

# TWO-LINE DISTRIBUTOR

# ZH

## APPLICATION

ZH distributors are a lubricating element of two-line lubrication system applied for dosing lubricant into individual lubricated points. The distributors are applied for lubrication of various machines, machine groups and equipment, e.g. in metallurgy, cement works, sugar factories, power engineering, metallurgical plants etc.

ZH distributors are supplied in execution with regulation head, i.e. with possibility to adjust supplied lubricant dose in a range of 0.4 - 2.0 cm<sup>3</sup>/stroke/outlet.

Distributors ZH are supplied with various numbers of outlets - 1 to 4. Individual types can be combined mutually in a central lubrication circuit, nominal doses can be adjusted during system operation.

## DESCRIPTION

A distributor is based on a body in which 1 to 4 functional units are placed with respect to appropriate types. Every functional unit consists of a distributing piston (servo piston), metering piston (dosing lubricant into the point to be lubricated), regulation head, signalling pin (indicator rod), regulation screw and one outlet that can be provided with full outlet piping. The inlet piping is connected to the distributor through the complete inlet connection. There are two anchor holes for 8 mm diameter screws in the distributor body.

## OPERATION

The two-line distributor is connected into the circuit of a two-line lubrication system. For a distributor to function, it is essential to alternate the pressure in pipe lines, which is provided by the working function of the two-line lubricating pump (e.g. Z2). When the lubricant is supplied into one branch, the distributing piston is shifted on into a limit position. The lubricant gets under the delivery piston by opening a connecting channel. The delivery piston moves into the other limit position and simultaneously forces out the lubricant through the interconnecting channel around the distributing piston into the outlet. The whole working cycle is repeated in the opposite direction after supplying the pressure to the other branch and relieving the first branch. One stroke of a distributing piston (distributor) is needed for the lubrication of all the lubricated points included in the two-line lubrication system. Each working unit of doser ZH works into one outlet. Nominal dose adjustment is provided by means of an adjusting screw in the regulation head. By means of this adjusting screw the stroke of delivery piston is limited through the regulation rod. If the adjusting screw is fully tightened, the outlet is adjusted to minimum flow rate.

## SERVICE AND MAINTENANCE

ZH distributors are mounted in any position. During the assembly it is advisable to ensure easy access to the adjusting screws for the control of nominal dose. The distributors are fixed directly to the machine foundation by means of M8x50 mm screws or by a welded-on clamp. The clamp and anchor bolts are not part of the delivery.

After the distributor is mounted to the chosen place the inlet piping is connected and the lubricant passed through. The connection of the distributors to the piping should always be made in the same way, i.e. the same inlet piping, e.g. upper one, should be connected to the same pipe line. The distributor is adjusted for maximum dose. When the lubricant leaves the outlets without air bubbles, the outlet piping can be connected. It is recommended to adjust the doses only during operation. The distributors require no further service except to check connections for leakage from time to time.

## TECHNICAL DATA

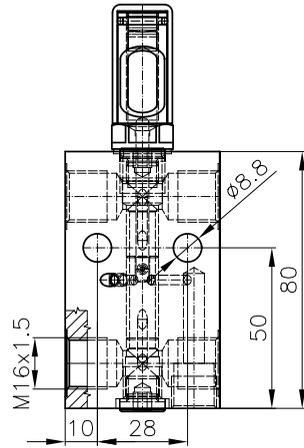
Maximum working pressure	400 bar	
Working pressure	350 bar	
Minimum working pressure	10 bar	
Nominal output	2.0 cm <sup>3</sup> /stroke/outlet	
Regulating range of nominal output	0.4 - 2.0%	
Number of outlets	ZH 21	1
	ZH 22	2
	ZH 23	3
	ZH 24	4
Inlet pipe union	M16x1.5	
Outlet pipe union	M14x1.5	
Lubricant	grease	max. NLGI-2
	oil	min. 50 mm <sup>2</sup> /sec.
Temperature of working environment	-25 to 80°C	
Weight	1.2 to 3.3 kg (depending on execution)	

**NOTE:**

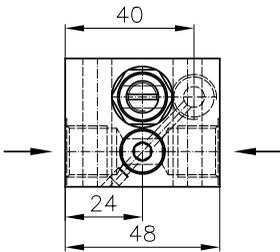
It is possible to supply ZH two-line distributors with complete assembled inlet and outlet connections according to customer's request. It is necessary to indicate the specification in order or a specification on packing list might be used (see User's guide).

ZH 21

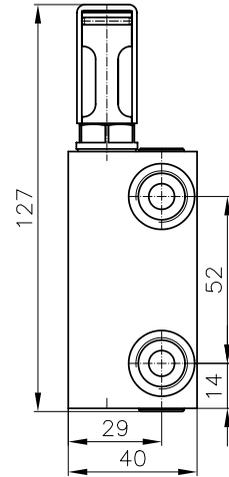
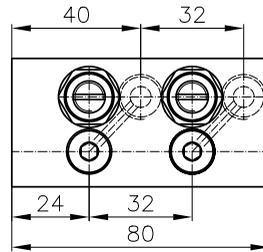
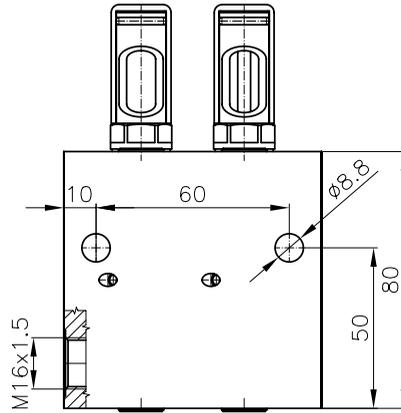
A— B—



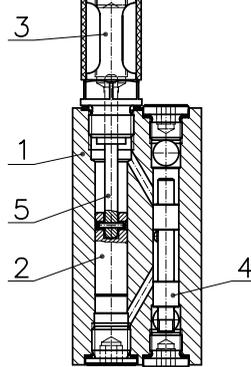
A— B—



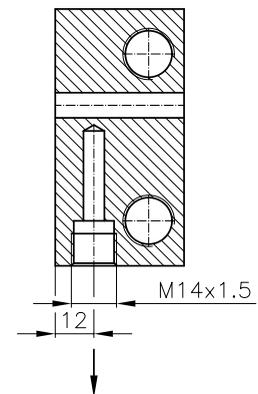
ZH 22



A—A



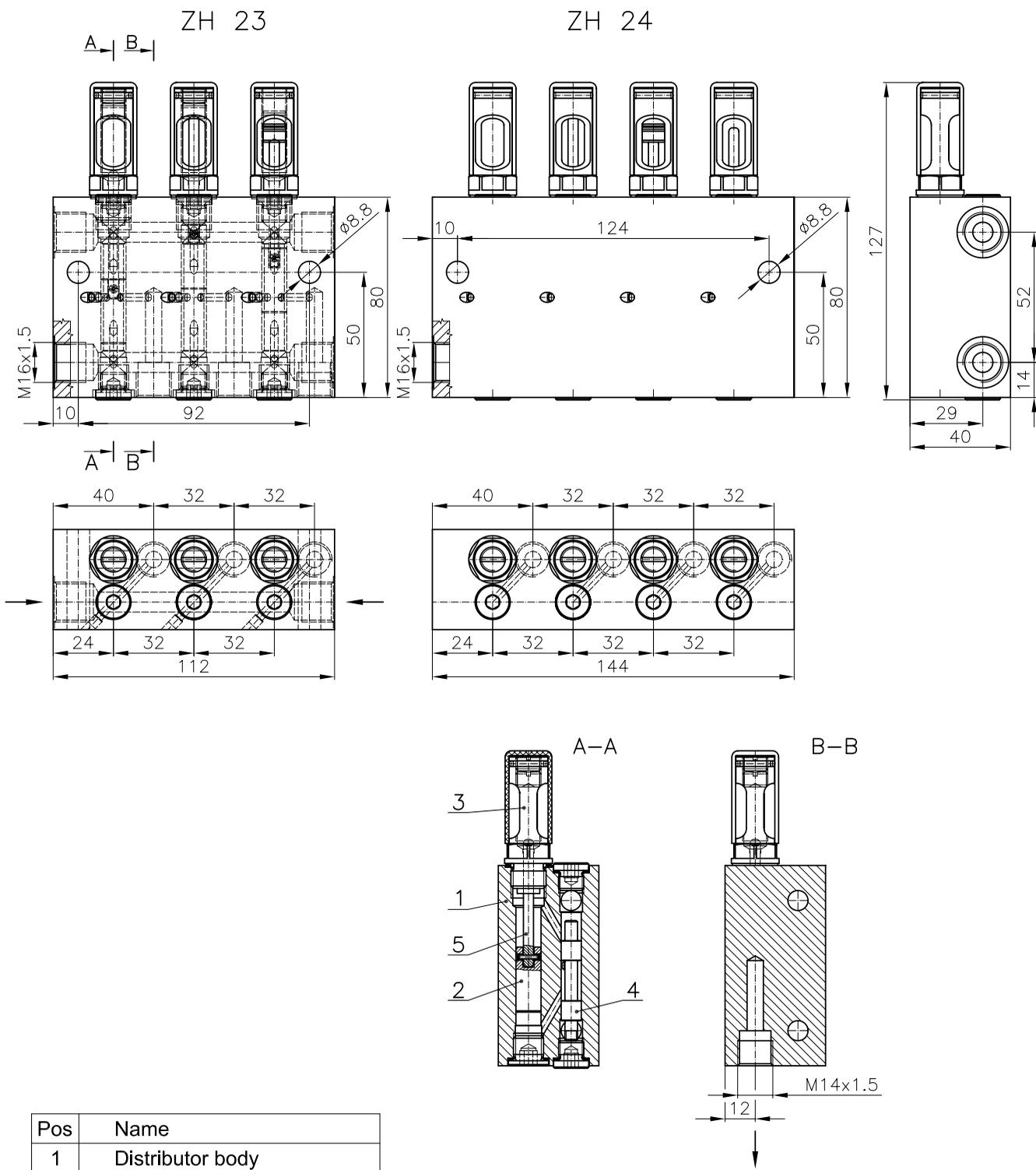
B—B



Pos	Name
1	Distributor body
2	Metering piston
3	Regulatory head
4	Servo piston
5	Indicator rod

Type	Code
ZH 21	9 52 0544
ZH 22	9 52 0545

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Type	ZH 21, ZH 22	
Code		



Pos	Name
1	Distributor body
2	Metering piston
3	Regulatory head
4	Servo piston
5	Indicator rod

Type	Code
ZH 23	9 52 0546
ZH 24	9 52 0547

Name	TWO-LINE DISTRIBUTOR		<b>©Tribotec</b> s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	ZH 23, ZH 24		
Code			