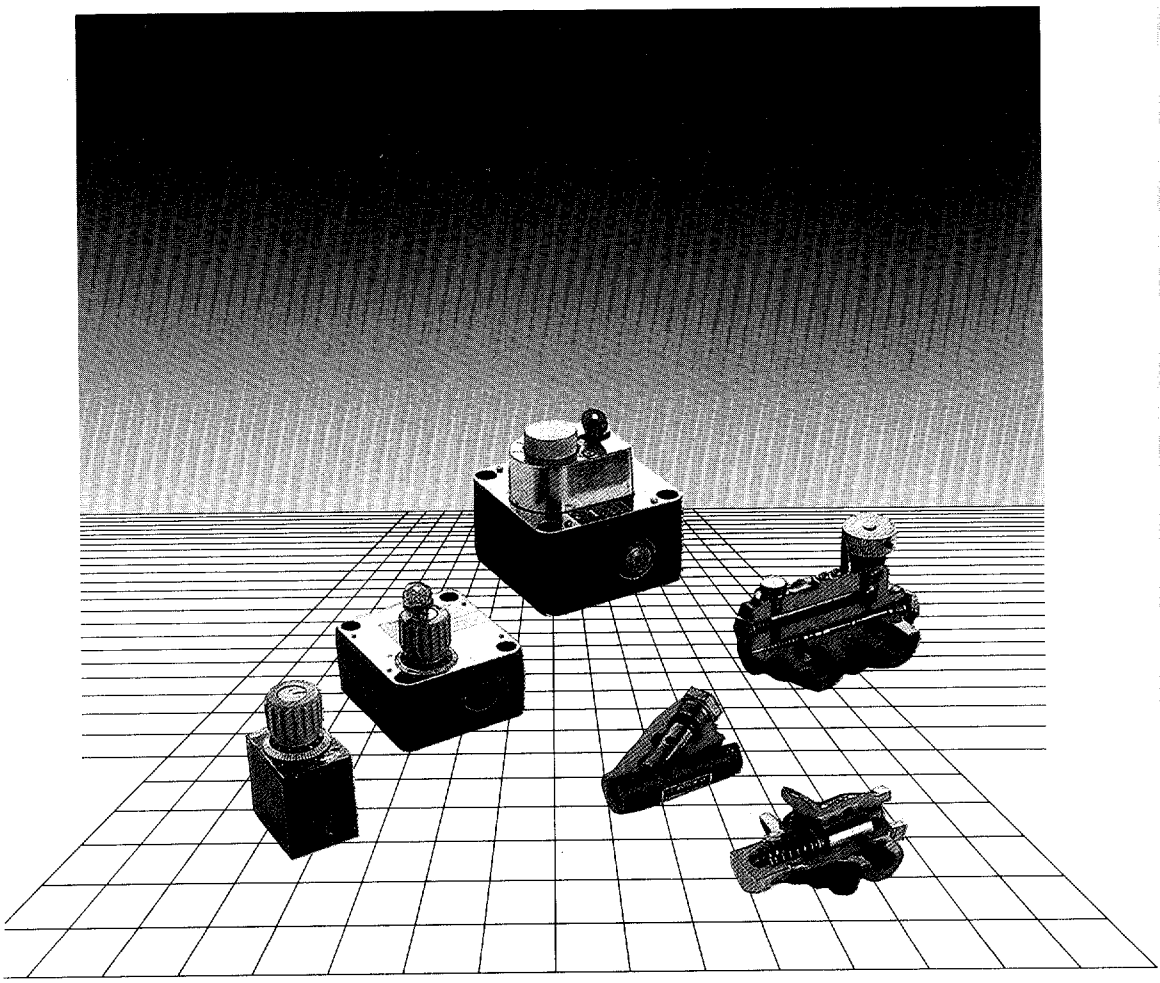
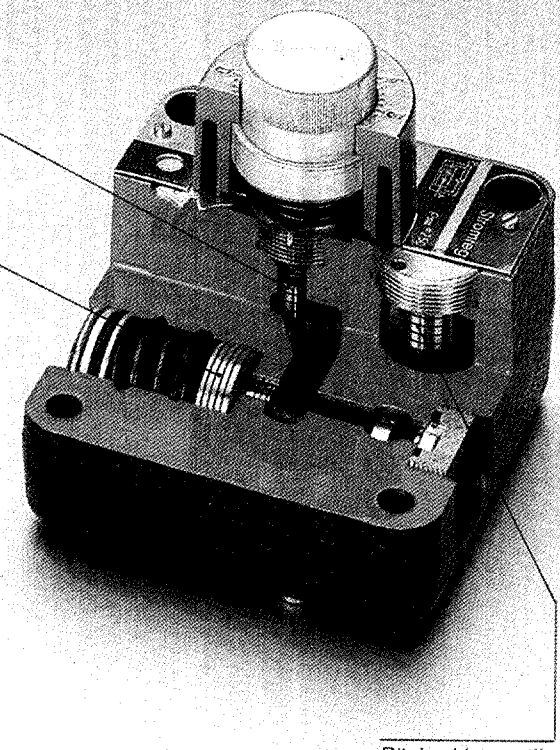
BOSCH

Flow control valves

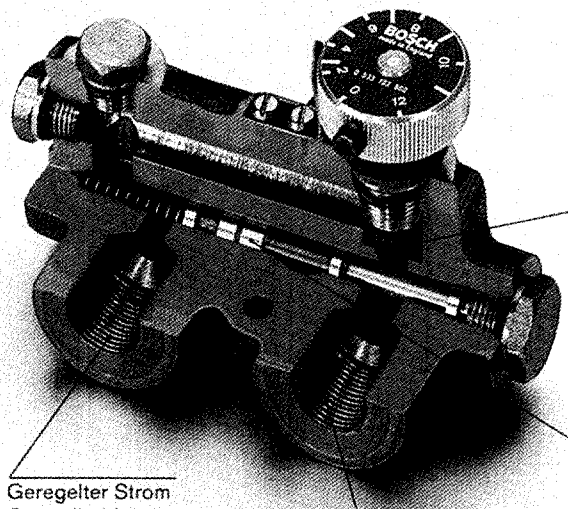


08

2-Wege-Stromregelventil NG 16
2-way flow control valve NG 16
Valve de réglage à 2 voies NG 16



3-Wege-Stromventil HY/VHR 4
3-way flow control valve HY/VHR 4
Valve de réglage du débit à 3 voies HY/VHR 4

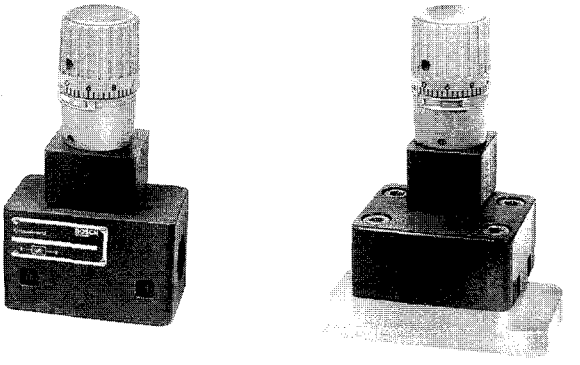


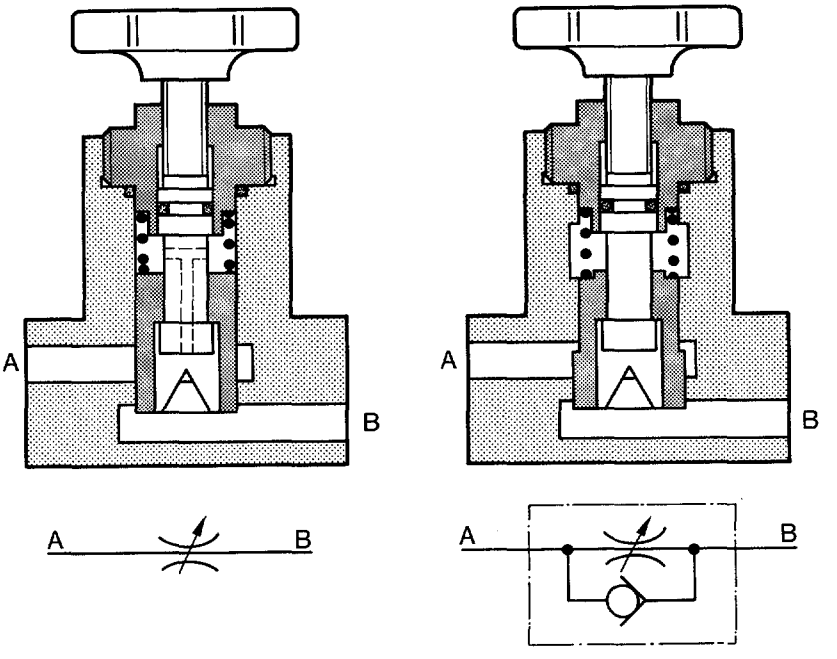
Drosselventil, Drosselrückschlagventil

Throttle valves, Throttle check valves

Soupape d'étranglement avec ou sans clapet anti-retour

NG 8, 10, 25





Größe Size Taille				1 / 2		kg	A — B	A — B
8		●		1	G¼	1,8	0811303007	0811323007
		●		1	G⅜	1,8	0811303008	0811323008
		●		2	NG 8	1,4	0811303001	0811323001
10	●			1	G½	2,8	0811300002	0811320002
	●			2	NG 10	2,4	0811300003	0811320003
		●		1	G½	2,8	0811300016	0811320012
		●		2	NG10	2,4	0811300017	0811320013
			●	1	G½	2,8	0811300020	0811320016
			●	2	NG 10	2,4	0811300021	0811320017
25	●			1	G1	5,6	0811301002	0811321002
	●			2	NG 25	4,3	0811301003	0811321003
		●		1	G1	5,6	0811301012	0811321012
		●		2	NG 25	4,3	0811301013	0811321013
			●	1	G1	5,6	0811301016	0811321016
			●	2	NG 25	4,3	0811301017	0811321017

De

Kenngrößen	
Benennung	Drosselventil bzw. Drosselrückschlagventil
Einbaulage	beliebig
Umgebungstemperatur	− 25 ... + 50 °C
Druckmittel	Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage
Viskosität	10 ... 800 mm²/s
Druckmitteltemperatur	− 25 ... + 80 °C
Filterung	Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$
Bauart	Kerbdrossel
Anschlußart	Rohranschluß Plattenanschluß
Durchflußrichtung	siehe Sinnbild
Betriebsdruck	max. 315 bar

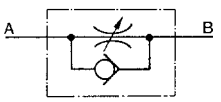
En

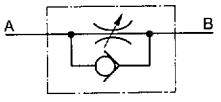
Specifications	
Description	Throttle valve, with or without check valve
Mounting position	Optional
Ambient temperature	− 25 ... + 50 °C
Fluid	Mineral-oil based hydraulic-fluids (DIN/ISO) others on request
Viscosity	10 ... 800 mm²/s
Fluid temperature	− 25 ... + 80 °C
Filtration	Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$
Design	Notch throttle
Mounting type	Direct line subplate mounting
Flow direction	see symbol
Operating pressure	max. 315 bar

Fr

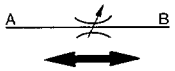
Caractéristiques	
Désignation	Soupape d'étranglement avec ou sans clapet anti-retour
Position de montage	indifférente
Température ambiante	− 25 ... + 50 °C
Fluides	Huiles hydrauliques minérales selon DIN/ISO; autres sur demande
Viscosité	10 ... 800 mm²/s
Température du fluide	− 25 ... + 80 °C
Filtrage	Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$
Construction	Etranglement à fentes
Mode de raccordement	sur conduites sur plaque de base
Sens du flux	selon symbole
Pression de service	maxi 315 bar

Kennlinien
Performance curves
Courbes caractéristiques
ν = 35 mm²/s

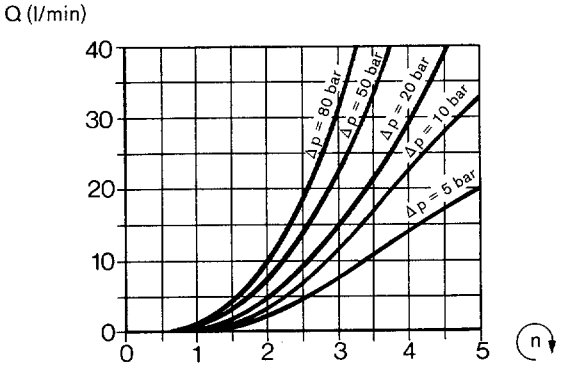


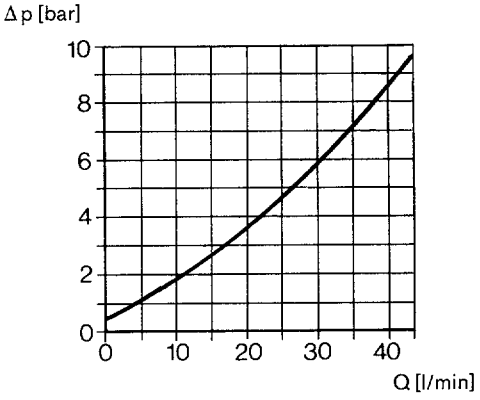


Größe
Size
Taille

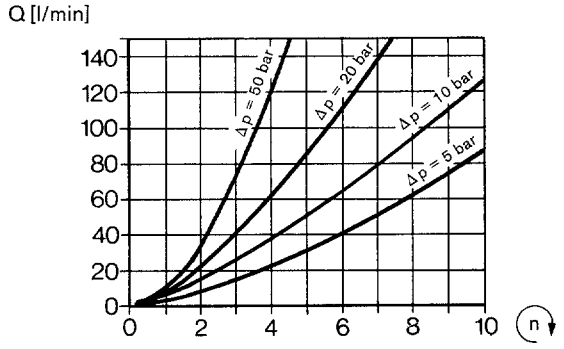


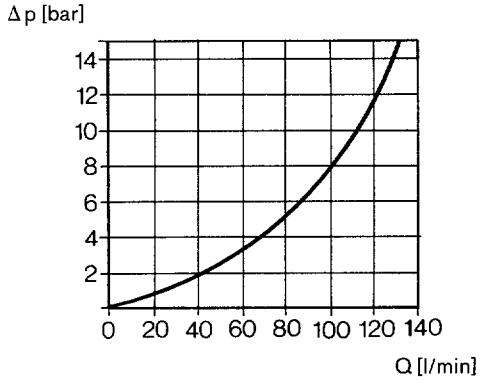
NG 8



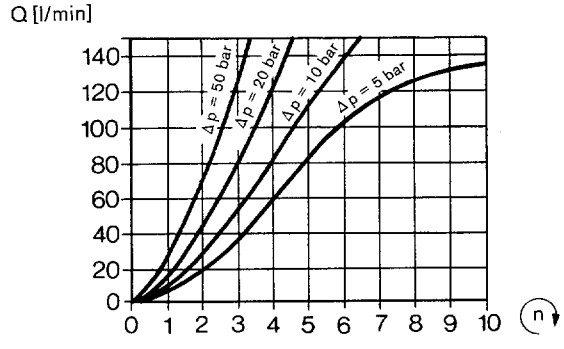


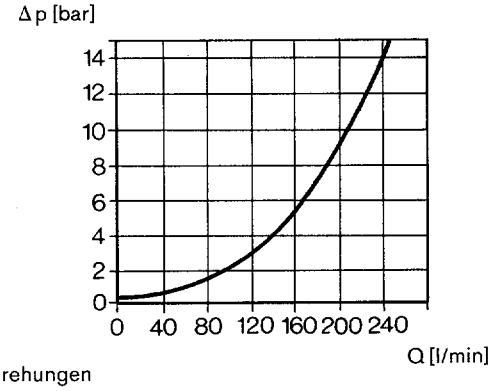
NG 10





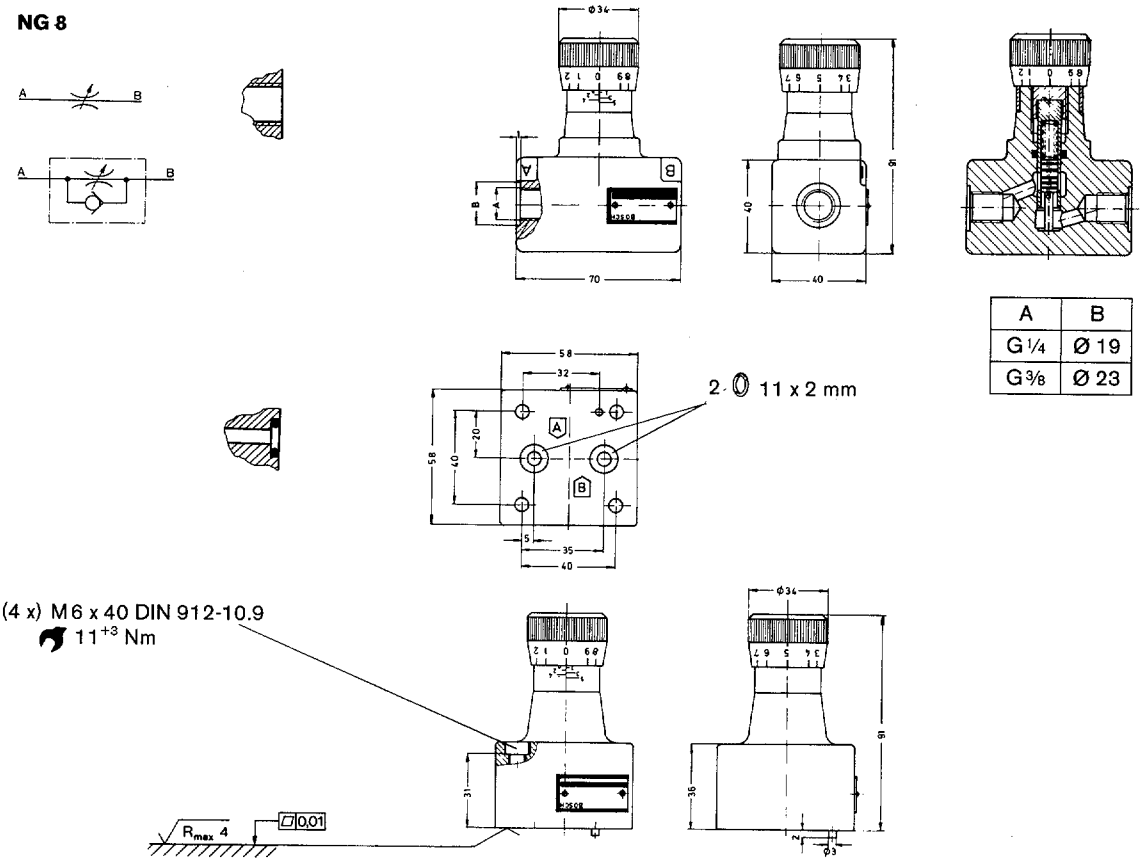
NG 25





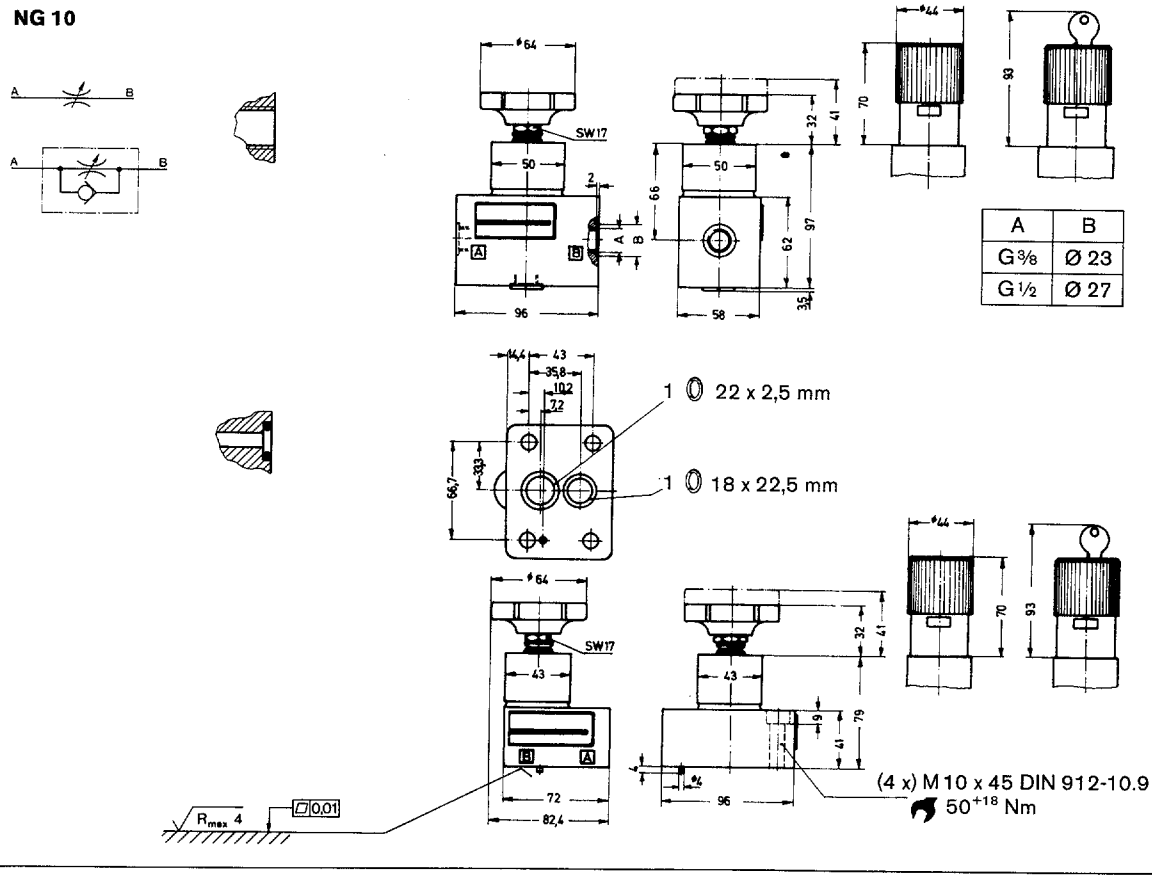
n = Umdrehungen
n = turns
n = tours

NG 8



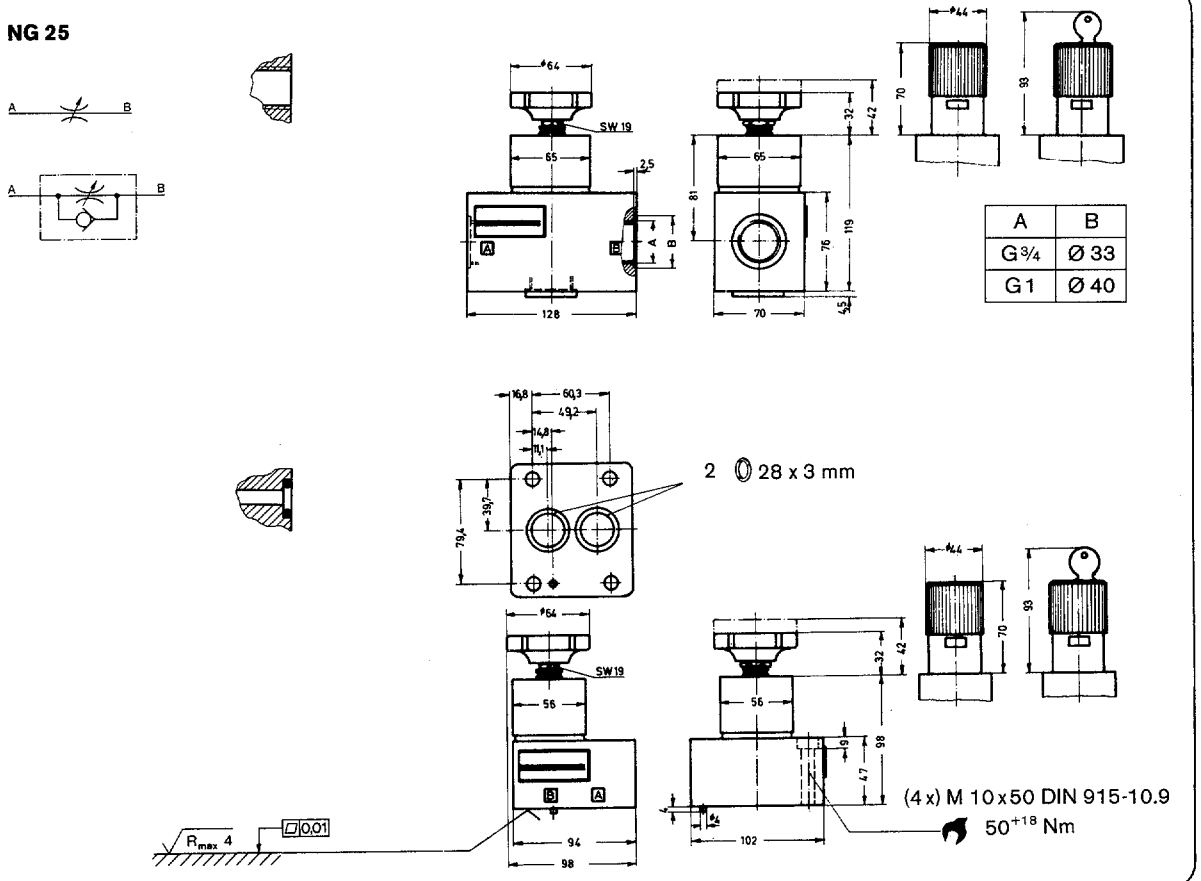
A	B
G 1/4	Ø 19
G 3/8	Ø 23

NG 10



A	B
G 3/8	Ø 23
G 1/2	Ø 27

NG 25

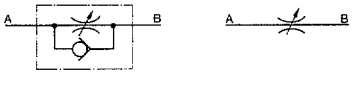


A	B
G¾	Ø 33
G1	Ø 40

Anschlußplatten, Schrauben
Subplates, screws
Plaques de base, vis

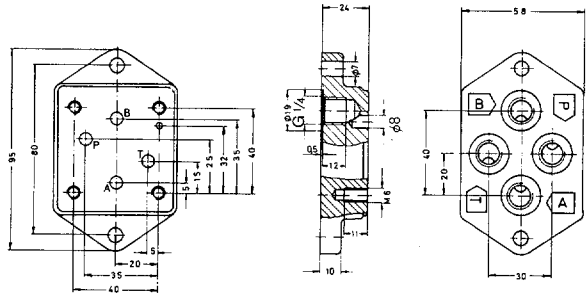
Größe Size Taille	Gewinde Threat Filet	Standard		kg	⊜
NG 8	G¼	DIN 24 340, Form C		0,6	⊜ 1815503159
	G⅜	CETOP 4,2-4-4		0,7	⊜ 1815503161
		M 6 x 40 DIN 912-10.9	(4 x)		⊜ 2910151209
NG 10	G⅜	DIN 24 340, Form D		1,3	⊜ 1815503012
	G½	CNOMO 05.03.70		1,3	⊜ 1815503011
		M 10 x 45 DIN 912-10.9	(4 x)		⊜ 2910151299
NG 25	G¾	DIN 24 340, Form D		3,4	⊜ 1815503014
	G1	CNOMO 05.03.71		3,4	⊜ 1815503013
		M 10 x 50 DIN 912-10.9	(4 x)		⊜ 2910151301

Verschleißteile
Wearing part set
Pochette de pièces d'usure

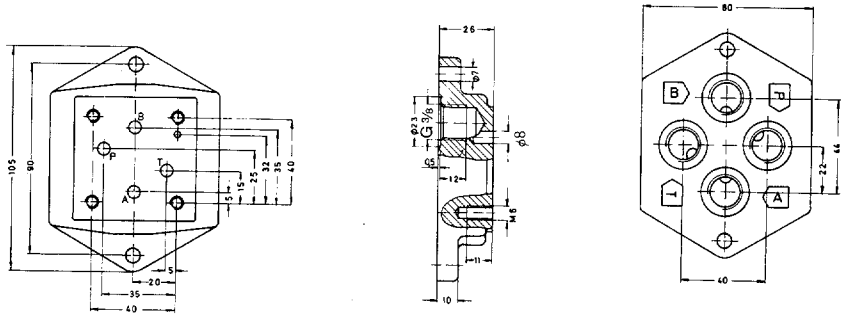


	⊜ Normal	⊜ Viton
NG 8	⊜ 1817010131	⊜ 1817010134
NG 10	⊜ 1817010081	⊜ 1817010084
NG 25	⊜ 1817010061	⊜ 1817010064

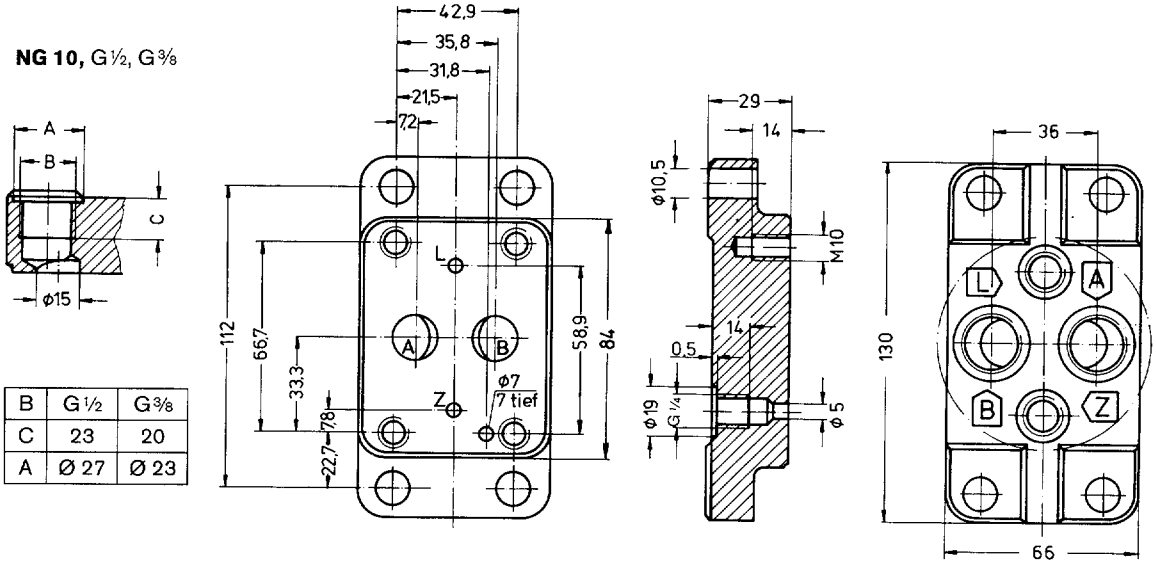
NG 8, G¼



NG 8, G⅜

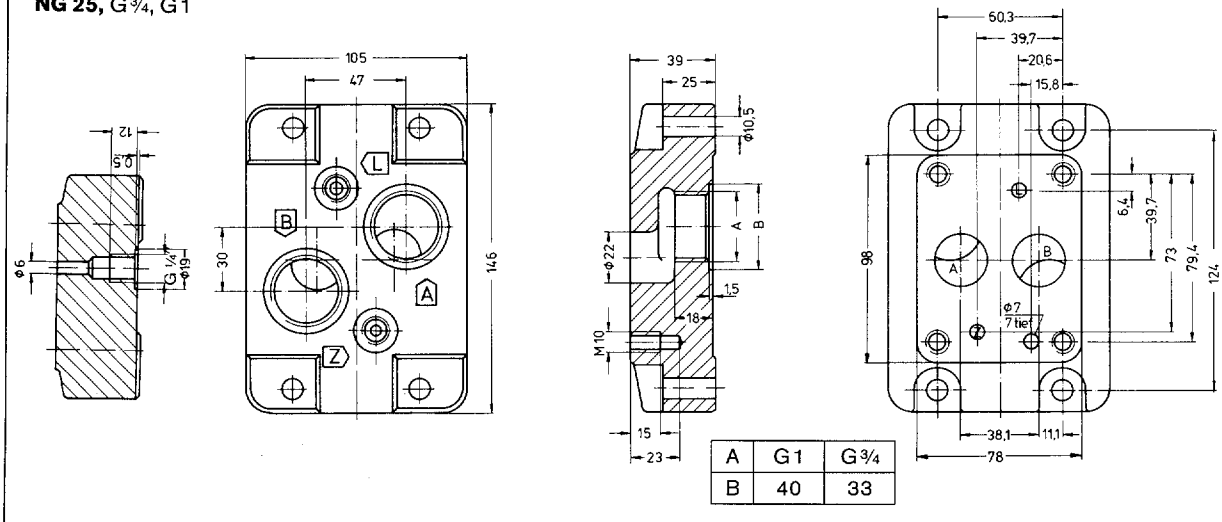


NG 10, G½, G⅜



B	G½	G⅜
C	23	20
A	Ø 27	Ø 23

NG 25, G¾, G1

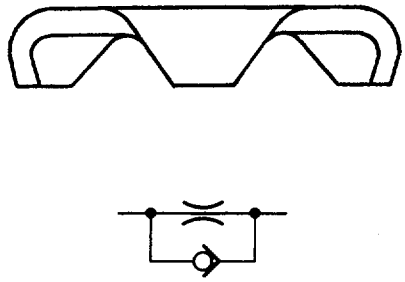


A	G1	G¾
B	40	33

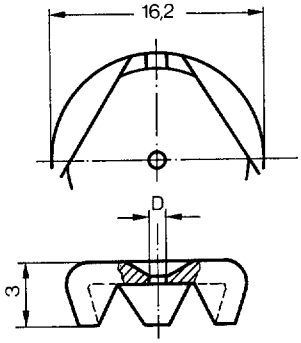
Drosselrückschlag-ventil für Direkteinbau

Throttle check valve to incorporate

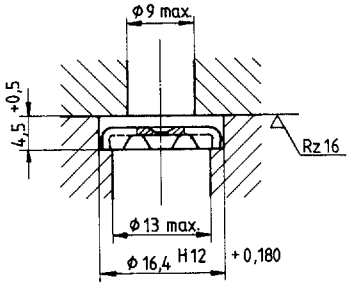
Limiteur de débit à incorporer

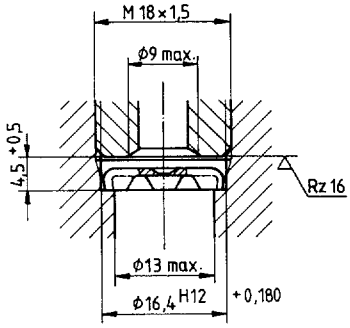


Abmessungen
Dimensions
Cotes d'encombrement

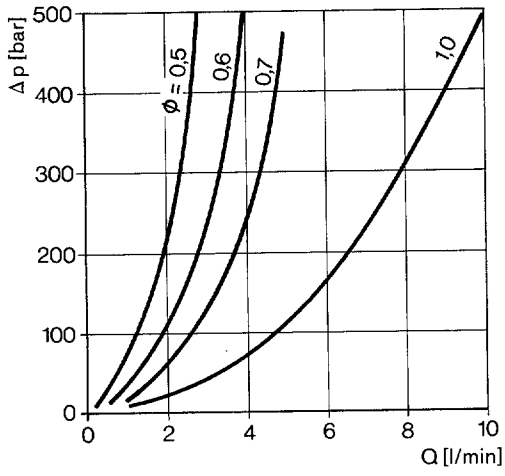


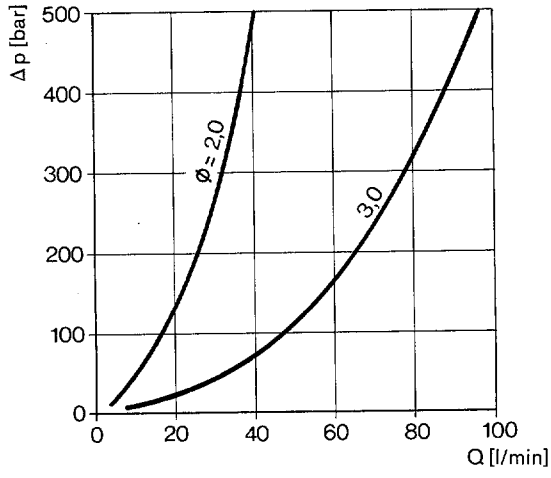
Einbaumaße
Fitting dimensions
Cotes de montage





Kennlinien
Performance curves
Courbes caractéristiques
ν = 60 mm²/s

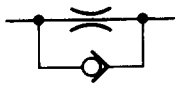




Drosselrückschlagventil für Direkteinbau

Throttle check valve to incorporate

Limiteur de débit à incorporer

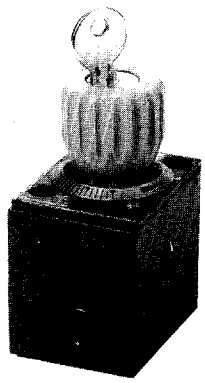


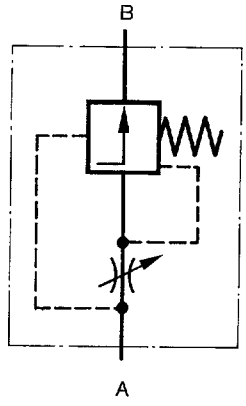
D Ø [mm]	
0,7	1 530 147 001
1,0	1 530 147 002
2,0	1 530 147 003
0,5	1 530 147 004
0,6	1 530 147 005
3,0	1 530 147 006

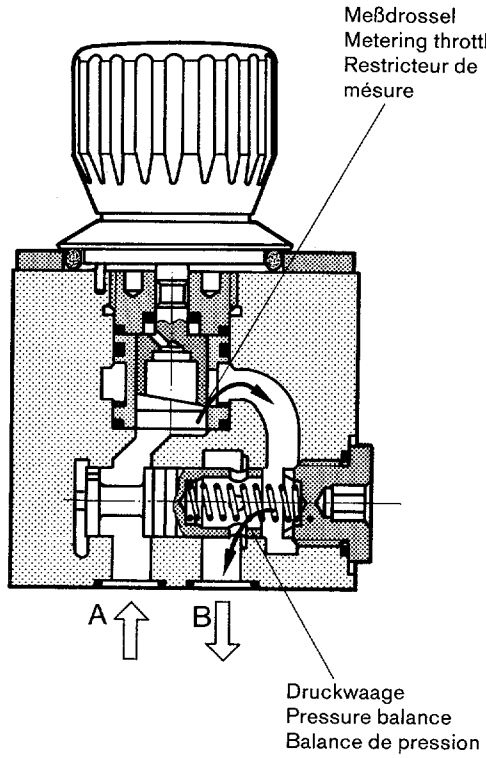
Stromregelventil NG 6

Pressure-compensated flow control valve NG 6

Valve de réglage du débit NG 6







2-Wege-Stromregelventil NG 6 **2-Way Pressure-Compensated Flow Control Valve NG 6** **Valve de réglage du débit à 2-voies NG 6**	$Q_{max.}$ [l/min]	A B	A B			kg	
	1,6		●		●	1,1	0811332100
			●	●			0811332103
		●			●		0811332106
	3,2		●		●		0811332101
			●	●			0811332104
	6,3		●		●		0811332102
			●	●			0811332105
		●			●		0811332107
		●		●			0811332109
	18	●			●		0811332108
		●		●			0811332110

De

Kenngrößen					
Benennung	2-Wege-Stromregelventil				
Einbaulage	beliebig				
Umgebungstemperatur	– 25 ... + 50 °C				
Druckmittel	Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage				
Viskosität	10 ... 350 mm²/s				
Druckmitteltemperatur	– 25 ... + 80 °C				
Filterung	Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$				
Anschlußart	Plattenanschluß NG 6 – ISO 6263				
Durchflußrichtung	siehe Sinnbild				
Betriebsdruck	315 bar				
Durchfluß [l/min]	$Q_{max.}$	1,6	3,2	6,3	18
	$Q_{min.}$	0,015	0,025	0,025	0,080
Mindestdruckgefälle	5 bar			8,5 bar	

En

Specifications					
Description	Pressure compensated flow control valve				
Mounting position	Optional				
Ambient temperature	– 25 ... + 50 °C				
Fluid	Mineral-oil based hydraulic-fluids (DIN/ISO) others on request				
Viscosity	10 ... 350 mm²/s				
Fluid temperature	– 25 ... + 80 °C				
Filtration	Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$				
Mounting type	Subplate mounting; NG 6 – ISO 6263				
Flow direction	See symbol				
Operating pressure	max. 315 bar				
Flow [l/min]	$Q_{max.}$	1.6	3.2	6.3	18
	$Q_{min.}$	0.015	0.025	0.025	0.080
Minimum pressure drop	5 bar			8.5 bar	

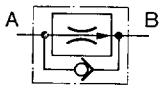
Fr

Caractéristiques					
Désignation	Valve de réglage du débit 2-voies				
Position de montage	indifférente				
Température ambiante	– 25 ... + 50 °C				
Fluides	Huiles hydrauliques minérales selon DIN/ISO; autres sur demande				
Viscosité	10 ... 350 mm²/s				
Température du fluide	– 25 ... + 80 °C				
Filtrage	Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$				
Mode de raccordement	sur plaque de base, NG 6 – ISO 6263				
Sens de flux	selon symbole				
Pression de service	max. 315 bar				
Plage de réglage du debit [l/min]	$Q_{max.}$	1,6	3,2	6,3	18
	$Q_{min.}$	0,15	0,025	0,025	0,080
Perte de pression minimale	5 bar			8,5 bar	

Kennlinien

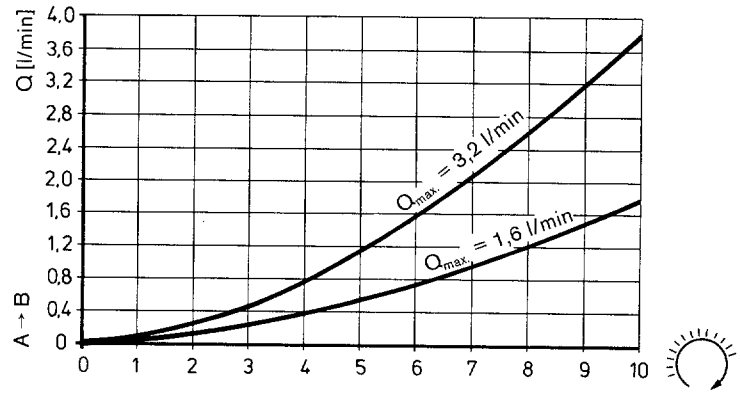
Performance curves

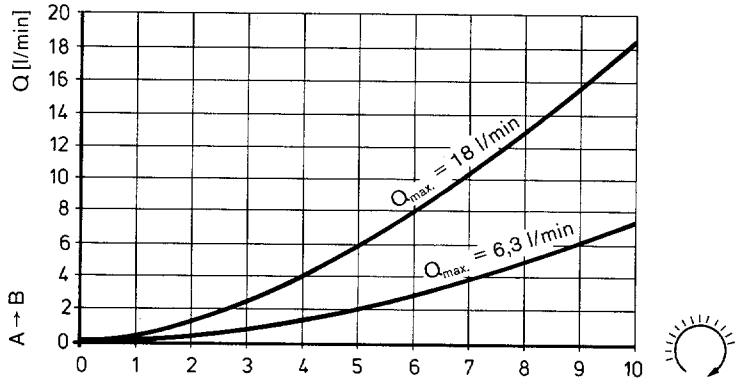
Courbes caractéristiques
ν = **35 mm²/s**



B → A

$\Delta p \approx 1$ bar

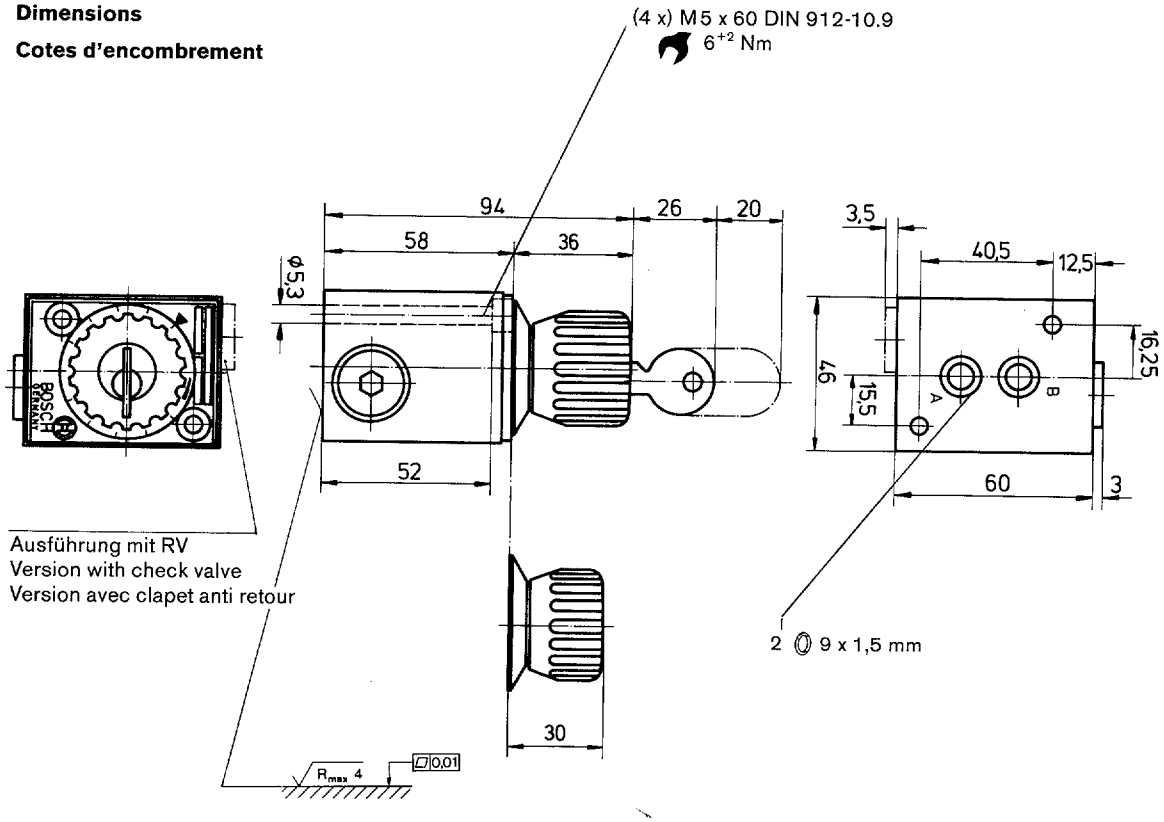




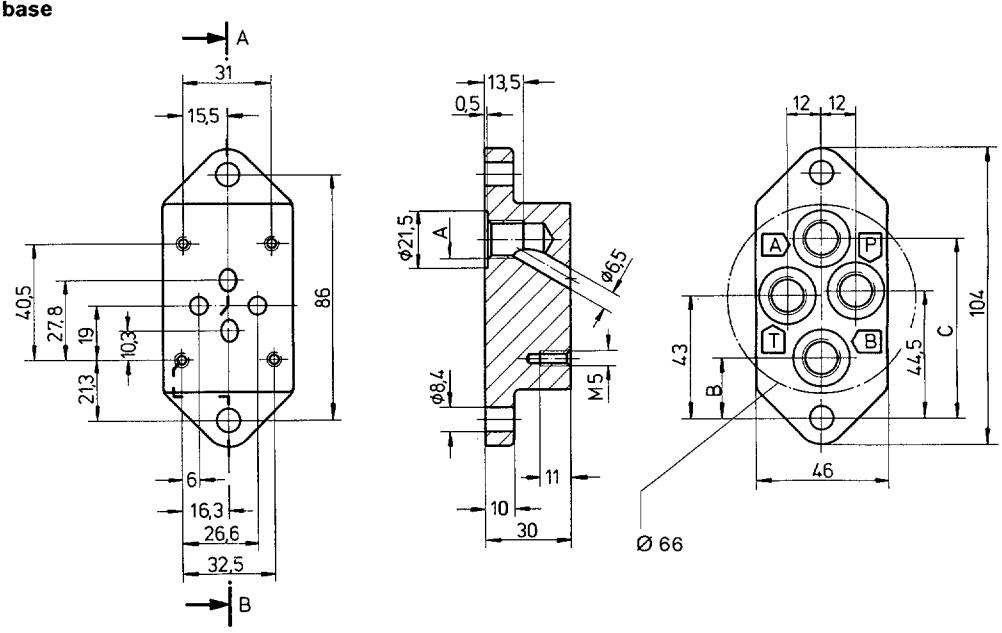
Abmessungen

Dimensions

Cotes d'encombrement



Anschlußplatte
Subplate
Plaque de base



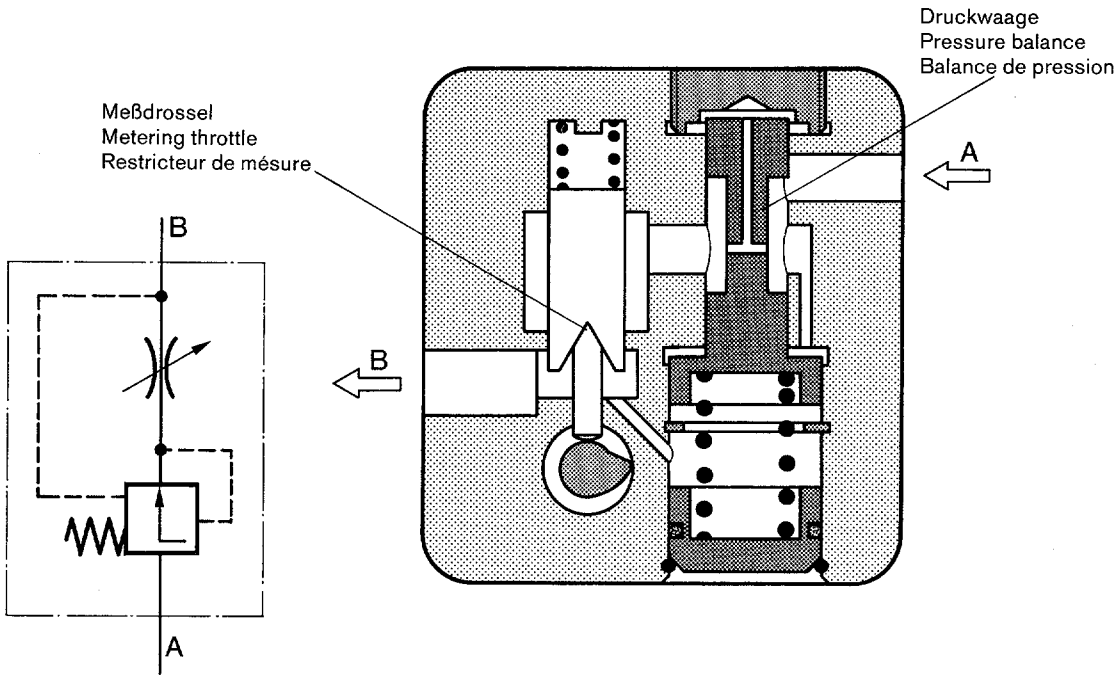
A	B	C
G ¼ ISO 228	21,3	63
M 14 x 1,5	22	64

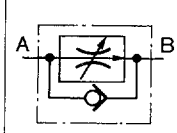
Anschlußplatte **Subplate** **Plaque de base**	Größe Size Taille	Gewinde Thread Filet	kg	
	NG 6, ISO 4401	G ¼	0,65	1815503340
		M 4 x 1,5		1815503378
(4 x)	M 5 x 30 DIN 912-10.9			2910151166
(2 x)	9 x 1,5 mm			1530210066

Stromregelventil NG 10

Pressure-compensated flow control valve NG 10

Valve de réglage du débit NG 10



2-Wege-Stromregelventil NG 10 **2-way pressure compensated flow control valve NG 10** **Valve de réglage du débit à 2 voies NG 10**		$Q_{max.}$ [l/min]			kg	
		25	●		2,6	0811 330 022
		50	●			0811 330 023
		25		●		0811 330 020
		50		●		0811 330 021

De

Kenngrößen			
Benennung		2-Wege-Stromregelventil	
Einbaulage		beliebig	
Umgebungstemperatur		− 25 ... + 50 °C	
Druckmittel		Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage	
Viskosität		10 ... 350 mm²/s	
Druckmitteltemperatur		− 25 ... + 80 °C	
Filterung		Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$	
Anschlußart		Plattenanschluß	
Durchflußrichtung		siehe Sinnbild	
Betriebsdruck		max. 250 bar	
Durchfluß	$Q_{max.}$	25 l/min	50 l/min
	$Q_{min.}$	0,1 l/min	0,1 l/min
Mindestdruckgefälle		10 bar	15 bar

En

Specifications			
Description		Pressure compensated flow control valve	
Mounting position		Optional	
Ambient temperature		− 25 ... + 50 °C	
Fluid		Mineral-oil based hydraulic-fluids (DIN/ISO) others on request	
Viscosity		10 ... 350 mm²/s	
Fluid temperature		− 25 ... + 80 °C	
Filtration		Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$	
Mounting type		Subplate mounting	
Flow direction		See symbol	
Operating pressure		max. 250 bar	
Flow	$Q_{max.}$	25 l/min	50 l/min
	$Q_{min.}$	0.1 l/min	0.1 l/min
Minimum pressure drop		10 bar	15 bar

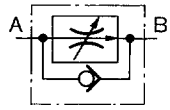
Fr

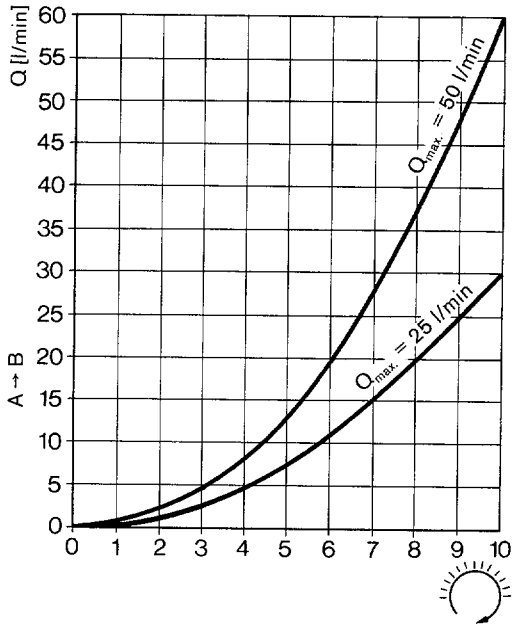
Caractéristiques			
Désignation		Valve de réglage du débit 2-voies	
Position de montage		indifférente	
Température ambiante		− 25 ... + 50 °C	
Fluides		Huiles hydrauliques minérales selon DIN/ISO; autres sur demande	
Viscosité		10 ... 350 mm²/s	
Température du fluide		− 25 ... + 80 °C	
Filtrage		Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$	
Mode de raccordement		sur plaque de base	
Sens de flux		selon symbole	
Pression de service		max. 250 bar	
Plage de réglage du debit	$Q_{max.}$	25 l/mn	50 l/mn
	$Q_{min.}$	0,1 l/mn	0,1 l/mn
Perte de pression minimale		10 bar	15 bar

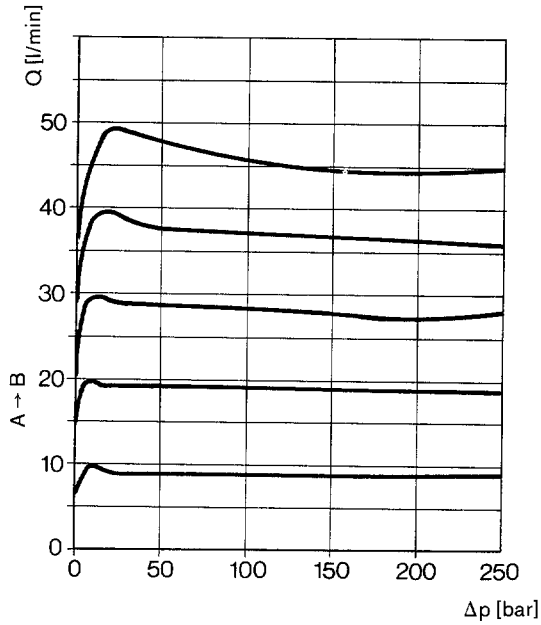
Kennlinien

Performance curves

Courbes caractéristiques
ν = **32 mm²/s**



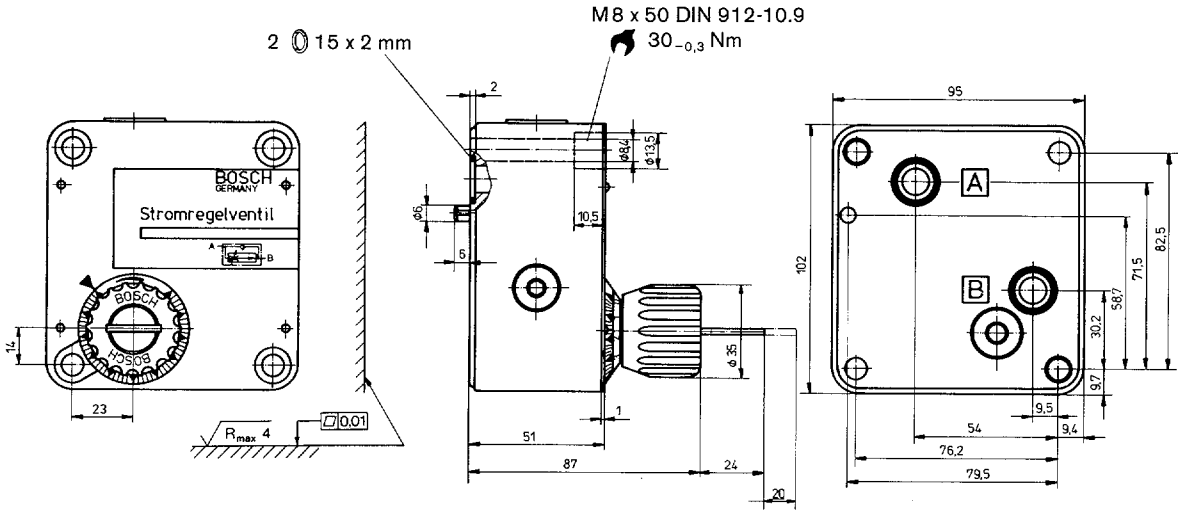




Abmessungen

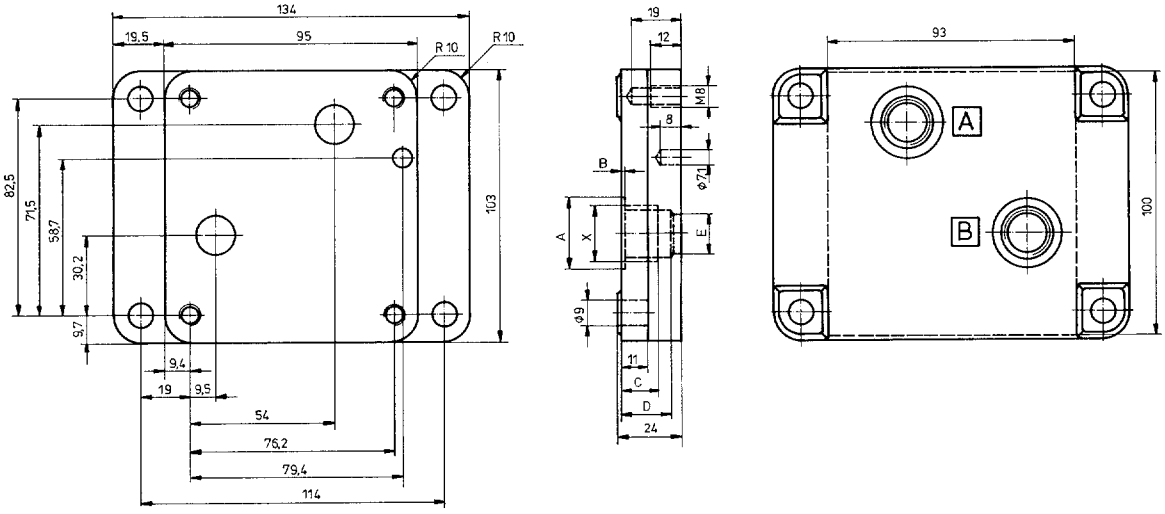
Dimensions

Cotes d'encombrement



Anschlußplatte
Subplate
Plaque de base

	A	B	C	D	E
G3/8	23 Ø	1	12	-	15 Ø
G1/2	27 Ø	1	14	18,5	15 Ø

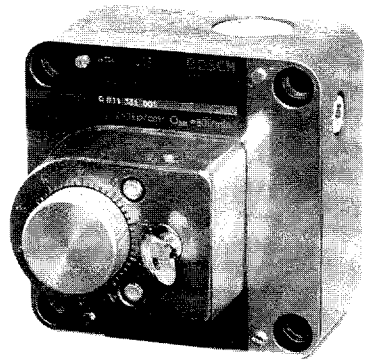


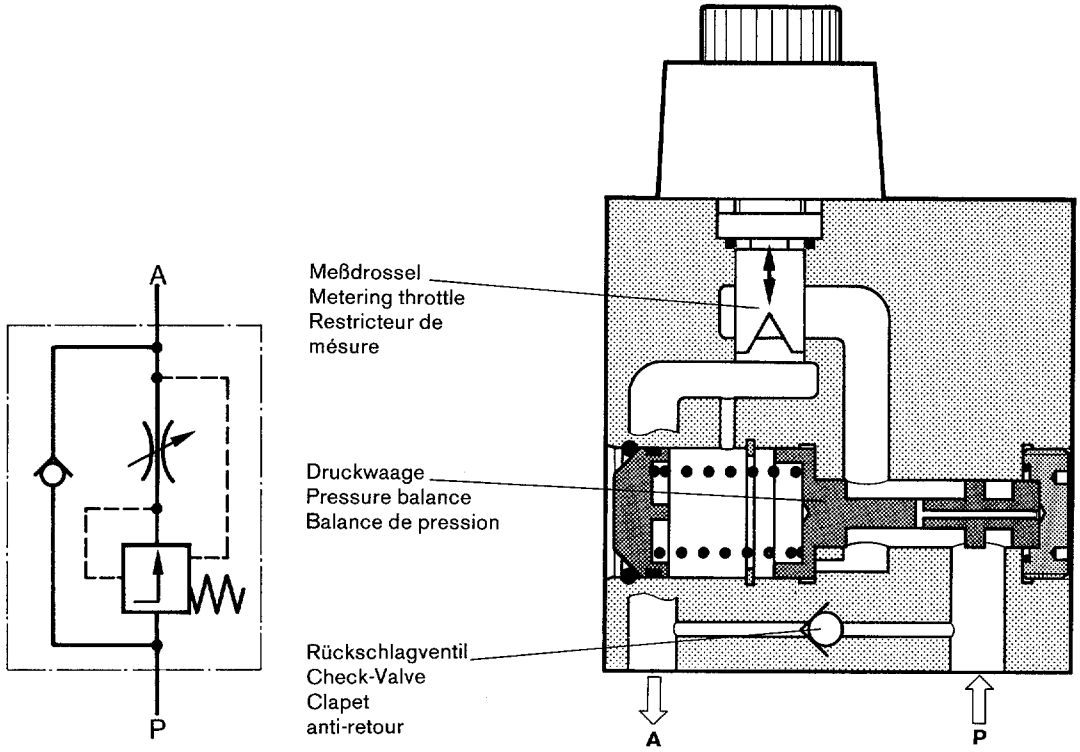
Anschlußplatte **Subplate** **Plaque de base**	Größe Size Taille	Gewinde Thread Filet	kg	
	NG 10	G3/8	1,8	1815503017
		G1/2		1815503018
(4 x)	M8 x 50 DIN 912-10.9			2910151254
(2 x)	15 x 2 mm			1900210012

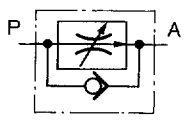
Stromregelventil NG 16

Pressure compensated flow control valve NG 16

Valve de réglage du débit NG 16





		$Q_{max.}$ [l/min]				
2-Wege-Stromregelventil NG 16 **2-way pressure compensated flow control valve NG 16** **Valve de reglage du débit à 2 voies, NG 16**					kg	
		100		●	6,9	0811331001
			●			0811331004

De

Kenngrößen	
Benennung	2-Wege-Stromregelventil
Einbaulage	beliebig
Umgebungstemperatur	− 25 ... + 50 °C
Druckmittel	Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage
Viskosität	10 ... 350 mm²/s
Druckmitteltemperatur	− 25 ... + 80 °C
Filterung	Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$
Anschlußart	Plattenanschluß
Durchflußrichtung	siehe Sinnbild
Betriebsdruck	280 bar
Durchfluß $Q_{max.}$	80 l/min
$Q_{min.}$	0,1 l/min
Mindestdruckgefälle	3 ... 12 bar

En

Specifications	
Description	Pressure compensated flow control valve
Mounting position	Optional
Ambient temperature	− 25 ... + 50 °C
Fluid	Mineral-oil based hydraulic-fluids (DIN/ISO) others on request
Viscosity	10 ... 350 mm²/s
Fluid temperature	− 25 ... + 80 °C
Filtration	Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$
Mounting type	Subplate mounting
Flow direction	See symbol
Operating pressure	max. 280 bar
Flow $Q_{max.}$	80 l/min
$Q_{min.}$	0.1 l/min
Minimum pressure drop	3 ... 12 bar

Fr

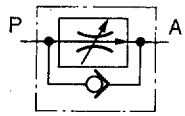
Caractéristiques	
Désignation	Valve de réglage du débit 2-voies
Position de montage	indifférente
Température ambiante	− 25 ... + 50 °C
Fluides	Huiles hydrauliques minérales selon DIN/ISO; autres sur demande
Viscosité	10 ... 350 mm²/s
Température du fluide	− 25 ... + 80 °C
Filtrage	Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$
Mode de raccordement	sur plaque de base
Sens de flux	selon symbole
Pression de service	max. 280 bar
Plage de réglage du debit $Q_{max.}$	80 l/mn
$Q_{min.}$	0,1 l/mn
Perte de pression minimale	3 ... 12 bar

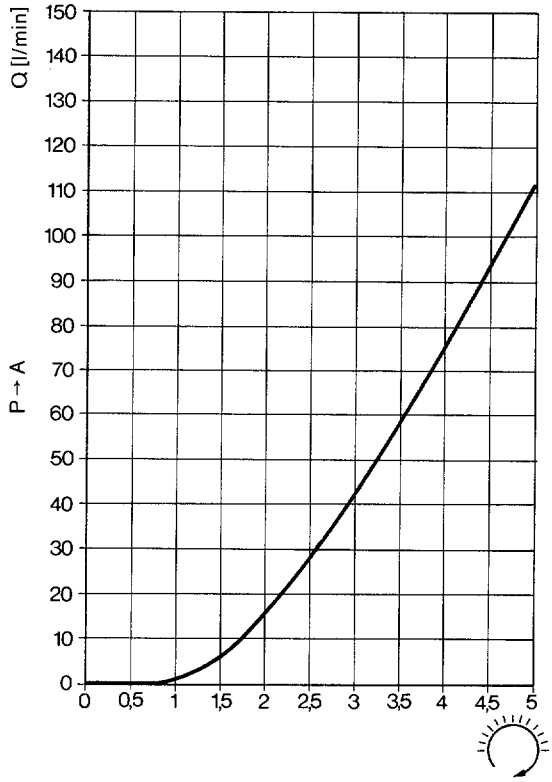
Kennlinien

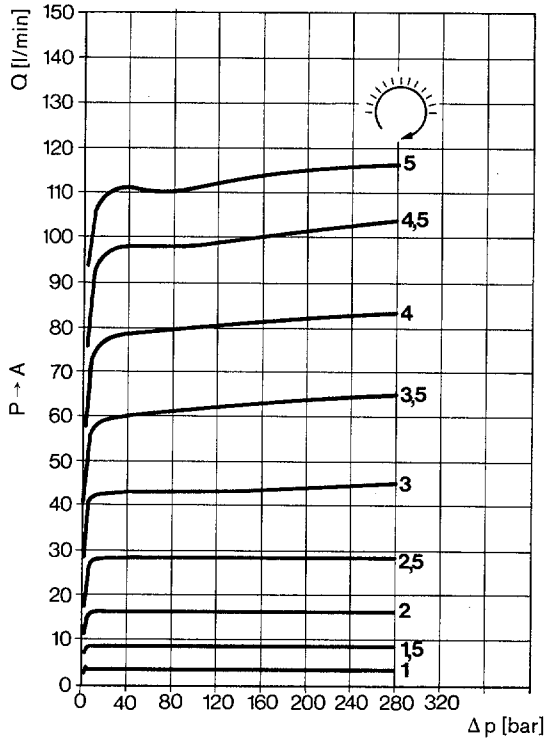
Performance curves

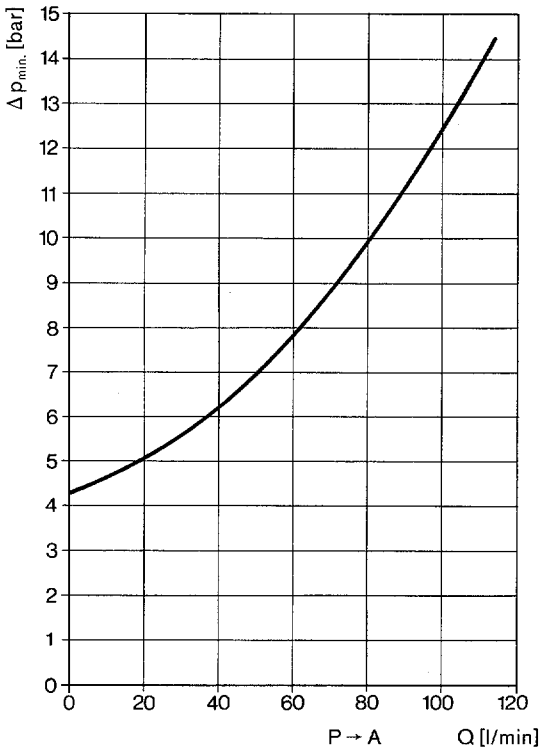
Courbes caractéristiques

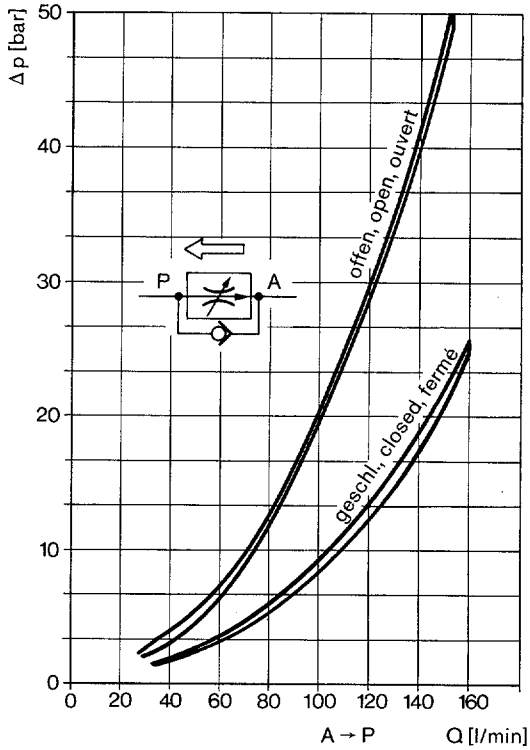
ν = **32 mm²/s**







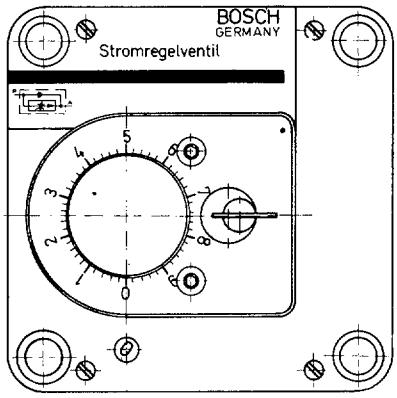


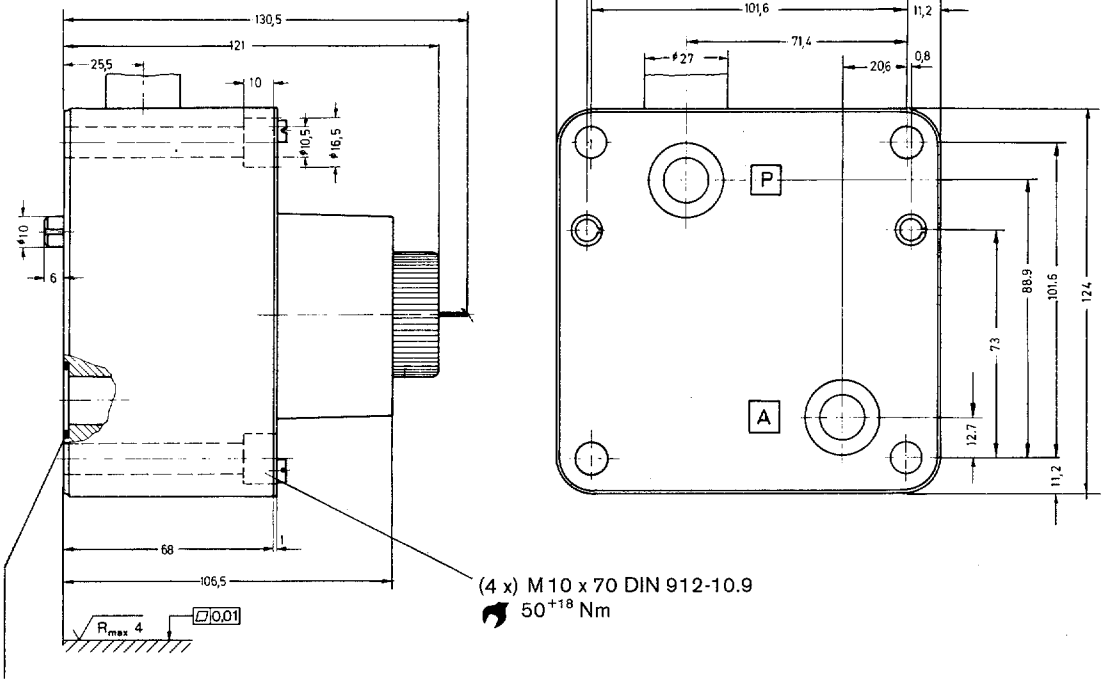


Abmessungen

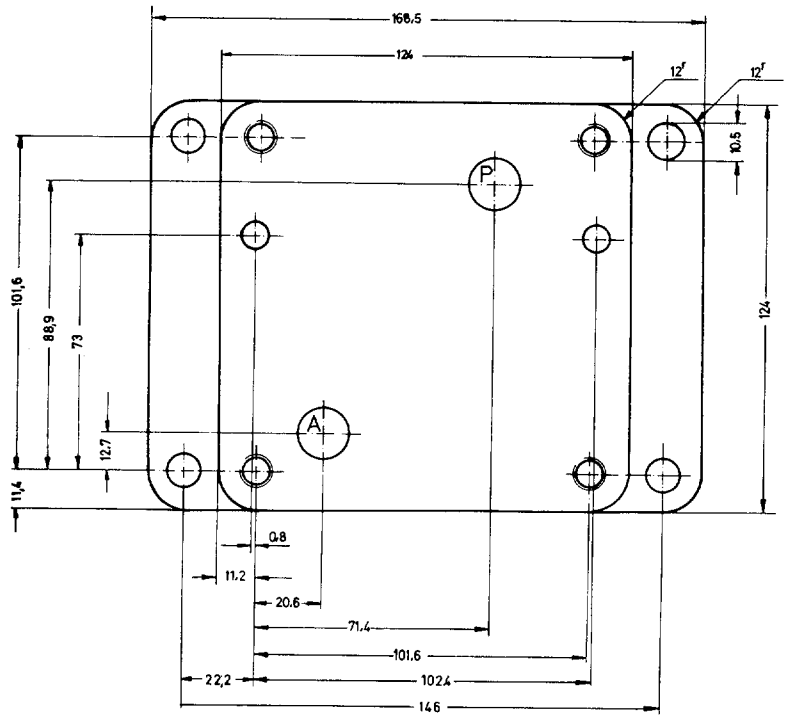
Dimensions

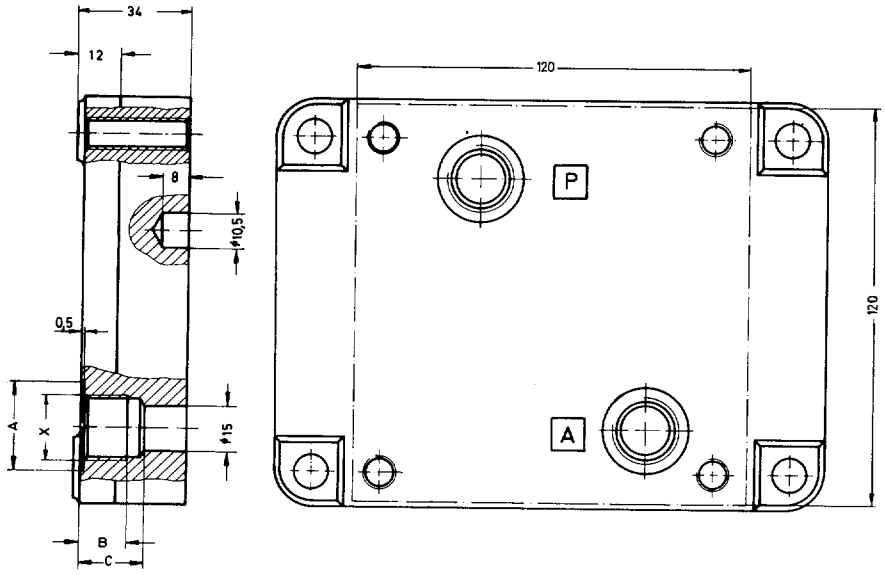
Cotes d'encombrement





Anschlußplatte NG 16
Subplate NG 16
Plaque de base NG 16





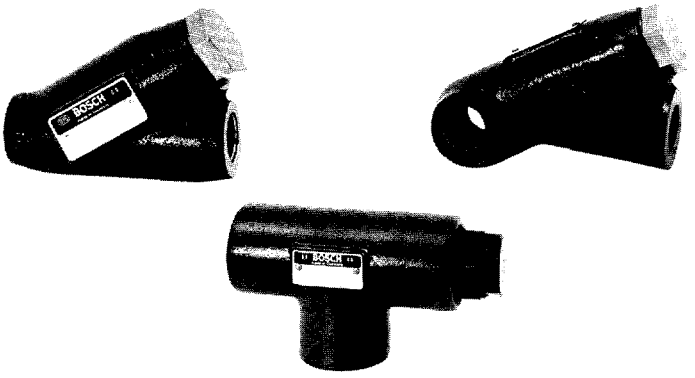
X	A	B	C
G ½	Ø 27	14	18,5
G ¾	Ø 33	18,5	25

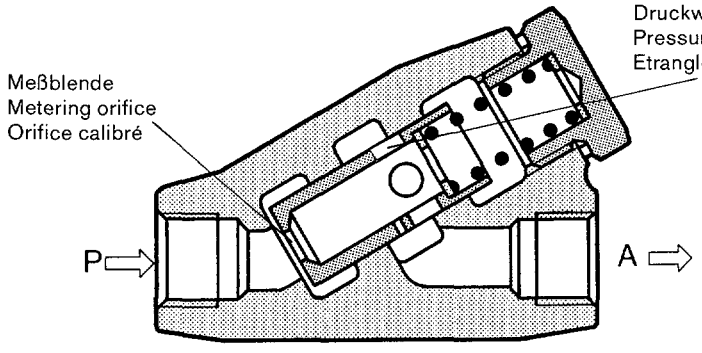
Anschlußplatte **Subplate** **Plaque de base**		Größe Size Taille	Gewinde Thread Filet	kg	Ⓗ
		NG 16	G ½	3,8	Ⓗ 1815503032
			G ¾		Ⓗ 1815503033
	(4 x)	M 10 x 70 DIN 912-10.9			Ⓗ 2910151307
	(2 x)	20 x 2,5 mm			Ⓗ 1900210319

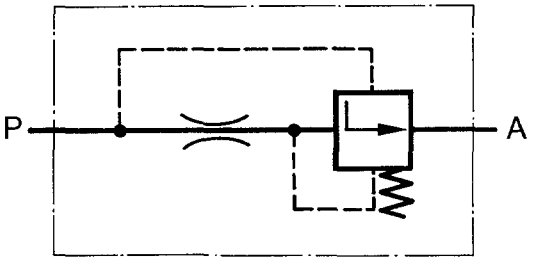
2-Wege-Stromregel-ventil fest eingestellt

2-way flow control valves, fixed setting

Valve de réglage du débit à 2 voies non ajustable







Type		Q [l/min]	Ø mm	Fig. N°	kg	⊕
HY/VC 1 B 17		1,5	1	1		⊕ 0533100025
HY/VC 1 B 26		2	1,3	1		⊕ 0533100034
HY/VC 1 B 8		5	2	1		⊕ 0533100016
HY/VC 1 B 27		7	2,5	1		⊕ 0533100035
HY/VC 1 B 19		10	3,5	1		⊕ 0533100027
HY/VC 1 B 4		15	3,5	1		⊕ 0533100012
HY/VC 1 B 18	P A	20	4,1	1	0,65	⊕ 0533100026
HY/VC 1 B 28		22	4,4	1		⊕ 0533100036
HY/VC 1 B 5		25	5	1		⊕ 0533100013
HY/VC 1 B 12		30	4,7	1		⊕ 0533100020
HY/VC 1 B 6		40	5,8	1		⊕ 0533100014
HY/VC 1 B 10		50	6,5	1		⊕ 0533100018
HY/VC 1 B 1		60	7	1		⊕ 0533100010
HY/VC 2 B 2		25	5	2	0,85	⊕ 0533101005
HY/VC 3/1		130	10	3	2,0	⊕ 0533102001

De

Kenngrößen	
Benennung	2-Wege-Stromregelventil, fest eingestellt
Einbaulage	beliebig
Umgebungstemperatur	− 25 ... + 50 °C
Druckmittel	Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage
Viskosität	10 ... 400 mm²/s
Druckmitteltemperatur	− 25 ... + 80 °C
Filterung	Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$
Anschlußart	Rohranschluß
Durchflußrichtung	P → A geregelt A → P gedrosselt
Betriebsdruck	max. 210 bar
Volumenstrom, maximal	HY/VC 1 und HY/VC 2 = 60 l/min HY/VC 3 = 130 l/min
Mindestdruckgefälle	5 ... 10 bar

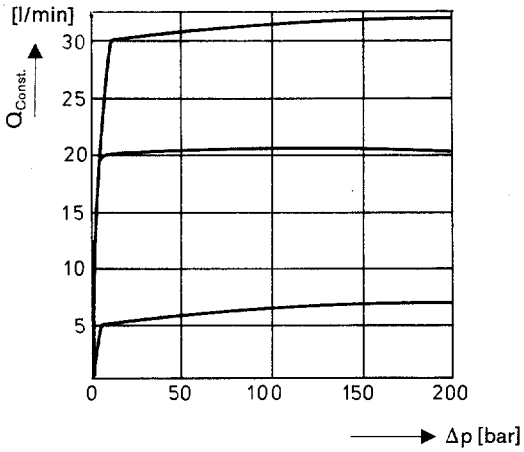
En

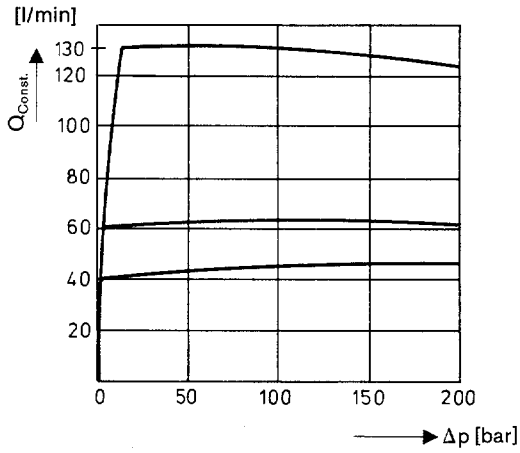
Specifications	
Description	2-way flow control valve, fixed setting
Mounting position	Optional
Ambient temperature	− 25 ... + 50 °C
Fluid	Mineral-oil based hydraulic-fluids (DIN/ISO) others on request
Viscosity	10 ... 400 mm²/s
Fluid temperature	− 25 ... + 80 °C
Filtration	Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$
Mounting type	Direct line
Flow direction	P → A controlled flow A → P flow throttled
Operating pressure	max. 210 bar
Flow rate	HY/VC 1 and VC 2: 60 l/min HY VC 3 : 130 l/min
Minimum pressure drop	5 ... 10 bar

Fr

Caractéristiques	
Désignation	Valve de réglage du débit à 2 voies non réglable
Position de montage	indifférente
Température ambiante	− 25 ... + 50 °C
Fluides	Huiles hydrauliques minérales selon DIN/ISO; autres sur demande
Viscosité	10 ... 400 mm²/s
Température du fluide	− 25 ... + 80 °C
Filtrage	Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$
Mode de raccordement	sur conduites
Sens de flux	P → A débit regulé A → P débit limité
Pression de service	max. 210 bar
Debit max.	HY/VC 1 et VC 2 = 60 l/mn / HY/VC 3 = 130 l/mn
Perte de pression minimale	5 ... 10 bar

Kennlinien
Performance curves
Courbes caractéristiques
ν = **35 mm²/s**





Maßzeichnung
Dimensions
Cotes d'encombrement

Fig. 1: HY/VC 1

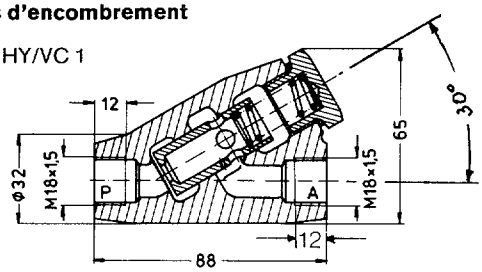


Fig. 2: HY/VC 2

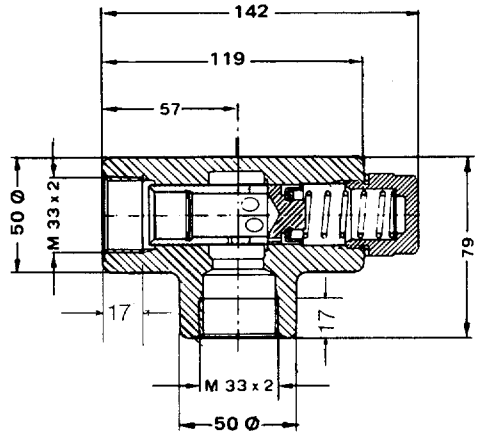
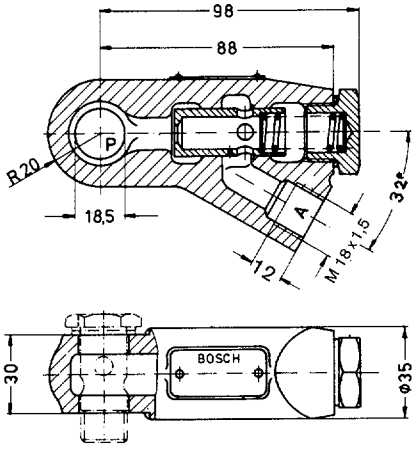


Fig. 3: HY/VC 3



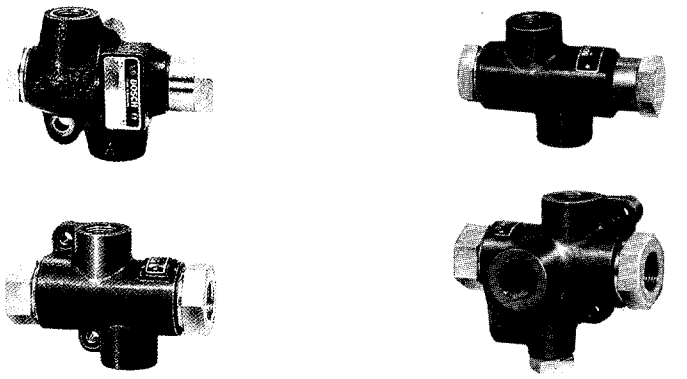
Dichtungssatz
Set of seals
Pochettes de joints

HY/VC 1 und 2	⊜ 1537010017
HY/VC 3	⊜ 1537010118

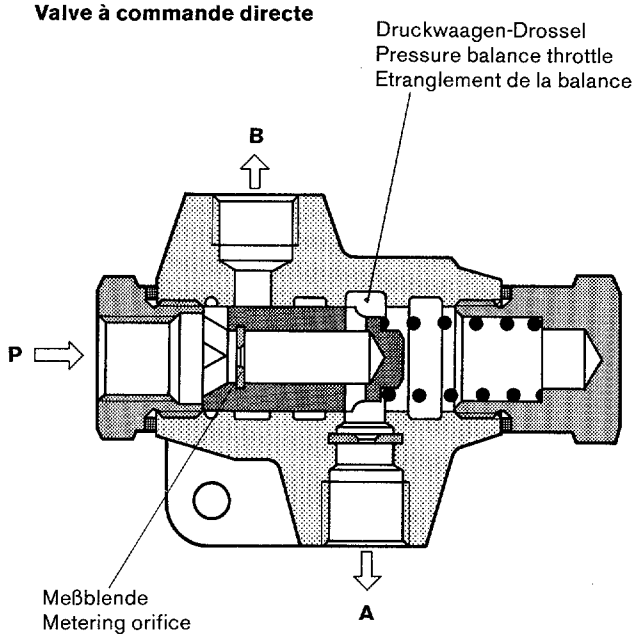
3-Wege-Stromregel-ventil fest eingestellt

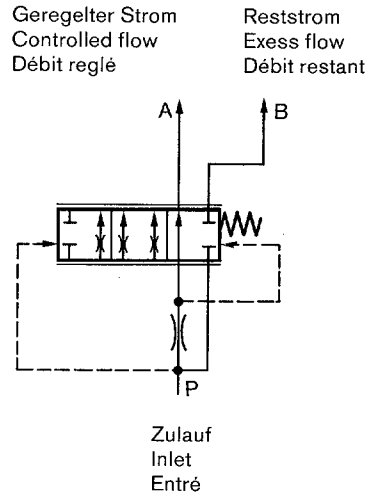
3-way flow control valves, fixed setting

Valve de réglage du débit à 3 voies, non ajustable

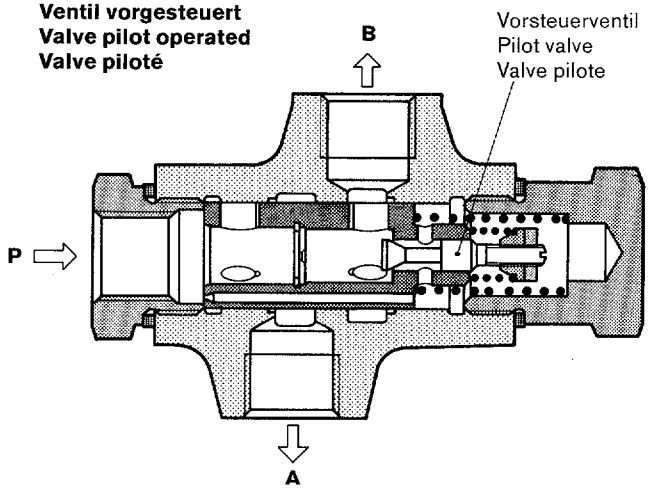


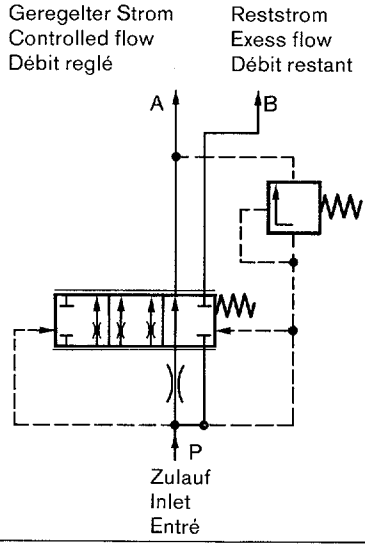
Ventil direkt gesteuert
Valve direct operated
Valve à commande directe

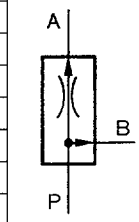
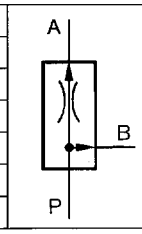
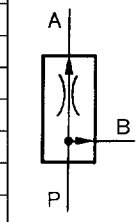


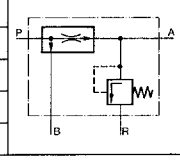


Ventil vorgesteuert
Valve pilot operated
Valve piloté





Typ		Q_A [l/min]	vorgest.*) pilot op. piloté	direkt direct directe	Ø mm**) M	D	Fig.	kg	
HY/VH 1/2/1		2	●		1,2	–	1	0,9	0533103028
HY/VH 1/3/4		3	●		1,5	–			0533103007
HY/VH 1/4/1		4	●		1,7	–			0533103020
HY/VH 1/6/1		6	●		2	–			0533103001
HY/VH 1/9/1		9	●		3	–			0533103046
HY/VH 1/12/2		12	●		3	–			0533103002
HY/VH 1/15/3		15	●		3,5	–			0533103004
HY/VH 1/18/3		18	●		3,5	–			0533103022
HY/VH 1/27/5		27	●		4	–			0533103008
HY/VH 2/12/1		12	●		3	–	2	0,9	0533105001
HY/VH 2/12/2		12		●	4,2	–			0533105004
HY/VH 2/15/2		15		●	4,6	–			0533105009
HY/VH 2/27/2		27		●	6,0	–			0533105017
HY/VH 2/30/1		30	●		4,8	–			0533105006
HY/VH 2/40/1		40	●		5,2	–			0533105012
HY/VH 2/52/2		52		●	7,8	–			0533105013
HY/VH 4/1,5/1		1,5		●	1,2	–	3	0,9	0533103033
HY/VH 4/2/1		2		●	1,5	–			0533103034
HY/VH 4/3/1		3		●	2	1,5			0533103024
HY/VH 4/6/1		6		●	3	2,5			0533103015
HY/VH 4/7,5/1		7,5		●	3,3	2,8			0533103029
HY/VH 4/9/1		9		●	3,5	3			0533103019
HY/VH 4/11/18		11		●	4	3,5			0533103054
HY/VH 4/12/1		12		●	4	3,5			0533103021
HY/VH 4/15/1		15		●	4,5	3,5			0533103018
HY/VH 4/17/1		17		●	5	4,5			0533103026
HY/VH 4/20/1		20		●	6	5,5			0533103030
HY/VH 4/23/2		23		●	5,8	–			0533103031

			p [bar]						
HY/VHA 2/12/100/1		12	100	●	4,2	–	4	1,2	0533105003
HY/VHA 2/15/100/1		15	100	●	4,5	–			0533105002
HY/VHA 2/18/70/1		18	70	●	5,2	–			0533105008

*) **Ventil vorgesteuert**
Reaktion der Druckwaage gedämpft. Volumenstrom besser konstant bei steigendem Lastdruck.

Ventil direkt gesteuert
Schnelle Reaktion der Druckwaage. Volumenstrom weniger konstant bei steigendem Lastdruck.

**) M: Ø mm Meßdrossel
D: Ø mm Dämpfungsdrossel

*) **Valve, pilot operated**
Increased response-time of damped pressure balance.
Flow rate more constant when load pressure increases.

Valve, direct operated
Short response-time of pressure balance.
Flow rate less constant when load pressure increases.

**) M: Ø mm Metering orifice
D: Ø mm Damping orifice

*) **Valve piloté**
Temps de response plus lente de la balance de pression amortie.
Débit plus constant à l'augmentation de la pression de charge.

Valve à commande directe
Temps de résponse court de la balance de pression.
Débit moins constant à l'augmentation de la pression de charge.

**) M: Ø mm Orifice de mésure
D: Ø mm Orifice d'amortiseur

De

Kenngrößen				
Benennung	3-Wege-Stromregelventil, fest eingestellt			
Einbaulage	beliebig			
Umgebungstemperatur	− 25 ... + 50 °C			
Druckmittel	Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage			
Viskosität	10 ... 400 mm²/s			
Druckmitteltemperatur	− 25 ... + 80 °C			
Filterung	Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$			
Anschlußart	Rohranschluß			
Durchflußrichtung	siehe Sinnbild			
Betriebsdruck	max. 210 bar			
max. Volumenstrom Typ	VH 1	VH 2	VH 4	VH 2 + DBV
Q_P [l/min]	55	110	55	110
direkt gest. Q_A [l/min]	–	50	30	50
vorgest. Q_A [l/min]	30	50	–	50
max. Druckunterschied	Δp (A → B) = 150 bar			
Mindest-Druckgefälle	direkt gest.: 6 bar, vorgest.: 12 bar			

En

Specifications				
Description	3-way flow control valve, fixed setting			
Mounting position	Optional			
Ambient temperature	− 25 ... + 50 °C			
Fluid	Mineral-oil based hydraulic-fluids (DIN/ISO) others on request			
Viscosity	10 ... 400 mm²/s			
Fluid temperature	− 25 ... + 80 °C			
Filtration	Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$			
Mounting type	Direct line			
Flow direction	See symbol			
Operating pressure	max. 210 bar			
max. flow Type	VH 1	VH 2	VH 4	VH 2 + pressure r.v.
Q_P [l/min]	55	110	55	110
direct op. Q_A [l/min]	–	50	30	50
pilot op. Q_A [l/min]	30	50	–	50
max. differencial pressure	Δp (A → B) = 150 bar			
minimum pressure drop	direct op.: 6 bar, pilot op.: 12 bar			

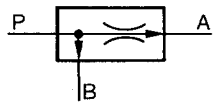
Fr

Caractéristiques					
Désignation	Valve de réglage du débit à 3 voies non ajustable				
Position de montage	indifférente				
Température ambiante	− 25 ... + 50 °C				
Fluides	Huiles hydrauliques minérales selon DIN/ISO; autres sur demande				
Viscosité	10 ... 400 mm²/s				
Température du fluide	− 25 ... + 80 °C				
Filtrage	Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$				
Mode de raccordement	sur conduites				
Pression de service	max. 210 bar				
Sens de flux	selon symbole				
Debit max. [l/mn]	Type	VH 1	VH 2	VH 4	VH 2 + lim. d. p.
	Q_P	55	110	55	110
	directe Q_A	–	50	30	50
	piloté Q_A	30	50	–	50
maxi Pression differentielle	Δp (A → B) = 150 bar				
Perte de pression minimale	directe: 6 bar, piloté: 12 bar				

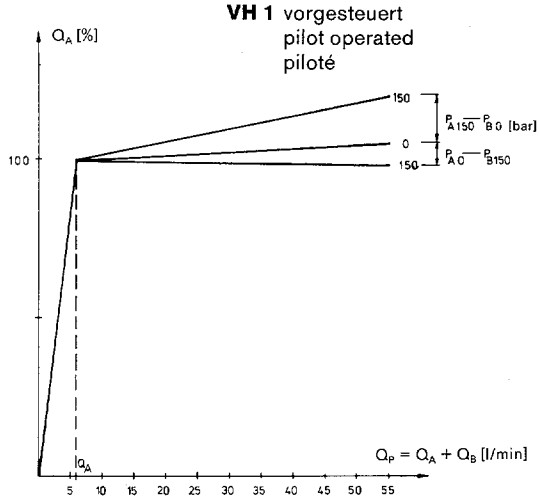
Kennlinien

Performance

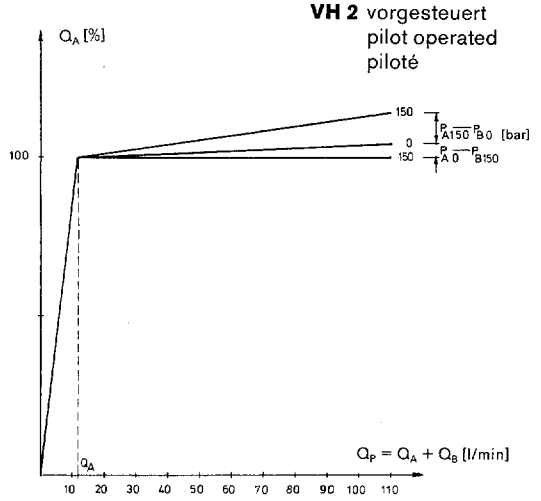
Courbes caractéristiques
ν = **35 mm²/s**



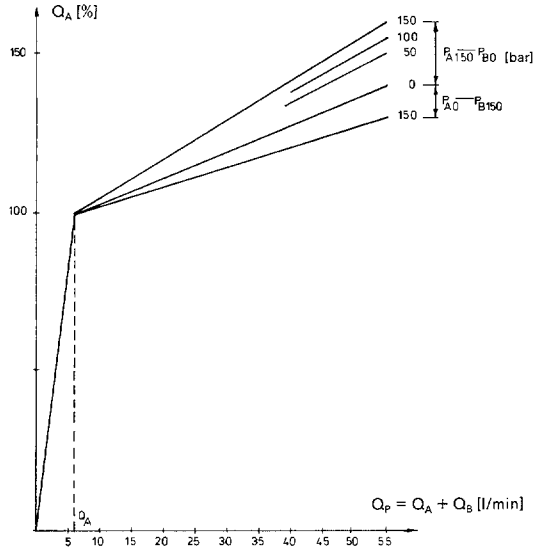
VH 1 vorgesteuert
pilot operated
piloté



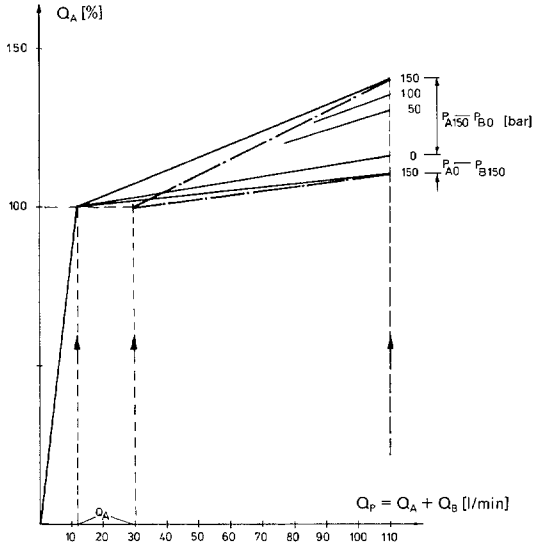
VH 2 vorgesteuert
pilot operated
piloté



VH 4 direkt gesteuert
direct operated
à commande directe



VH 2 direkt gesteuert
direct operated
à commande directe



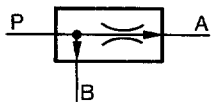
Die Diagramme zeigen die typische Veränderung des Konstantstromes Q_A in Abhängigkeit des Druckunterschieds in A und B sowie in Abhängigkeit vom Gesamtstrom Q_P. Die Übertragung für andere Konstantstromgrößen erfolgt nach folgendem Verfahren: Koordinatenpunkt aus Abzisse Q_P = gewünschter Konstantstrom Q_A und Ordinate Q_A = 100 % erstellen und mit den Endpunkten des entsprechenden obigen Diagrammes Q_P = 55 bzw. 110 l/min verbinden (siehe Beispiel Diagramm 4 VH 2 bei Q_A = 30 l/min).

The diagrams show the typical variation in constant flow Q_A according to the pressure difference between ports A and B and as well in relation to the total flow Q_P. The procedure for adapting these diagrams to other values of constant flow is as follows:
Ascertain the co-ordinate point from the abscissa Q_P (= required constant flow Q_A) and the ordinate Q_A (= 100 %) and draw straight lines from it to the end points of the appropriate diagram above, Q_P = 55 or 110 l/min (see example in diagram 4, VH 2 for Q_A = 30 l/min).

Les diagrammes donnent la tendance de la variation du débit constant Q_A en fonction de la différence de pression entre A et B, et aussi pour différentes valeurs du débit total Q_P. La détermination des différentes valeurs pour d'autres valeurs de débit constant se fait de la façon suivante:
Déterminer le point ayant pour abscisse Q_P = débit constant désiré Q_A et pour ordonnée Q_A = 100 %. Joindre ce point aux points limites du diagramme comme ci-dessus ou Q_P = 55 ou 110 l/mn (voir comme exemple le diagramme 4, VH 2 avec Q_A = 30 l/mn).

Fig. 1: HY/VH 1/...

Abmessungen
Dimensions
Cotes d'encombrement



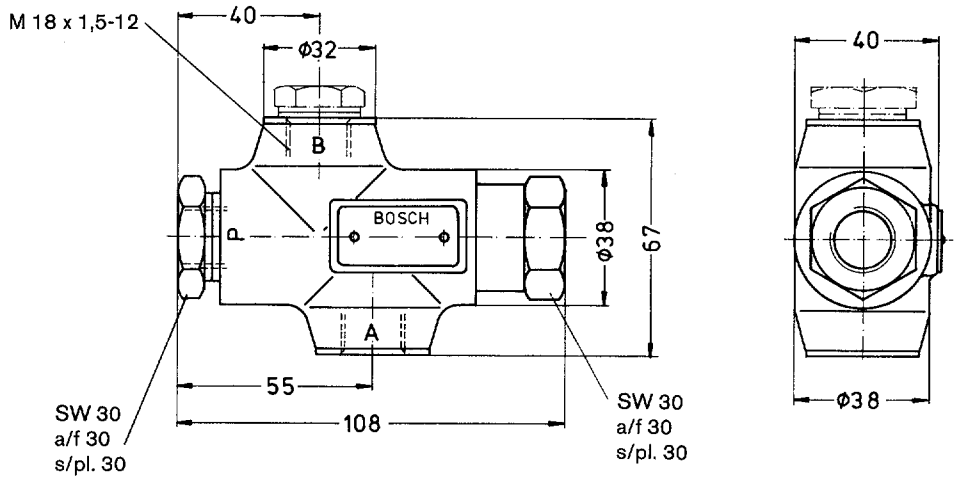
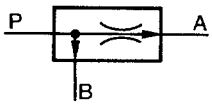


Fig. 2: HY/VH 2/...



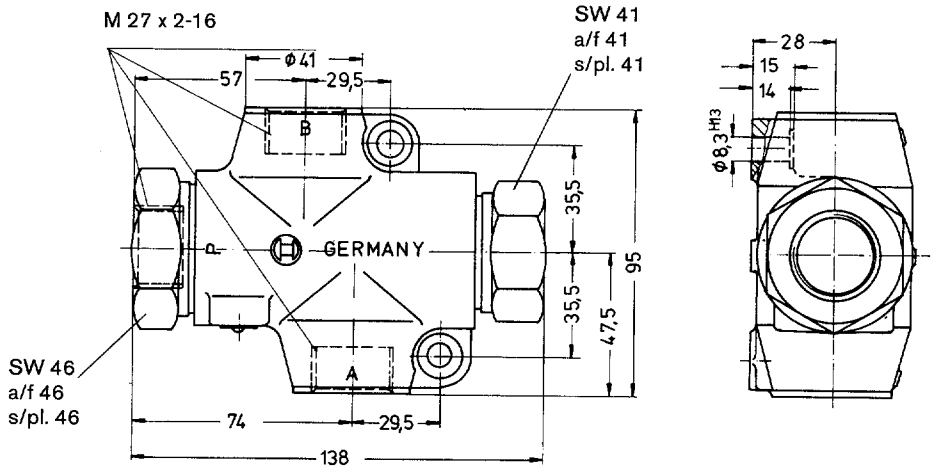


Fig. 3: HY/VH 4/...

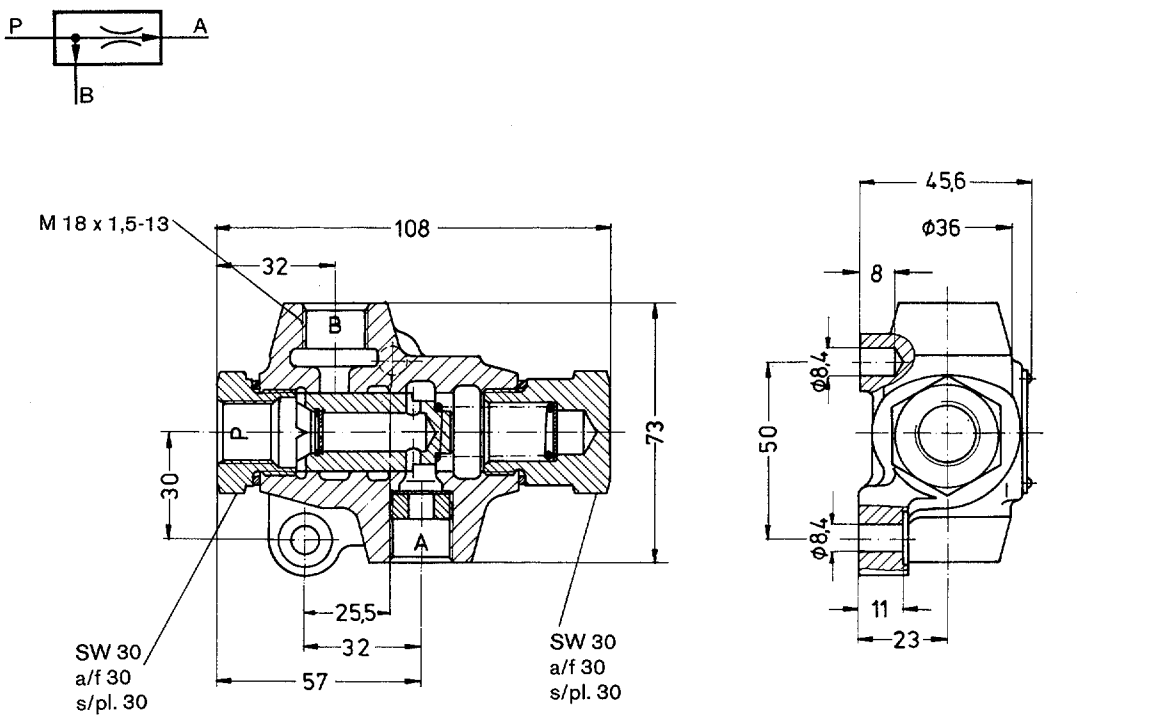
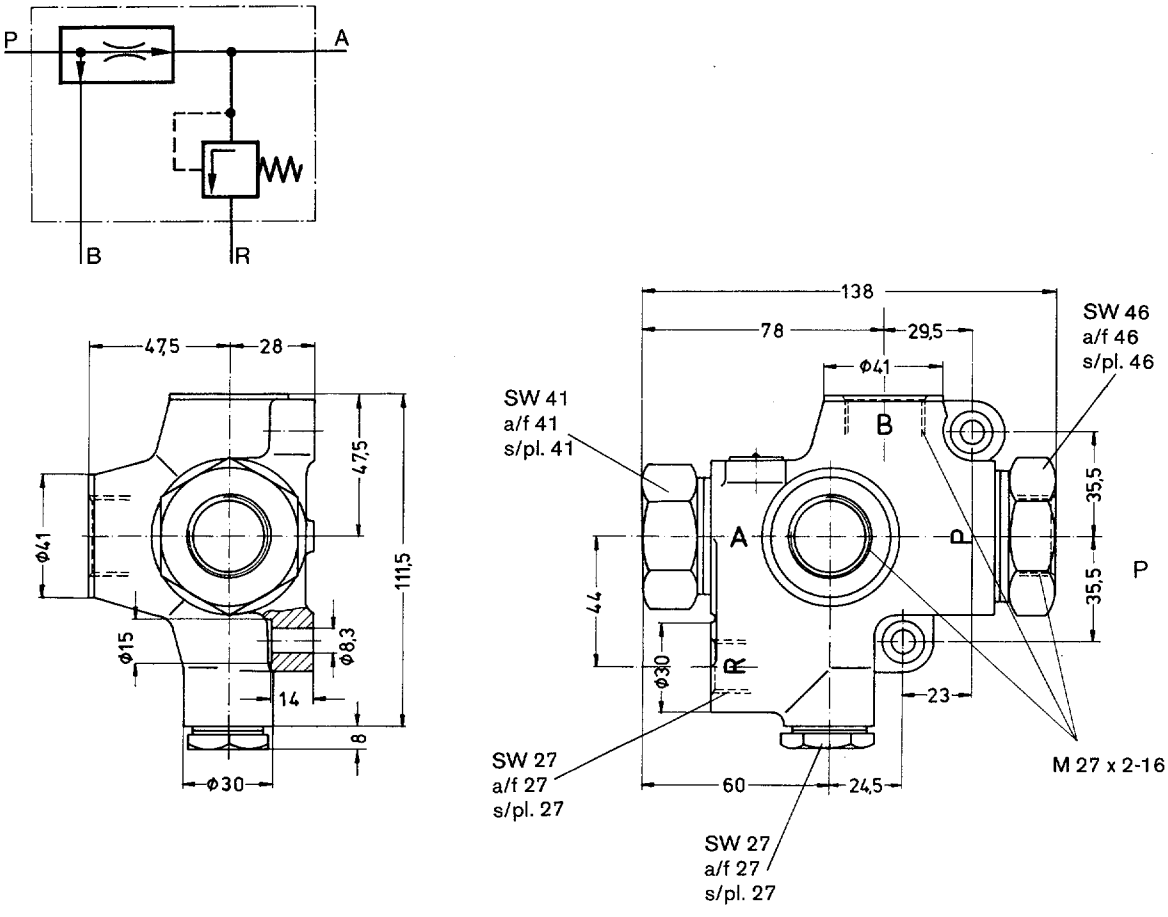


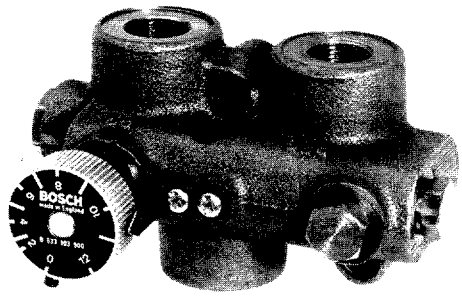
Fig. 4: HY/VHA 2/...

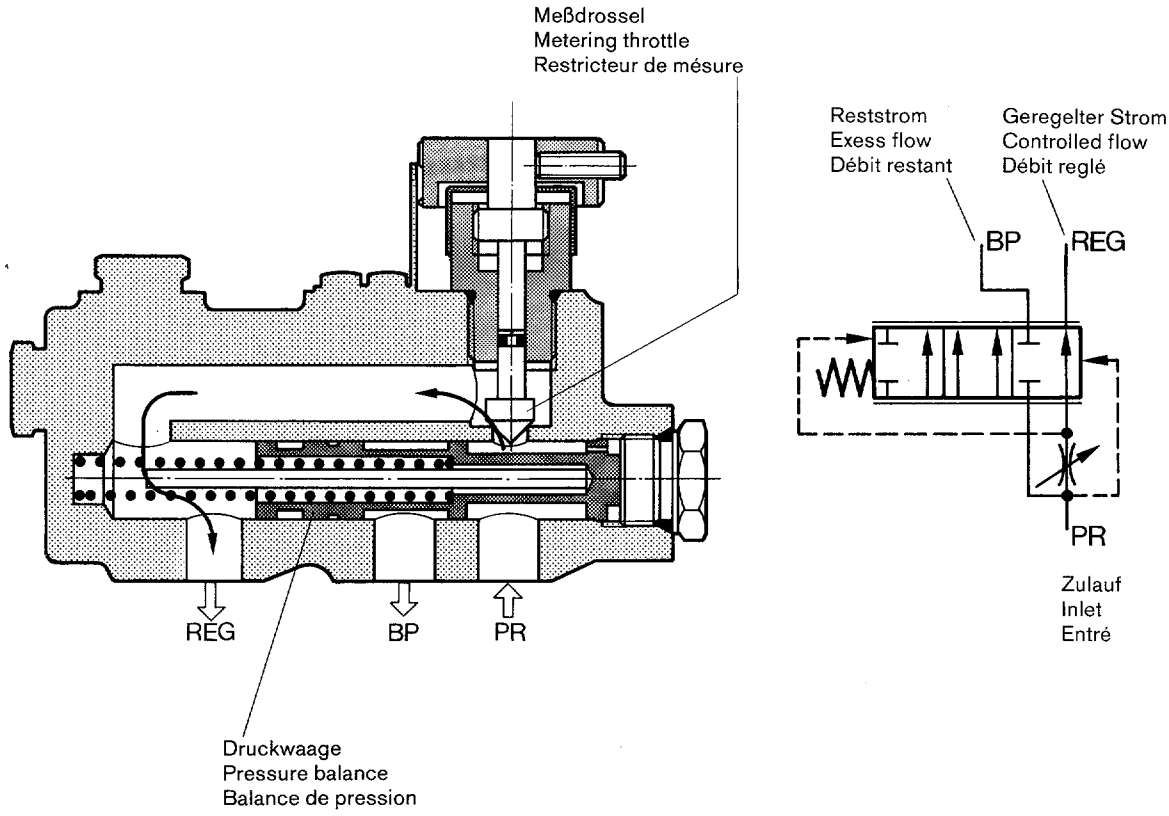


3-Wege-Stromregel-ventil einstellbar

3-way flow control valve adjustable

Valve de réglage du débit à 3 voies, ajustable





Type		Q_{PR} (l/min)	Q_{REG} [l/min]		kg	⊕
HY/VHR 4	PR REG BP	120	1 ... 30	M 22 x 1,5	1,6	⊕ 0533103502
			1 ... 47	M 22 x 1,5		⊕ 0533103500
			1 ... 75	M 27 x 2		⊕ 0533103501

De

Kenngrößen	
Benennung	3-Wege-Stromregelventil, einstellbar
Einbaulage	beliebig
Umgebungstemperatur	− 25 ... + 50 °C
Druckmittel	Hydrauliköl auf Mineralölbasis nach DIN/ISO andere auf Anfrage
Viskosität	10 ... 400 mm²/s
Druckmitteltemperatur	− 25 ... + 80 °C
Filterung	Ölverschmutzung Klasse 10 nach NAS 1638 zu erreichen mit Filter $\beta_{25} = 75$
Anschlußart	Rohranschluß
Durchflußrichtung	siehe Sinnbild
Betriebsdruck	max. 210 bar
Volumenstrom	1 ... 30; 1 ... 47; 1 ... 75 l/min
Mindestdruckgefälle	3 ... 6 bar

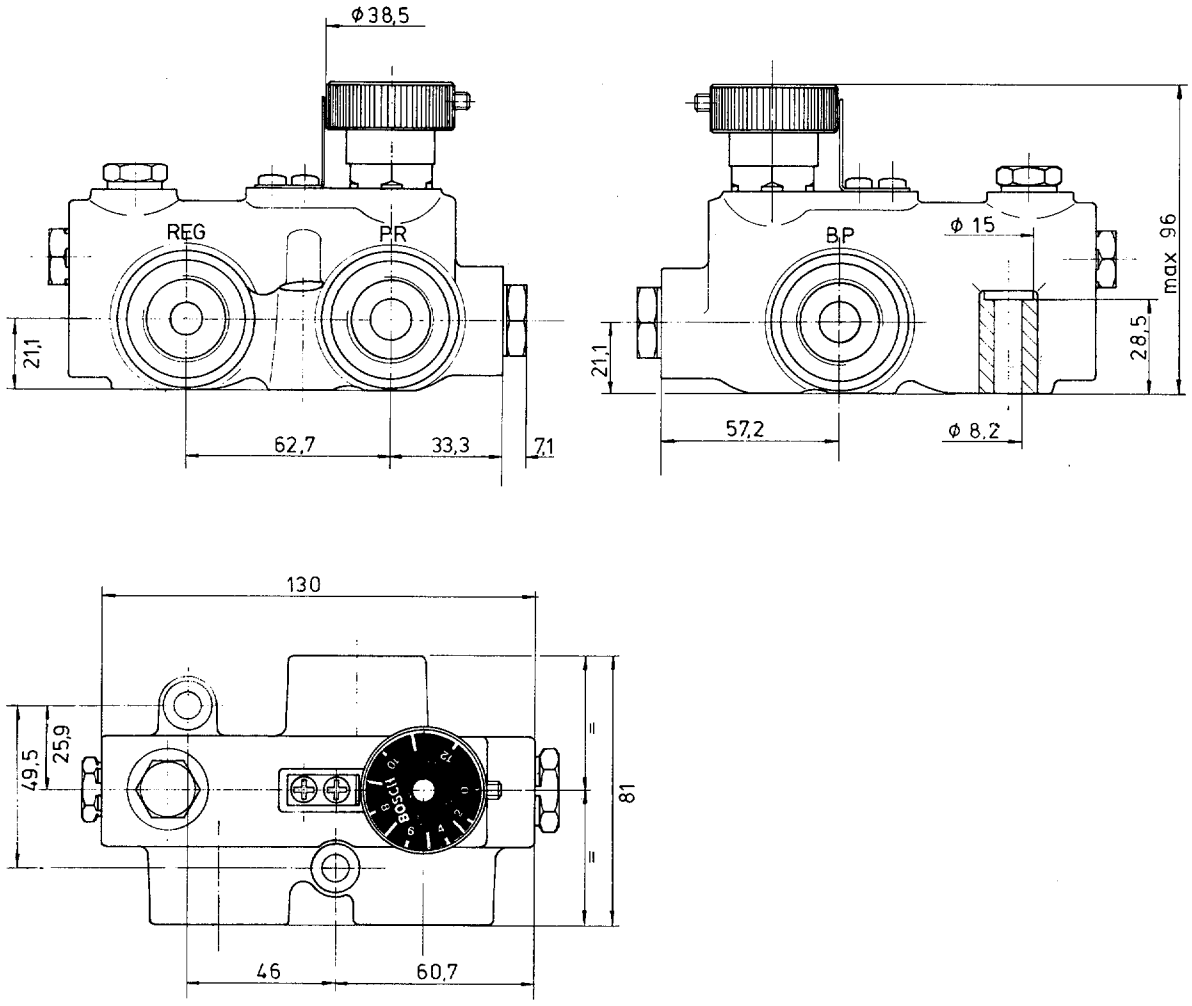
En

Specifications	
Description	3-way flow control valve, adjustable
Mounting position	Optional
Ambient temperature	− 25 ... + 50 °C
Fluid	Mineral-oil based hydraulic-fluids (DIN/ISO) others on request
Viscosity	10 ... 400 mm²/s
Fluid temperature	− 25 ... + 80 °C
Filtration	Contamination class 10, according NAS 1638 can be realized with filter $\beta_{25} = 75$
Mounting type	Direct line
Flow direction	see symbol
Operating pressure	max. 210 bar
Flow rate	1 ... 30; 1 ... 47; 1 ... 75 l/min
Minimum pressure drop	3 ... 6 bar

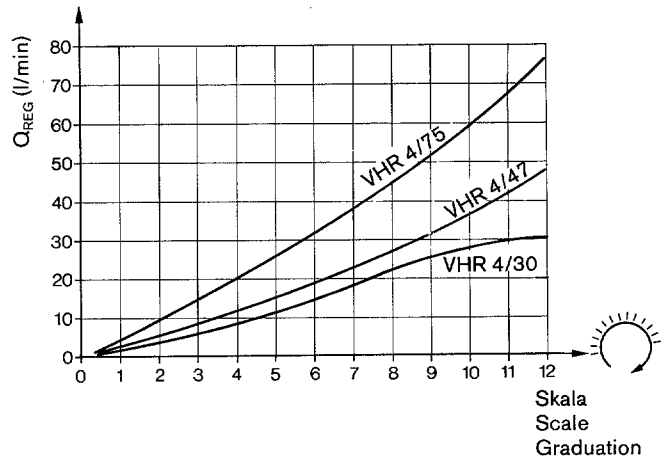
Fr

Caractéristiques	
Désignation	Valve de réglage du débit à 3 voies ajustable
Position de montage	indifférente
Température ambiante	− 25 ... + 50 °C
Fluides	Huiles hydrauliques minérales selon DIN/ISO; autres sur demande
Viscosité	10 ... 400 mm²/s
Température du fluide	− 25 ... + 80 °C
Filtrage	Encrassement du fluide: classe 10 (NAS 1638) à realiser avec un filtre $\beta_{25} = 75$
Mode de raccordement	en canalisation
Sens de flux	selon symbol
Pression de service	max. 210 bar
Debit max.	1 ... 30; 1 ... 47; 1 ... 75 l/mn
Perte de pression minimale	3 ... 6 bar

Abmessungen
Dimensions
Cotes d'encombrement



Kennlinien
Performance curves
Courbes caractéristiques
ν = 35 mm²/s



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