

FLOW CONTROL

ABBREVIATIONS

AP	HIGH PRESSURE CONNECTION
AS	PHASE LAG (DEGREES)
BP	LOW PRESSURE CONNECTION
C	STROKE (MM)
CH	ACROSS FLATS
Ch	INTERNAL ACROSS FLATS
DA	AMPLITUDE DECAY (dB)
DP	DIFFERENTIAL PRESSURE (BAR)
F	FORCE (N)
I%	INPUT CURRENT (A)
M	MANOMETER CONNECTION
NG	KNOB TURNS
OR	SEAL RING
P	LOAD PRESSURE (BAR)
PARBAK	PARBAK RING
PL	PARALLEL CONNECTION
Pr	REDUCED PRESSURE (BAR)
Q	FLOW (L/MIN)
QP	PUMP FLOW (L/MIN)
SE	ELASTIC PIN
SF	BALL
SR	SERIES CONNECTION
X	PILOTING
Y	DRAINAGE

COMPENSATED FLOW REGULATORS



QC32...	CAP. III • 2
QC33...	CAP. III • 3
QCV32	CAP. III • 5

3

CHECK VALVE HOLDER FOR REGULATORS



AM3ABU...	CAP. III • 4
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QC32...

DIMENSIONS

CAP. III • 4

QC32... 2 WAY COMPENSATED FLOW RATE REGULATORS

These QC32... compensated flow rate regulators are designed to control and maintain a constant irrespective of the pressure variations upstream and downstream of the regulation section. Their new cast construction has made it possible to obtain a wider flow rate range, taking the upper limit to 35 l/min (4 turns version) while maintaining unchanged the pressure differential required to obtain good pressure compensation.

All models are available with and without reverse flow check valve, complete with an "anti-jump" device on request. This accessory has been designed to eliminate the problem which manifests itself as a "anti-jump" in the controlled actuator due to the instantaneous flow rate variation that takes place under the form of a transient every time the flow is made to pass through the regulator.

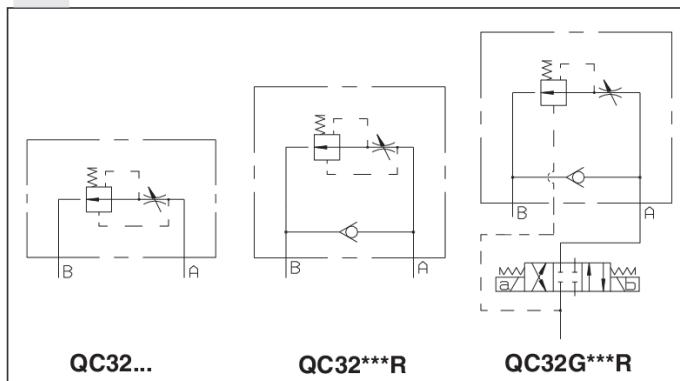
Max. operating pressure	320 bar
Opening pressure (with bypass)	1 bar
Min. regulated flow rate (Q1 version)	0.03 ÷ 0.05 l/min
Nominal regulated flow rate (1 turn version)	1,5 ÷ 30 l/min
Nominal regulated flow rate (4 turns version)	1,5 ÷ 35 l/min
Difference in pressure (Δp) for vers. Q1	3 bar
Difference in pressure (Δp) Q2-Q3-Q4-Q5-Q6	8 bar
Hydraulic fluids	Mineral oils DIN 51524
Fluid viscosity	10 ÷ 500 mm ² /s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamination level(*)	class 10 in accordance with NAS 1638 with filter β ₂₅ ≥ 75
Dependency on temperature (Q1 vers.)	5%
Dependency on temperature (Q2 vers.)	3%
Dependency on temperature (Q3-Q4-Q5-Q6)	2%
Weight	1,5 Kg

(*) Max contamination level must be respect to obtain the right function of the valve

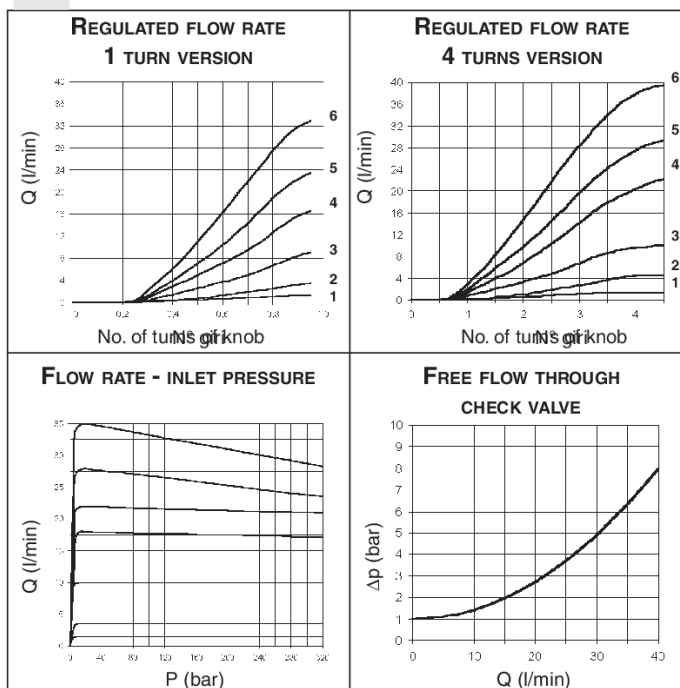
ORDERING CODE

- QC** Compensated flow rate regulated
- 3** CETOP 3/NG6
- 2** 2 way
- G** Anti-jump system with internal check valve (omit if not required)
- **** Nominal flow rate ranges
1 Turn version 4 Turn version
Q1 = 1,5 l/min Q1 = 1,5 l/min
Q2 = 3 l/min Q2 = 4 l/min
Q3 = 9 l/min Q3 = 10 l/min
Q4 = 19 l/min Q4 = 21 l/min
Q5 = 24 l/min Q5 = 28 l/min
Q6 = 30 l/min Q6 = 35 l/min
- K** Version with lock (omit if not required)
- *** **1** = 1 turn version
4 = 4 turns version
- R** With internal check valve (omit if not required)
- **** **00** = No variant
V1 = Viton
- 5** Serial No.

HYDRAULIC SYMBOLS



DIAGRAMS





QC33...

OVERALL DIMENSIONS	CAP. III • 4
AM3ABU...	CAP. III • 4

QC33... 3 WAY COMPENSATED FLOW RATE REGULATORS

This regulator type can be used whenever it is necessary to obtain a constant fluid flow irrespective of the pressure variations present upstream or downstream. It is fitted with a third T line for discharging any excessive flow rate.

When the reverse flow check valve is needed, the check valve holder type "AM3ABU3..." can be fitted underneath the valve. (The check valve holder must be ordered separately see next page).

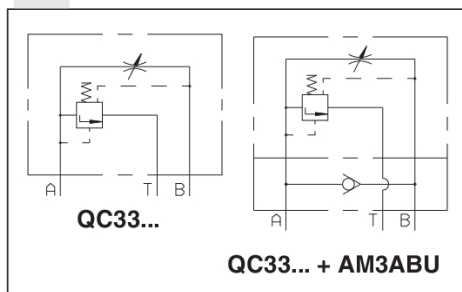
Max. operating pressure	320 bar
Opening pressure (with bypass)	1 bar
Min. regulated flow rate (Q1 version)	0.03 ÷ 0.05 l/min
Nominal regulated flow rate	1 ÷ 22 l/min
Difference in pressure (Δp) for vers. Q1	3 bar
Difference in pressure (Δp) Q2-Q3-Q4-Q5-Q6	8 bar
Hydraulic fluids	Mineral oils DIN 51524
Fluid viscosity	10 ÷ 500 mm ² /s
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Max. contamination level(*)	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$
Dependency on temperature (Q1 vers.)	5%
Dependency on temperature (Q2 vers.)	3%
Dependency on temperature (Q3-Q4-Q5)	2%
Weight	1,5 Kg
(*) Max contamination level must be respect to obtain the right function of the valve	

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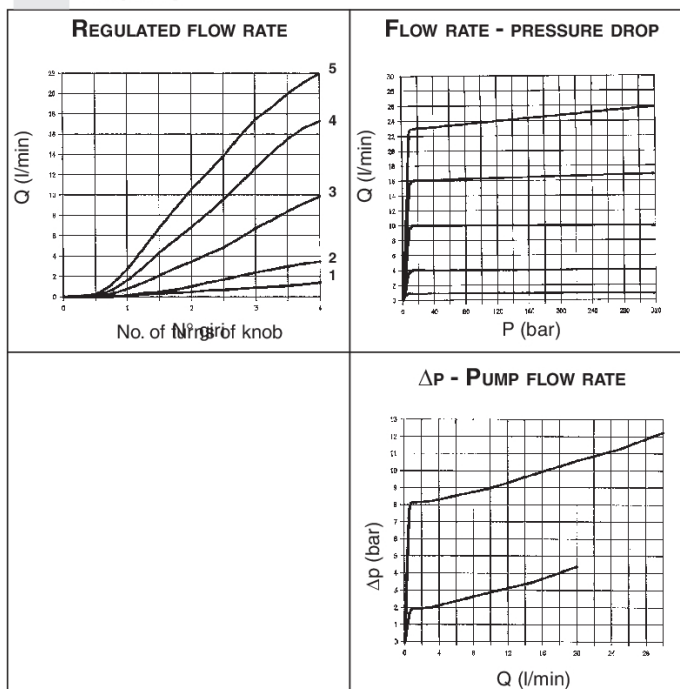
ORDERING CODE

QC	Compensated flow rate regulator
3	CETOP 3/NG6
3	3 way
**	Flow rate ranges Q1 = 1 l/min Q2 = 3 l/min Q3 = 9 l/min Q4 = 17 l/min Q5 = 24 l/min
K	Version with lock (omit if not required)
*	1 = 1 turn version 4 = 4 turns version
**	00 = No variant V1 = Viton
3	Serial No.

HYDRAULIC SYMBOLS

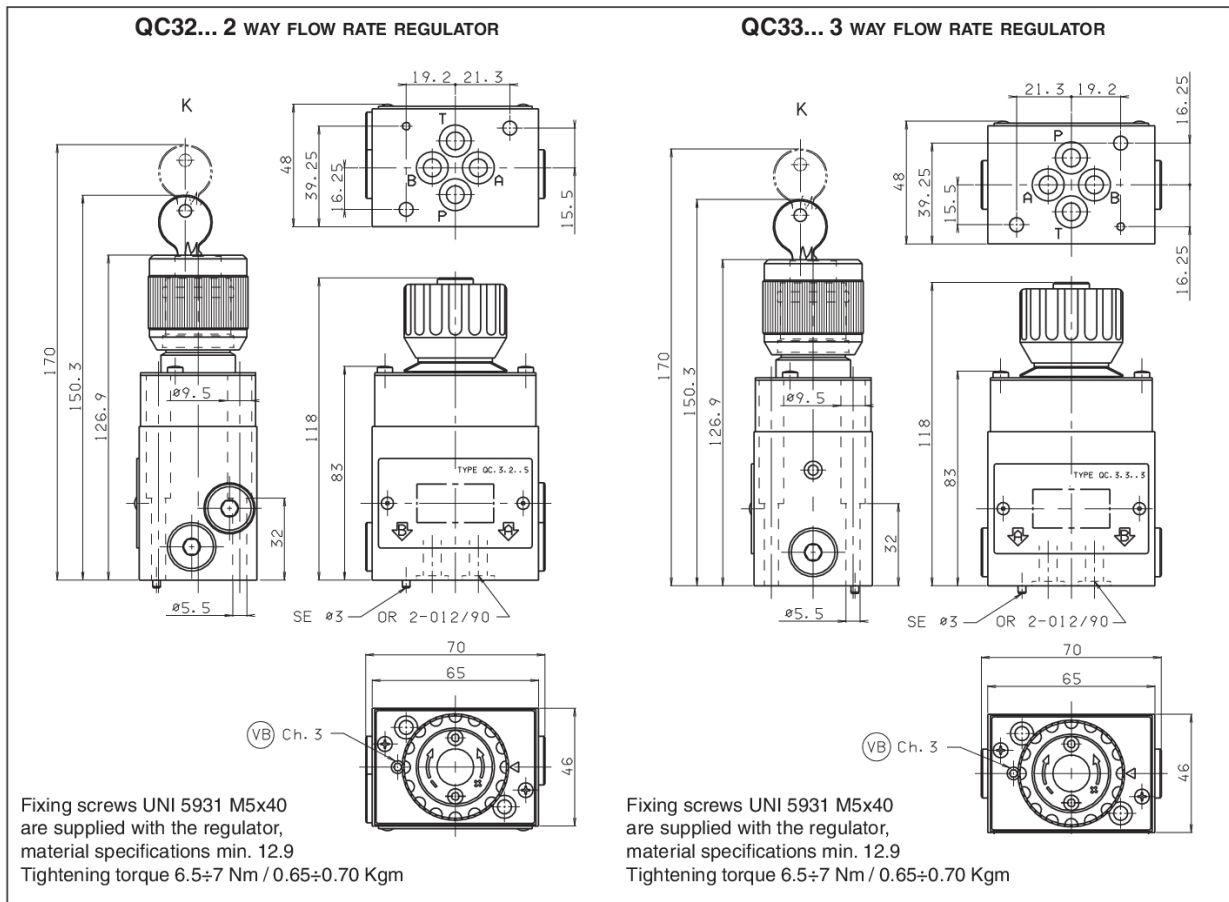


DIAGRAMS



QC32... QC33... COMPENSATED FLOW RATE REGULATORS

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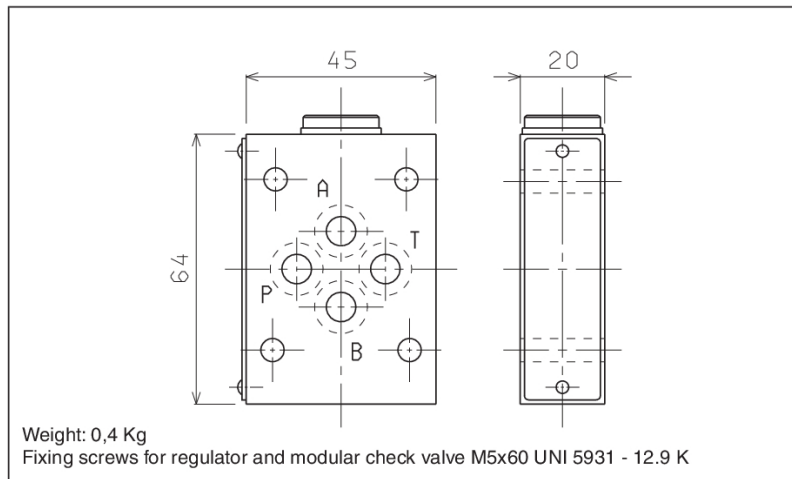


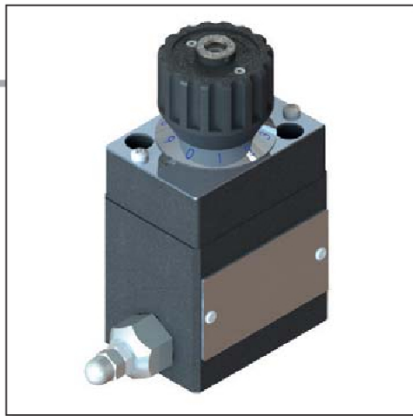
AM3ABU... CHECK VALVE HOLDER FOR REGULATORS TYPE QC3...

This check valve holder must be fitted underneath the QC valve when the reverse flow function is needed.

ORDERING CODE

AM	Modulating valve
3	CETOP 3/NG06
ABU	External check valve for QC3*
3	For 2 way and 3 way
00	No variant
1	Serial No.





QCV32...

QCV32... 2 Way COMPENSATED FLOW RATE REGULATORS WITH ADJUSTABLE ΔP

Compensated flow regulators with antijump system and adjustable differential pressure can be defined as hydraulic power control units. Their design is suitable to circuits in which the flow rate has to be automatically operated as a function of the actuator working pressure.

For application requirements, please contact our technical service that can help you to choose the right valve and use it properly.

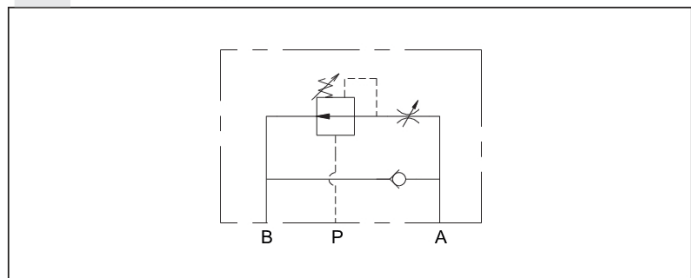
Max. operating pressure	320 bar
Nominal regulated flow rate	1 ÷ 24 l/min
Hydraulic fluids	Mineral oils DIN 51524
Fluid temperature	-25°C ÷ 75°C
Ambient temperature	-25°C ÷ 60°C
Fluid viscosity	10 ÷ 500 mm ² /s
Max. contamination level(*)	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$
Weight	1.5 Kg

(*) Max contamination level must be respect to obtain the right function of the valve

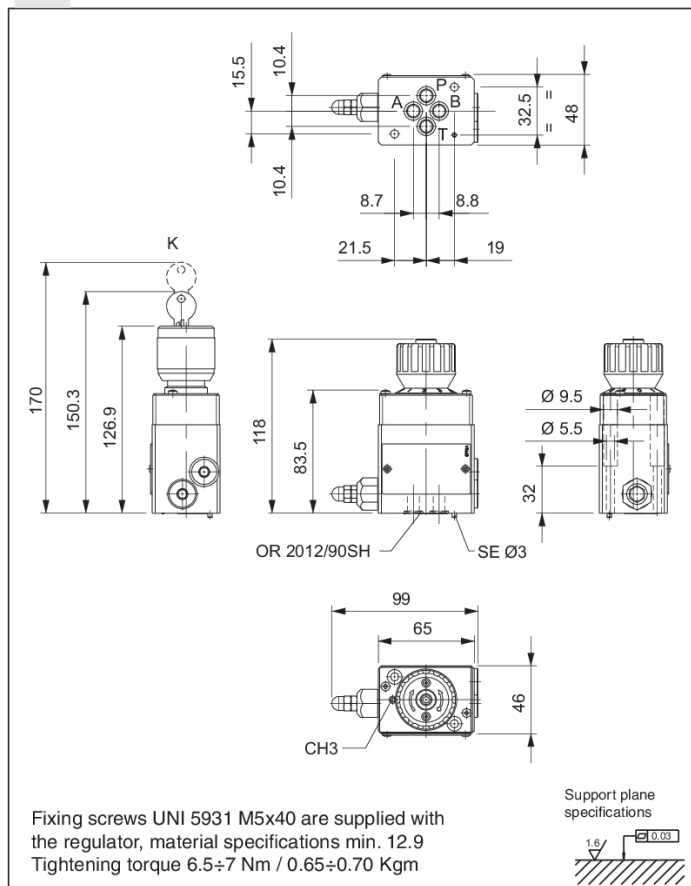
ORDERING CODE

- QCV** Compensated flow rate regulated with adjustable Δp
- 3** CETOP 3/NG06
- 2G** Pre-setting for external operating
- **** Flow rate ranges
Q1 = 1.5 l/min
Q2 = 3 l/min
Q3 = 9 l/min
Q4 = 19 l/min
Q5 = 24 l/min
- *** 1 = 1 turn version
 4 = 4 turns version
- R** Internal check valve (omit if not required)
- **** 00 = No variants
 V1 = Viton
 KK = Version with tightening key
- 5** Serial No

HYDRAULIC SYMBOL



OVERALL DIMENSIONS



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