# Pulse Scaler

## Hydraulically operated, for oil and fluid grease

The pulse scaler makes it possible to easily divide up a centralized single-line lubrication system into multiple lube circuits to meet different lubricant needs.

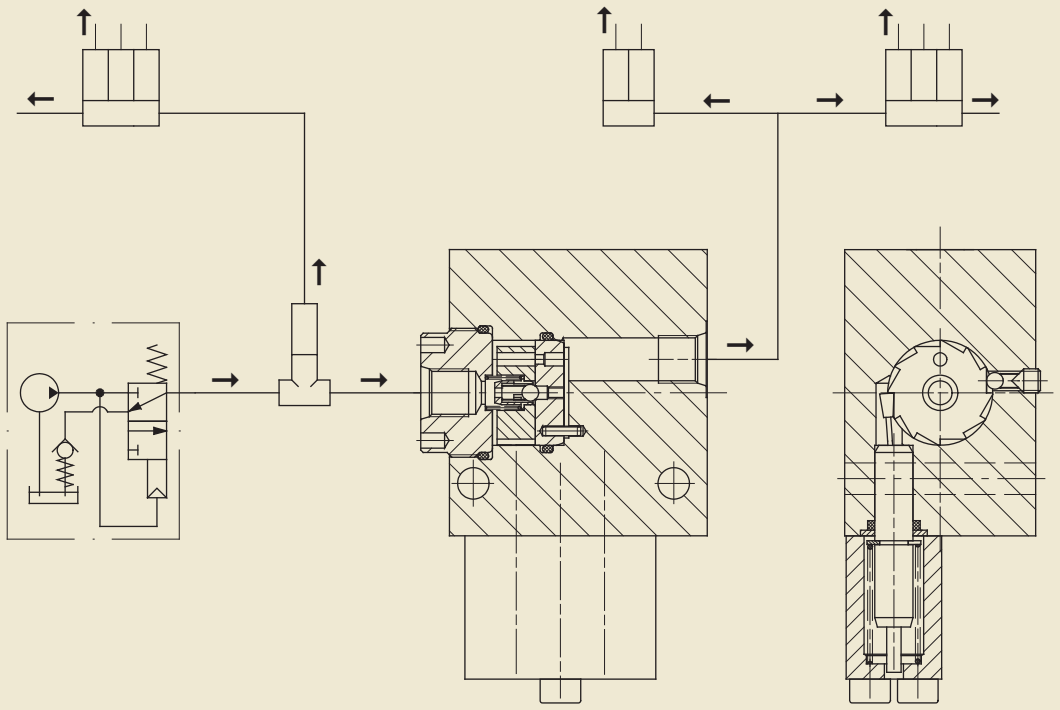
The pulse scaler is a hydromechanically operated rotary valve with 12 teeth in the form of a multihole disc that is turned 1/12$^{th}$ of a revolution after every lube pulse from the main system.

Various reductions are possible depending on the number of holes in the disc. The reductions range from 1:2 to 1:144.

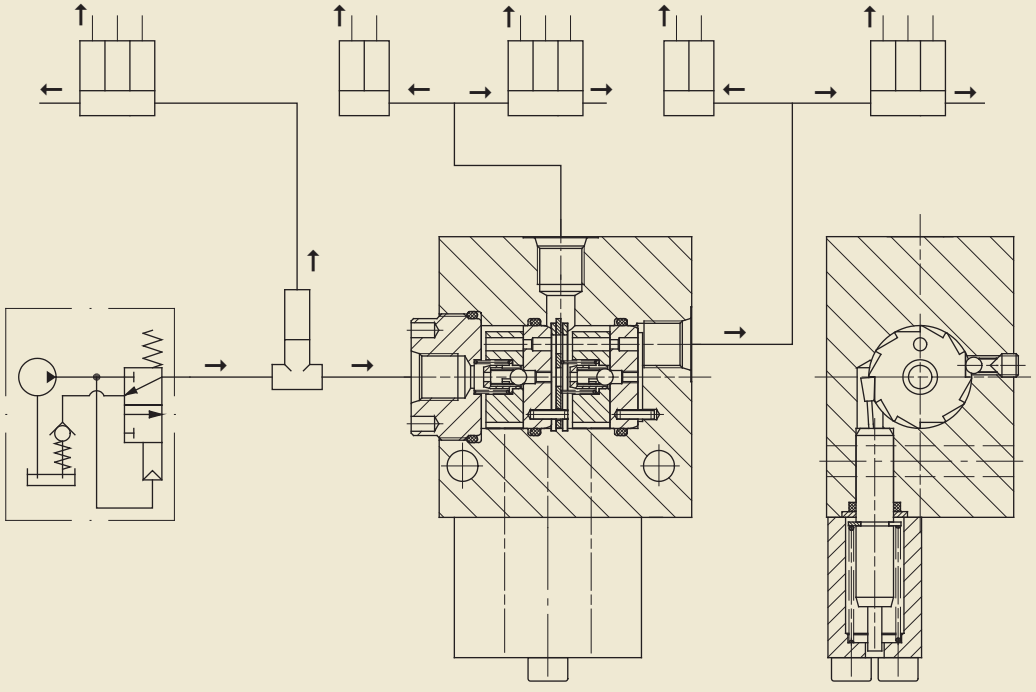
The piston actuator is tensioned by the pump's pressure, and a spring moves the disc in steps when the pressure is released, so that during a respective lube pulse the lubricant can flow through to the stepped-down system section in keeping with the scaling.

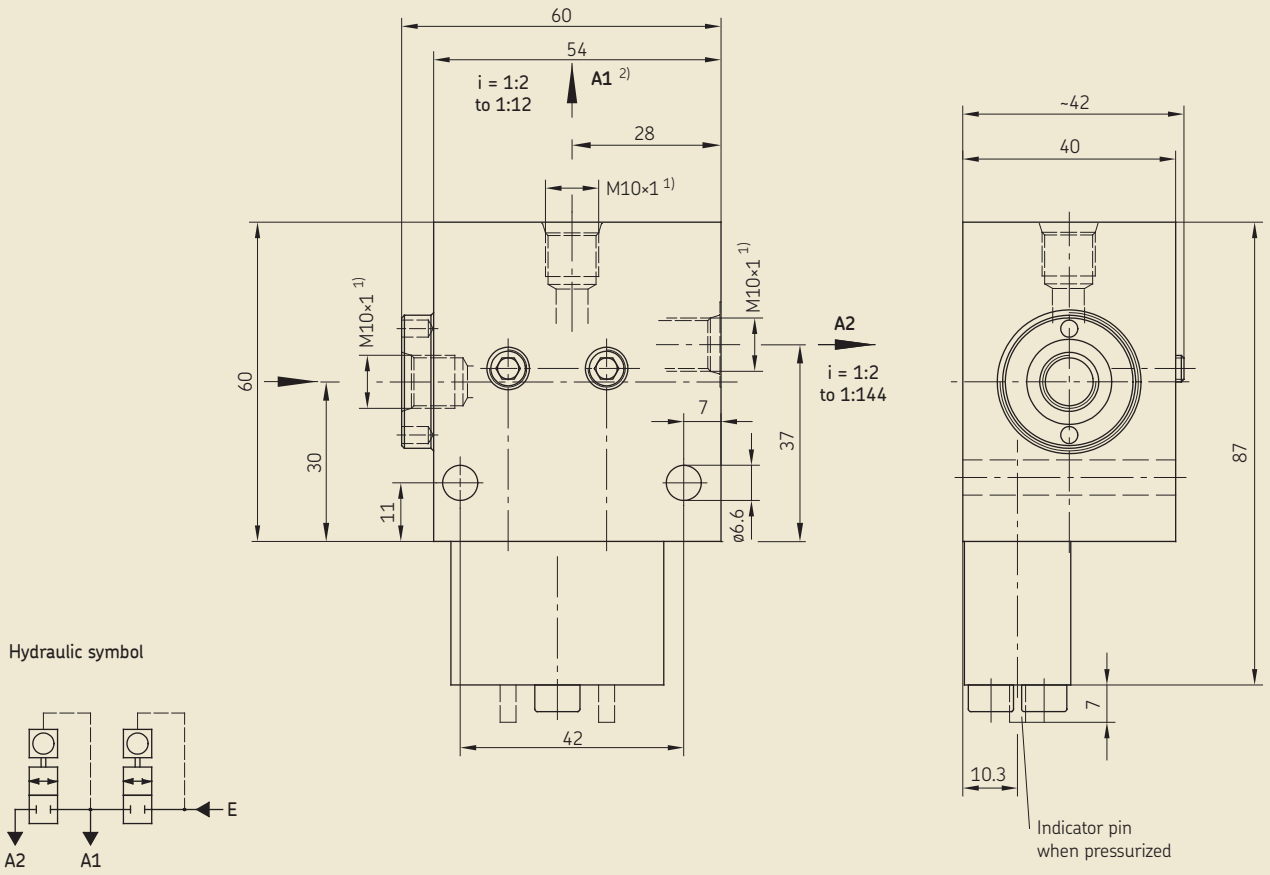
This system section can continue to relax via the relief valve regardless of the ratchet's position, which can be important in case of short actuation sequences and extended relief phases.

## System with pulse scaler and one outlet port



## System with pulse scaler and two outlet ports






*1) Screw hole to ISO 6149 (DIN 3852 T3)*
*2) Connection port A1 on 163-300-101 to 163-300-112 closed*

## Technical data

**Order No. . . . . .163-300-1xx**
*Supplement order No. with 2-digit code number from order key table.*

Operating pressure . . . . . max. 45 bars
min. 20 bars
Perm. residual pressure at E . max. 3 bars
Perm. residual pressure
of A1 at E *) . . . . . ca. 0.4 bar
Perm. residual pressure
of A2 at E *) . . . . . approx. 0.4 bars at i = 1:2 to 1:6, 1:12
ca. 0.8 bars at i = 1:8, 1:16 to 1:144
Volumetric uptake . . . . . ca. 0.4 $cm^3$ per step
Operating temperature . . . . +10 °C to +60 °C
Lubricant . . . . . oil, service viscosity 20 to 1500 $mm^2/s$
fluid grease, NLGI grades 00 and 000

Possible reductions . . . . . see order key
Please indicate the reduction when ordering

Mounting position . . . . . any
Preferred mounting position as illustrated or
inlet port at bottom (self-venting).

**) Suitable only for fluid-grease piston distributors due to greater relief resistances.*

## Order key

| Outlet port A2 \ Outlet port A1 | *) | 1:2 | 1:3 | 1:4 | 1:6 | 1:12 |
|---|---|---|---|---|---|---|
| 1:2 | **01** | – | – | – | – | – |
| 1:3 | **02** | – | – | – | – | – |
| 1:4 | **03** | **13** | – | – | – | – |
| 1:6 | **04** | **14** | **18** | – | – | – |
| 1:8 | **05** | **15** | – | **22** | – | – |
| 1:12 | **06** | **16** | **19** | **23** | **26** | – |
| 1:16 | **07** | – | – | **24** | – | – |
| 1:18 | **08** | – | **20** | – | **27** | – |
| 1:24 | **09** | **17** | – | **25** | **28** | **31** |
| 1:36 | **10** | – | **21** | – | **29** | **32** |
| 1:72 | **11** | – | – | – | **30** | **33** |
| 1:144 | **12** | – | – | – | – | **34** |

**) Outlet port 1 closed on 163-300-101 to 163-300-112*

**Order examples:**
Pulse scaler, outlet port 1 closed,
outlet port 2 with 1:3 reduction, order No. 163-300-1**02**

Pulse scaler, outlet port 1 with 1:6 reduction,
outlet port 2 with 1:24 reduction, order No. 163-300-1**28**

**Order No. 1-5018-EN**
Subject to change without notice! (07/2014)

**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.

**Further brochures**
1-9201-EN Transport of Lubricants in Centralized Lubrication Systems

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**This brochure was presented by:**