

Adams



Progressive systems can be used for oil or grease lubrication when it is required to provide a positive displacement with visual or electrical monitoring.

All outlets can be checked by one indicator rod or electrical switch. A range of automatic control timers and monitors are available.

□ Progressive

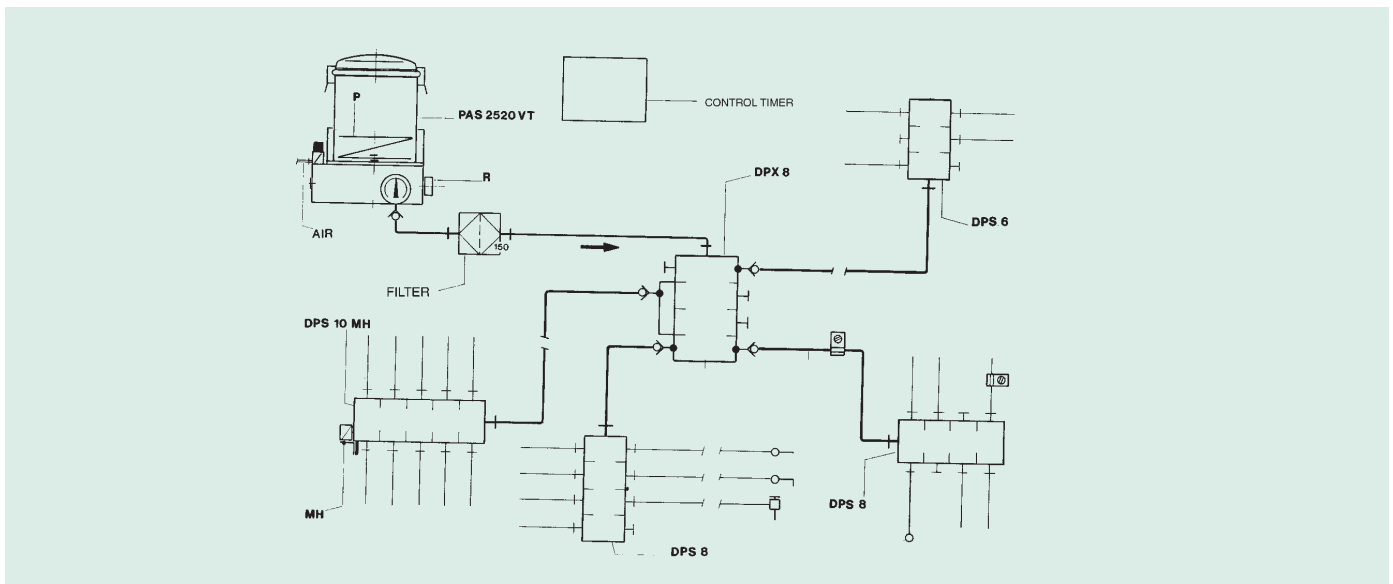
Description

A centralized lubrication system is described as Progressive when it contains metering pistons, which can operate in a sequence thereby giving measured amounts of lubricant to each lubrication point. As each piston in a distribution block is moved it opens the passageway for the following piston which can therefore distribute pre-determined amounts. Each lubrication point receives a measured amount of lubricant and this can normally be varied by changing the values of the individual metering screws.

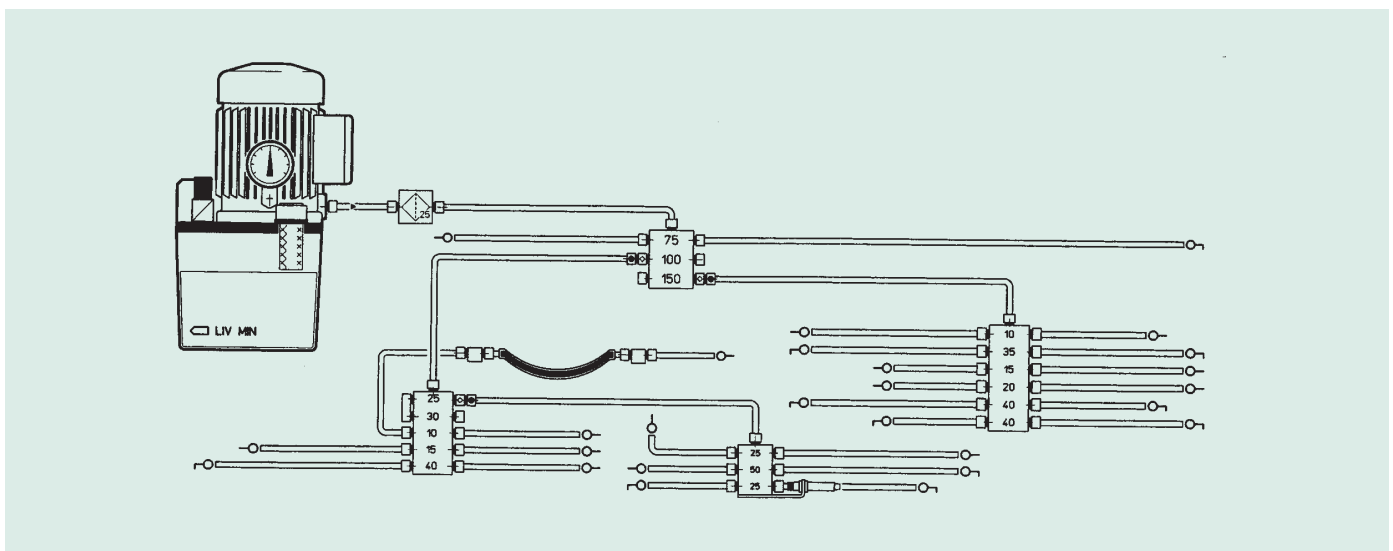
As each metering piston is put in series with all the other pistons, any blockage to the lubrication point results in the whole system being stalled. This stalling of the system enables the operator to visually check the system, or else micro switches can be fitted to enable the checking process to take place automatically. A range of programme controllers is available for this purpose.

Lubricants: Oils up to 2000 cSt/40°C and greases up to grade 2 (NLGI)

Typical system layout using Pneumatic Pump for grease - with monitoring



Typical system

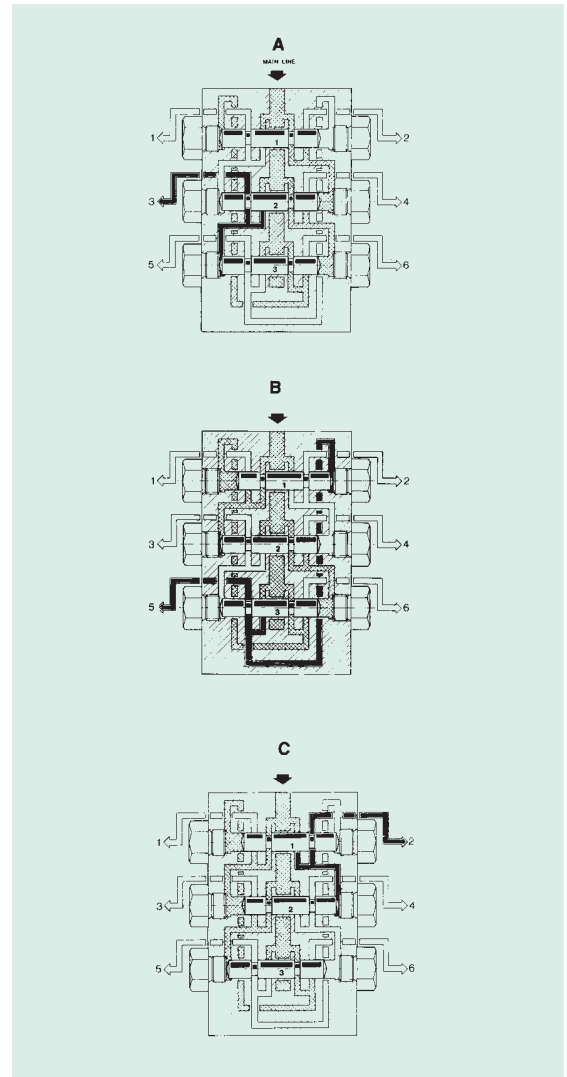


Progressive Distributors

Monoblock Type

Operating sequence

1. In **(A)**, supply pressure through internal passages moves piston 3 left, while pistons 1 and 2 are positioned to the left.
2. In **(B)**, piston 3 bottoms, it opens internal passages directing supply pressure to the left end of piston 1. Lube discharges from port 5.
3. In **(C)** piston 1 bottoms. It opens internal passages directing supply pressure to the left end of piston 2 which returns to its initial position as lube discharges from port 2.
4. The sequence continues, positioning the piston 3 to the right and the piston 1 to the left. Lube discharges from port 4, then 6.

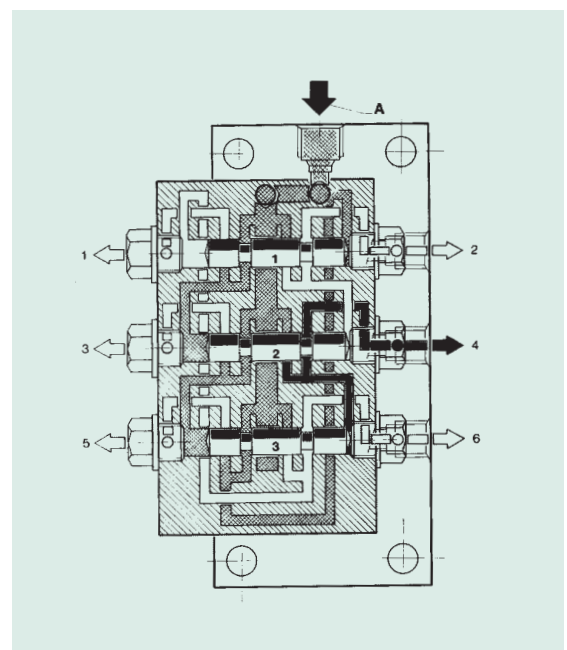


Modular Type

The main feature of this series is that the upper section of the distributor, which contains all of the working parts, is detachable from the lower part which is fixed to the machine and accommodates all of the pipe connections.

This design allows all the inlet and outlet pipework to be installed with the knowledge that it will remain undisturbed in the event of a metering section requiring replacement.

It requires only the removal of 4 screws to detach the metering section of the distributor.



Distributors

Monoblock Type - Material: Monel

Part No.	Series and No. of Outlets	L	A	B	Outlet	cc/Outlet
LV 52562	6	70				
LV 52563	8	87	50	30	5/16 NF	0.025 to 0.100
LV 52564	10	104				
LV 52565	12	121				
LV 51220	6	70				
LV 51222	8	87	72	40	1/8 BSP	0.10 to 0.40
LV 51224	10	104				
LV 51226	12	121				
LV 51230	6	88				
LV 51232	8	111	96	50	1/4 BSP	0.85 to 1.50
LV 51234	10	134				
LV 51236	12	157				

Variations in output are controlled by metering screws, which have a number stamped on their heads to indicate value. See chart below.

DPS		DPX		DPZ	
Marking	cc/Cycle	Marking	cc/Cycle	Marking	cc/Cycle
TS25	0.025	TX10	0.10	TZ75	0.75
TS50	0.050	TX20	0.20	TZ100	1.00
TS75	0.075	TX30	0.30	TZ125	1.25
TS100	0.100	TX40	0.40	TZ150	1.50

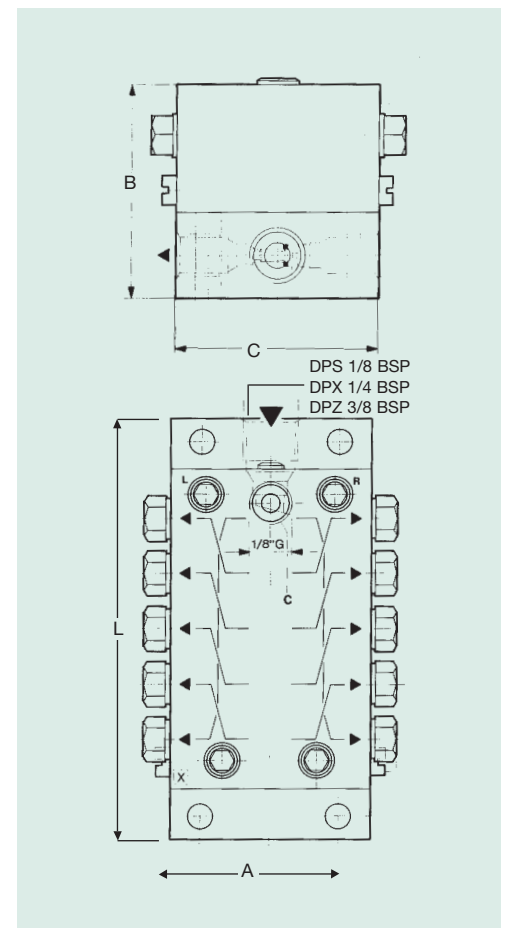
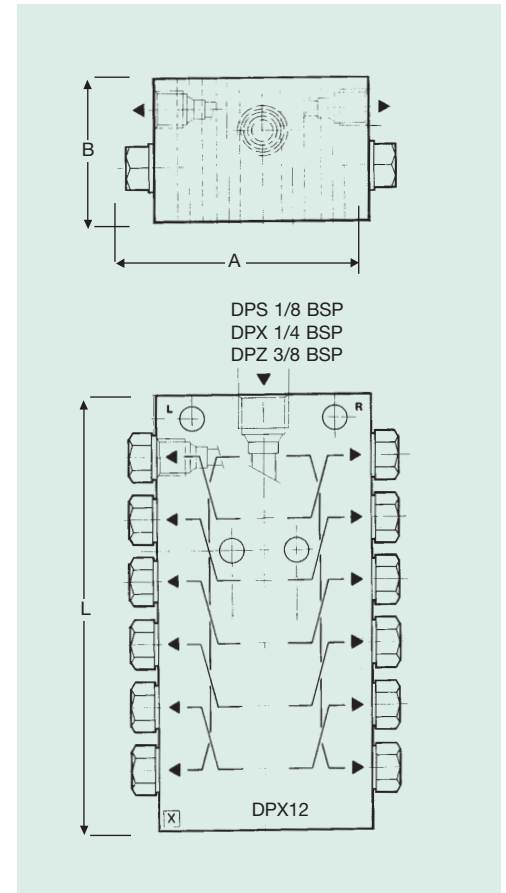
Modular Type - Material: Base - Steel, Distributor Body - Monel

Part No.	Series and No. of Outlets	L	A	B	C	Outlet	cc/Outlet
LV 58106	6	94					
LV 58108	8	111	50	45	40	5/16 NF	0.025 to 0.100
LV 58110	10	128					
LV 58112	12	145					
LV 58126	6	94					
LV 58128	8	111	72	50	60	1/8 BSP	0.10 to 0.40
LV 58130	10	128					
LV 58132	12	145					

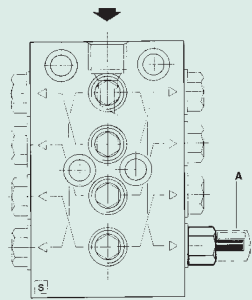
Preferred Ranges are as shown above,
Distributors with a larger number of outlets are available to special order.

Tube Fittings for Inlet & Outlets:-

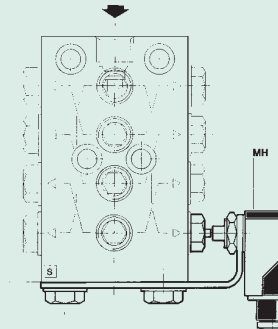
LV 90443 Tube Nut for 4mm O/D (5/16 NF)	LV 90540 Sleeve for 4mm O/D
LV 90422 Tube Nut for 6mm O/D (1/8 BSP)	LV 90560 Sleeve for 6mm O/D
LV 90482 Tube Nut for 8mm O/D (1/4 BSP)	LV 90682 Sleeve for 8mm O/D
LV 90411 Tube Nut for 10mm O/D (3/8 BSP)	LV 90511 Sleeve for 10mm O/D



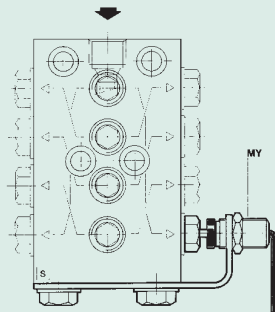
Accessories for Distributors Blocks



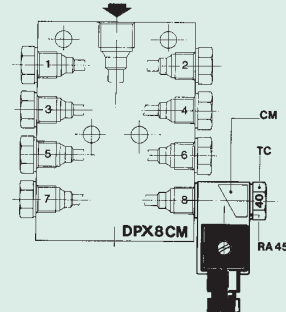
Visual Indicator Rod - Suffix 'A'



Micro Switch and Rod - Suffix 'MH'



Proximity Switch and Rod - Suffix 'MY'



Reed Switch and Magnet - Suffix 'CM'

For Metering Screws for above Range - Ask for Data Sheet

Overpressure Indicators

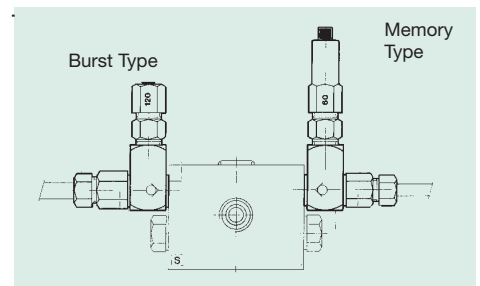
Memory Type -
Pin stays out until re-set

Part No.	Pressure
LV 95178	25 bar
LV 95179	40 bar
LV 95180	60 bar
LV 95181	90 bar
LV 95182	120 bar
LV 95183	150 bar
LV 95184	200 bar

Burst Type Indicators

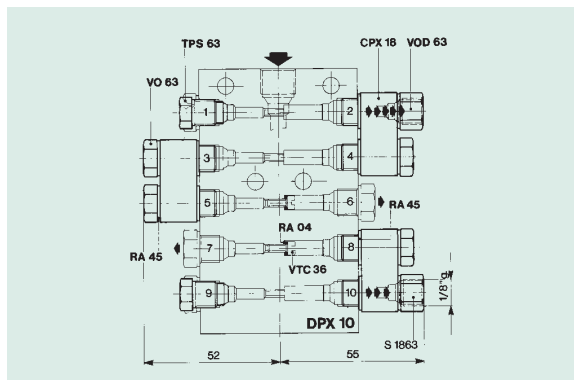
This indicator consists of a bursting disc only which breaks in case of abnormal high pressure and causes the lubricant to flow away. In this case the system goes on working.

Part No.	Breakage Pressure
LV 95828	60 bar
LV 95829	90 bar
LV 96655	120 bar
LV 95830	150 bar
LV 95831	200 bar
LV 95832	240 bar



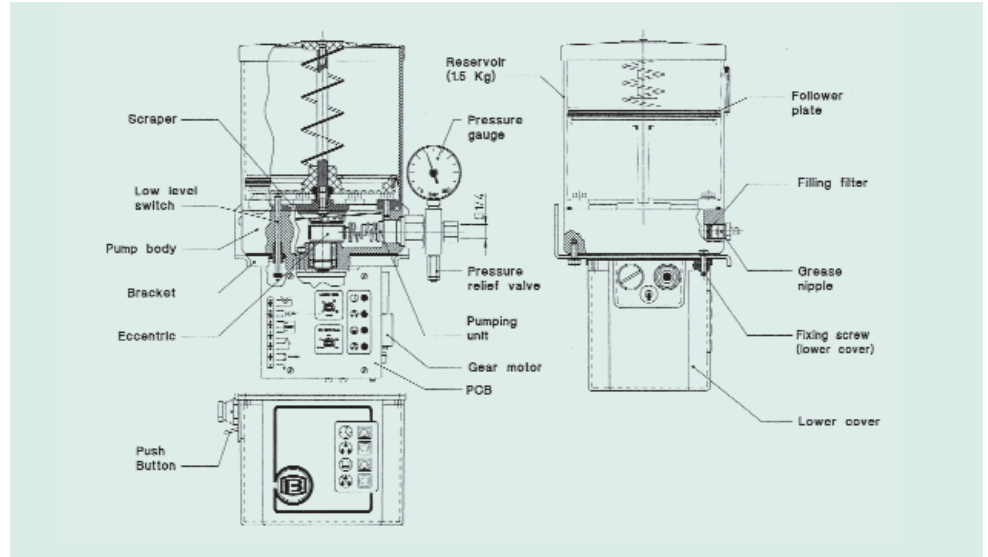
Single or Combined outlets and Multi-delivery.

See Data sheets for details



Combined Motorised Grease Pump & Control Timer for Grease up to NLGI Grade 2

Designed to supply grease lubrication systems with progressive distributors to provide manual or automatic cyclic lubrication. Intermittent operation only, duty must not exceed 25% of the total period. Three types available, see table.



Specification

Output:	2.4 cc per minute
Operating Pressure:	120 bar
Maximum Pressure:	200 bar
Outlet Port:	1/4" BSP
Reservoir:	1.5 kg capacity filled via grease nipple
Low Level Switch:	P.N.P. NC Proximity supplied fitted as standard.
Operating Voltage:	Available with 12 & 24 Volts DC, and 12, 24, 100 or 230 Volts AC Please state voltage required when ordering.
Insulation Protection:	IP 55
Operating Temperature:	-25°C + 70°C
Lubricants:	Liquid and /or grease up to NLGI grade 2.

Type "L" Electrically operated without timer

Part No.	No of Outlets	Output/Min	Reservoir Cap.	Low Level	Control	End Cycle
LV 69000	1	2.4 cc	1.5 kg	Yes	No	No

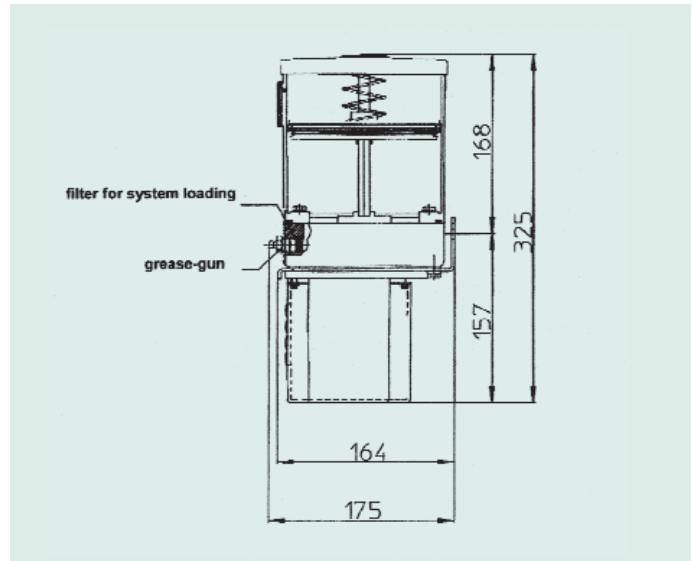
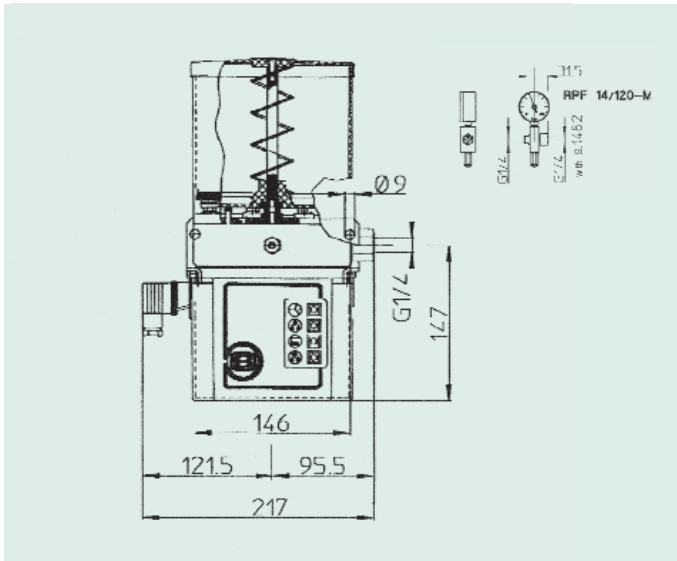
Type "AL" Electrically operated with PCB timer

Part No.	No of Outlets	Output/Min	Reservoir Cap.	Low Level	Control	End Cycle
LV 69001	1	2.4 cc	1.5 kg	Yes	Yes	No

Type "ALC" Electrically operated with PCB timer and end of cycle control

Part No.	No of Outlets	Output/Min	Reservoir Cap.	Low Level	Control	End Cycle
LV 69002	1	2.4 cc	1.5 kg	Yes	Yes	Yes

Dimensional Details

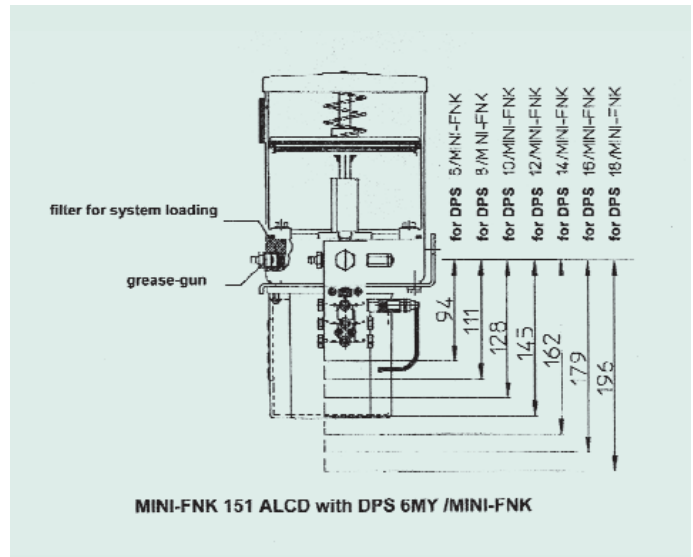
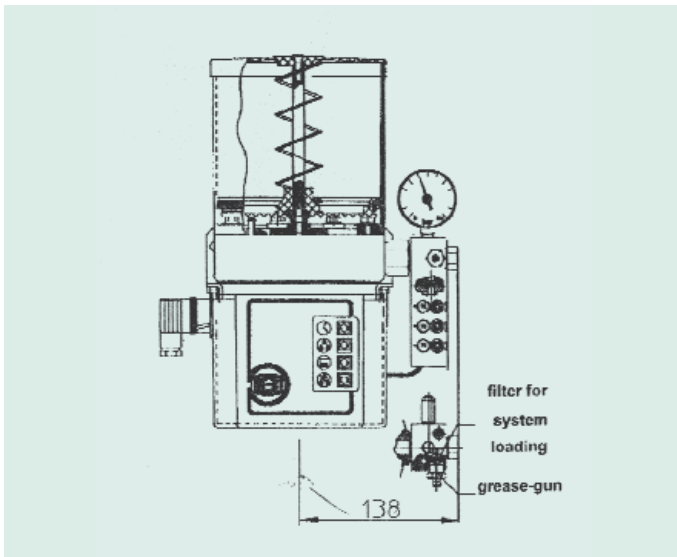


Combined Motorised Grease Pump, Timer & Distributor

Type "ALCD"

Electrically operated with PCB timer, end of cycle control plus distributor.

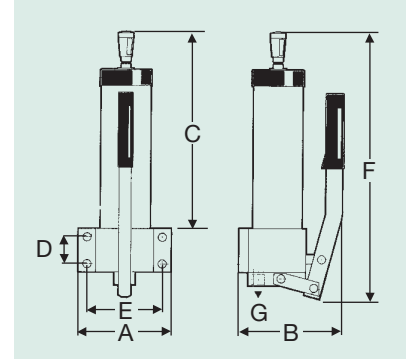
Part No.	No of Outlets	Flow Rate Per Point Per Cycle
LV 53406	6	0.075 cc
LV 53408	8	
LV 53410	10	
LV 53412	12	
LV 53414	14	
LV 53416	16	
LV 53418	18	



Manual Oil & Grease Pumps - Type PM (Oil) & PMK (Grease)

Part No.	A	B	C	D	E	F		G	For Use With
						Full	Empty		
LV 62879	80	140	190	34	66	275	275	1/8	Oil
LV 62798						385		BSP	Grease

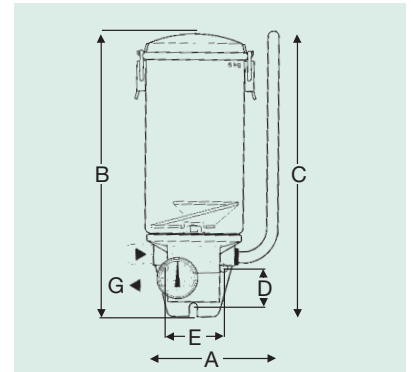
Capacity 300cc. 1cc/stroke Delivery. Pressure 100 bar.



Heavy Duty Manual Pumps - Double Acting Type PMK

Part No.	Reservoir Capacity Lt.	A	B	C	D	E	G	Lubricant
LV 60198	2.5	210	295	450	65	94	1/4 BSP	Oil
LV 60199	5		450					20-2000 cSt
LV 60200	2.5		295					Grease up to
LV 60201	5		450					Grade 2 (NLGI)

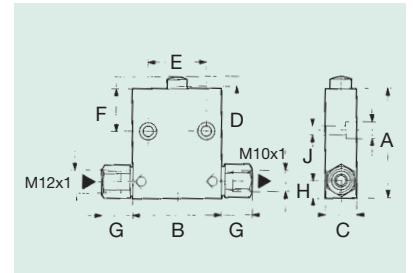
Capacity 2.5 Lt & 5 Lt. Delivery Pressure 150 bar



Mechanical Oil Pump - Type PPR

Part No.	A	B	C	D	E	F	G	H	J
LV 60216	64	50	19	6	34	24	19	10	5.2

Oil Delivery @ 5mm stroke - 0.56cc. Delivery Pressure 30 - 40 bar



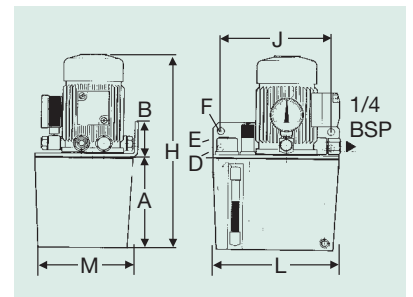
Motorized Oil Pump & Reservoir - Type PRQ

230 - 400 V 3 Phase 50 Hz. Pressure: 70 bar Max.

Intermittent Duty Only Output 180 cc/min

Part No.	Reservoir Capacity Lt.	A	B	D	E	F	G	H	J	L	M
LV 63285	2.7	152	50	35	-	8.5	142	301	125	155	142
LV 63287	3.0	155	55	40	-	6.5	146	300	165	195	146
LV 63284	5.0		75	20	40	8.5	174		218	248	174
LV 63696	7.0	180	80	25			168	325	240	270	168

Materials: 2.7 Lt Reservoir - Plastic 3.0 Lt, 5.0 Lt, 7.0 Lt - Aluminium

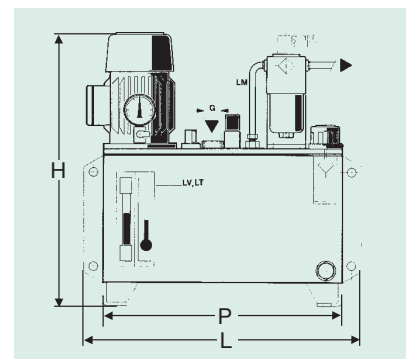


Motorized Oil Pump (Built to Order)

230 - 400 V 3 Phase 50 Hz. Pressure 70 bar Max. Intermittent Duty only

Reservoir Capacity (cc)	H	L	P
3000	324	195	-
5000	325	248	-
7000	350	270	-
15000	405	420	360
30000	450	555	465

Note:- See Continuous range for more pumps



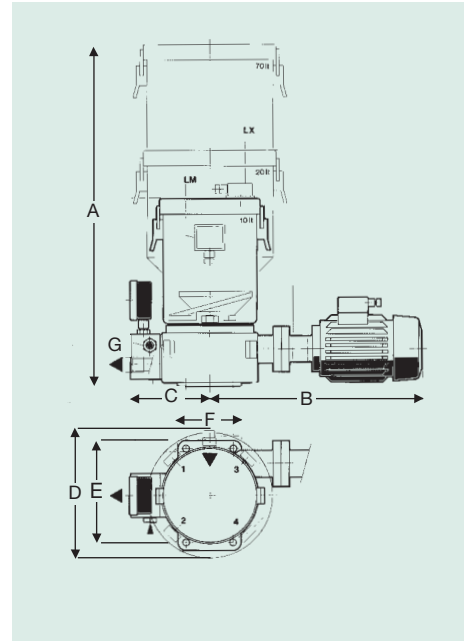
Motorized Pump & Grease Reservoir - Type PRK4

230 - 400 Volt 3 phase 50 Hz Motor Rating 0.25 kW
 Working pressure up to 300 bar
 Up to 4 piston outlets available, giving 900cc/outlet Max. each
 Reservoir capacity 10 kg, 20 kg & 70 kg

Ordering Example:-

LV 69558 Basic motorized pump body - 10 kg. (Includes Low level switch 'LM')
 For High/Low level switch add Suffix 'LX'
 For number of pump outlets add Suffix .1, .2, .3 or .4
 Note:- Outlets can be grouped together if required.

Part No.	Res. Capty.	A	B	C	D	E	F	G Thread
LV 69558	10 kg	483	440	155	255	230	100	3/8 BSP
LV 69561	20 kg	600						
LV 69567	70 kg	1000						



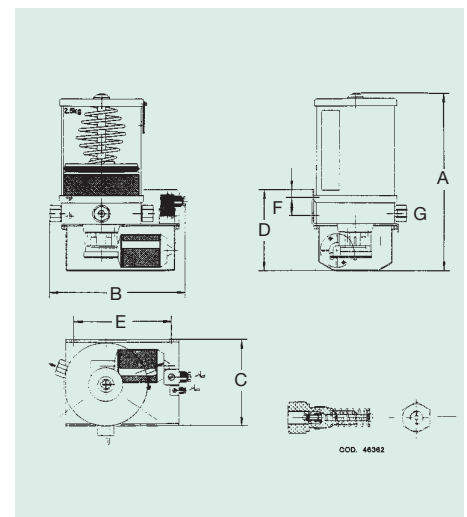
Motorized Pump & Grease Reservoir - Type FNK

Pumping elements: from 1 to 3 (to be specified when ordering)
 Delivery: 2.4cc/min each unit Max. pressure: 300 bar
 Supply voltage: 12 - 24 V DC, or 12 - 24 V AC,
 or 110 V 50/60 Hz. or 230 V 50/60 Hz
 Speed of rotation: 18 rpm
 Reservoir capacity: 2.5 - 5.0 kg (both plastic)
 Low level switch: Proximity PNP NC Logic Included as standard
 Filling: 1/4 BSP industrial grease nipple
 Lubricants Oil: Any type and viscosity Grease: '000' to '2' (NGLI)

Part No.	Res. Capty.	A	B	C	D	E	F	G Thread
LV 69709	2.5 kg	340	260	166	154	200	35	1/4 BSP
LV 69711	5 kg	480						

With Integral Timer - Intervals 15 to 120 mins - Lubetime 1 to 8 mins

LV 69714	2.5 kg	340	260	166	154	200	35	1/4 BSP
LV 69715	5 kg	480						

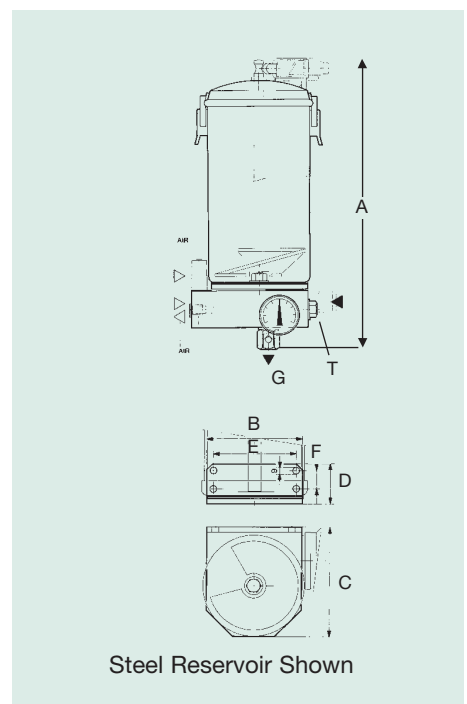


Pneumatic Grease Pump & Reservoir - Type PAS

Single Outlet giving up to 2cc per stroke (also versions up to 0.8 and 4cc - refer to sales office)
 Operating pressure: Grease / Air ratio 26:1. Max. pressure 150 bar
 Single acting air cylinder - 4 to 8 bar air pressure
 Also available with plastic reservoir. Low level switch included as standard

Part No.	Res. Capty.	A	B	C	D	E	F	G Thread
LV 69325	2.5 kg	330	150	160	70	130	35	1/4 BSP
LV 61897	5 kg	420						

For Double Acting Pumps, also Pumps without Reservoirs - Please refer to sales office. All Pumps will handle Grease up to NLGI Group 2.
 Pump output is controlled by Metering Screws fitted at point T.



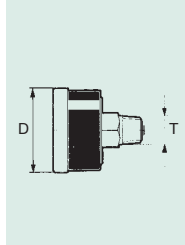
Steel Reservoir Shown

Accessories for Progressive Systems

Timers For our full range of Timers - please see page 20

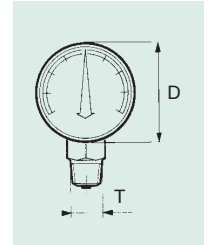
Pressure Gauges - Back fitting

Part No.	D	T Taper	Bar	MPa
LV 96897	40	1/8 BSP	0-300	0-30
LV 96828	60		0-100	0-10
LV 96829		1/4 BSP	0-160	0-16
LV 96882			0-300	0-30



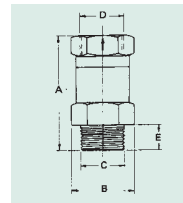
Bottom Fitting

Part No.	D	T Taper	Bar	MPa
LV 95882	60	1/8 BSP	0-100	0-10
LV 96626			0-250	0-25
LV 97182		1/4 BSP	0-400	0-40



Non-return Valves

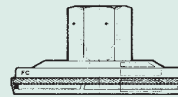
Part No.	A	B a/f	C	D	E	Direction of Flow from
LV 10038	43	20.8	3/8 BSP	3/8 BSP	9.5	C to D
LV 90845	27	14	1/8 BSP	1/8 BSP	10	C to D
LV 90849						D to C



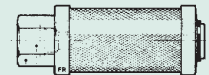
Filters - Suction Type

Part No.	Thread	Mesh	Lt/Min
LV 97098	M10x1	300	0.5
LV 97194	M12x1		1.0
LV 97099	M18x1.5		1.5
LV 10046	3/8 BSP	40	3.0

LV 97098 / LV 97194 / LV 94099

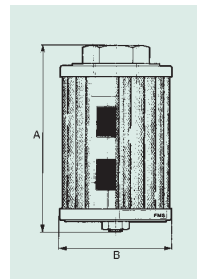


LV 10046



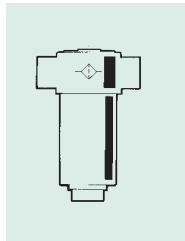
Large Capacity

Part No.	Thread	A	B	Mesh
LV 96678	LV 96324	95	50	30
LV 96994	LV 96608			
LV 96995	LV 96909	110	70	90
LV 96996	LV 96960	112		



Line Type - for oil

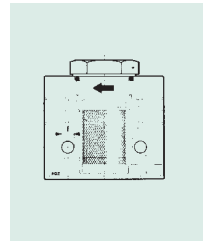
Part No.	L	Thread	Micron
LV 97113	157	1/2	10
LV 97117	244	BSP	25



Pressure Rating 110 bar -
Available with Visual, Electric or
Electro/Visual Indicators

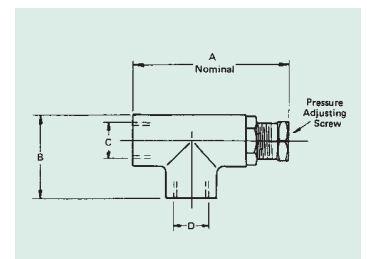
Line Type - for grease

Part No.	Thread	Micron	Pressure
LV 97521	1/8 BSP	30	70 bar
LV 97533	1/4 BSP		
LV 95710	3/8 BSP	60	100 bar
LV 95711			



Pressure Regulators - For oil

Part No.	Pressure Range (Bar)	A nominal	B	C	D	Mounting
LV 10036	0-1	57.2	33.3	1/4 BSP	1/4 BSP	Line Type
LV 10037	0.7-8	76.2	41.3	3/8 BSP	3/8 BSP	
LV 96134	0-100	75		M10x1	Lock Nut M20	Reservoir Type
LV 96135				M12x1		



Models LV 96134 and LV 96135 are intended for mounting through reservoir top plates.