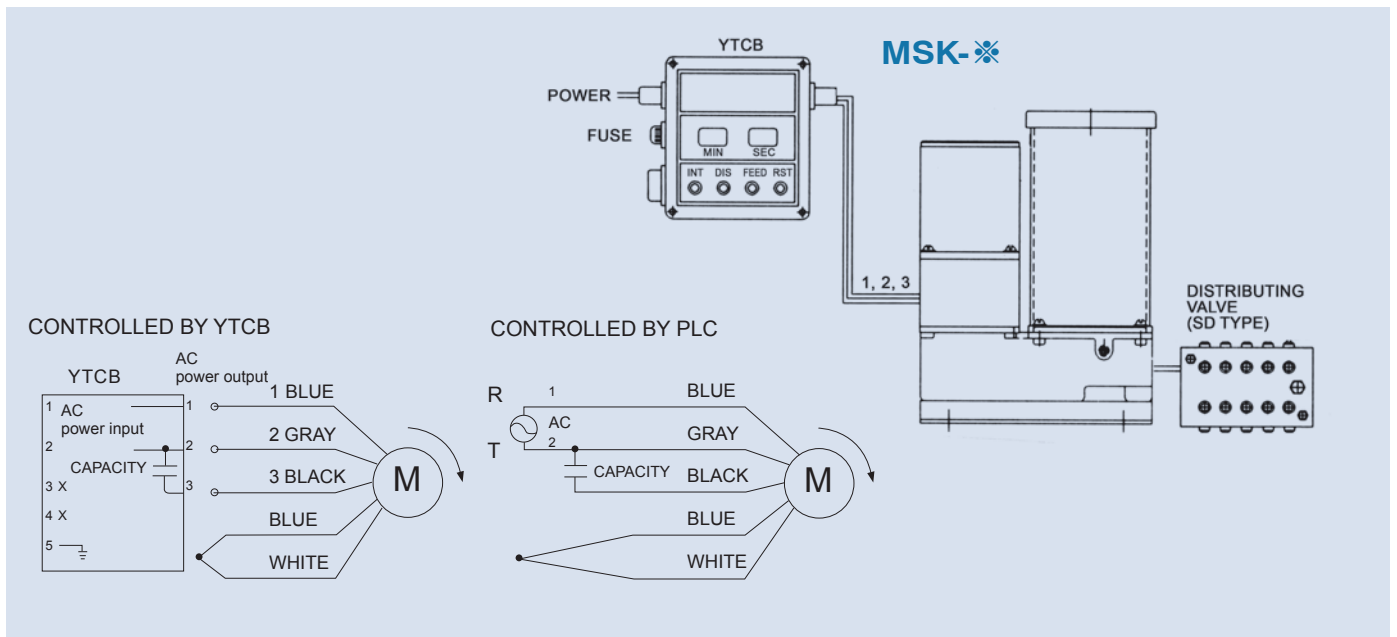
4 Cautions & maintenance service

- | | |
|---|--|
| 1. The power to be supplied must be same as specified on machine. | 4. Always fill oil tank through oil hole to avoid vacuum tank. |
| 2. During installation, follow the instructions for wiring to prevent controller from damage. | 5. Prevent control circuit from contacting oil, water or any other objects for good condition. |
| 3. Earthing is necessary for safe reason. | 6. Always add oil according to instructions to prevent overflow. |
| | 7. Prevent machine from impact. |

5 Machine functions

- Pressure output is fulfilled by an adjustable constructure, applicable for every kind of machine and available for relative prepressure supply/adjustment.
- Immediate button is able to provide machine with required oil volume at beginning so as to smoothly start the machine and reduce unnecessary abrasion.
- Time-control device is provided to carry out double-step adjustment between oil supply and intermission.

Dimensions



MOTOR-TYPE ENGINE OIL/GREASE OILER

Specifications

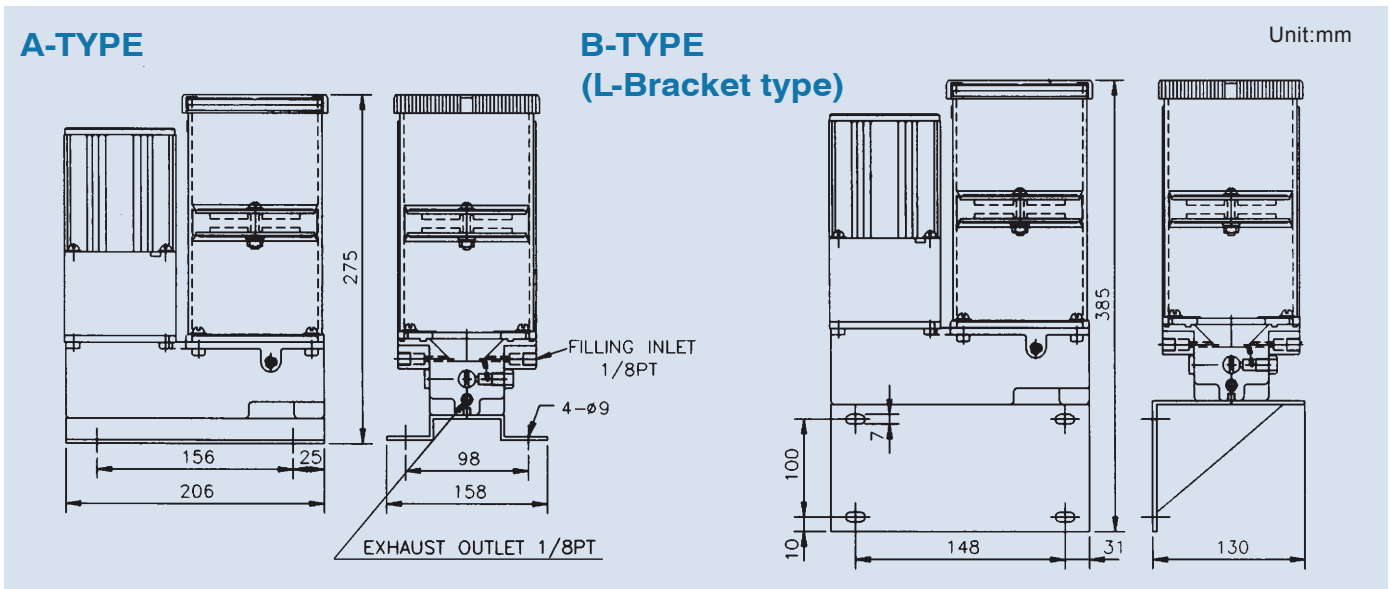
Without Time Control

Model	Flow (cc/min)	Voltage (50/60HZ)	Power	Oil Tank Capacity	Max. Output Pressure	Oil Viscosity (cst)	Weight (kg)
MSK-601	60	110V	40W	1.5L	100 bar	00 # 0 #	6.5
MSK-602		220V					

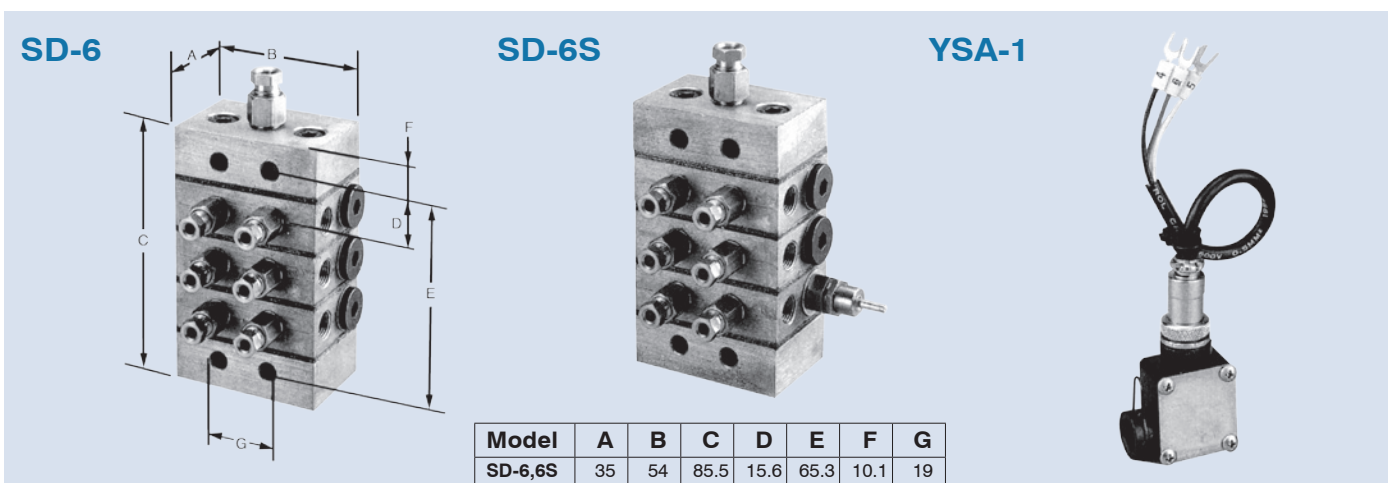
With Time Control

Model	Flow (cc/min)	Voltage (50/60 HZ)	Power	Oil Tank Capacity	Intermittent off Time	Running Time	Max. Output Pressure	Oil Viscosity (cst)	Weight (kg)
MSK-601C	60	110V	40W	1.5L	1~99 min	1~99 sec. (YTCB control)	100 bar	00 # 0 #	8
MSK-602C		220V				1~99 times (YCCB control)			

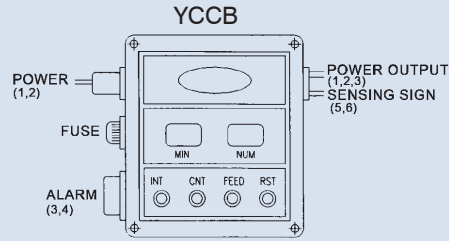
Mounting types / Dimensions



Single cycle oil distributor



COUNTER CONTROL BOX FOR MSK-SERIES



1 Power source adapter

1, 2: Power input 3, 4: Alarm power 5: Earth

2 Power out put

1, 2, 3: Motor power 4: C common 5: A contact (normal closed) 6: B contact (normal open)

3 Operation

INT: For setting lubricating interval time, available from 1-99 minutes.

CNT: For setting lubricating frequency, available from 1-99 times.

FEED: For manual lubricating, push for discharge.

RST: For one cycle lubricating, lubricating frequency set by CNT.

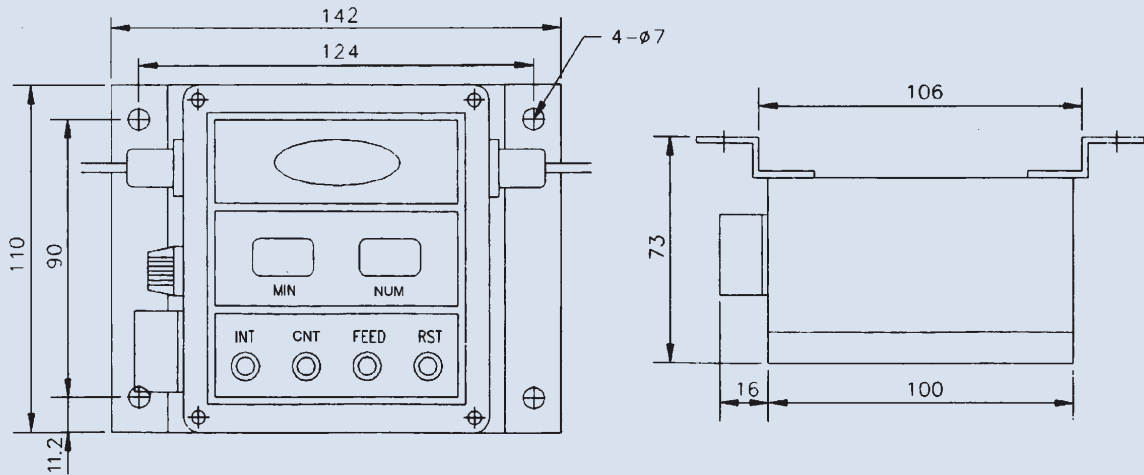
1. Power: AC 110V/220V 50/60 HZ, single phase
2. Overload fuse : 3A

3. Alarm output circuit (Max.): 1A

4. Motor power (Max.): 3A

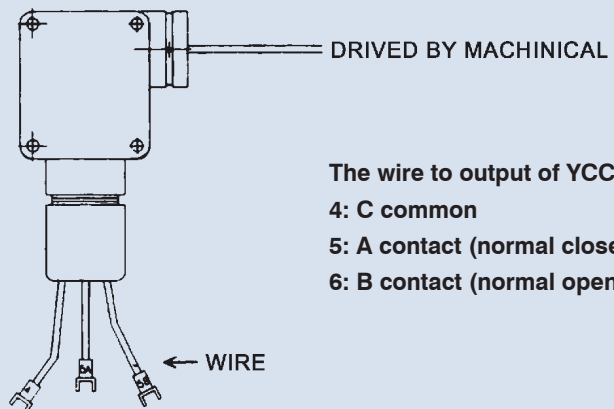
5. YCCB counter box is suitable for MSK series grease oiler with SD-※S distributor used, can precise control lubricating volume and frequency in each lubrication line. For machine long machine life.

Dimensions



Unit:mm

YSA check box connecting



The wire to output of YCCB:

- 4: C common
- 5: A contact (normal closed)
- 6: B contact (normal open)

MOTOR OPERATED INTERMITTENT AUTOMATIC LUBRICATOR



How to order

KCMM-2 - 15 - 6 - A1

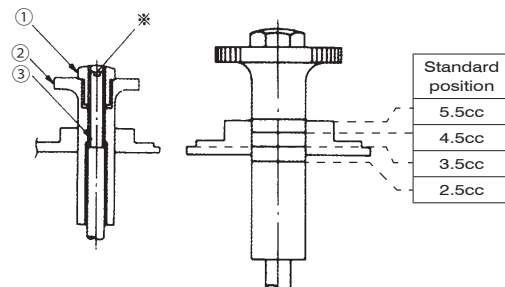
	1	2	3	4
1	Model	KCMM-2: Normal type	KCMM-2A: With alarm system	KCMM-2F: With float switch
2	Interval time	5, 10, 15, 30 minutes		
3	Outlet port	4: 4mm	6: 6mm	
4	Voltage	A1: AC110V	A2: AC220V	

FEATURES:

1. Use the recommended oil only. (#M32 or #68)
2. The motor should be turned clockwise when looking down through the upper side.
3. It is fail to take off the locknut located at the upper side of the instant feed button when making adjustment the discharge amount of oil.
4. If the motor has not been used for long time, pull the manual handle for 4 to 5 times before starting the motor, don't try to force to push handle returns to its original position when manual operation.
5. Clean the filter or replace it with a new one once a year or more often.

How to adjust discharge oil amount of automatic intermittent lubricating pump:

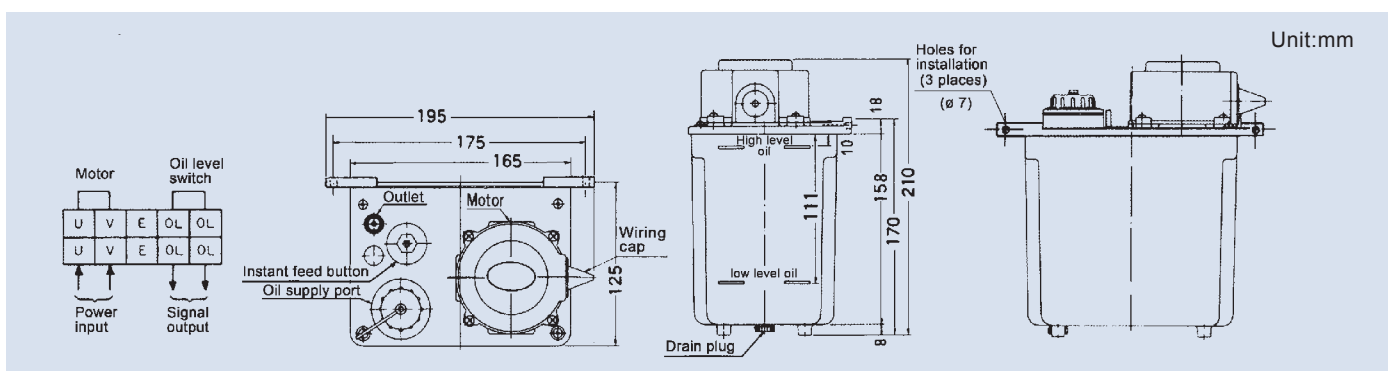
1. Fix the tip of piston rod (*) by ⊖ screwdriver, and loosen locknut ① counter clockwise.
2. Turn the connecting rod ② to set it at the standard position after loosening the locknut ① and fix it firmly in that position.
3. The graduation and discharge amount are shown in the diagram on the right.



Specifications

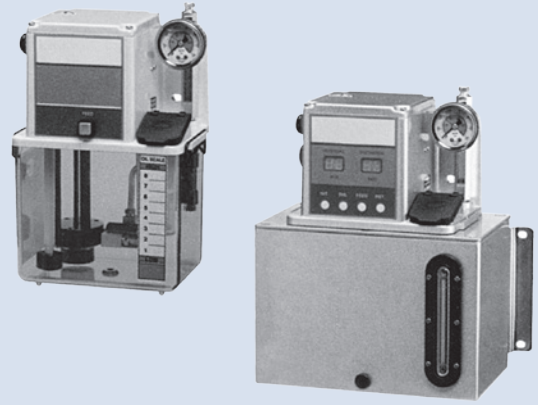
Model	Interval Time (minute)	Discharge Pressure (bar)	Displacement (cc/shot)	Outlet Dia. (mm)	Voltage	Tank Vol.	Effective Vol.	Weight (kg)
KCMM-2	5, 10, 15, 30	2.5~3	2.5~5.5	ø4 or ø6	110V or 220V	2000 cc	1800 cc	2.4
KCMM-2A	5, 10, 15, 30	2.5~3	2.5~5.5	ø4 or ø6	110V or 220V	2000 cc	1800 cc	2.5
KCMM-2F	5, 10, 15, 30	2.5~3	2.5~5.5	ø4 or ø6	110V or 220V	2000 cc	1800 cc	2.5

Motor terminal wiring diagram / Dimensions



Unit:mm

ELECTRIC CONTROL LUBRICATOR



How to order

TM - 3 01 C F W - T 2 P

1 2 3 4 5 6 7 8 9

1	Model																																												
2	Discharge (lpm) 3: 0.24 (for TM-3F, 3CF, 3FW, 3CFW) 5: 0.34 (for TM-3F, 3CF)																																												
3	Power voltage 01: 110V 02: 220V (50/60HZ)																																												
4	With timer controller																																												
5	With float switch (A, B contact)																																												
6	With pressure release																																												
7	With tank																																												
8	Tank capacity (liter)																																												
	<table border="1"> <thead> <tr> <th rowspan="2">Tank Code</th> <th colspan="2">Tank capacity (ℓ)</th> <th rowspan="2">Tank code</th> <th colspan="2">Tank capacity (ℓ)</th> <th rowspan="2">Tank Code</th> <th colspan="2">Tank capacity (ℓ)</th> <th rowspan="2">Tank code</th> <th colspan="2">Tank capacity (ℓ)</th> </tr> <tr> <th>Full</th> <th>Effective</th> <th>Full</th> <th>Effective</th> <th>Full</th> <th>Effective</th> <th>Full</th> <th>Effective</th> </tr> </thead> <tbody> <tr> <td>2P</td> <td>2</td> <td>1.8</td> <td>4P</td> <td>3.5</td> <td>3.1</td> <td>4A</td> <td>3.5</td> <td>2.8</td> <td>8A</td> <td>7.8</td> <td>7.5</td> </tr> <tr> <td>3P</td> <td>2.6</td> <td>2.3</td> <td>3A</td> <td>2.6</td> <td>2.1</td> <td>6A</td> <td>6.2</td> <td>5.1</td> <td>12S</td> <td>11.5</td> <td>9.8</td> </tr> </tbody> </table>	Tank Code	Tank capacity (ℓ)		Tank code	Tank capacity (ℓ)		Tank Code	Tank capacity (ℓ)		Tank code	Tank capacity (ℓ)		Full	Effective	Full	Effective	Full	Effective	Full	Effective	2P	2	1.8	4P	3.5	3.1	4A	3.5	2.8	8A	7.8	7.5	3P	2.6	2.3	3A	2.6	2.1	6A	6.2	5.1	12S	11.5	9.8
Tank Code	Tank capacity (ℓ)		Tank code	Tank capacity (ℓ)		Tank Code	Tank capacity (ℓ)		Tank code	Tank capacity (ℓ)																																			
	Full	Effective		Full	Effective		Full	Effective		Full	Effective																																		
2P	2	1.8	4P	3.5	3.1	4A	3.5	2.8	8A	7.8	7.5																																		
3P	2.6	2.3	3A	2.6	2.1	6A	6.2	5.1	12S	11.5	9.8																																		
9	Tank material P: Plastic transparent tank (for 2~4L) A: Aluminum tank (for 3~8L) S: Steel tank (for 12L)																																												

Specifications

Motor (shield type)					Working Pressure	Sensing Pressure (optional for 3FW, 3CFW)	
Power	Voltage	Max. Shielding		Phase		in	off
		Voltage	Current				
150W	AC110V or AC220V (50/60 HZ)	AC250V	3A	single	150 bar	12 bar	8 bar

Resisting type

Model	Flow (lpm)	Volt	Floating Switch	Pres. Release Dev.	Working Pres. (bar)	Off Time	Running Time
TM-301F	0.24 or 0.34	110V	0	X	1~10	PLC control	PLC control
TM-302F		220V	0	X	1~10		
TM-301CF		110V	0	X	1~10	1~99 min	1~99 sec
TM-302CF		220V	0	X	1~10		

Pressure release type

Model	Flow (lpm)	Volt	Floating Switch	Pres. Release Dev.	Working Pres. (bar)	Off Time	Running Time
TM-301FW	0.24	110V	0	0	1~15	PLC control	PLC control
TM-302FW		220V	0	0	1~15		
TM-301CFW		110V	0	0	1~15	1~99 min	1~99 sec
TM-302CFW		220V	0	0	1~15		

ELECTRIC CONTROL LUBRICATOR

Description for control wiring

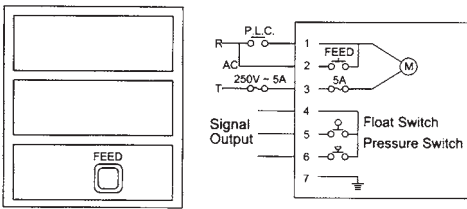
OPERATION WITH TIMER CONTROL

INT KEY: Intermittent time control key. Setting range 1~99 minutes.

DIS KEY: Running time control key. Setting range 1~99 seconds.

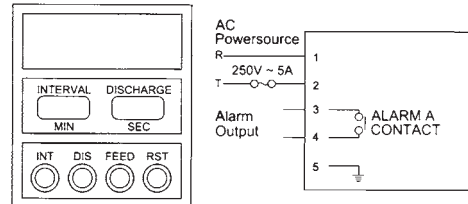
FEED KEY: Hand controlled oil discharge (Discharge will stop when the key is released).

RST KEY: Hand discharge according to seconds set by DIS KEY.



ELECTRIC WIRING DIAGRAM FOR TM-3F, FW

- 1, 3: Input power.
- 2, 3: Hand lubrication control.
- 4, 5: Floating switch. A or B contact. Max. current 250V / 0.1A.
- 4, 6: Pressure sensor. A or B contact. Max. current 250V / 0.1A.
- 7 : Grounding

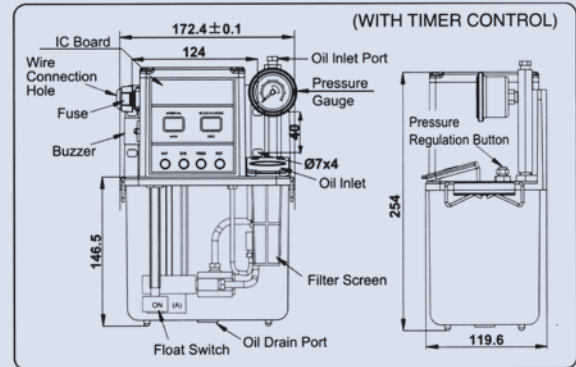
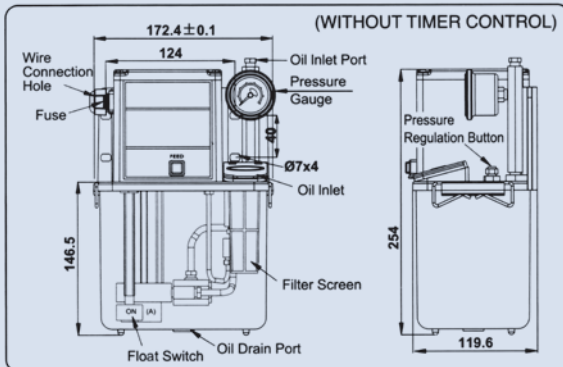


ELECTRIC WIRING DIAGRAM FOR TM-3CF, CFW

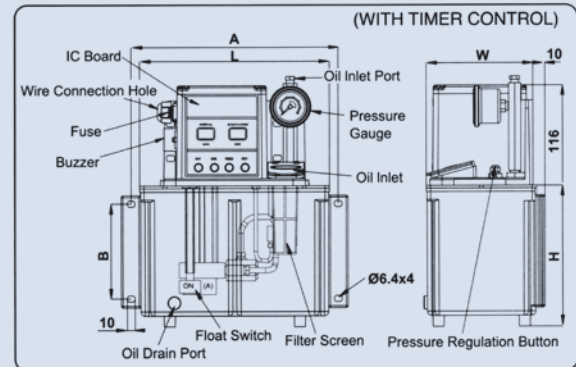
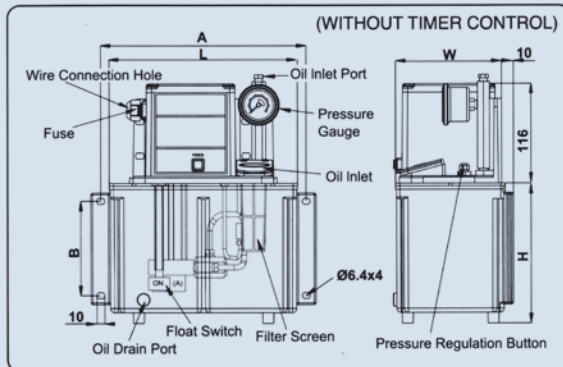
- 1, 2: Input power.
- 3, 4: Alarm A contact output. Max. current 1A.
- 5 : Grounding

Dimensions

2L



3~12L



Tank Code	A x B (mm)	L (mm)	W (mm)	H (mm)
T-3L	205 x 95	185	123	142
T-4L	240 x 110	220	130	154
T-6L	318 x 110	300	150	158

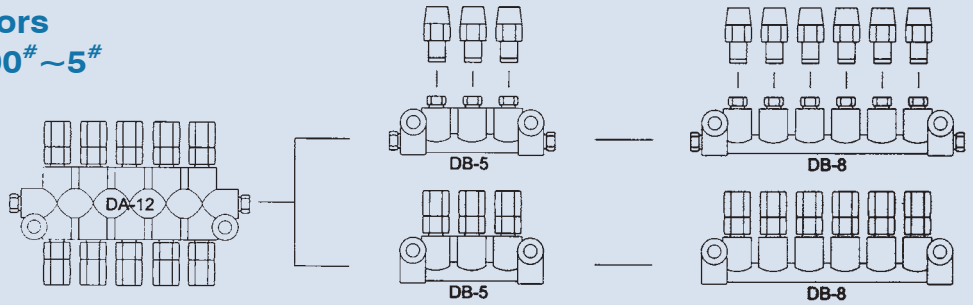
Tank Code	A x B (mm)	L (mm)	W (mm)	H (mm)
T-8L	336 x 110	320	173	172
T-10L	370 x 110	320	180	150
T-12L	386 x 110	360	230	152

ELECTRIC CONTROL LUBRICATOR

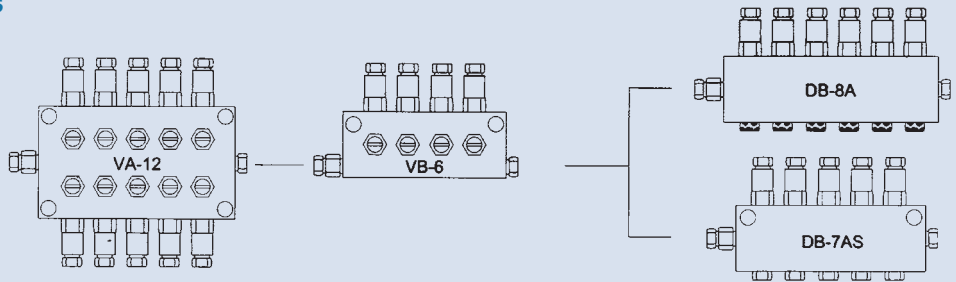
Reference diagrams for proportional connectors, adjustable distributors and single cycle distributor for TM-3F and TM-3CF

K

Proportional connectors PSS. PST. PTS. PTT 00# ~5#

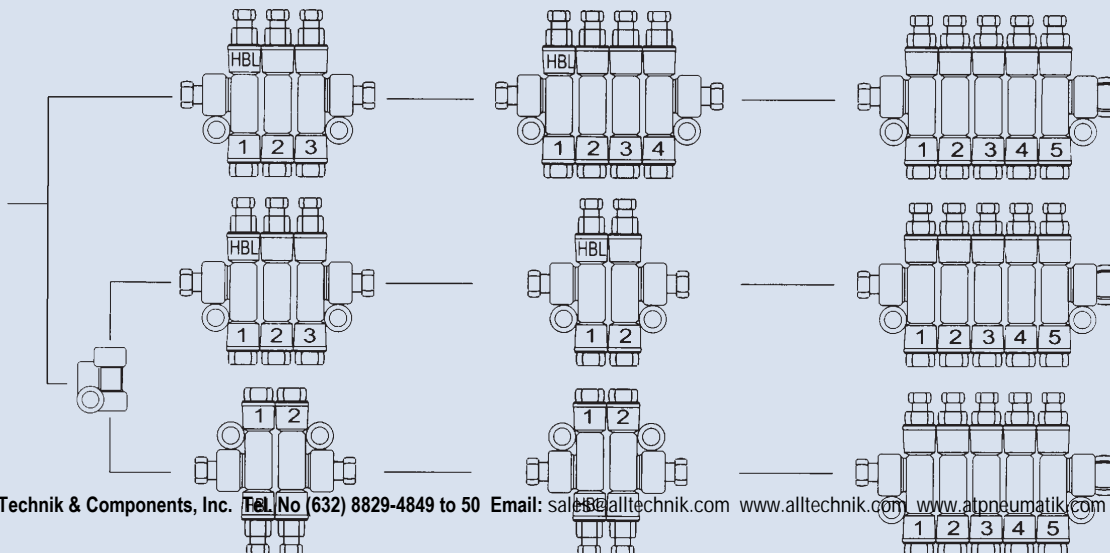


Adjustable connectors VA-(4~18) VB-(4~12) DB-(4A~12A) DB-(4AS~12AS)



Reference diagrams for constant volumetrical distributors for TM-3FW and TM-3CFW

Constant volumetrical distributors HA-(1~5Hole) 0.03^{cc} ~0.16^{cc} HBL-(1~5Hole) 0.1^{cc} ~0.5^{cc}



All-Technik & Components, Inc. Tel. No (632) 8829-4849 to 50 Email: sales@alltechnik.com www.alltechnik.com www.atpneumatik.com

ELECTRIC CONTROL LUBRICATOR

FEATURES:

1. Pressure output is adjustable to suit various machines requiring proper pressure adjustment.
2. Equipped with an oil level sensor to detect the oil amount in the tank. This provides fast response for proper treatment.
3. An instant button allows for enough lubrication oil control when the machine is just starting, preventing serious friction.
4. Bottom oil suction complies with Pascal principle, which not only upgrades oil outlet efficiency, but also helps to remove air in oil hose.
5. Equipped with an oil pressure sensor for detecting the following problems (8-12 bar for model TM-3FW and TM-3CFW):
 - **Hose breakage:**
Sensing by insufficient pressure in oil hose.
 - **Filter jammed:**
Sensing by dirty oil or suction port jamming.
 - **Poor motor:**
Sensing by insufficient motor speed.
 - **Insufficient oil pressure:**
Sensing by old parts or insufficient output efficiency.
 - **No oil in tank:**
Sensing by insufficient oil.

APPLICATION INSTRUCTIONS:

1. The running of model TM-3F and 3FW can be controlled by direct output from PLC or direct or indirect control from external timer.
2. The models TM-3F and 3CF are available to equip with VA, VB, DB-A or DB-AS type adjustable distributor and resisting connector. They permit pressure adjustment to a range of 3-5 bar. It is suggested to avoid too much difference between connector flow specifications. The suggested size combinations are (#0, #1, #2) and (#1, #2, #3)
3. When model TM-3FW or 3CFW is equipped with pressure release device, it is also available to use HA or HBL-HBH type constant volumetric distributor. Upon request, a pressure feedback sensor is available to confirm if the circuit pressure reaches 15 bar standard pressure or not. When using the pressure feedback sensor, it is required to equip with a timer, so that a time delay will occur once the pressure switch is confirmed under normal operation condition of timer. Instead, if pressure can not reach the setting value within 60 seconds, it is necessary to set alarm and turn power off. Then check the problem accordingly.
4. When model TM-3FW or 3CFW is equipped with a volumetric distributor, it is necessary to use high pressure hose to meet the high pressure operation. This will ensure its outstanding performance.
5. When the lubrication pump is used in various-temperature areas, operator should pay attention to oil viscosity variation due to temperature difference. Use only correct grade of oil and pressure. For temperature under 20° c, it is suggested to use ISO VG32 oil. For temperature over 20° c, it is suggested to use ISO VG68 oil for proper viscosity.

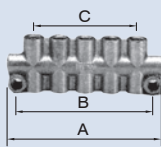
NOTICES AND MAINTENANCE

1. Make sure your input power complies with that on the pump.
2. When installing the pump, make wiring according to the instruction manual to prevent damage on the controller.
3. For safety's sake, the lubrication pump must be properly grounded.
4. When filling oil into the tank, make sure the oil enters through the filter screen to prevent oil circuit from jamming.
5. In case filter screen is jammed, clean it immediately to ensure a proper filtration effect.
6. Always keep the control circuit from oil or coolant or contacting with any object to avoid damage.
7. When filling oil into the tank, the oil amount should only reach the oil level line to avoid over-flow.
8. Keep the lubrication pump from bumping.

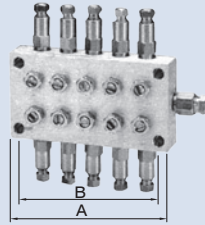
OIL DISTRIBUTOR FOR ELECTRIC CONTROL LUBRICATOR

K

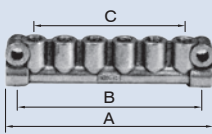
DA



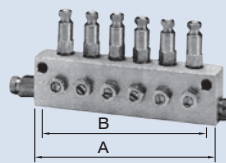
VA



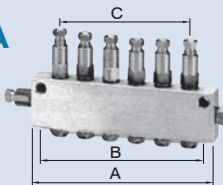
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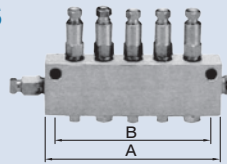
VB



DB-A



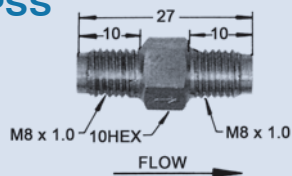
DB-AS



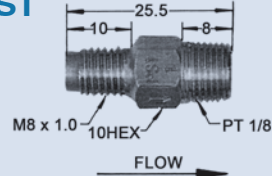
Model	Nos.of port	Dimension (mm)		
		A	B	C
DA-6, VA-6	6	48	36	16
DA-8, VA-8	8	64	52	32
DA-10, VA-10	10	80	68	48
DA-12, VA-12	12	96	84	64
DA-14, VA-14	14	112	100	80
DA-16, VA-16	16	128	116	96
DA-18, VA-18	18	144	132	112
DB-4, VB-4	4	48	36	16
DB-5, VB-5	5	64	52	32
DB-6, VB-6	6	80	68	48
DB-7, VB-7	7	96	84	64
DB-8, VB-8	8	112	100	80
DB-9, VB-9	9	128	116	96
DB-10, VB-10	10	144	132	112
DB-12, VB-12	12	176	164	144
DB-4A (4AS)	4	48	36	16
DB-5A (5AS)	5	64	52	32
DB-6A (6AS)	6	80	68	48
DB-7A (7AS)	7	96	84	64
DB-8A (8AS)	8	112	100	80
DB-9A (9AS)	9	128	116	96
DB10A (10AS)	10	144	132	112
DB12A (12AS)	12	176	164	144

Proportional connector

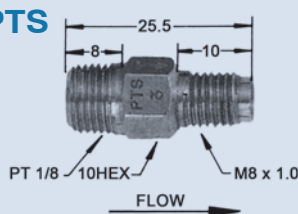
PSS



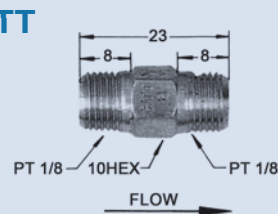
PST



PTS

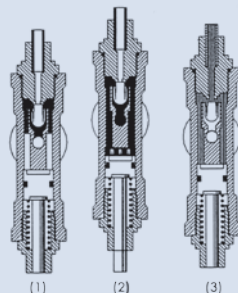
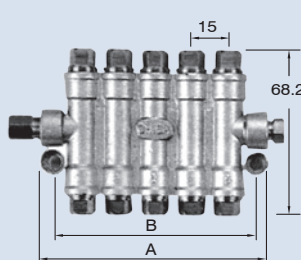


PTT



Model	PSS	PST	PTS	PTT	
Displacement code	0	1 2	3 4	5	
Ratio of flow	1	2 4	8 16	32	
Port size	IN	M8x1.0	M8x1.0	PT 1/8	PT 1/8
	OUT	M8x1.0	PT 1/8	M8x1.0	PT 1/8
Working pressure	1.5~20 bar				
Oil viscosity	ISO VG32~68 (40°C)				

Constant volumetrical distributor



1. The inflowed oil in the distributor making the check valve open.
2. The oil inflow continually and make pressure rise also push the piston valve move back then store oil and pressure.
3. The stored oil returning back to the low pressure inlet line when pump stopped, it will cause check valve closed and the oil flow to outlet port.

Model	HA					HBL					
Numbers of port	1	2	3	4	5	1	2	3	4	5	
Displacement (cc)	0.03, 0.06, 0.10, 0.16					0.1, 0.2, 0.3, 0.4, 0.5					
Min. working pressure (bar)	5					5					
Dimensions (mm)	B	24	39	54	69	84	24	39	54	69	84
	A	35	50	65	80	95	35	50	65	80	95