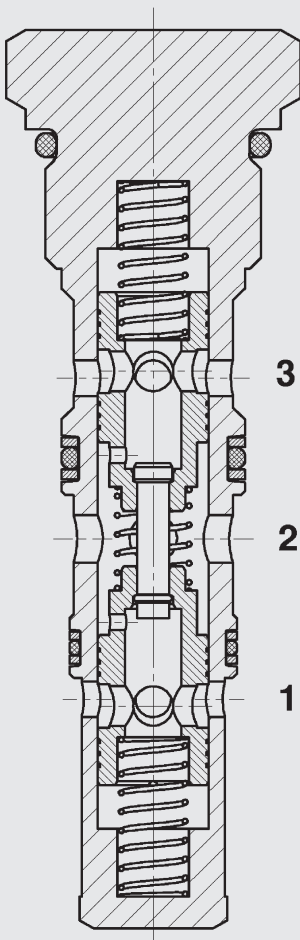


up to 60 l/min  
up to 350 bar

## FUNCTION



The flow divider is a spool type valve which divides a flow in two.

The division is made according to the specified ratio - from port 2 to ports 1 and 3.

As a flow combiner it combines two partial flows together – from ports 3 and 1 to port 2.

## Flow Divider / Combiner Spool Type Metric Cartridge – 350 bar ST12230-01

### FEATURES

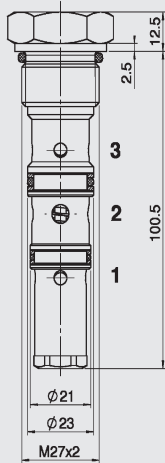
- Main use is as a differential lock in drive applications or for the synchronisation of two cylinders
- Excellent dividing and combining accuracy
- Synchronising flow in both operating modes
- Wide support from 25% of nominal flow rating
- Various flow rates up to max. 60 l/min input flow rate
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

### SPECIFICATIONS\*

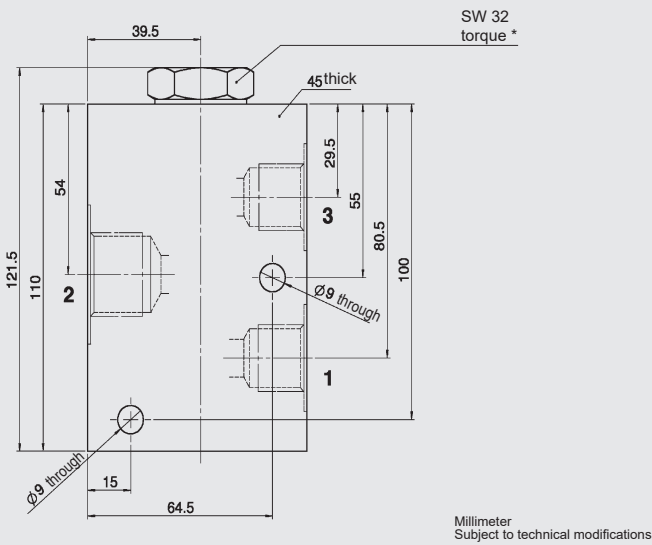
Operating pressure:	max. 350 bar	
Nominal flow:	max. 60 l/min	
Inlet flow:	Type 20	20 l/min
	Type 60	60 l/min
Dividing accuracy:	up to 10% of inlet flow per partial flow	
Media operating temperature range:	min. -30 °C to max. +100 °C	
Ambient temperature range:	min. -30 °C to max. +100 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3	
Viscosity range:	min. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s	
Filtration:	Class 21/19/16 to ISO 4406 or cleaner	
MTTF <sub>d</sub> :	150 - 1200 years, according to DIN EN ISO 13849-1	
Installation:	No orientation restrictions	
Material:	Valve body:	steel
	Piston:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
	Back-up rings:	PTFE
Cavity:	12230 metric	
Weight:	0.27 kg	

\* see "Conditions and instructions for valves" in brochure 53.000

## DIMENSIONS

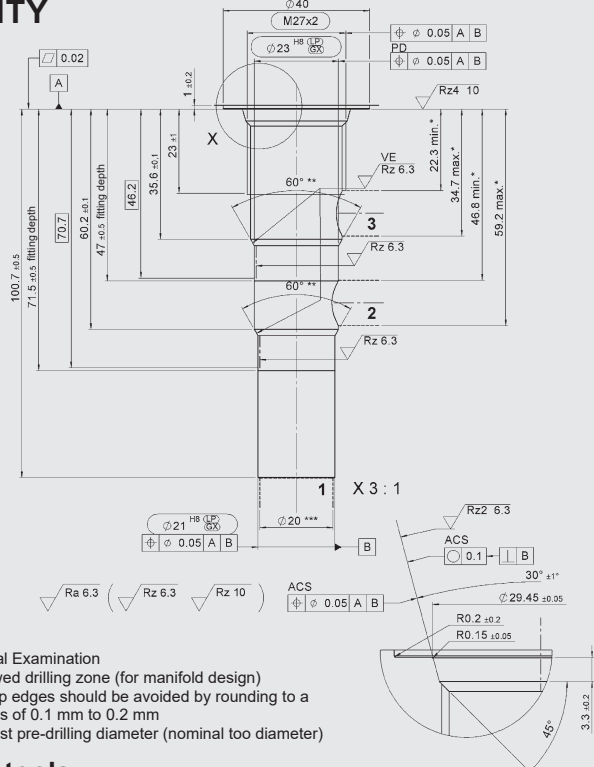


\*Torque:  
 Steel manifold  
 (ultimate tensile strength < 360 N/mm<sup>2</sup>):  
 80 Nm  
 Aluminium manifold  
 (ultimate tensile strength < 330 N/mm<sup>2</sup>):  
 80 Nm  
 (tool acc. to DIN EN ISO 6789,  
 tool type II class A or B)  
 For further informations see brochure  
 No. 53.000  
 "Conditions and instructions for valves"



## CAVITY

12230



VE = Visual Examination  
 \* Allowed drilling zone (for manifold design)  
 \*\* Sharp edges should be avoided by rounding to a radius of 0.1 mm to 0.2 mm  
 \*\*\* largest pre-drilling diameter (nominal too diameter)

## Form tools

Tool	Part No.
Countersink	175019
Reamer	175021

Millimeter  
 Subject to technical modifications

## MODEL CODE

ST12230 - 01 - C - V - 20 - 50 / 50

**Basic model**  
 Flow divider, metric

**Type**  
 01 = standard

**Body and Ports**  
 C = Cartridge only

**Sealing material**  
 V = FKM

**Flow ranges**  
 20 = up to 20 l/min  
 60 = up to 60 l/min

**Nominal ratio in % of total volume flow at port 3**

**Nominal ratio in % of total volume flow at port 1**

Code	Ratio Port 1 [%]	Ratio Port 3 [%]	Max. inlet flow [l/min]	Synchronization flow rate [l/min]
20	50	50	20	0.5
60	50	50	60	2.2

## Standard models

Model code	Part No.
ST12230-01-C-V-20-50/50	560637
ST12230-01-C-V-60-50/50	560638

Other models on request

## Standard in-line bodies

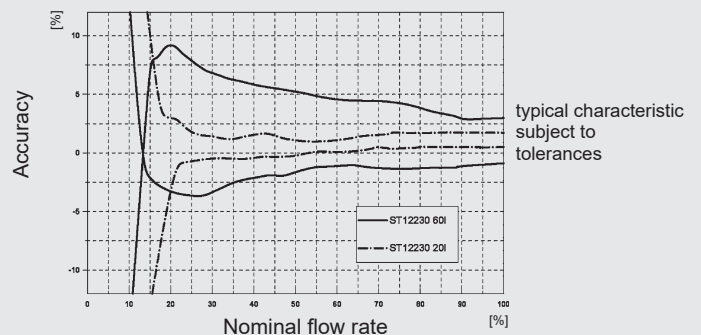
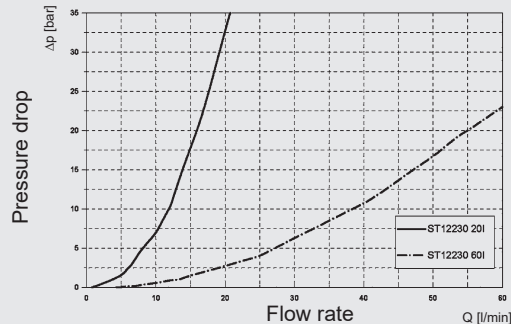
Code	Part No.	Material	Ports
R12230-01X-01	560705	Steel	G1/2", G3/4"

## Seal kits

Code	Material	Part No.
ST12230 SEAL KIT	FKM	3419571

## TYPICAL PERFORMANCE

Measured at  $v = 34 \text{ mm}^2/\text{s}$ ,  $T_{\text{Oil}} = 46^\circ \text{C}$



## NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.  
 Subject to technical modifications.

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