

Oil Air Lube Unit LOF



Features

- Oil-Air Lube unit for spindle bearing lubrication
- Oil supply by pneumatic piston pump
- Available with and without mixing valve
- Compact design
- Easy to install

Operation principle

The LOF oil-air lube unit uses a pneumatic piston pump to supply oil to a mixing valve.

The MVF mixing valve (optional) has an integrated metering function in the form of a piston distributor.

The oil from the pump to the mixing valve is supplied intermittently. Compressed air is supplied to the mixing valve.

Inside the mixing valve, the metered oil and air are mixed. From there the air transports the oil to the lube point(s).

The lubrication cycles (pump operating time and interval time) are controlled by the integrated IGZ38-F control unit.

- The lube unit has to be mounted vertically (with oil supply on top) on a flat surface free of vibrations.
- The compressed air has to be dry and filtered (<5µm).
- Changes in the cross section as well as any bending of the lube lines should be avoided to ensure a stable lubrication.

Versions

The LOF oil-air lube unit is available with and without mixing valve MVF.

The MVF mixing valve is available with 1 to 5 outlets.

Technical Data

Pneumatic piston pump

Lubricant.....high speed spindle or turbine oil
 Operating viscosity.....10 to 68mm²/s
 Reservoir capacity.....2.7L
 Operating pressure.....1.5 to 3.5MPa
 Operating temperature.....-10°C to +40°C
 Delivery rate.....7cm³/stroke

Pressure switch

Type of contact.....NO
 Operating pressure.....0.15^{+0.1}_{-0.05}MPa

Float switch

Type of contact.....NC
 Function.....opens at critical level

Control unit

Model designation.....IGZ38-F
 Interval time.....1 to 128 min or pulses
 Factory setting.....1 min
 Voltage.....AC100V;AC200V

Pressure switch (Air)

Type of contact.....NO
 Switching pressure.....0.15^{+0.1}_{-0.05}MPa

Pressure switch (Oil)

Type of contact.....NO
 Switching pressure.....1.3^{+0.15}_{-0.1}MPa

Available models

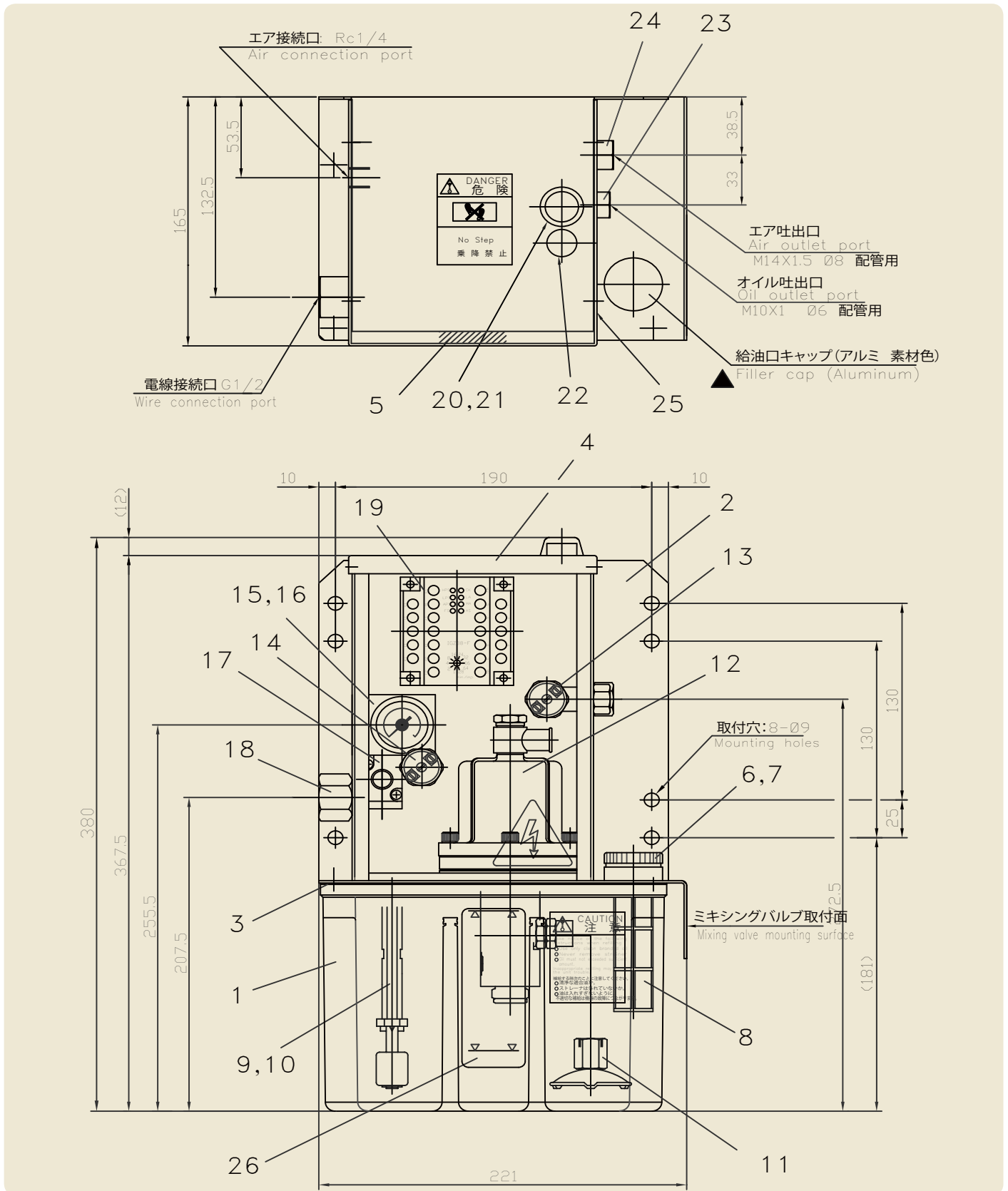
Order number	Lube points	Mixing valve	* = order code dosing rates
LOF	n/a	n/a	MVF mixing valve (see page 6 for further information)
LOF-MVF1-*	1	MVF1-*	
LOF-MVF2-**	2	MVF2-**	
LOF-MVF3-***	3	MVF3-***	
LOF-MVF4-****	4	MVF4-****	
LOF-MVF5-*****	5	MVF5-*****	

Dosing rates for ordering are given from left to right

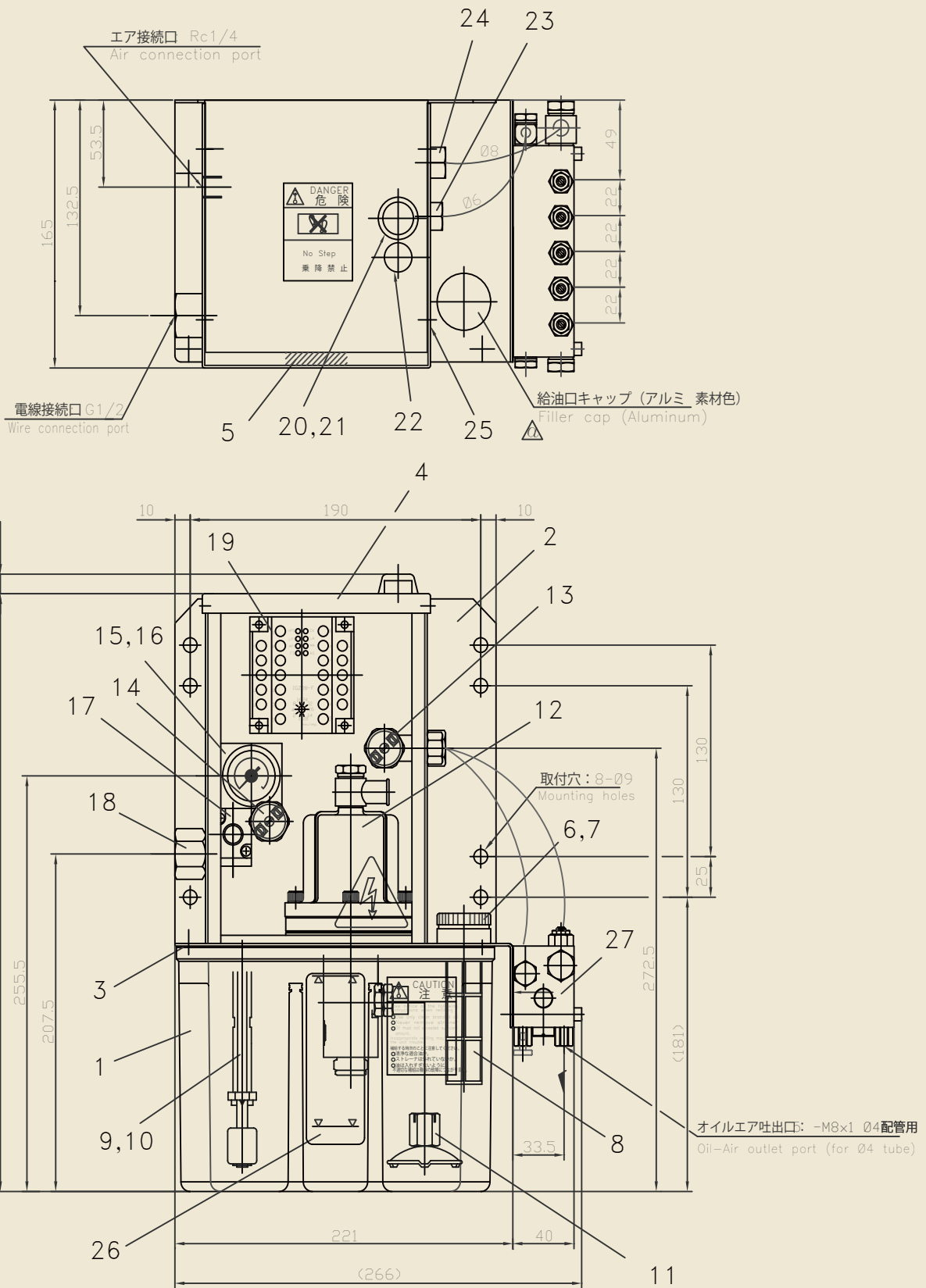
Order example: LOF with MVF5 mixing valve, dosing 0.01cm³ x 1 + 0.03cm³ x 4

= **LOF-MVF5-12222**

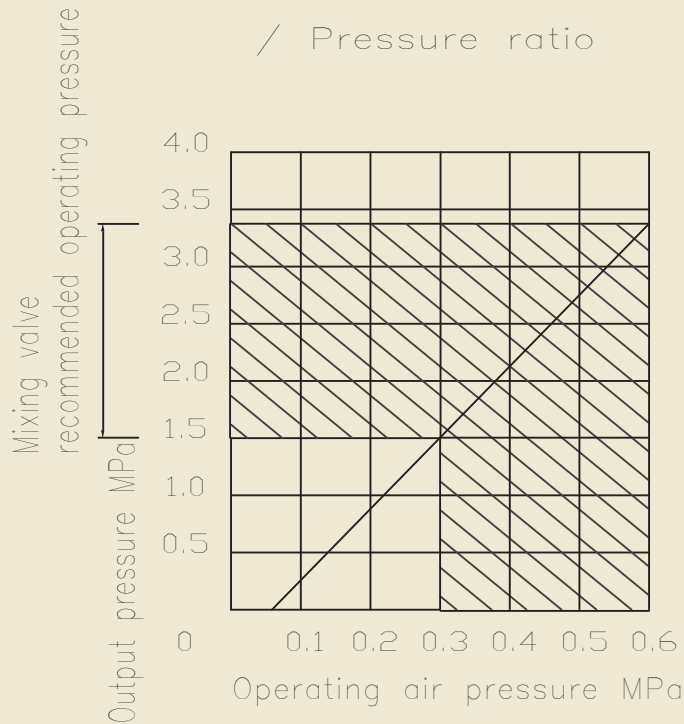
LOF (without mixing valve)



LOF-MVF-* (with mixing valve)

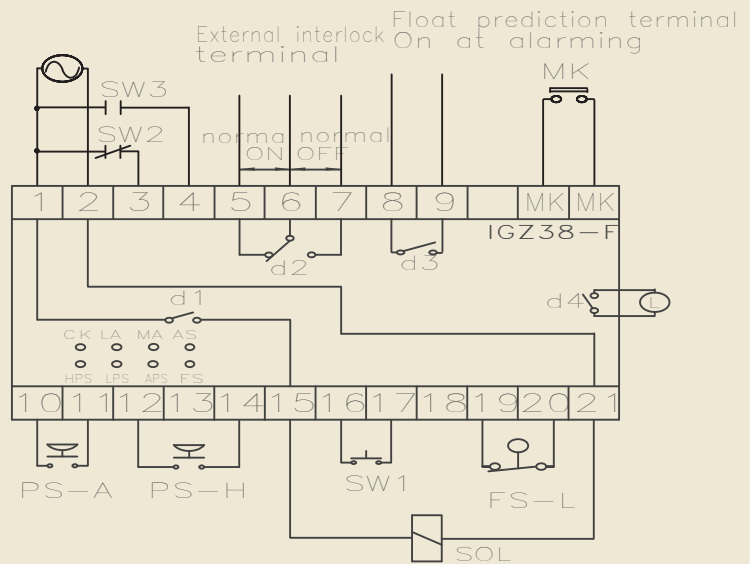


Pressure ratio

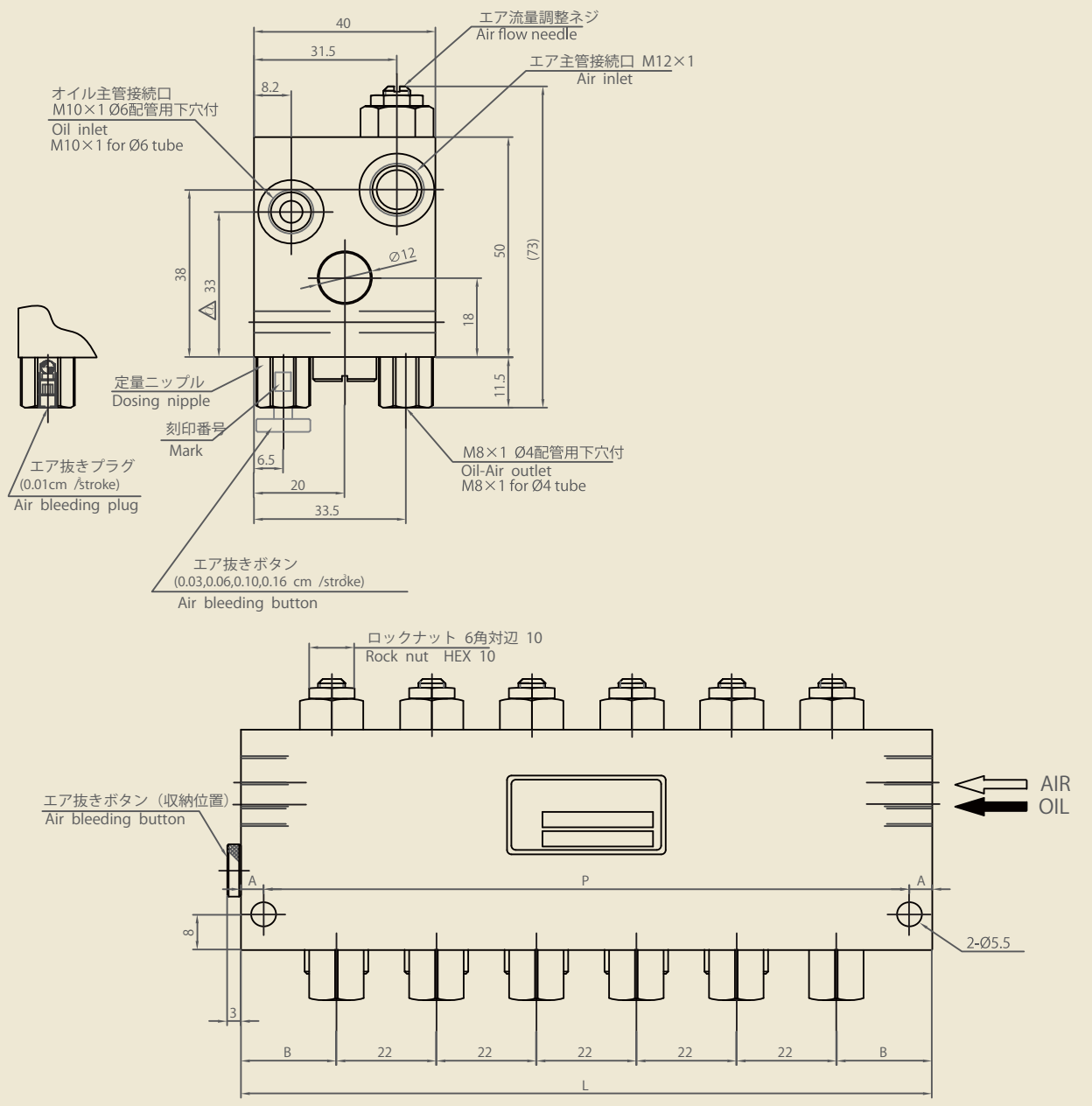


Wiring diagram

- SOL Pump operating solenoid
- L Warning lamp (red)
- PS-H Pressure switch (high)
- PS-A Pressure switch (Air)
- FS-L Float switch (low)
- SW1 Lubrication switch
- SW2
- Running preparation instruction signal SW3
- Running preparation completion signal MK
- MK Impulse signal
- d1 Pump operating relay
- d2 Abnormal lubrication relay
- d3 Float prediction relay
- d4 Abnormal lubrication lamp relay
- CK Power and clock (green)
- HPS Pressure rise (green)
- LPS Depressurization (green)
- APS Air pressure (green)
- FS Oil level lowering (red)
- LA SW2, SW3 connection (red)
- MA Abnormal microcomputer (red)
- AS Abnormality detection (red)



Mixing valve MVF*(with integrated metering function)



Type	Outlets	L[mm]	A[mm]	P[mm]	B[mm]	Dosing rate [cm ³ /stroke]	Marking nipple	Order code
MVF1	1	42(32)	10	22	21	0.01	1	1
MVF2	2	64(55)	9.5	45	21	0.03	3	2
MVF3	3	86(80)	8	70	21	0.06	6	3
MVF4	4	108(105)	6.5	95	21	0.10	10	4
MVF5	5	130(130)	5	120	21	0.16	16	5

Order No. LS-0007-EN

Subject to change without notice! (07/2009)

Important product usage information

All products from SKF may be used only for their intended purpose as described in this brochure and in any instructions. If operating instructions are supplied with the products, they must be read and followed.

Not all lubricants are suitable for use in centralized lubrication systems. SKF does offer an inspection service to test customer supplied lubricant to determine if it can be used in a centralized system. SKF lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1013 mbars) by more than 0.5 bar at their maximum permissible temperature.

Hazardous materials of any kind, especially the materials classified as hazardous by European Community Directive EC 67/548/EEC, Article 2, Par. 2, may only be used to fill SKF centralized lubrication systems and components and delivered and/or distributed with the same after consulting with and receiving written approval from SKF.

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