Operating and Maintenance Instructions

for

MVB Progressive Distributors

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1. General Description

MVB progressive distributors in building-block design are applied in small-size progressive lubrication systems representing a cost-saving and efficient solution for central supply of lubricating points with relatively small pressure and small metered quantities. Ideal for machine-tools and processing machinery, mechanical engineering in general, presses of every type, plastic and paper processing machines, textile machines printing- and packaging machinery, utility vehicle industry, etc.

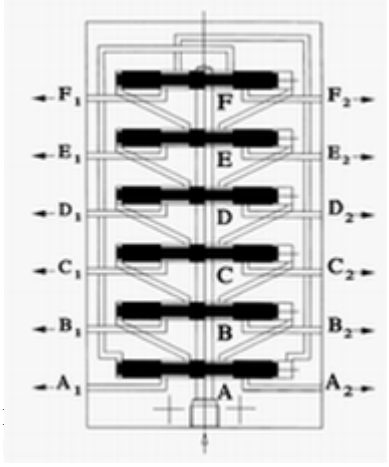
FEATURES

1. Precisely-measured lubricant discharge per outlet.
2. easy system lay out.
3. Problem-free installation.
4. Built-in check valves in the outlet unit.
5. Hone-fitted metering pistons.
6. unsophisticated control and monitoring features.

2. Principle

MVB distributors can supply 6、8、10、12、14、16、18 or 20 lubricant points, and the standard delivery is 0.17ml/cyc, it can also supply the delivery which is 0.34 ml/cyc or 0.51ml/cyc by removing a headless pin & bal and closing the appertaining lubricating-point connection. The holes of piston guide are linked by channels so that hydraulic forced control of entire progressive distributor is ensured. The progressive distributor deliver the fed lubricant continuously in metered quantities from the lubricating-point connections until interruption of lubricant flow .Due to the hydraulic forced control, easy monitoring of the entire lubrication system is possible by monitoring one lubricating-point connection of progressive distributor respectively by special type cycle indicator to alert a blockage.

Except the piston nearest to the inlet which carried the lubricant to the farthest outlet, all the piston carried the lubricant to the next adjacent outlet.



When lubricant is supplied to the main line connection of the progressive distributor, piston “A” (for instance) is moved in direction of outlet A1 up to the limit stop is metered to outlet F2. The delivery of lubricant is continued and piston “B” is moved in direction of outlet B1up to limit stop, and the lubricant in front of the limit stop is carried to outlet A1. In the continued succession, piston “C” is moved in direction of outlet C1 up to the limit stop,

and the lubricant in front of the limit stop is metered to outlet B1 etc.

When all pistons are adjacent to the left limit stops, piston “A” is moved in direction of outlet A2 up to the limit stop, and the lubricant in front of the limit stop is metered to outlet F1.

In the sequel of the lubricant supply, the piston “B” and “C” are moved to the right limit stops, piston “B” metering the lubricant to outlet A2, and piston “C” metering the lubricant to outlet B2 etc.

The supply of lubricant to the outlets is effected in the same order as described, until the pistons “A” to “F” have been moved into the respective limit stop side. The functioning of the progressive distributors requires at least 3 metering groups (piston pairings).

3. Technical Datasheet And Outline

1) Technical Datasheet:

a.) Operating pressure max: 30Mpa;

b.) Max. differential pressure between 2 outlets: 7Mpa;

c.) Metered quantity per piston stroke and outlet: 0.17ml^3/cyc;

d.) Temperature range: -20℃ to +80℃

e.) Compatible lubricants on mineral oil basis:

Grease lubricants up to NLGI class 000 to 3 DIN 51818

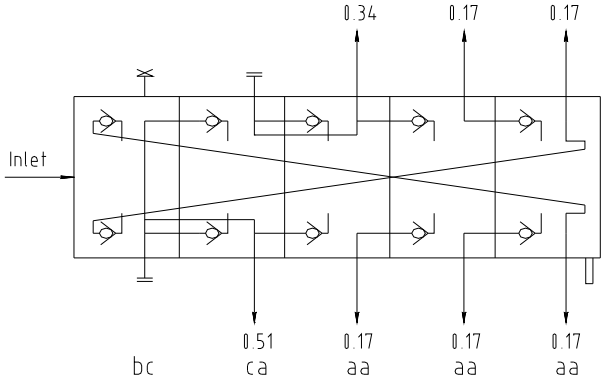
Oil ISO VG 68 to 1500 DIN 51519 at operating temperature.

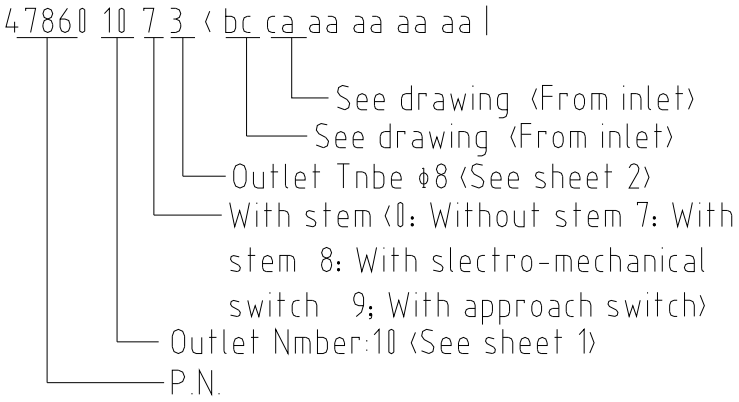
f.) AS the following principle shown

↓ **a** Symbol “a” shows the position of the outlet.

| **b** Symbol “b” indicates the fusion of the two metered volumes of one metering assembly group. For this, the headless pin is removed from the assembly group. For this, the headless pin is removed from the assembly group concerned.(Closure of the unused outlet by means of item no.3).

— **c** Symbol “C” indicates the fusion of the metered volumes of neighbouring metering assembly groups (Closure of the unused outlet by means of item no.5).





Sheet 1

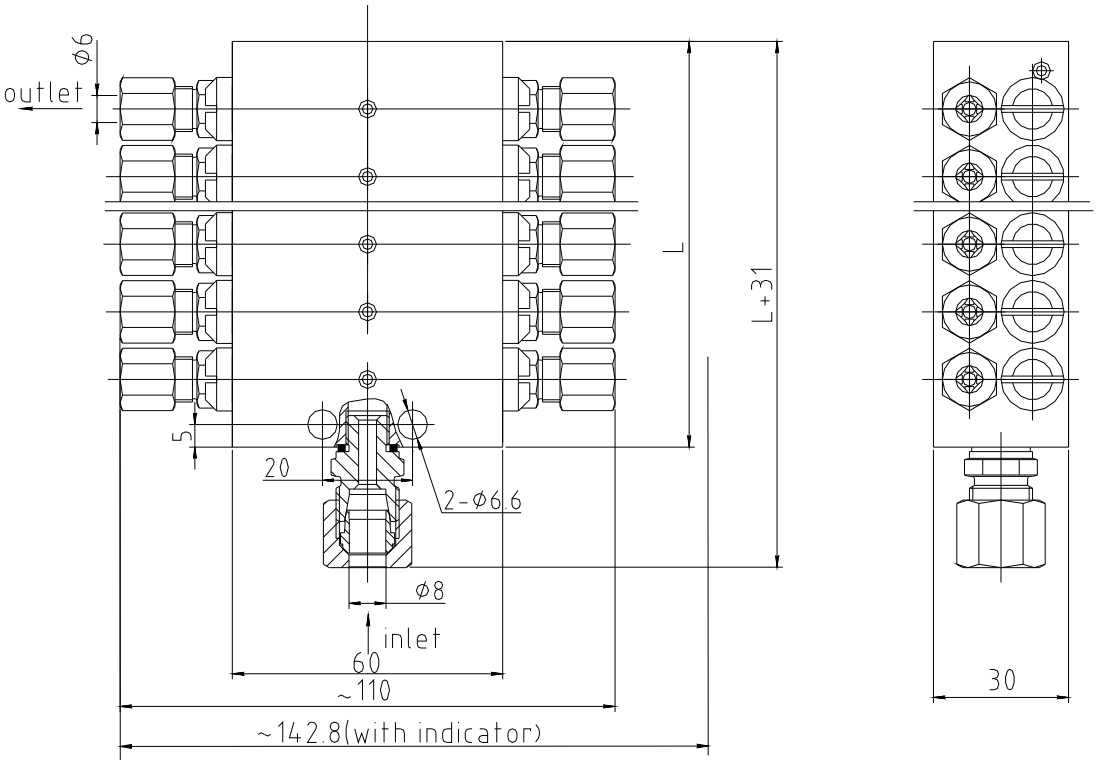
Symbol	06	08	10	12	14	16	18	20
Outlet Number	6	8	10	12	14	16	18	20

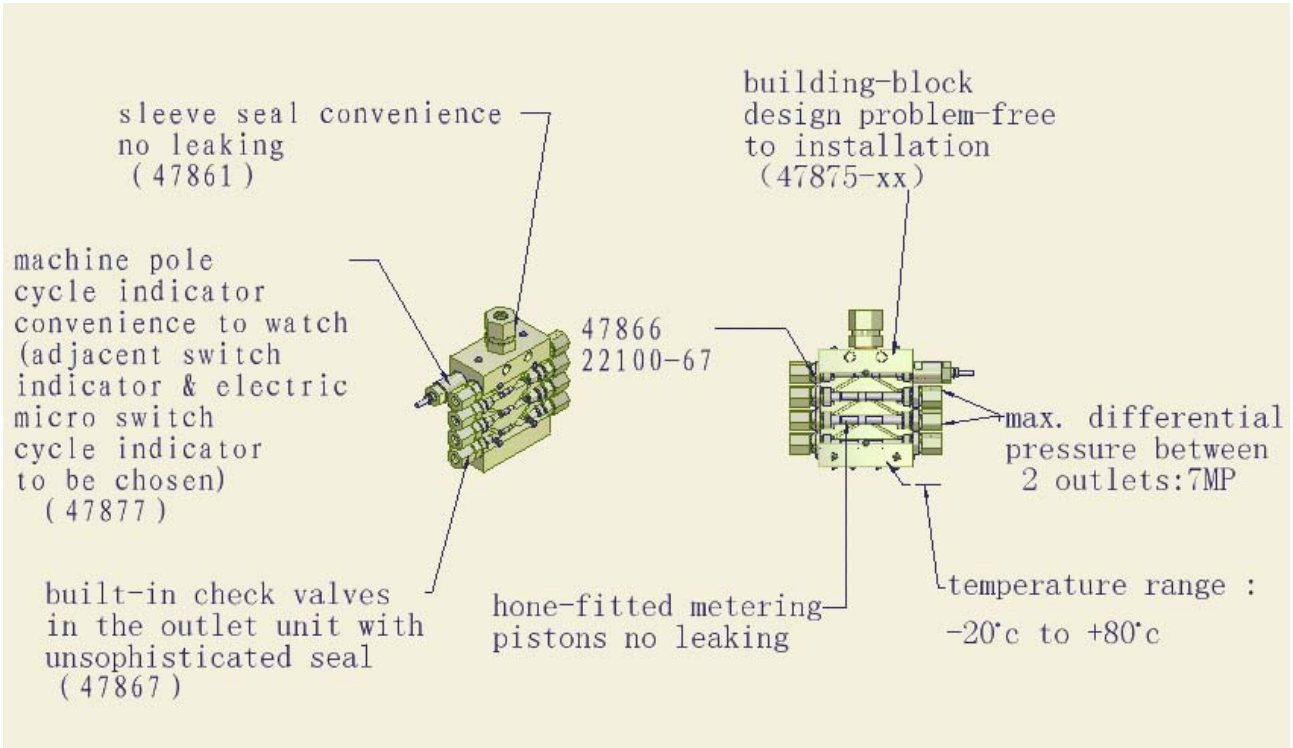
Sheet 2

Symbol	0	1	2	3
Inlet Type	Screw: G1/8	φ6	φ8	φ10

2) Outline:

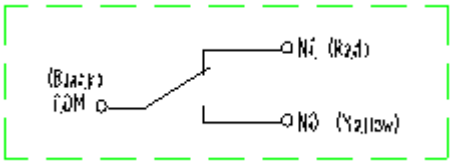
Outlet Number	6	8	10	12	14	16	18	20
L（mm）	60	75	90	105	120	135	150	165
Weight（Kg）	0.96	1.19	1.42	1.65	1.88	2.11	2.34	2.57


outlet
φ6
L
L+31
5
20
2-φ6.6
φ8
inlet
60
~110
~142.8(with indicator)
30


sleeve seal convenience
no leaking
(47861)
building-block
design problem-free
to installation
(47875-xx)
machine pole
cycle indicator
convenience to watch
(adjacent switch
indicator & electric
micro switch
cycle indicator
to be chosen)
(47877)
47866
22100-67
max. differential
pressure between
2 outlets:7MP
built-in check valves
in the outlet unit with
unsophisticated seal
(47867)
hone-fitted metering
pistons no leaking
temperature range :
-20°c to +80°c

3. Installation And Operating

1. When the progressive divider valve with electric micron switch type cycle indicator switch, please connect the electric line per the under drawing.



2. The progressive divider valve should be install on the place where operators can check easily. Then operators can observe the progressive divider valve conveniently.

3. Inlet should be on the top when be fixed in order to exhaust air in the line.

4. All the pipes in the system must be clean. Must used high pressure air to blow the pipe line before lubricating system work.

5. The filter should be used before the inlet because Hone-fitted metering pistons.

6. If the system is first installation, please install the distributor after the oil (grease) abound the system's pipes in order to discharged all air which in the system.

5. Maintenance

1.) All the distributor and the system must use the cleanly lubricant.

2.) Check-up the filter for oil (grease) and the filter for gas on time, please replacing it if it jammed.

3.)The temperature of the place where progressive divide valve installed can't higher than 80℃.

4.)Please check-up all the distributors timing everyday in order to deal with in time if the distributors working thundering.

5.) When the valve sections need mending, disassemble all inlet adapters and outlet adapters, disassemble plug which is plugged the piston with a spanner. Wash the valve sections and pistons and blow them with clean pressure air. At last, paint a little oil on the piston. Reassemble the progressive divider valve. Piston and valve hole are whetted together one by one, so when reassemble the piston , pay attention to its position and direction, screw down the adapters (screw moment:22~23NM).Check the progressive divider valve with a manual pump. Assemble the progressive valve into the system again if it works well.

6.)The fissile airproof pieces

Serial number	Airproof's symbol	Airproof's name	Number per piece	Remark
1	43990	"Y" body airproof loop	1	Use for indicator
2	22100-67	"O" body airproof loop	Double of the piston	Use for plug