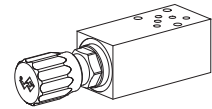


2-way flow control valve
Fixed orifice, adjustable pressure compensator
Sandwich construction

- $Q_{max} = 10 \text{ l/min}$
- $Q_{N max} = 8 \text{ l/min}$
- $p_{max} = 315 \text{ bar}$

NG3-Mini[®]

DESCRIPTION

Sandwich type 2-way flow control valve. Fitted with 2-way flow control cartridge M18x1,5 in accordance with ISO 7789. Type of adjustment available: „S“ = screw adjustment, „D“ = knob adjustment, (see data sheet no. 2.5-510). For the sandwich plates in A, B and AB, a bypass non-return valve for reversed free flow is installed.

FUNCTION

The 2-way flow control valve is designed to keep the speed of a consumer constant irrespective of the load. The fixed measuring orifice which is integrated into the pressure compensating piston determines the volume flow. If there is a pressure change, the pressure compensating spool is displaced and changes the outlet diameter in order to keep the pressure difference across the measuring orifice constant. By varying the spring bias acting on the compensator spool, the flow rate can be changed. Minimum adjustable flow within 40...70 % of Q_N . Flow regulation is effective above Δp 10 bar approx.

APPLICATION

Sandwich type flow control valves are used where the supply volume flow has to be kept constant even when the load fluctuates. Depending on the application, a distinction is made between restricting the forward flow or the return flow. These sandwich valves are particularly suitable for machine tools and also all types of handling operations. The Mini-3 flow control valves are used where hydraulic systems have to be both light and compact.

TYPE CODE

Flow control valve, 2-way		QA	☐	S	A03	-	☐	-	☐	#	☐
Type of adjustment	Screw ☐										
	Turning knob ☐										
Sandwich construction											
Mounting interface acc. to Wandfluh standard, NG3-Mini											
Type list/Function											
Meter-out flow control	in P ☐	in T ☐									
	in A ☐	in B ☐									
Meter-in flow control	in A and B ☐										
	in A ☐	in B ☐									
	in A and B ☐										
Nominal volume flow rate Q_N	0,4...0,6 l/min ☐										
	0,8...1,25 l/min ☐										
	1,3...2,1 l/min ☐										
	2,5...5 l/min ☐										
	5 ...8 l/min ☐										
Design index (subject to change)											

GENERAL SPECIFICATIONS

Description	2-way flow control valve
Nominal size	NG3-Mini acc. to Wandfluh standard
Construction	Sandwich
Mounting	3 mounting holes for socket head screws M4 or double ended screws M4
Connections	Threaded connection plates, Multi-flange subplates, Longitudinal stacking system
Ambient temperature	-20...+50 °C
Mounting position	any
Fastening torque	$M_D = 2,8 \text{ Nm}$ (quality 8.8) for fastening screws $M_D = 30 \text{ Nm}$ for screw-in cartridge
Weight	depending on the type 0,32...0,42 kg

HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Required filtration grade $\beta_{6...10} \geq 75$) refer to data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70 °C
Peak pressure	$p_{max} = 315 \text{ bar}$
Opening pressure to non-return valve	$p_o = 0,2 \text{ bar}$
Minimum pressure for controlled flow	$\Delta p = 10 \text{ bar}$
Nominal volume flow	$Q_N = 0,63 \text{ l/min}$, $Q_N = 1,25 \text{ l/min}$, $Q_N = 2 \text{ l/min}$, $Q_N = 5 \text{ l/min}$, $Q_N = 8 \text{ l/min}$
Min. volume flow	$Q_{min} = 0,4 \text{ l/min}$
Max. volume flow	$Q_{max} = 10 \text{ l/min}$
Hysteresis	depending on nominal volume flow 3...8 %

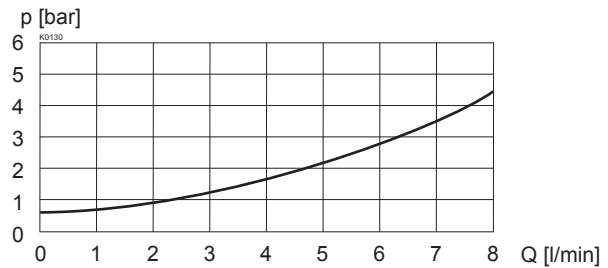
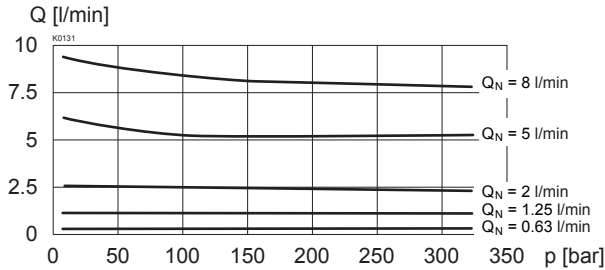
For further hydraulic specifications refer to data sheet 2.5-510.

CHARACTERISTICS Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$

$Q = f(p)$ Pressure drop/flow characteristics

$\Delta p = f(Q)$

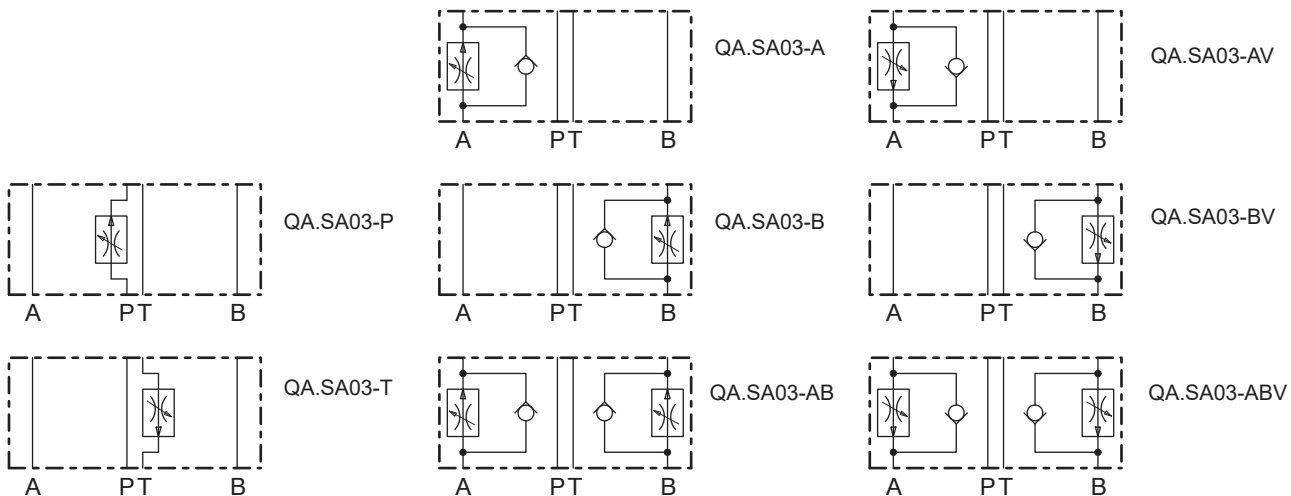
Pressure loss/flow characteristics
over non-return valve



SYMBOLS / DIMENSIONS

Meter-out flow control

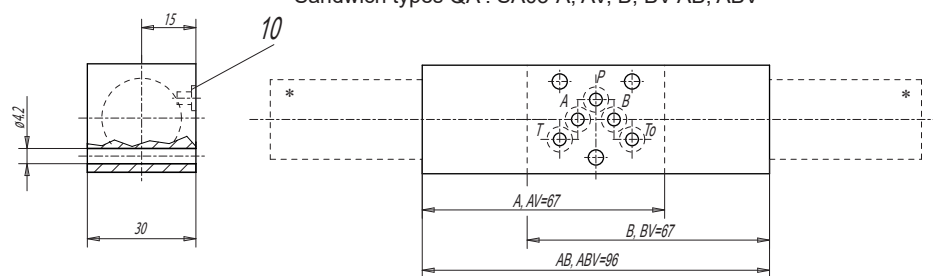
Meter-in flow control



By turning around valves with meter-out function, meter-in function can be achieved

A turns into BV
B turns into AV
AB turns into ABV

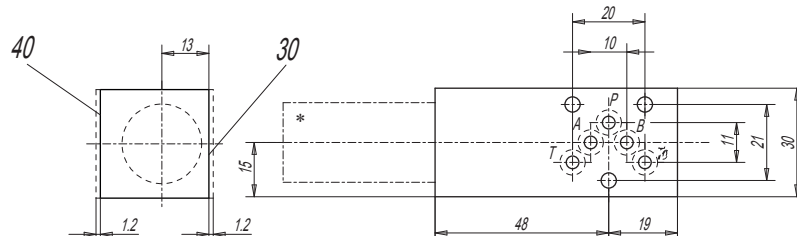
Valves for meter-in functions are supplied with a sealing plate and an intermediate plate



Sandwich types QA.SA03-P, T

* The total length depends on the cartridge type, see data sheet 2.5-510

Technical explanation see data sheet 1.0-100



SCREW-IN CARTRIDGES INSTALLED

The following screw-in cartridges are used in the sandwich body:

Type	Designation	Data sheet no.
QA.PM18	2-way flow control valve	2.5-510

PARTS LIST

Position	Article	Description
10	160.2045	O-ring ID 4,5x1,5 (NBR)
30	173.0700	Intermediate plate PZSA03
40	173.0650	Sealing plate PDSA03



ООО "Адамко Контролс"

Компания «Адамко Контролс» работает в области объёмного гидропривода и разработки гидросистем. Для нас не бывает маленьких и больших заказчиков. В первую очередь мы рассматриваем любого клиента в качестве нашего партнера, что позволяет нам долгое время сохранять хорошую репутацию.

Поставляем

- Компоненты гидравлических систем от ведущих производителей Европы, США и Китая
- Электрогидравлические драйверы (усилители ШИМ), контроллеры для гидравлических клапанов и гидрораспределителей с пропорциональным управлением
- Джойстики для гидрораспределителей
- Опорно-поворотные устройства (ОПУ) с червячным приводом

Проектируем и производим

- Гидравлические блоки клапанов (манифольды, гидропанели)
- Гидравлические насосные станции
- Станции жидкой смазки
- Насосные установки
- Гидроцилиндры
- Гидросистемы и оборудование

Осуществляем

- Модернизацию гидрооборудования и пуско-наладочные работы
- Подбор функциональных аналогов гидравлических компонентов

**Гидравлические комплектующие от нашей компании —
это качество, проверенное временем!**