## **Flow regulators**

## 2-way, pressure compensated

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC2	210 (3000)	20 (5)	G 3/8	18309-32	321
E R	VRFC2	210 (3000)	up to 190 (50)	G 3/8 - G 1/2 G 3/4 - G 1	18309-33	323
	VRFC2-L	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-34	325
	A-VRFC2	350 (5000)	up to 190 (50)	G 3/8 - G 1/2 G 3/4 - G 1	18309-35	327

## 2-way, pressure compensated with check valve for free reverse flow

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC2-VU	210 (3000)	up to 190 (50)	G 3/8 - G 1/2 G 3/4 - G 1	18309-36	329

## 2-way, pressure compensated

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC3	210 (3000)	25 (7)	G 3/8	18309-37	331
	VRFC3	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-38	333
E R	VRFC3	210 (3000)	190 (50)	G 1	18309-39	335
	VRFC3-L	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-40	337
	A-VRFC3	350 (5000)	up to 90 (24)	G 1/2 - G 3/4	18309-41	339
	A-VRFC3	350 (5000)	190 (50)	G 1	18309-42	341

## 3-way, pressure compensated with check valve for free reserve flow

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC3-VU	210 (3000)	up to 55 (15)	G 3/8 - G 1/2	18309-43	343
	VRFC3-VU	210 (3000)	90 (24)	G 3/4	18309-44	345

## **Flow regulators**

## 3-way, pressure compensated with relief

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC3-VS	210 (3000)	up to 190 (50)	G 3/8 - G 1/2 G 3/4 - G 1	18309-45	347
	VRFC3-VS	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-46	349

## 3-way, pressure compensated with relief and solenoid control

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC3-VS-VEI	210 (3000)	up to 190 (50)	G 1/2 - G 3/4 - G1	18309-47	351
Ť						

## 3-way, pressure compensated with relief and solenoid by-pass

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC3-VS-BPE	210 (3000)	up to 55 (15)	G 3/8 - G 1/2	18309-48	353
	VRFC3-VS-BPE	210 (3000)	up to 90 (24)	G 3/4	18309-49	355
T						

## 3-way, combination type, pressure compensated

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	VRFC3C	210 (3000)	up to 190 (50)	G 3/8 - G 1/2 G 3/4 - G 1	18309-50	357
	A-VRFC3C	350 (5000)	up to 190 (50)	G 3/4 - G 1	18309-51	359
	VRFC3C	210 (3000)	up to 90 (24)	G 3/8 - G 1/2 - G 3/4	18309-52	361
В						

## 3-way, heavy duty flow control, with pressure compensated and solenoid controlled priority flow

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
9	A-VRFC3C-VEI-VS	350 (5000)	up to 300 (80)	G 1/2 - G 3/4 G 1 - G 1 1/4	18309-53	363
(Priority flow) A (Excess flow)						

## Flow regulators

# 5-way, heavy duty flow control, with pressure compensated and solenoid controlled priority flow for two pumps systems

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
······	A-VRFC3C-VEI-VS	350 (5000)	up to 390 (103)	G 1/2 - G 3/4 - G 1	18309-54	369
$(\text{Excess flow}) \text{B1} - \frac{A \approx (\text{PrlorIty})}{14} = \frac{B2}{14} (\text{Excess flow})$						
(Inlet flow) P1 T P2 (Inlet flow)						

# 3-way, heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
₹9	A-VRFC3C-VEI-VS-LS	350 (5000)	140 (37)	1 1/16-12 UN-2B	18309-63	375
(Priority flow) A B (Excess flow)						
P (Inlet flow)						

# 2-way, heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	A-VRFC2C-VEI-VS-LS	350 (5000)	140 (37)	1 1/16-12 UN-2B	18309-64	381
P (Inlet flow)						

## Flow dividers, combiners

Symbol	Туре	Max. Pressure bar (psi)	Max. Flow I/min. (gpm)	Ports size	Data Sheet	Page
	DRF	210 (3000)	up to 38 (10)	G 3/8	18309-55	387
C1 C2	DRF	210 (3000)	up to 38 (10)	G 1/2 - G 3/8	18309-56	389
	DRF	210 (3000)	up to 150 (40)	G 3/4 - G 1/2	18309-57	391
	DRF	210 (3000)	up to 150 (40)	G 3/4 - G 1	18309-58	393
└── - ── + ── - ── V	A-DRF	350 (5000)	up to 16 (4)	G 3/8	18309-59	395
	A-DRF	350 (5000)	up to 50 (13)	G 1/2 - G 3/8	18309-60	397
	A-DRF	350 (5000)	up to 95 (25)	G 3/4 - G 1/2	18309-61	399
	A-DRF	350 (5000)	up to 150 (40)	G 3/4 - G 1	18309-62	401

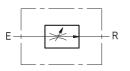


# Flow regulator, 2-way, pressure compensated



1

## VRFC2

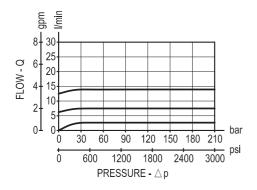


## OM.22.03 - X - 97

## Description

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of approximately 5 bar (70 psi) exists between the two ports. Output flow can be varied from zero (closed) to the nominal maximum rating. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated.

## Performance



## **Technical data**

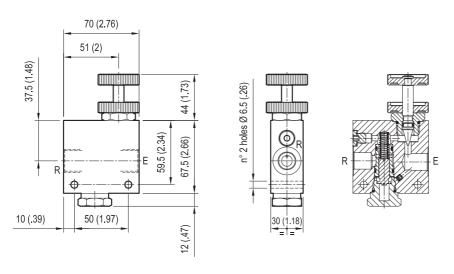
Hyd	rau	lic

Operating pressure	bar (psi)	up to 210 (3000)				
Q = max inlet flow "E" port 20 l/min (5 gpm)						
Flow range adjustment : 0 - 3 turns						

#### General

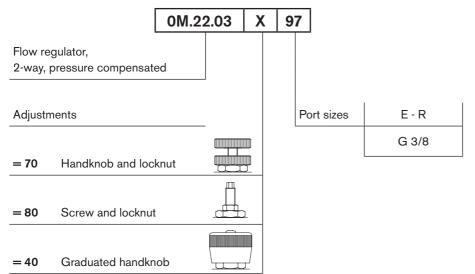
Manifold material	Aluminium
Note: aluminium bodies are often strong exceeding 210 bar (3000 psi), dependin specific application. If in doubt, consult o	g from the fatigue life expected in the

Weight	kg (lbs)	0.5 (1.1)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50





## Ordering code



Туре	Material number
0M220370970000A	R930004189
0M2203809700000	R930004195
0M2203409700000	R930000223

Туре	Material number

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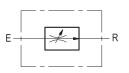
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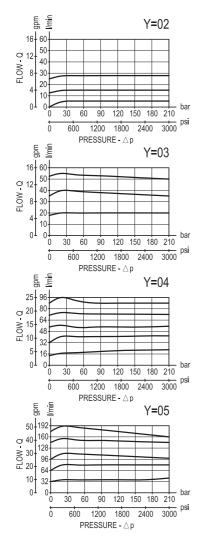
# Flow regulator, 2-way, pressure compensated



## VRFC2



## Performance



## Description

0M.22.03 - X - Y

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of approximately 5 bar (70 psi) exists between the two ports. Output flow can be varied from zero (closed) to the nominal maximum rating. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated.

## **Technical data**

### Hydraulic

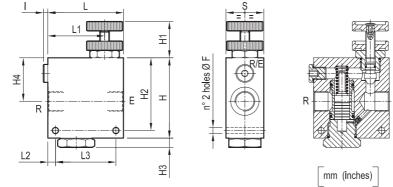
Operating pressure	bar (psi)	up to 210 (3000)				
Q = max inlet flow "E" port (see "Dimensions")						
Flow range adjustment : 0 - 3 turns						

### General

Manifold material	Aluminium					
Note: aluminium bodies are often strong enough for operating pressures						

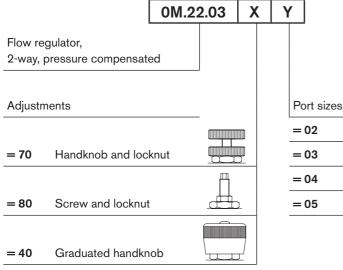
exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



50	82	8	78	108	5	62	10	98	40	108	8.5		190 l/min	G 1	1.94
(1.97)	(3.23)	(0.32)	(3.07)	(4.25)	(0.2)	(2.44)	(0.39)	(3.86)	(1.58)	(4.25)	(0.34)		50 gpm	91	(4.28)
50	82	8	75	100	5	56	10	90	40	100	8.5		90 l/min	G 3/4	1.65
(1.97)	(3.23)	(0.32)	(2.95)	(3.94)	(0.2)	(2.21)	(0.39)	(3.54)	(1.58)	(3.94)	(0.34)		24 gpm	0 3/4	(3.64)
40	64	8	60	80	5	46	10	77	40	85	6.5		55 l/min	G 1/2	0.88
(1.58)	(2.52)	(0.32)	(2.36)	(3.15)	(0.2)	(1.81)	(0.39)	(3.03)	(1.58)	(3.35)	(0.26)		15 gpm	G 1/2	(1.94)
40	64	8	60	80	5	46	10	77	40	85	6.5		30 l/min	G 3/8	0.88
(1.58)	(2.52)	(0.32)	(2.36)	(3.15)	(0.2)	(1.81)	(0.39)	(3.03)	(1.58)	(3.35)	(0.26)		8 gpm	G 3/0	(1.94)
S	L3	12	11	1	1	H4	H3	H2	H1	н	E		Q	v	Weight
3	LJ	LZ	LI	L	1	Π4	пэ	ΠΖ	пі	П	Г		Q	I	kg (lb͡s)

## Ordering code



Port sizes	E-R
= 02	G 3/8
= 03	G 1/2
= 04	G 3/4
= 05	G 1
	•

Туре	Material number	Туре
0M2203700200000	R930004181	0M220
0M2203700300000	R930004182	0M220
0M2203700400000	R930004183	0M220
0M2203700500000	R930004184	0M220
0M2203800200000	R930004190	
0M2203800300000	R930004192	
0M2203800400000	R930004193	
0M2203800500000	R930004194	

Туре	Material number
0M2203400200000	R930004169
0M2203400300000	R930004170
0M2203400400000	R930004171
0M2203400500000	R930004172

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**RE 18309-34/04.10** 1/2 Replaces: RE 00171/02.07

# Flow regulator, 2-way, pressure compensated



## 0M.22.03.50 - Y

## Description

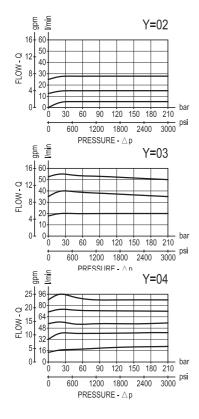
A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of approximately 5 bar (70 psi) exists between the two ports. Output flow can be varied from zero (Closed) to the nominal maximum rating (Open). Reverse flow from R to E is limited by the selected opening of the lever controlled restrictor and is not pressure compensated.

## Performance

R

VRFC2-L

Е



## **Technical data**

### Hydraulic

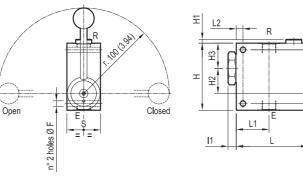
Operating pressure	bar (psi)	up to 210 (3000)						
Q = max inlet flow "E" port (see "Dimensions")								
Flow control range: from 15° to 165° of hand lever rotation								

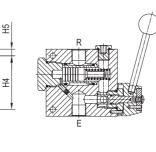
#### General

Manifold material	Aluminium							
Note: aluminium bodies are often strong enough for operating pressures								
exceeding 210 bar (3000 psi), depending	a from the fatique life expected in the							

exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	'C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50





mm (inches)

50	10	44	100	10	50	8	82	35	40	4.5	100	8.5	90 l/min	G 3/4	1.75
(1.97)	(0.39)	(1.73)	(3.94)	(0.39)	(1.97)	(0.32)	(3.23)	(1.38)	(1.58)	(0.18)	(3.94)	(0.34)	24 gpm	0 0/4	(3.86)
40	8	39	85	10	50	8	64	30	30	4.5	80	6.5	55 l/min	G 1/2	0.97
(1.58)	(0.32)	(1.54)	(3.35)	(0.39)	(1.97)	(0.32)	(2.52)	(1.18)	(1.18)	(0.18)	(3.15)	(0.26)	15 gpm	0 1/2	(2.14)
40	8	39	85	10	50	8	64	30	30	4.5	80	6.5	30 l/min	G 3/8	0.97
(1.58)	(0.32)	(1.54)	(3.35)	(0.39)	(1.97)	(0.32)	(2.52)	(1.18)	(1.18)	(0.18)	(3.15)	(0.26)	8 gpm	0.5/0	(2.14)
S	L2	11	I	11	1	H5	H4	НЗ	H2	Н1	н	F	0	v	Weight
0		L 1	-			110	114	110	112			· ·	Q		kg (lbs)

## Ordering code

	OM.2	2.03	50	) (	Y			
Flow regulator,								
2-way, pressure compensate								
Adjustments					Po	rt sizes	E-R	
Lever with built in friction clutch		-			=	02	G 3/8	
					=	03	G 1/2	
					=	04	G 3/4	

Туре	Material number	Туре	Material number
0M2203500200000	R930004174		
0M2203500300000	R930004175		
0M2203500400000	R930004176		

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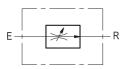
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# Flow regulator, 2-way, pressure compensated



## A-VRFC2



#### Performance mdg /min Y=02 16 60 50 0 12 MO 8 40 30 20 4 10 $^{0}$ ba 30 60 90 120 150 180 210 psi 600 1200 1800 2400 3000 ō $\mathsf{PRESSURE} \textbf{-} \bigtriangleup \mathsf{p}$ gpm /min Y=03 16 60 50 0 12 MOT 8 4( 30 2( 4 10 0 0. bai 120 150 180 210 60 90 30 0 600 1200 1800 2400 3000 psi 0 PRESSURE - $\triangle p$ /min gpm Y=04 25 96 80 0<sup>20</sup> M<sup>-</sup> 15-M<sup>-</sup> 10-64 48 32 5 16 04 0 0 30 60 90 120 150 180 210 3000 psi 600 1200 1800 2400 Ō $\mathsf{PRESSURE} \textbf{-} \bigtriangleup \mathsf{p}$ gpm //min Y=05 50 192 0 40 160 0 40 128 0 30 96 1 20 64 64 10 32 ٥. 0 bai 30 60 90 120 150 180 210 600 1200 1800 2400 3000 ps 0 $\mathsf{PRESSURE} \textbf{-} \bigtriangleup \mathsf{p}$

## 0M.B2.03 - X - Y

## Description

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of approximately 5 bar (70 psi) exists between the two ports. Output flow can be varied from zero (closed) to the nominal maximum rating. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated.

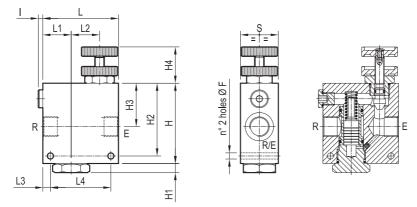
## **Technical data**

### Hydraulic

Max. operating pressure	bar (psi)	350 (5000)						
Q = max inlet flow "E" port (see "Dimensions")								
Flow range adjustment : 0 - 3 turns								

### General

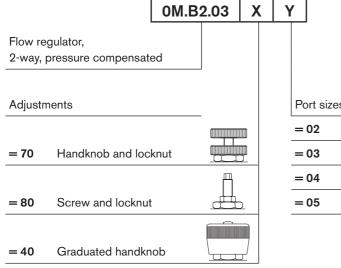
Manifold material		Steel
Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



mm (inches)

50	82	8	38	40	108	5	40	62	98	10	100	8.5	190 l/min	G 1	4.3
(1.97)	(3.23)	(0.32)	(1.5)	(1.58)	(4.25)	(0.2)	(1.58)	(2.44)	(3.86)	(0.39)	(3.94)	(0.34)	50 gpm	GI	(9.5)
50	82	8	40	35	100	5	40	56	90	10	100	8.5	90 l/min	G 3/4	3.5
(1.97)	(3.23)	(0.32)	(1.58)	(1.38)	(3.94)	(0.2)	(1.58)	(2.21)	(3.54)	(0.39)	(3.94)	(0.34)	24 gpm	0 3/4	(7.7)
40	64	8	30	30	80	5	40	46	77	10	85	6.5	55 l/min	G 1/2	1.9
(1.58)	(2.52)	(0.32)	(1.18)	(1.18)	(3.15)	(0.2)	(1.58)	(1.81)	(3.03)	(0.39)	(3.35)	(0.26)	15 gpm	61/2	(4.19)
40	64	8	30	30	80	5	40	46	77	10	85	6.5	30 l/min	G 3/8	1.9
(1.58)	(2.52)	(0.32)	(1.18)	(1.18)	(3.15)	(0.2)	(1.58)	(1.81)	(3.03)	(0.39)	(3.35)	(0.26)	8 gpm	9.5/0	(4.19)
S	L4	L3	L2	L1	L	I	H4	H3	H2	H1	н	F	Q	Y	Weight kg (lbs)

## Ordering code



E-R
G 3/8
G 1/2
G 3/4
G 1

Туре	Material number
0MB203700200000	R930004469
0MB203700300000	R930004470
0MB203700400000	R930004471
0MB203700500000	R930004472
0MB203800200000	R930000225
0MB203800300000	R930000234
0MB203800400000	R930000241
0MB203800500000	R930000250

Туре	Material number
0MB203400200000	R930000228
0MB203400300000	R930000229
0MB203400400000	R930000238
0MB203400500000	R930000254

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**Rexroth** Bosch Group

# Flow regulator, 2-way, pressure compensated, with check valve for free reverse flow

## VRFC2-VU



0M.24.03 - X - Y

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of approximately 5 bar (70 psi) exists between the two ports. Output flow can be varied from zero (closed) to the nominal maximum rating. Free flow is permitted from R to E, regardless of valve adjustment, when pressure overcomes the spring bias of the check valve.

## **Technical data**

## Hydraulic

Operating pressure bar (psi)		up to 210 (3000)					
Q = max inlet flow "E" port (see "Dimensions")							
Flow range adjustment : 0 - 3 turns							

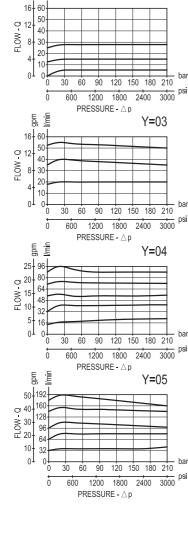
## General

Manifold material	Aluminium			
Note: aluminium bodies are often strong enough for exercising pressures				

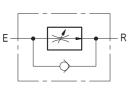
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

Note: for applications outside these parameters, please consult us.



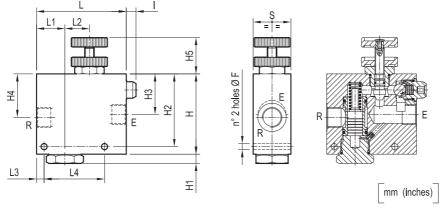




## Performance

Y=02

gpm Vmin



50	82	8	40	40	145	13	40	64	66	100	10	110	8.5	190 l/min	G 1	3.1
(1.97)	(3.23)	(0.32)	(1.58)	(1.58)	(5.71)	(0.51)	(1.58)	(2.52)	(2.6)	(3.94)	(0.39)	(4.33)	(0.34)	50 gpm	GT	(6.8)
50	82	8	40	35	130	13	40	56	54	90	10	100	8.5	90 l/min	G 3/4	2.1
(1.97)	(3.23)	(0.32)	(1.58)	(1.38)	(5.12)	(0.51)	(1.58)	(2.21)	(2.13)	(3.54)	(0.39)	(3.94)	(0.34)	24 gpm	0 3/4	(4.6)
40	64	8	26	30	95	10	40	46	42	77	10	85	6.5	55 l/min	G 1/2	1.04
(1.58)	(2.52)	(0.32)	(1.02)	(1.18)	(3.74)	(0.39)	(1.58)	(1.81)	(1.65)	(3.03)	(0.39)	(3.35)	(0.26)	15 gpm	0 1/2	(2.3)
40	64	8	26	30	95	10	40	46	41.5	77	10	85	6.5	30 l/min	G 3/8	1.04
(1.58)	(2.52)	(0.32)	(1.02)	(1.18)	(3.74)	(0.39)	(1.58)	(1.81)	(1.63)	(3.03)	(0.39)	(3.35)	(0.26)	8 gpm	G 5/0	(2.3)
S	L4	L3	L2	L1	L	Ι	H5	H4	H3	H2	H1	н	F	Q	Y	Weight kg (lbs)

## Ordering code

		0M.24	4.03	Х	Υ	,		
Flow re	gulator,							
2-way, pressure compensated check valve for free reverse flow								
Adjustn	nents					Po	ort sizes	
					L	=	02	
= 70	Handknob and loc	knut		5		=	03	
			П			=	04	
= 80	Screw and locknut			1		=	05	
= 40	Graduated handkn	iob		ŗ				

Туре	Material number	Туре	Material number
0M2403700200000	R930004201	0M2403400200000	R930004200
0M2403700300000	R930004202	0M2403400300000	R930000524
0M2403700400000	R930004203	0M2403400400000	R930000525
0M2403700500000	R930004204	0M2403400500000	R930000274
0M2403800200000	R930000267		
0M2403800300000	R930004205		
0M2403800400000	R930000221		
0M2403800500000	R930000256		

E - R G 3/8 G 1/2 G 3/4 G 1

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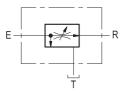
The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



1

# Flow regulator, 3-way, pressure compensated

## VRFC3

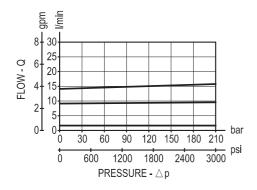


## Description

OM.32.03 - X - 97

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## Performance



## **Technical data**

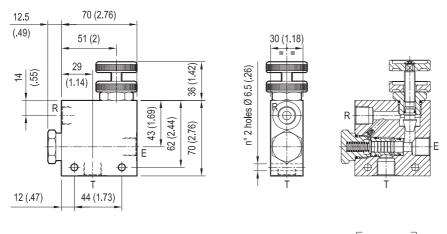
## Hydraulic

Operating pressure bar (psi) up to 210 (3000)					
QE = max inlet flow "E" port 40 l/min (11 gpm)					
QR = max regulated flow "R" port 25 l/min (7 gpm)					
Flow range adjustment : 0 - 3 turns					

### General

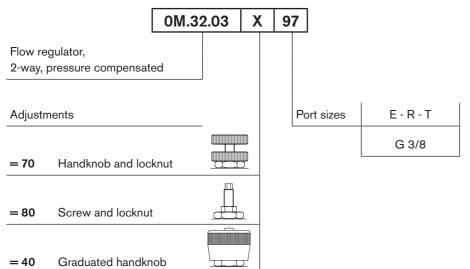
Manifold material	Aluminium					
Note: aluminium bodies are often strong enough for operating pressures						
exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.						

Weight	kg (lbs)	0.55 (1.21)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



mm (inches)

## Ordering code



Туре	Material number
0M3203709700000	R930004239
0M3203809700000	R930004246
0M3203409700000	R930004226

Туре	Material number

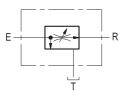
Bosch Rexroth Oil Control S.p.A. Via Leonardo da Vinci 5 P.O. Box no. 5 41015 Nonantola – Modena, Italy Tel. +39 059 887 611 Fax +39 059 547 848 motion-control-valves@oilcontrol.com www.boschrexroth.com **332**   $\ensuremath{\mathbb{C}}$  This document, as well as the data, specifications and other information set forth in it, are the exclusive property of Bosch Rexroth Oil Control S.p.a.. It may not be reproduced or given to third parties without its consent.

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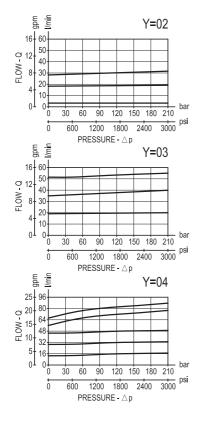


# Flow regulator, 3-way, pressure compensated

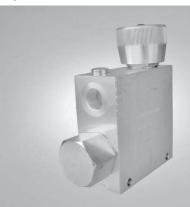
## VRFC3



## Performance



## 0M.32.03 - X - Y



## Description

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## **Technical data**

### Hydraulic

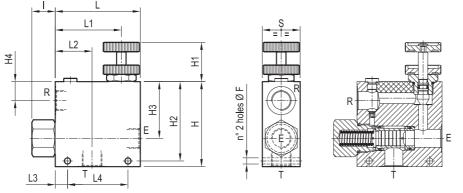
bar (psi)	up to 210 (3000)		
QE = max inlet flow "E" port (see "Dimensions")			
QR = max regulated flow "R" port (see "Dimensions")			
Flow range adjustment : 0 - 3 turns			
	(see "Dimer port (see "E		

### General

Manifold material	Aluminium				
Note: aluminium bodies are often strong enough for operating pressures					

exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

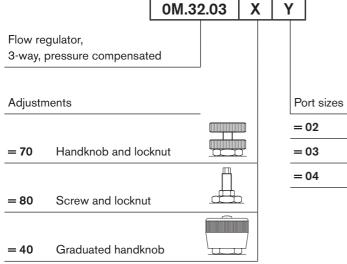
Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



50	88	10	44	79	108	25	23	73	101	40	108	8.5	90 l/min	150 l/min	C 2/4	1.95
(1.97)	(3.47)	(0.39)	(1.73)	(3.11)	(4.25)	(0.98)	(0.91)	(2.87)	(3.98)	(1.58)	(4.25)	(0.34)	24 gpm	40 gpm	G 3/4	(4.3)
40	64	13	39	70	90	25	17.5	60	84	40	90	6.5	55 l/min	90 l/min	C 1/2	1.06
(1.58)	(2.52)	(0.51)	(1.54)	(2.76)	(3.54)	(0.98)	(0.69)	(2.36)	(3.31)	(1.58)	(3.54)	(0.26)	15 gpm	24 gpm	G 1/2	(2.34)
40	64	13	39	70	90	25	17.5	60	84	40	90	6.5	30 l/min	55 l/min	C 2/0	1.06
(1.58)	(2.52)	(0.51)	(1.54)	(2.76)	(3.54)	(0.98)	(0.69)	(2.36)	(3.31)	(1.58)	(3.54)	(0.26)	8 gpm	15 gpm	G 3/0	(2.34)
c	14	12	12	11		1	ЦЛ	Цр	<u>ц</u> р	Ш1	ш	E	OP	OF	V	Weight
3	L4	LJ	LZ			1	F14	ПЭ		п	r1	r"	UK.		T	kg (lbs)
	(1.97) 40 (1.58) 40	(1.97)     (3.47)       40     64       (1.58)     (2.52)       40     64       (1.58)     (2.52)	$\begin{array}{cccc} (1.97) & (3.47) & (0.39) \\ \hline 40 & 64 & 13 \\ (1.58) & (2.52) & (0.51) \\ \hline 40 & 64 & 13 \\ (1.58) & (2.52) & (0.51) \end{array}$	$\begin{array}{ccccc} (1.97) & (3.47) & (0.39) & (1.73) \\ 40 & 64 & 13 & 39 \\ (1.58) & (2.52) & (0.51) & (1.54) \\ 40 & 64 & 13 & 39 \\ (1.58) & (2.52) & (0.51) & (1.54) \\ \end{array}$	$\begin{array}{c ccccc} (1.97) & (3.47) & (0.39) & (1.73) & (3.11) \\ \hline 40 & 64 & 13 & 39 & 70 \\ (1.58) & (2.52) & (0.51) & (1.54) & (2.76) \\ \hline 40 & 64 & 13 & 39 & 70 \\ (1.58) & (2.52) & (0.51) & (1.54) & (2.76) \\ \hline \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$            \begin{array}{c} (1.97) \\ 40 \\ (5.52) \\ (2.52) \\ (0.51) \\ (1.58) \\ (2.52) \\ (0.51) \\ (1.58) \\ (2.52) \\ (0.51) \\ (1.54) \\ (2.52) \\ (0.51) \\ (1.54) \\ (2.76) \\ (2.76) \\ (3.54) \\ (0.98) \\ (0.98) \\ (0.98) \\ (0.98) \\ (0.90) \\ (2.36) \\ (3.31) \\ (1.58) \\ (3.31) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (2.52) \\ (0.51) \\ (1.54) \\ (2.76) \\ (3.54) \\ (0.98) \\ (0.98) \\ (0.98) \\ (0.98) \\ (0.98) \\ (0.98) \\ (2.36) \\ (3.31) \\ (1.58) \\ (3.31) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58) \\ (3.54) \\ (1.58)$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	(1.97)     (3.47)     (0.39)     (1.73)     (3.11)     (4.25)     (0.98)     (0.91)     (2.87)     (3.98)     (1.58)     (4.25)     (0.34)     24 gpm       40     64     13     39     70     90     25     17.5     60     84     40     90     6.5     55 l/min       (1.58)     (2.52)     (0.51)     (1.54)     (2.76)     (3.54)     (0.98)     (0.69)     (2.36)     (3.31)     (1.58)     (3.54)     (0.26)     15 gpm       40     64     13     39     70     90     25     17.5     60     84     40     90     6.5     55 l/min       40     64     13     39     70     90     25     17.5     60     84     40     90     6.5     30 l/min       (1.58)     (2.52)     (0.51)     (1.54)     (2.76)     (3.34)     (0.98)     (2.36)     (3.31)     (1.58)     (3.54)     (0.26)     8 gpm	(1.97)     (3.47)     (0.39)     (1.73)     (3.11)     (4.25)     (0.98)     (0.91)     (2.87)     (3.98)     (1.58)     (4.25)     (0.34)     24 gpm     40 gpm       40     64     13     39     70     90     25     17.5     60     84     40     90     6.5     55 l/min     90 l/min       (1.58)     (2.52)     (0.51)     (1.54)     (2.76)     (3.54)     (0.98)     (0.69)     (2.36)     (3.31)     (1.58)     (3.24)     (0.26)     15 gpm     24 gpm       40     64     13     39     70     90     25     17.5     60     84     40     90     6.5     30 l/min     55 l/min       40     64     13     39     70     90     25     17.5     60     84     40     90     6.5     30 l/min     55 l/min       (1.58)     (2.52)     (0.51)     (1.54)     (2.76)     (3.54)     (0.98)     (0.69)     (2.36)     (3.31)     (1.58) <td< td=""><td>(1.97)   (3.47)   (0.39)   (1.73)   (3.11)   (4.25)   (0.91)   (2.87)   (3.98)   (1.58)   (4.25)   (0.34)   24 gpm   40 gpm   G 3/4     40   64   13   39   70   90   25   17.5   60   84   40   90   6.5   55 l/min   90 l/min   C 3/4     (1.58)   (2.52)   (0.51)   (1.54)   (2.76)   (3.54)   (0.98)   (2.66)   (3.31)   (1.58)   (3.54)   (0.51)   55 l/min   24 gpm   G 1/2     40   64   13   39   70   90   25   17.5   60   84   40   90   6.5   30 l/min   24 gpm   G 1/2     40   64   13   39   70   90   25   17.5   60   84   40   90   6.5   30 l/min   55 l/min   24 gpm   G 3/8     (1.58)   (2.52)   (0.51)   (1.54)   (2.76)   (3.54)   (0.98)   (2.6)   (3.31)   (1.58)   (3.4)   (0.26)   8 gpm   15 gpm   G 3/8 <!--</td--></td></td<>	(1.97)   (3.47)   (0.39)   (1.73)   (3.11)   (4.25)   (0.91)   (2.87)   (3.98)   (1.58)   (4.25)   (0.34)   24 gpm   40 gpm   G 3/4     40   64   13   39   70   90   25   17.5   60   84   40   90   6.5   55 l/min   90 l/min   C 3/4     (1.58)   (2.52)   (0.51)   (1.54)   (2.76)   (3.54)   (0.98)   (2.66)   (3.31)   (1.58)   (3.54)   (0.51)   55 l/min   24 gpm   G 1/2     40   64   13   39   70   90   25   17.5   60   84   40   90   6.5   30 l/min   24 gpm   G 1/2     40   64   13   39   70   90   25   17.5   60   84   40   90   6.5   30 l/min   55 l/min   24 gpm   G 3/8     (1.58)   (2.52)   (0.51)   (1.54)   (2.76)   (3.54)   (0.98)   (2.6)   (3.31)   (1.58)   (3.4)   (0.26)   8 gpm   15 gpm   G 3/8 </td

mm (inches)

## Ordering code



E - R - T
G 3/8
G 1/2
G 3/4

Туре	Material number	
0M3203700200000	R930004231	
0M320370030000A	R930004232	
0M3203700400000	R930004233	
0M3203800200000	R930004241	
0M320380030000A	R930004242	
0M3203800400000	R930004244	_
		_

Туре	Material number
0M3203400200000	R930004220
0M320340030000A	R930004221
0M3203400400000	R930004224

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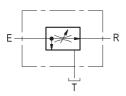
The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



1

# Flow regulator, 3-way, pressure compensated

## VRFC3

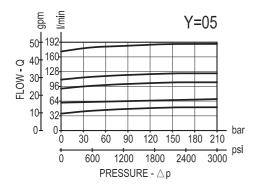


# Description

0M.32.03 - X - 05

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## Performance



## **Technical data**

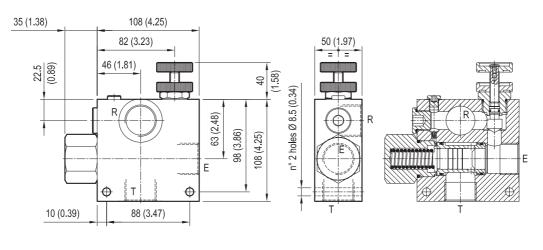
## Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)	
QE = max inlet flow "E" port 280 l/min (74 gpm)			
QR = max regulated flow "R" port 190 l/min (50 gpm)			
Flow range adjustment : 0 - 3 turns			

## General

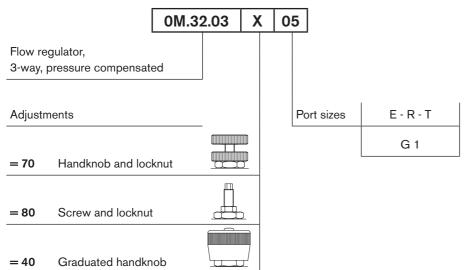
Manifold material	Aluminium			
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the				
specific application. If in doubt, consult our Service Network				

Weight	kg (lbs)	1.95 (4.3)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



mm (inches)

## Ordering code



Туре	Material number
0M3203700500000	R930004235
0M3203800500000	R930004245
0M3203400500000	R930004225

Туре	Material number

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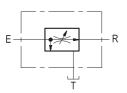
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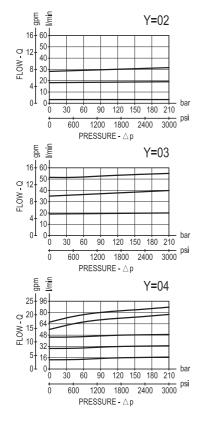
**RE 18309-40/04.10** 1/2 Replaces: RE 00171/02.07

# Flow regulator, 3-way, pressure compensated

## VRFC3-L



## Performance



## Description

0M.32.03.50 - Y

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## **Technical data**

## Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)					
QE = max inlet flow "E" port (see "Dimensions")							
QR = max regulated flow "R" port (see "Dimensions")							

## General

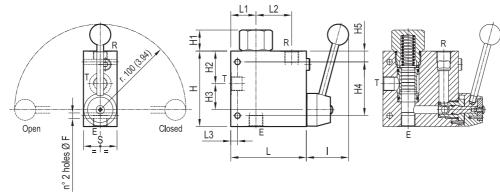
Manifold material	Aluminium
Note: aluminium bodies are often strong	enough for operating pressures

exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

Note: for applications outside these parameters, please consult us.

1



mm (inches)

50	7	50	35	108	50	10	88	35	44	25	108	8.5	90 <b>i</b> /min	150 l/min	G 3/4	2.1
(1.97)	(0.28)	(1.97)	(1.38)	(4.25)	(1.97)	(0.39)	(3.47)	(1.38)	(1.73)	(0.98)	(4.25)	(0.34)	24 gpm	40 gpm	G 3/4	(4.6)
40	8	42.5	30	90	50	13	64	31	39	25	90	6.5	55 l/min	90 <b>i</b> /min	G 1/2	1.13
(1.58)	(0.32)	(1.67)	(1.18)	(3.54)	(1.97)	(0.51)	(2.52)	(1.22)	(1.54)	(0.98)	(3.54)	(0.26)	15 gpm	24 gpm	GIZ	(2.49)
40	8	42.5	30	90	50	13	64	31	39	25	90	6.5	30 l/min	55 Vmin	G 3/8	1.13
(1.58)	(0.32)	(1.67)	(1.18)	(3.54)	(1.97)	(0.51)	(2.52)	(1.22)	(1.54)	(0.98)	(3.54)	(0.26)	8 gpm	15 gpm	0 3/0	(2.49)
S	L3	L2	L1	L	1	H5	H4	H3	H2	H1	н	F	QR	QE	Y	Weight
				_									-			Kg ( <b>İ</b> bs)

## Ordering code

	0M.32.03	50	Y		
Flow regulator,					
3-way, pressure compensate	ed				
Adjustments			P	ort sizes	E - R - T
Lever with built in friction clu	utch		=	02	G 3/8
			=	03	G 1/2
			=	04	G 3/4

Туре	Material number	Туре	Material number
0M3203500200000	R930004228		
0M320350030000A	R930004229		
0M3203500400000	R930004230		

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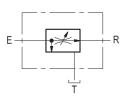
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1

# Flow regulator, 3-way, pressure compensated

## A-VRFC3

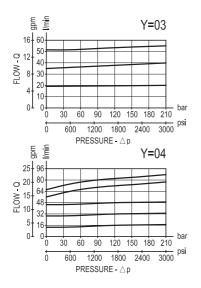


## 0M.C2.03 - X - Y

## Description

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## Performance



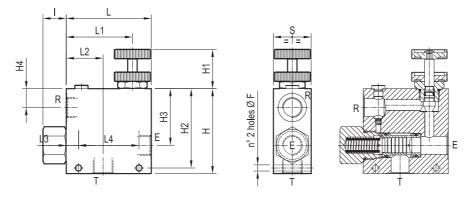
## **Technical data** ...

Hydraulic								
Max. operating pressure	bar (psi)	350 (5000)						
QE = max inlet flow "E" port (see "Dimensions")								
QR = max regulated flow "R" port (see "Dimensions")								
Flow range adjustment : 0 - 3 turns								

### General

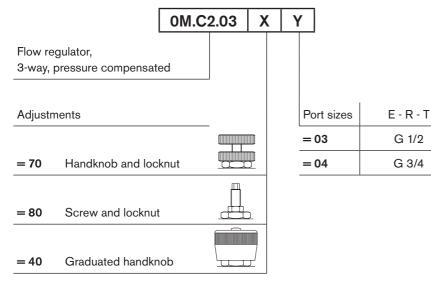
.

Manifold material		Steel
Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



50 (1.97)	88 (3.47)	10 (0.39)	44 (1.73)	79 (3.11)	108 (4.25)	21 (0.83)	23 (0.91)	73 (2.87)	101 (3.98)	40 (1.58)	108 (4.25)	8.5 (0.34)	90 l/min 24 gpm	150 I/min 40 gpm	G 3/4	4.3 (9.5)	mm (inches)
40 (1.58)	64 (2.52)	13 (0.51)	39 (1.54)	70 (2.76)	90 (3.54)	21 (0.83)	17.5 (0.69)	60 (2.36)	84 (3.31)	40 (1.58)	90 (3.54)	6.5 (0.26)	55 I/min 15 gpm	90 l/min 24 gpm	G 1/2	2.1 (4.6)	
S	L4	L3	L2	L1	L	I	H4	H3	H2	H1	Н	F	QR	QE	Y	Weight kg (lbs)	

## Ordering code



Туре	Material number	Туре	Material number
0MC20370030000A	R930004477		
0MC203700400000	R930004478		
0MC20380030000A	R930004480		
0MC203800400000	R930006088		
0MC20340030000A	R930004474		
0MC203400400000	R930004475		

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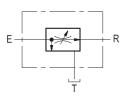


# Flow regulator, 3-way, pressure compensated



1

## A-VRFC3

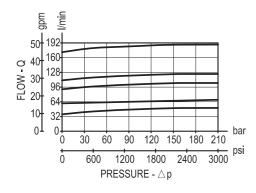


OM.C2.03 - X - 05

## Description

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## Performance



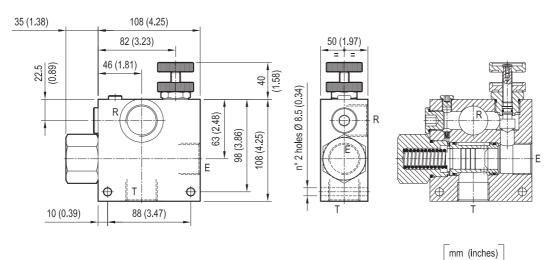
## **Technical data**

Hydraulic
-----------

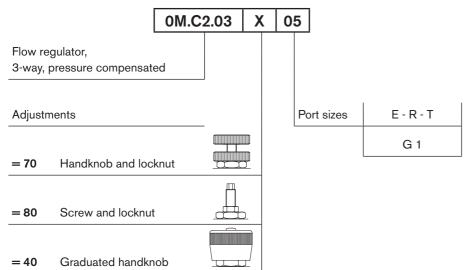
74 gpm)					
QR = max regulated flow "R" port 190 l/min (50 gpm)					
Flow range adjustment : 0 - 3 turns					

### General

Manifold material		Steel
		Steel
Weight	kg (lbs)	4.4 (9.7)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



## Ordering code



Туре	Material number
0MC203700500000	R930004479
0MC203800500000	R930004481
0MC203400500000	R930004476

Туре	Material number				

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#### RE 18309-43/04.10 1/2 Replaces: RE 00171/02.07

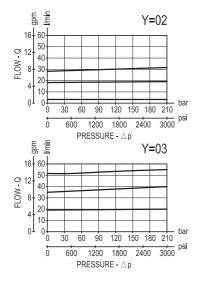
# Flow regulator, 3-way, pressure compensated, with check valve for free reverse flow

## VRFC3-VU

Ε



## Performance



A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## **Technical data**

Description

0M.39.03 - X - Y

## Hydraulic

-						
Operating pressure	bar (psi)	up to 210 (3000)				
Max flow (see "Performance graph")						
QE = max inlet flow "E" port (see "Dimensions")						
QR = max regulated flow "R" port (see "Dimensions")						
Flow range adjustment : 0 - 3 turns						

### General

Manifold material	Aluminium

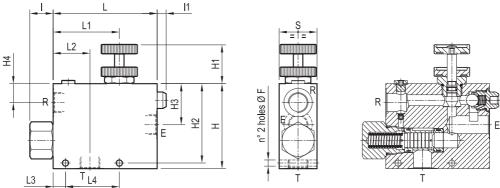
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50









mm (inches)

40 (1.58)	57	13	39 (1.54)	70	110	10	25 (0.98)	17.5 (0.69)	43.5	84 (3.31)	40	90 (3.54)	6.5 (0.26)	55 l/min 15 gpm	90 I/min 24 apm	G 1/2	1.15 (2.54)
40	57	13	39	70	110	10	25	17.5	42	84	40	90	6.5	30 l/min	55 l/min	G 3/8	1.15
(1.58)	(2.24)	(0.51)	(1.54)	(2.76)	(4.33)	(0.39)	(0.98)	(0.69)	(1.65)	(3.31)	(1.58)	(3.54)	(0.26)	8 gpm	15 gpm		(2.54) Weiaht
S	L4	L3	L2	L1	L	1	I	H4	H3	H2	H1	Н	F	QR	QE	I Y I	kg (lbs)

## Ordering code

		OM.3	9.03	Х	1		
Flow re	gulator,						
-	pressure compensate valve for free reverse						
Adjustn	nents				Po	ort sizes	E - R - T
					=	02	G 3/8
= 70	Handknob and loc	knut			=	03	G 1/2
= 80	Screw and locknut	t		2			
= 40	Graduated handkr	iob					

Туре	Material number	Туре	Material number
0M390370020000A	R930004298		
0M390370030000A	R930004299		
0M3903800200000	R930004301		
0M390380030000A	R930004302		
0M390340020000A	R930004293		
0M3903400300000	R930004295		

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### RE 18309-44/04.10 1/2 Replaces: RE 00171/02.07

# Flow regulator, 3-way, pressure compensated, with check valve for free reverse flow

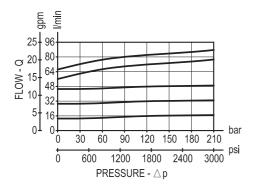
## VRFC3-VU



0M.39.03 - X - 04

A constant flow rate, regardless of system pressures, is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not possible. Increasing or decreasing inlet flow may cause slight increase or decrease of Regulated flow.

## Performance



## **Technical data**

## Hydraulic

-						
Operating pressure	bar (psi)	up to 210 (3000)				
QE = max inlet flow "E" port 150 l/min (40 gpm)						
QR = max regulated flow "R" port 90 l/min (24 gpm)						
Flow range adjustment : 0 - 3 turns						

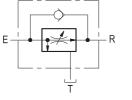
## General

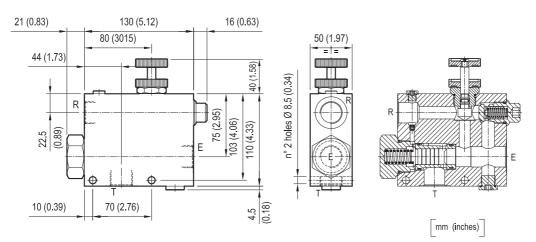
Manifold material	Aluminium
Note: aluminium bodies are often strong e exceeding 210 bar (3000 psi), depending specific application. If in doubt, consult of	g from the fatigue life expected in the

Weight	kg (lbs)	2.15 (4.7)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

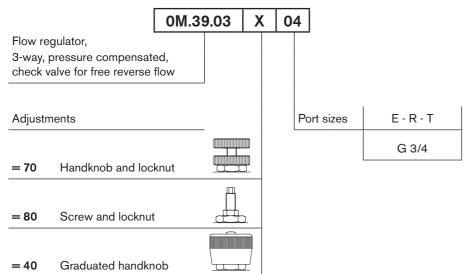








## Ordering code



Туре	Material number
0M390370040000A	R930004300
0M3903800400000	R930000380
0M390340040000A	R930004297

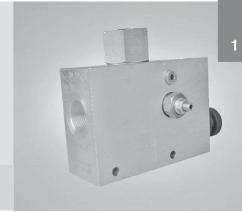
Туре	Material number

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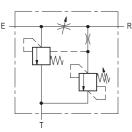
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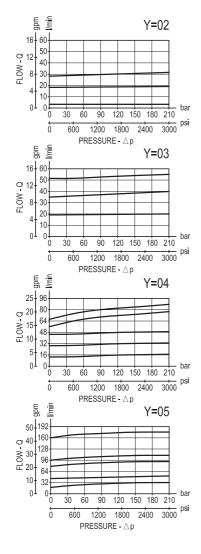
# Flow regulator, 3-way, pressure compensated, with relief



## VRFC3-VS



Performance



0M.33.03 - X - Y

## Description

A constant pressure compensated flow rate is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is bypassed to T. Output flow can be varied from closed to the nominal maximum rating for the valve. The valve module includes a small pilot relief cartridge which senses the pressure of the Regulated flow and diverts it to tank if the maximum allowed pressure is reached. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not permitted.

## **Technical data**

## Hydraulic

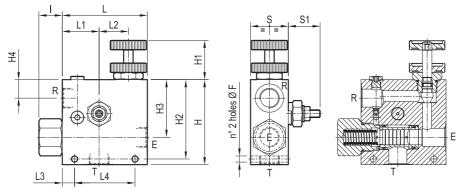
Max. pressure	bar (psi)	210 (3000)
Adj. relief valve: range 35-210 Standard setting: 210 bar (300		000 psi).
QE = max inlet flow "E" port (	see "Dimer	isions")
QR = max regulated flow "R" p	oort (see "[	Dimensions")
Flow range adjustment : 0 - 3 t	turns	

#### General

Manifold material	Aluminium

Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

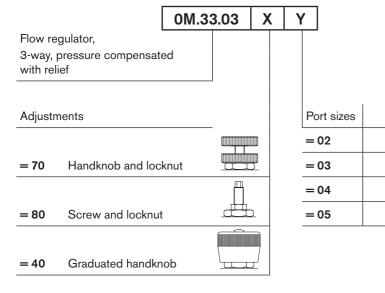
Weight	see "Dimensions"				
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)			
Other technical data		see data sheet RE 18350-50			



34	60	75	20	62	65	155	25	46	83	100	40	110	8.5	190 <b>I</b> /min	280 <b>i</b> /m <b>i</b> n	G 1	3.3
(1.34)	(2.36)	(2.95)	(0.79)	(2.44)	(2.56)	(6.1)	(0.98)	(1.81)	(3.27)	(3.94)	(1.58)	(4.33)	(0.34)	50 gpm			(7.3)
34	50	88	10	35	44	108	25	23	73	101	40	108	8.5	90 I/min	150 <b>l</b> /m <b>i</b> n	C 214	2
(1.34)	(1.97)	(3.47)	(0.39)	(1.38)	(1.73)	(4.25)	(0.98)	(0.91)	(2.87)	(3.98)	(1.58)	(4.25)	(0.34)				
34	40	64	13	31	39	90	25	17.5	60	84	40	90	6.5	55 l/min	90 l/min	C 1/2	1.1
(1.34)	(1.58)	(2.52)	(0.51)	(1.22)	(1.54)	(3.54)	(0.98)	(0.69)	(2.36)	(3.31)	(1.58)	(3.54)					
34	40	64	13	31	39	90	25	17.5	60	84	40	90	6.5	30 I/min	55 l/min	C 2/9	1.1
(1.34)	(1.58)	(2.52)	(0.51)	(1.22)	(1.54)	(3.54)	(0.98)	(0.69)	(2.36)	(3.31)	(1.58)	(3.54)	(0.26)	8 gpm	15 gpm	0 3/0	(2.42)
S1	s	L4	L3	L2	11	1	1	H4	H3	H2	H1	Н	E	QR	QE	v	Weight
51	3	L4	LJ	LZ	LI	L .		Π4	пэ	ΠΖ	пі	п	Г	QR	QE	T	kg (lbs)

mm (inches)

## Ordering code



Туре	Material number	Туре	Material number
0M330370020000A	R930004260	0M330340020000A	R930004251
0M330370030000A	R930004262	0M330340030000A	R930004252
0M330370040000A	R930004263	0M330340040000A	R930004254
0M330370050000A	R930004264	0M330340050000A	R930004255
0M330380020000A	R930004266		
0M330380030000A	R930004267		
0M330380040000A	R930004268		
0M330380050000A	R930004270		

E - R - T

G 3/8

G 1/2

G 3/4

G 1

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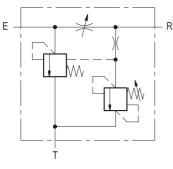
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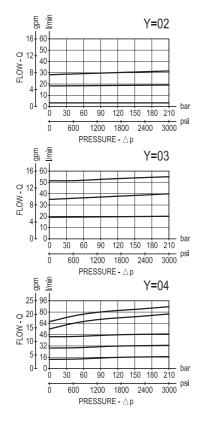
# Flow regulator, 3-way, pressure compensated, with relief



## VRFC3-VS



## Performance



# 0M.33.03.50 - Y

## Description

A constant pressure compensated flow rate is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from zero (Closed) to the nominal maximum rating for the valve (Open). The valve module includes a small pilot relief cartridge which senses the pressure of the Regulated flow and diverts it to tank if the maximum allowed pressure is reached. Reverse flow from R to E is limited by the selected opening of the lever controlled restrictor and is not pressure compensated. Flow from T to E or from T to R is not permitted.

## **Technical data**

## Hydraulic

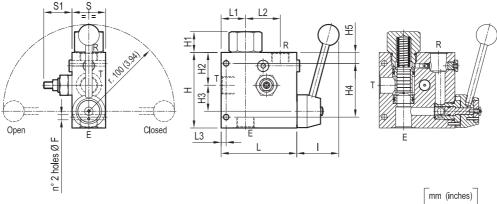
Operating pressure	bar (psi)	210 (3000)					
Adj. relief valve: range 35-210 Standard setting: 210 bar (30		3000 psi).					
QE = max inlet flow "E" port (see "Dimensions")							
QR = max regulated flow "R"	port (see "I	Dimensions")					

### General

Manifold material	Aluminium
Note: aluminium bodies are often strong	enough for operating pressures

exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



34	50	7	50	35	108	50	10	88	35	44	25	108	8.5	90 I/min 24 anm	150 <b>i</b> /min	G 3/A	2.2
(1.34)	(1.97)	(0.28)	(1.97)	(1.38)	(4.25)	(1.97)	(0.39)	(3.47)	(1.38)	(1.73)	(0.98)	(4.25)	(0.34)	24 gpm	40 gpm	0 3/4	(7.5)
34	40	6	42.5	30	90	50	13	64	31	39	25	90		55 l/min	90 l/min	G 1/2	1.17
(1.34)	(1.58)	0.24)	(1.67)	(1.18)	(3.54)	(1.97)	(0.51)	(2.52)	(1.22)	(1.54)	(0.98)	(3.54)	(0.26)	15 gpm	24 gpm	0 1/2	(2.58)
34	40	6	42.5	30	90	50	13	64	31	39	25	90	6.5	30 l/min	55 l/min	G 3/8	1.17
(1.34)	(1.58)	0.24)	(1.67)	(1.18)	(3.54)	(1.97)	(0.51)	(2.52)	(1.22)	(1.54)	(0.98)	(3.54)	(0.26)	8 gpm	15 gpm	G 3/0	(2.58)
S1	s	L3	L2	L1	L	I	H5	H4	Н3	H2	H1	Н	F	QR	QE	Y	Weight kg (Ibs)

## Ordering code

	0M.33.03	50	Y	]	
Flow regulator,			·	-	
3-way, pressure compensate with relief	ed				
Adjustments			P	ort sizes	E - R - T
Lever with built in friction clu	utch		=	02	G 3/8
			=	03	G 1/2
			=	04	G 3/4

Туре	Material number	Туре	Material number
0M330350020000A	R930004256		
0M330350030000A	R930004257		
0M330350040000A	R930004258		

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#### RE 18309-47/04.10 1/2 Replaces: RE 00171/02.07

# Flow regulator, 3-way, pressure compensated with relief and solenoid control

## 0M.36.03 - X - Y

## A constant pressure compensated flow rate is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Output flow can be varied from closed to the nominal maximum rating of the valve and it can be dumped to Tank in two ways: 1) by a N.O. solenoid cartridge which determines Regulated flow dumping when de-energized; 2) by a pilot relief cartridge which determines Regulated flow dumping if the maximum allowed pressure is reached. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to E or from T to R is not permitted.

## **Technical data**

Description

## Hydraulic

riyuraunc						
Operating pressure	bar (psi)	up to 210 (3000)				
Adj. relief valve: range 35 Standard setting: 210 bar		000 psi)				
QE = max inlet flow "E" port (see "Dimensions")						
QR = max regulated flow "R" port (see "Dimensions")						
Flow range adjustment : 0 - 3 turns						
Pressure drop from E-T: cracking pressure 6 bar (90 psi), full flow 12 bar (175 psi)						

The coil must be ordered separately

## General

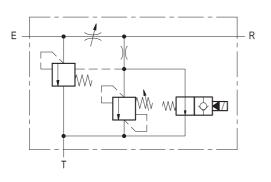
Manifold material Aluminium						
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the						

specific application. If in doubt, consult our Service Network.

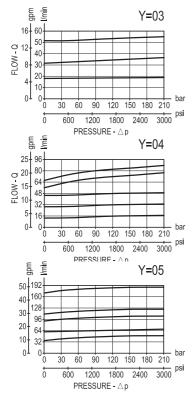
1 11		
Weight		see "Dimensions"
Viscosity		20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range	°C (°F)	between -20 (-4) and +80 (176)
Other technical data		see data sheet RE 18350-50

Note: for applications outside these parameters, please consult us.

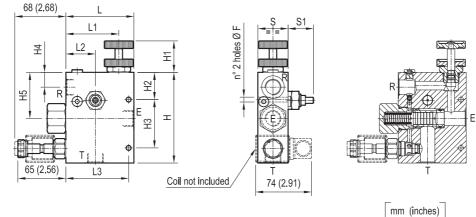
## **VRFC3-VS-VEI**



## Performance

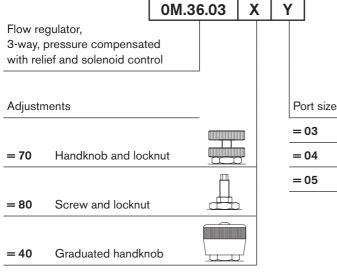






34	60	100	46	83	110	90	28	75	60	40	155	8.5	190 l/min	280 l/min	G 1	3.1
(1.34)	(2.36)	(3.94)	(1.81)	(3.27)	(3.94)	(3.54)	(1.1)	(2.95)	(2.36)	(1.58)	(6.1)	(0.34)	50 gpm	74 gpm	GT	(6.8)
34	50	100	44	81	110	75	23	74	46	40	140	8.5	90 <b>I</b> /min	150 l/min	G 3/4	2.7
(1.34)	(1.97)	(3.94)	(1.73)	(3.19)	(4.33)	(2.95)	(0.91)	(2.91)	(1.81)	(1.58)	(5.51)	(0.34)	24 gpm	40 gpm	0 3/4	(6)
34	40	83	39	70	90	60	17.5	64	36	40	120	6.5	55 l/min	90 l/min	G 1/2	1.68
(1.34)	(1.58)	(3.27)	(1.54)	(2.76)	(3.54)	(2.36)	(0.69)	(2.52)	(1.42)	(1.58)	(4.72)	(0.26)	15 gpm	24 gpm	G 1/2	(3.7)
S1	s	L3	L2	L1	L	H5	H4	H3	H2	H1	Н	F	QR	QE	Y	Weight kg (lbs)
																ing (ing)

## Ordering code



Port sizes	E - R - T
= 03	G 1/2
= 04	G 3/4
= 05	G 1

Туре	Material number	Туре
0M360370030000B	R930004278	0M3603
0M360370040000B	R930004279	
0M360370050000A	R930004280	
0M3603800300000	R930000286	
0M3603800400000	R930000346	
0M3603800500000	R930000382	
0M360340030000B	R930004276	
0M3603400400000	R930000301	

Туре	Material number
0M360340050000B	R930004277

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RE 18309-48/04.10 1/2 Replaces: RE 00171/02.07

# Flow regulator, 3-way, pressure compensated, with relief and solenoid by-pass

R

## VRFC3-VS-BPE

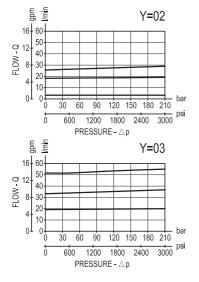
Е



0M.38.03 - X - Y

A constant pressure compensated flow rate is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Regulated flow can be varied from closed to the nominal maximum rating of the valve and its pressure is controlled by a relief cartridge which will dump to Tank the output flow if the maximum pressure is reached. A normally open solenoid cartridge by-passes all Inlet flow to tank when de-energized. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to R is not permitted.

## Performance



## Technical data

## Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)				
Adj. relief valve: range 35-210 bar (500-3000 psi) Standard setting: 210 bar (3000 psi)						
QE = max inlet flow "E" port (see "Dimensions")						
QR = max regulated flow "R" port (see "Dimensions")						
Flow range adjustment : 0 - 3 turns						
The coil must be ordered separately						

## General

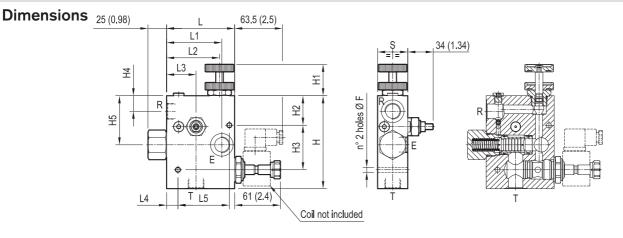
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Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Viscosity		20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range °C	) (°F)	between -20 (-4) and +80 (176)
Other technical data		see data sheet RE 18350-50







mm (inches)

ſ	40	68	15	39	70	73	90	65	20.5	59	39	40	123	6.5	55 l/min	90 l/min	C 1/2	1.55
	(1.58)	(2.68)	(0.59)	(1.54)	(2.76)	(2.87)	(3.54)	(2.56)	(0.81)	(2.32)	(1.54)	(1.58)	(4.04)	(0.20)	15 gpm	24 ypm		(3.42)
	40	68	15	39	70	73	90	65	19.5	59	39	40	123	6.5	30 <b>i</b> /min	55 I/min	C 3/8	1.55
	(1.58)	(2.68)	(0.59)	(1.54)	(2.76)	(2.87)	(3.54)	(2.56)	(0.77)	(2.32)	(1.54)	(1.58)	(4.84)	(0.26)	8 gpm	15 gpm	0 5/0	(3.42)
	S	15	14	13	12	11	1	H5	H4	H3	H2	Н1	н	F	QR	OF	v	Weight
l		LU		LU	LZ		L	110	117	110	112				GIV	QL		kg (lb̃s)

#### Ordering code

Type

0M380370020000B

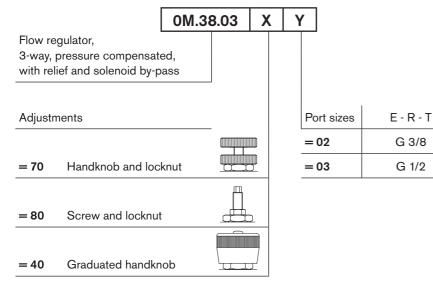
0M380370030000C

0M3803800200000

0M380380030000B

0M3803400200000

0M380340030000B



Material number

R930004286

R930004287

R930000466

R930004290

R930000465

R930004284

Туре	Material number

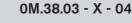
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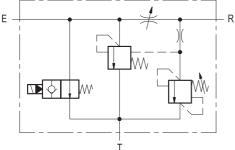
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# Flow regulator, 3-way, pressure compensated, with relief and solenoid by-pass

#### **VRFC3-VS-BPE**





Performance

30 60 90

600

0

gpm /min

25 96

o 20∙ M 15∙ H 10∙

Description

A constant pressure compensated flow rate is established from E to R, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. Input flow supplied to E in excess of the regulated output at R is by-passed to T. Regulated flow can be varied from closed to the nominal maximum rating of the valve and its pressure is controlled by a relief cartridge which will dump to Tank the output flow if the maximum pressure is reached. A normally open solenoid cartridge by-passes all Inlet flow to tank when de-energized. Reverse flow from R to E is limited by the selected opening of the restrictor and is not pressure compensated. Flow from T to R is not permitted.

### **Technical data**

#### Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)				
Adj. relief valve: range 35-2 Standard setting: 210 bar (	-	000 psi)				
QE = max inlet flow "E" port 150 l/min (40 gpm)						
QR = max regulated flow "R" port 90 l/min (24 gpm)						
Flow range adjustment : 0 - 3 turns						
The coil must be ordered	separately					

#### General

bar

3000 psi

180 210

2400

120 150

1800

1200

PRESSURE -  $\triangle p$ 

|--|

Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

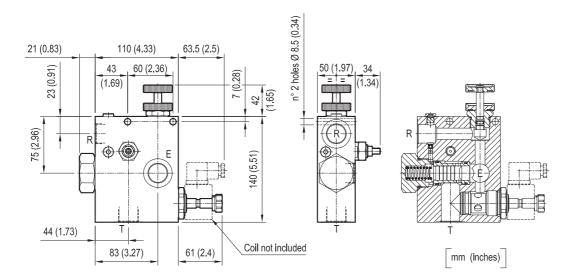
Weight	kg (lbs)	2.30 (5.1)
Viscosity		20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range	°C (°F)	between -20 (-4) and +80 (176)
Other technical data		see data sheet RE 18350-50

Note: for applications outside these parameters, please consult us.

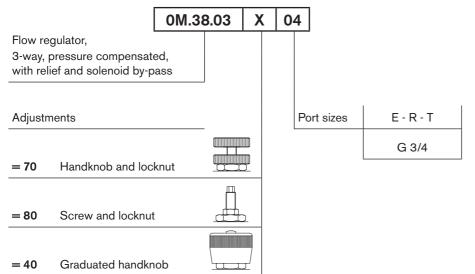
Е

# Rexroth **Bosch Group**

#### Dimensions



#### Ordering code



Туре	Material number
0M380370040000A	R930004289
0M3803800400000	R930000469
0M380340040000B	R930004285

Туре	Material number

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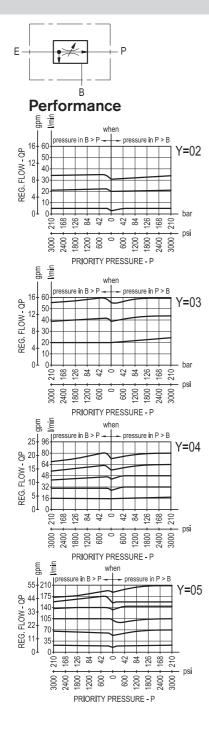
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#### **RE 18309-50/04.10** 1/2 Replaces: RE 00171/02.07

# Flow regulator, 3-way, combination type, pressure compensated

#### VRFC3C



#### Description

0M.42.03 - X - Y

A constant priority flow, regardless of system pressures, is established from E to P, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. While the regulated priority flow from P is used in the priority circuit, the flow supplied to E in excess of priority is by-passed to B port and can be sent to power other actuators. Priority flow can be varied from closed to the nominal maximum rating of the valve. Reverse flow from P to E is limited by the selected opening of the restrictor and is not pressure compensated. Reverse flow from B is not permitted.

#### **Technical data**

#### Hydraulic

bar (psi)	up to 210 (3000)							
QE = max inlet flow "E" port (see "Dimensions")								
QP = max priority flow "P" port (see "Dimensions")								
Flow range adjustment : 0 - 3 turns								
	see "Dimer (see "Dir							

#### General

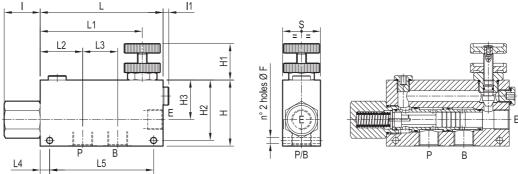
Manifold material	Aluminium							
Note: aluminium bodies are often strong enough for operating pressures								

exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



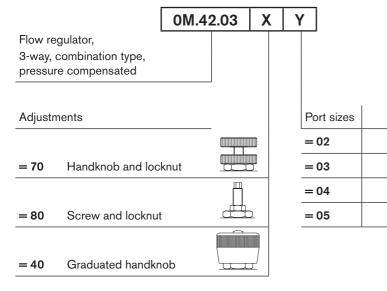
#### Dimensions



mm (inches)

70	130	10	56.5	48	122.5	150	6	54	65	120	40	130			380 <b>i</b> /min		4.4
(2.76)	(5.12)	(0.39)	(2.22)	(1.89)	(4.82)	(5.91)	(0.24)	(2.13)	(2.56)	(4.72)		(5.12)	(0.34)	50 gpm	100 gpm	GI	(9.7)
50	135	10	44	54	130	155	6	35	55	83	40	90	8.5	90 l/min	150 l/min 40 apm	C 211	2.5
(1.97)	(5.32)	(0.39)	(1.73)	(2.13)	(5.12)	(6.1)	(0.24)	(1.38)	(2.17)	(3.27)	(1.58)	(3.54)	(0.34)	24 gpm	40 gpm	G 3/4	(5.5)
40	110	10	37	45	108	130	6	38	42	64	40	70	6.5	55 l/min	90 I/min 24 apm	C 1/2	1.3
(1.58)	(4.33)	(0.39)	(1.46)	(1.77)	(4.25)	(5.12)	(0.24)	(1.5)	(1.65)	(2.52)	(1.58)	(2.76)	(0.26)	15 gpm	24 gpm	G 1/2	(2.87)
40	110	10	37	45	108	130	6	38	42	64	40	70	6.5	30 l/min	55 I/min 15 gpm	C 2/0	1.3
(1.58)	(4.33)	(0.39)	(1.46)	(1.77)	(4.25)	(5.12)	(0.24)	(1.5)	(1.65)	(2.52)	(1.58)	(2.76)	(0.26)	8 gpm	15 gpm	9 210	(2.87)
0	15	14	12	10	14	1	и	1	H3	H2	H1	н	F	QP	OF	v	Weight
3	L5	L4	LS		LI	L		1	пэ	пг	пі	п	Г	QF	QE	T	kg (lb͡s)

#### Ordering code



Туре	Material number	Туре	Material number
0M4203700200000	R930004324	0M4203400200000	R930004317
0M4203700300000	R930004325	0M4203400300000	R930004318
0M4203700400000	R930004328	0M4203400400000	R930004319
0M4203700500000	R930004329	0M4203400500000	R930004320
0M4203800200000	R930004332		
0M4203800300000	R930004333		
0M4203800400000	R930004334		
0M4203800500000	R930004336		

E - B - P

G 3/8

G 1/2

G 3/4

G 1

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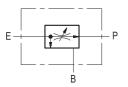
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#### RE 18309-51/04.10 1/2 Replaces: RE 00171/02.07

# Flow regulator, 3-way, combination type, pressure compensated

#### A-VRFC3C

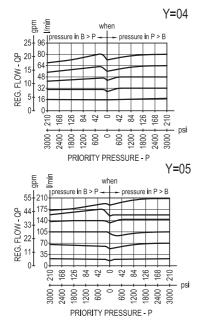


# Description

0M.D2.03 - X - Y

A constant priority flow, regardless of system pressures, is established from E to P, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. While the regulated priority flow from P is used in the priority circuit, the flow supplied to E in excess of priority is by-passed to B port and can be sent to power other actuators. Priority flow can be varied from closed to the nominal maximum rating of the valve. Reverse flow from P to E is limited by the selected opening of the restrictor and is not pressure compensated. Reverse flow from B is not permitted.

#### Performance



#### **Technical data**

Max. operating pressure	bar (psi)	350 (5000)					
QE = max inlet flow "E" port (see "Dimensions")							
QP = max priority flow "P" port (see "Dimensions")							

#### General

	Steel
	see "Dimensions"
°C (°F)	between -30 (-22) and +100 (212)
	see data sheet RE 18350-50
	°C (°F)

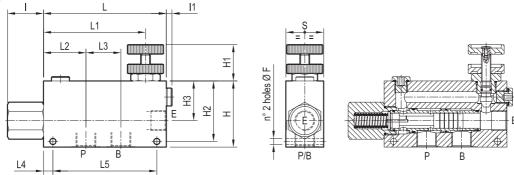
Note: for applications outside these parameters, please consult us.





Rexroth **Bosch Group** 

#### Dimensions



mm (inches)

70	130	10	56.5	48	122.5	150	6	38	65	120	40	130	8.5	190 <b>l</b> /m <b>i</b> n	380 <b>I</b> /min	C 1	9.9
(2.76)	(5.12)	(0.39)	(2.22)	(1.89)	(4.82)	(5.91)	(0.24)	(1.5)	(2.56)	(4.72)	(1.58)	(5.12)	(0.34)	50 gpm	100 gpm	GI	(21.8)
50	135	10	44	54	130	155	6	38	55	83	40	90	8.5	90 l/min	150 l/min	C 2/4	5.4
(1.97)	(5.32)	(0.39)	(1.73)	(2.13)	(5.12)	(6.1)	(0.24)	(1.5)	(2.17)	(3.27)	(1.58)	(3.54)	(0.34)	24 gpm	150 l/min 40 gpm	G 3/4	(11.9)
c	15	14	12	12	14	1	14	i.	НЗ	H2	H1	ц	E		OF	v	Weight
3	LO	L4	LS	LZ	LI	L	11	I	пυ	пΖ	пі	п	Г	QP	QE	T	kg (lb̃s)

#### Ordering code

	0M.D2.03	X	Y	
Flow regulator,				
3-way, combination type, pressure compensated				
Adjustments			Port sizes	E - B - P
			= 04	G 3/4
= 70 Handknob and loc	knut		= 05	G 1

Туре	Material number	Туре	Material number
0MD203700400000	R930004488		
0MD203700500000	R930004490		

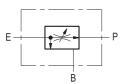
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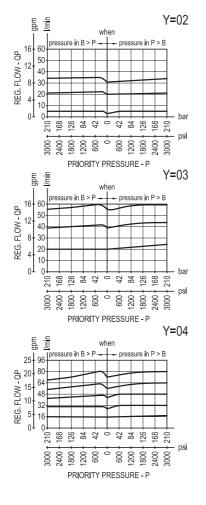


# Flow regulator, 3-way, combination type pressure compensated

#### VRFC3C



#### Performance



Description

0M.42.03.50 - Y

A constant priority flow, regardless of system pressures, is established from E to P, while a minimum pressure differential of appr. 5 bar (70 psi) exists between the two ports. While the regulated priority flow from P is used in the priority circuit, the flow supplied to E in excess of priority is by-passed to port B and can be sent to power other actuators. Priority flow can be varied from zero (Closed) to the nominal maximum rating for the valve (Open). Reverse flow from P to E is limited by the selected opening of the restrictor and is not pressure compensated. Reverse flow from B is not permitted.

#### **Technical data**

#### Hydraulic

Operating pressure bar (psi) up to 210 (3000)							
QE = max inlet flow "E" port (see "Dimensions")							
QP = max priority flow "P" port (see "Dimensions")							

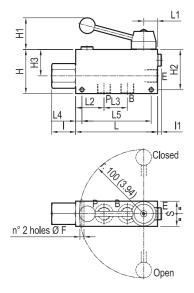
#### General

Manifold material	Aluminium
Note: aluminium bodies are often strong	

exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.

Weight		see "Dimensions"
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

#### **Dimensions**



6		
	à là	E

mm (Inches)

50	135	10	44	54	25	155	6	38	55	83	50	90	8.5	90 l/min	150 I/min 40 gpm	C 2/4	2.6
(1.97)	(5.32)	(0.39)	(1.73)	(2.13)	(0.98)	(6.1)	(0.24)	(1.5)	(2.17)	(3.27)	(1.97)	(3.54)	(0.34)	24 gpm	40 gpm	G 3/4	(5.7)
40	110	10	37	45	22	130	6	38	42	64	50	70			90 l/min	G 1/2	1.4
(1.58)	(4.33)	(0.39)	(1.46)	(1.77)	(0.87)	(5.12)	(0.24)	(1.5)	(1.65)	(2.52)	(1.97)	(2.76)	(0.26)	15 gpm	24 gpm	G 1/2	(3.1)
40	110	10	37	45	22	130	6	38	42	64	50	70			55 l/min	G 3/8	1.4
(1.58)	(4.33)	(0.39)	(1.46)	(1.77)	(0.87)	(5.12)	(0.24)	(1.5)	(1.65)	(2.52)	(1.97)	(2.76)	(0.26)	8 gpm	15 gpm	9 3/0	(3.1)
S	15	L4	L3	12	11	1	11	1	H3	H2	H1	н	F	QP	QE	γ	Weight
Ľ						-				112				Q.	QL		kg (lbs)

#### Ordering code

	0M.42.03		50	Y		
Flow regulator,					_	
3-way, combination type,						
pressure compensated						
Adjustments				1	Port sizes	E - B - P
Lever with built in friction clu	utch			:	= 02	G 3/8
				-	= 03	G 1/2
				:	= 04	G 3/4

Туре	Material number	Туре	Material number
0M420350020000A	R93000033		
0M4203500300000	R930004322		
0M4203500400000	R930004323		

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The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



#### **RE 18309-53/06.10** 1/6 Replaces: RE 18309-53/04.10

# 3-Way heavy duty flow control, with pressure compensated and solenoid controlled priority flow

#### A-VRFC3C-VEI-VS

Y=05-06

(Priority flow) A

0M.43.20.80 - Y - Z

#### Y=03-04 (Priority flow) A (Priority flow) A B (Excess flow) C (Priority flow) A (Pri

B (Excess flow)

P (Inlet flow)

#### Description

The flow control valves series "A-VRFC3C-VEI-VS" are 3 way, with one inlet "P" and two outlets "A" and "B", the first outlet "A" being priority, pressure compensated type, with pressure relief valve and available on demand through a solenoid cartridge; the second outlet "B" is the by-pass for all flow in excess of what demanded by priority. Both flows from "A" and "B" ports can be employed to power different functions of the machine.

These valves provide a simple and efficient way to power hydraulic tools (such as hydraulic hammers) from the existing hydraulic system, without any need to modify the directional control valve.

They allow the simultaneous operations, independently from the respective working pressures, of both the hydraulic actuator powered by the priority outlet "A", and of the normal functions of the machine (traction, slewing, cylinder motions, etc.) supplied by the main directional valve through the by-pass outlet "B".

### Technical data

#### Hydraulic

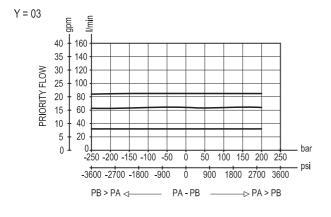
Max. operating pressure	bar (psi)	350 (5000)
Max. priority line pressure: limited table on page 5.	e (6). See "priority pressure range"	
Back pressure at T port	bar (psi)	max 1.5 (20)
Drain from T, with solenoid valve non-energized	l/min (gpm)	up to 1.5 (0.4)

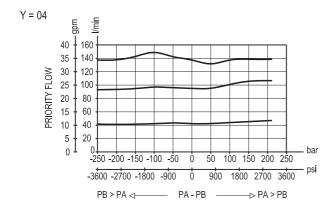
#### General

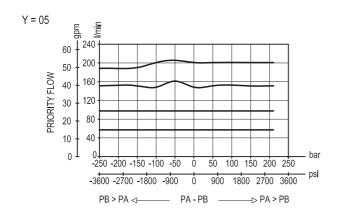
Manifold material		Steel
Weight		See "Dimensions"
Viscosity		20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range	°C (°F)	between -20 (-4) and +80 (176)
Other technical data		see data sheet RE 18350-50

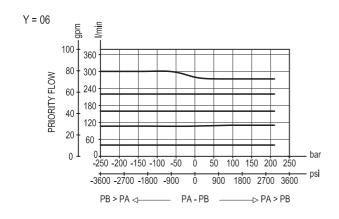
#### Performance graphs

**Priority Flow vs Pressure** 

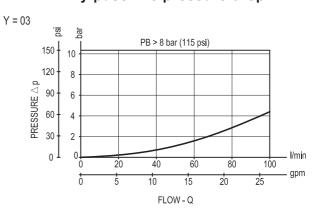


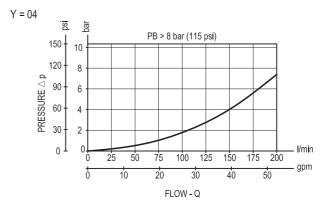


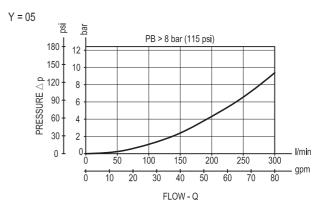


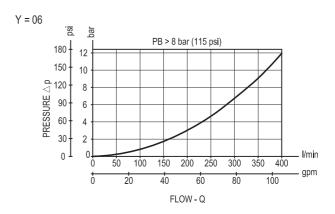


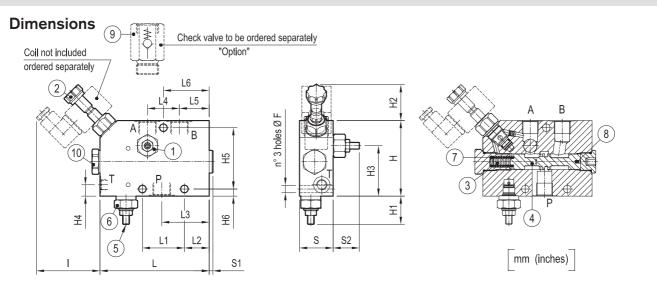
By-pass line pressure drop











32 (1.26)	5 (0.2)	70 (2.76)	86 (3.39)	54.5 (2.15)	62.5 (2.46)	88.5 (3.48)	48 (1.89)	76 (2.99)	190 (7.48)	68 (2.68)	18 (0.71)	90 (3.54)	14 (0.55)	92 (3.62)	41 (1.61)	34 (1.34)	130 (5.12)	9 (0.35)	G 1-1/4	12.5 (27.5)
32 (1.26)	5 (0.2)	60 (2.36)	74.5 (2.93)	46.5 (1.83)	56.5 (2.22)	78 (3.07)	36.5 (1.44)	76 (2.99)	173 (6.81)	68 (2.68)	15 (0.59)	90 (3.54)	13.5 (0.53)	80.5 (3.17)	41 (1.61)	34 (1.34)	120 (4.72)	9 (0.35)	G 1	9 (19.8)
32 (1.26)	5 (0.2)	50 (1.97)	59 (2.32)	37 (1.46)	44 (1.73)	61 (2.4)	34 (1.34)	50 (1.97)	140 (5.51)	73 (2.87)	13.5 (0.53)	73 (2.87)	13 (0.51)	69.5 (2.74)	41 (1.61)	34 (1.34)	100 (3.94)	9 (0.35)	G 3/4	4.8 (10.6)
32 (1.26)	5 (0.2)	40 (1.58)	54.5 (2.15)	35.5 (1.4)	38 (1.5)	56.5 (2.22)	29.5 (1.16)	50 (1.97)	130 (5.12)	76 (2.99)	8.5 (0.34)	73 (2.87)	12.5 (0.49)	60 (2.36)	41 (1.61)	34 (1.34)	90 (3.54)	8.5 (0.34)	G 1/2	3.4 (7.5)
S2	<b>S</b> 1	s	L6	L5	L4	L3	L2	L1	L	I	H6	H5	H4	H3	H2	H1	н	F	Port sizes	Weight kg (lbs)

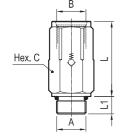
#### Fitting and connections

When positioning and tightening the valve, avoid any deflection of the body which could prevent the internal spool from sliding freely and impair the metering performance; it is recommended to use the 3 available fixation holes as locating points and to fit 3 equal spacers (metal washers), one on each point, between the valve body and the supporting structure.

Connections to the hydraulic system:

- Port "P" (inlet) to the main line from the pump.
- Port "A" (priority outlet) to the line feeding the hydraulic hammer, or the attachment. Important: for the correct metering of the compensating spool the priority outlet shall be always pressurized, with a back-pressure of at least 8-9 bar (115-130 psi); if necessary, fit a check valve with the needed cracking pressure.
- Port "B" (by-pass, or excess flow outlet) to the line delivering the oil to the main directional valve.
- Port "T" to a tank line. It is absolutely necessary that port "T" is connected to a low pressure tank line, 1-1.5 bar max (15-22 psi max).

#### Sleeve type check valves



Port sizes	Cracking pressure	Dime	nsions mm (in	ches)	Ordering code	
A - B	A - B bar (psi)		C L L1			
G 1/2	8 (115)	30 (1.18)	57 (2.24)	14 (0.55)	043117000301000 R930000444	
G 3/4	8 (115)	36 (1.42)	69 (2.72)	16 (0.63)	043117000401000 R930000445	
G 1	8 (115)	46 (1.81)	82 (3.23)	18 (0.71)	043117000501000 R930000446	
G 1 1/4	8 (115)	55 (2.17)	102 (4.02)	20 (0.79)	043117000601000 R930000447	

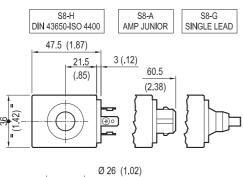
#### Adjustment of priority flow

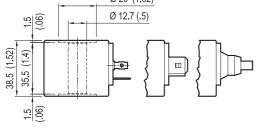
The volume of priority flow from port "A" can be easily modified by turning the screw (1): the flow increases by turning the screw counterclockwise and, once adjusted to the desired level, it remains constant independently from the working pressure.

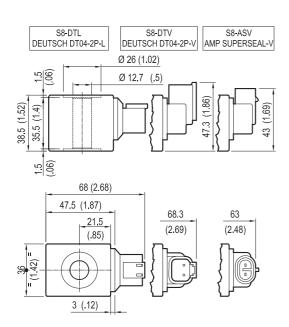
#### Adjustment of maximum priority pressure

The maximum pressure in the priority line "A" can be adjusted by turning the screw (5) of the small relief cartridge (6) which controls the maximum pressure in the chamber (3): when this "pilot" cartridge opens, the pressure in chamber (3) drops and the priority flow is stopped.

Note: the relief cartridge (6) controls only the maximum pressure in the priority outlet "A", and does not control the pressure in the by-pass and main line: the main line must be protected by another relief valve, capable to discharge the full oil flow. Ordering code: OD.02.17 - X - Y - Z







#### COILS

LS

Attention: indicated coils fit every hammer valve versions

TECHNICAL DATA Weight: 0.180 kg (0.4 lbs) Encapsulating material: IXEF Heat insulation Class H: 180°C (356°F) Ambient temperature range: -30/+60°C (-86/+140°F) Inlet voltage fluctuations must not exceed ±10% of nominal voltage to obtain correct operation and long life coils.

X	Y	Connections	Circuit	Voltage
01	30	DIN 43650 - ISO 4400	Standard	DC-RAC
07	30	AMP JUNIOR	Standard	DC only
0G	03	SINGLE LEAD	Standard	DC only *
14 30 DIN 43650 - ISO 4400		DIN 43650 - ISO 4400	Bidirectionl Diode	DC only
15	15 30 AMP JUNIOR		Bidirectional Diode	DC only
0H 03 SINGLE LEAD			Bidirectional Diode	DC only *
* Length	300mm (	11.8 inches). Ext. diameter 6.3mm (0.2	5 inches). External and internal Shealt	h Silicone rubber.

	Voltage V	Resistance Ohm (±7%)	Power W	Curre	ent A	ΔT °C (°F)
z	Nominal	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage
OB	12 DC	7.4	20	1.62	1.19	
OC	24 DC	28.5	20	0.85	0.61	105-110 (221-230)
OG	14 DC		20			(221-230)
AC	26 DC	34.3	20	0.76	0.54	

Х	Y		Connections	Ci	rcuit			Voltage		
20	30		DEUTSCH DT04-2P-L	Sta	Standard			DC only		
20	3P	0	DEUTSCH DT04-2P-V	Sta	ndard			DC only		
30	3P		AMP SUPERSEAL-V	Sta	ndard			DC only		
22	30		DEUTSCH DT04-2P-L	Bidirect	ionl Diode			DC only		
22	ЗP	0	DEUTSCH DT04-2P-V	Bidirecti	onal Diode			DC only		
32	3P		AMP SUPERSEAL-V	Bidirecti	Bidirectional Diode			DC only		
	Voltage	V Resistance Ohm (±7%)		Power W	Curre	ent A		ΔT °C (°F)		
z	Nomina	Nominal Ta = 20-25°C (68-77°F)		Cold coil	Cold coil	Hot	coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage		
OB	12 DC 7.4		20	1.62	1.	19				
OC	24 D0	DC 28.5		20	0.85	0.	61	105-110 (221-230)		
AC	26 DC	2	34.3	20	0.76	0.	54	(22. 200)		

Protection IP69 - DIN 40050 part 9

These coils have passed the THERMAL SHOCK DUNK TEST

Note: Please refer to data sheet RE 18325-90 for coils and connectors readily available and for further details.

#### SPARE PARTS

SOLENOID	CARTRIDGE	RELIEF C	ARTRIDGE
Port size	Ordering code	Port size	Ordering code
0M.43.20.80.03.20		0M.43.20.80.03.20	
0M.43.20.80.03.35	OD1502181AS000	0M.43.20.80.04.20	041148035620000
0M.43.20.80.04.20	R901091102	0M.43.20.80.05.20	R901104097
0M.43.20.80.04.35		0M.43.20.80.06.20	_
0M.43.20.80.05.20		0M.43.20.80.03.35	
0M.43.20.80.05.35	OD132067390000	0M.43.20.80.04.35	041148035635000
0M.43.20.80.06.20	R934000629	0M.43.20.80.05.35	R901104099
0M.43.20.80.06.35		0M.43.20.80.06.35	-

#### Ordering code

#### 0M.43.20.80 Y Z

3-Way heavy duty flow control, with pressure compensated and solenoid controlled priority flow

	Priority pressure range								
	Adj. pressure	Pres. increase	Std. setting						
	range	bar/turn	Q <del>=</del> 5 (I/min.)						
	bar (psi)	(psi/turn)	bar (psi)						
= 20	50-210	48	200						
	(725-3000)	(696)	(2900)						
= 35	100-350	95	350						
	(1450-5000)	(1378)	(5000)						

	Port si	zes	Inlet flow (max)	Regulated priority flow		
	P-A-B	Т	l/min (gpm)	l/min (gpm) max	l/min (gpm) per turn	
= 03	G 1/2	G 1/4	100 (26)	85 (23)	approx. 18 (4.8)	
= 04	G 3/4	G 1/4	200 (53)	140 (37)	approx. 20 (5.3)	
= 05	G 1	G 1/4	300 (79)	220 (58)	approx. 26 (6.9)	
= 06	G 1-1/4	G 1/4	400 (106)	300 (80)	approx. 28 (7.4)	

Туре	Material number	Туре	Material number
0M432080032000C	R930004377		
0M432080033500C	R930004378		
0M432080042000D	R93000028		
0M4320800435000	R930006085		
0M432080052000D	R930004383		
0M432080053500A	R930006086		
0M432080062000D	R930004385		
0M4320800635000	R930000353		

Bosch Rexroth Oil Control S.p.A. Via Leonardo da Vinci 5 P.O. Box no. 5 41015 Nonantola – Modena, Italy Tel. +39 059 887 611 Fax +39 059 547 848 motion-control-valves@oilcontrol.com www.boschrexroth.com **368**  © This document, as well as the data, specifications and other information set forth in it, are the exclusive property of Bosch Rexroth Oil Control S.p.a.. It may not be reproduced or given to third parties without its consent.

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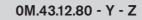
## Rexroth Bosch Group

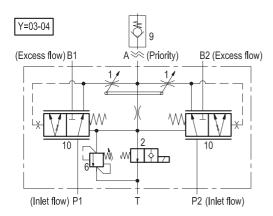
# 5-Way heavy duty flow control, with pressure compensated and solenoid controlled priority flow, for two pumps systems



1

#### A-VRFC3C-VEI-VS



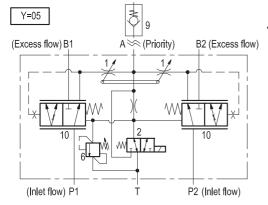


#### Description

The flow control valves code 0M.43.12.80 are 3 way, with two separate inlets P1 and P2 and three outlets "A" and "B1" and "B2", the first outlet "A" being priority, pressure compensated type, with pressure relief valve, and available on demand through a solenoid cartridge; the second and third outlets "B1" and "B2" are the by-pass for all flow in excess of what demanded by priority. All flows from "A", "B1" and "B2" ports can be employed to power different functions of the machine.

These valves provide a simple and efficient way to power hydraulic tools (such as hydraulic hammers) from the existing hydraulic system, without any need to modify the directional control valve.

They allow the simultaneous operations, independently from the respective working pressures, of both the hydraulic actuator powered by the priority outlet "A", and of the normal functions of the machine (traction, slewing, cylinder motions, etc.) supplied by the main directional valve through the by-pass outlet "B1" and "B2".



#### Technical data

#### Hydraulic

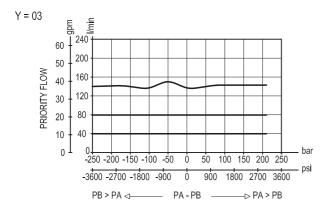
Max. operating pressure	bar (psi)	350 (5000)
Max. priority line pressure: limited table on page 5.	by relief valv	e (6). See "priority pressure range"
Back pressure at T port	bar (psi)	max 1.5 (20)
Drain from T, with solenoid valve non-energized	l/min (gpm)	up to 1.5 (0.4)

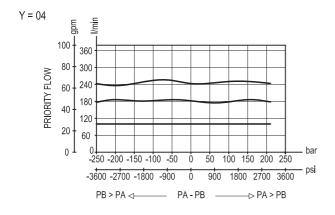
#### General

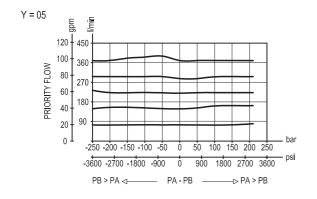
Manifold material	Steel
Weight	See "Dimensions"
Viscosity	20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range	C (°F) between -20 (-4) and +80 (176)
Other technical data	see data sheet RE 18350-50

#### Performance graphs

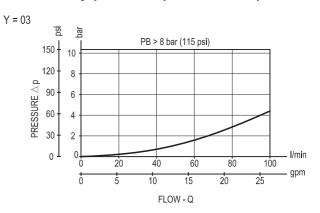
**Priority Flow vs Pressure** 

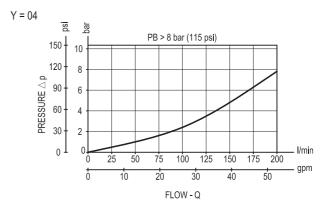


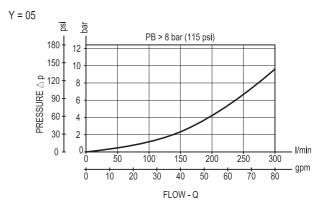


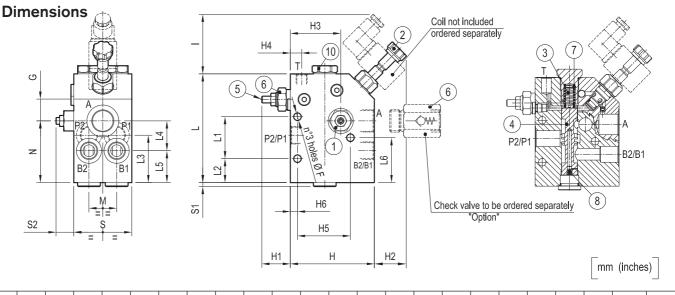


By-pass line pressure drop









S2	<b>S</b> 1	S	L6	L5	L4	L3	L2	L1	L	I	H6	H5	H4	H3	H2	H1	н	F	G	М	Ν	Port sizes	Weight kg (lbs)
21 (0.83	4.5 ) (0.18)	69 (2.72)	53.5 (2.11)	38 (1.5)	35.5 (1.4)	56.5 (2.22)	28.5 (1.12)		129.5 (5.1)		8.5 (0.34)	63 (2.48)	13.5 (0.53)	60 (2.36)	38 (1.5)	34 (1.34)	100 (3.94)	9 (0.35)	26 (1.02)	33 (1.3)	73.5 (2.89)	G 1/2	6.5 (14.3)
21	4.5	89	59	34	47	61	34	50	140	73	17.5	73	16.5	73.5	38	34	124	9	29	46	81	G 3/4	10.7
(0.83	(0.18)	(3.5)	(2.32)	(1.34)	(1.85)	(2.4)	(1.34)	(1.97)	(5.51)	(2.87)	(0.69)	(2.87)	(0.65)	(2.89)	(1.5)	(1.34)	(4.88)	(0.35)	(1.14)	(1.81)	(3.19)		(23.6)
21	4.5	109	70.5	42	61	78	32.5	76	173	73	14.5	90	16.5	80	38	34	139	9	41	56	103	G 1	18
(0.83	) (0.18)	(4.29)	(2.78)	(1.65)	(2.4)	(3.07)	(1.28)	(2.99)	(6.81)	(2.87)	(0.57)	(3.54)	(0.65)	(3.15)	(1.5)	(1.34)	(5.47)	(0.35)	(1.61)	(2.21)	(4.06)		(39.7)

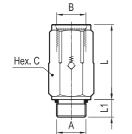
#### Fitting and connections

When positioning and tightening the valve, avoid any deflection of the body which could prevent the internal spool from sliding freely and impair the metering performance; it is recommended to use the 3 available fixation holes as locating points and to fit 3 equal spacers (metal washers), one on each point, between the valve body and the supporting structure.

Connections to the hydraulic system:

- Port "P1" and "P2" (inlets) to the main line from the pumps.
- Port "A" (priority outlet) to the line feeding the hydraulic hammer, or the attachment. Important: for the correct metering of the compensating spool the priority outlet shall be always pressurized, with a back-pressure of at least 8-9 bar (115-130 psi); if necessary, fit a check valve with the needed cracking pressure.
- Port "B1" and "B2" (by-pass, or excess flow outlet) to the lines delivering the oil to the main directional valve.
- Port "T" to a tank line. It is absolutely necessary that port "T" is connected to a low pressure tank line, 1-1.5 bar max (15-22 psi max).

#### Sleeve type check valves



Port sizes	Cracking pressure	Dime	nsions mm (in	ches)	Ordering code	
A - B	A - B bar (psi) C		L	L1		
G 1/2	8 (115)	30 (1.18)	57 (2.24)	14 (0.55)	043117000301000 R930000444	
G 3/4	8 (115)	36 (1.42)	69 (2.72)	16 (0.63)	043117000401000 R930000445	
G 1	8 (115)	46 (1.81)	82 (3.23)	18 (0.71)	043117000501000 R930000446	

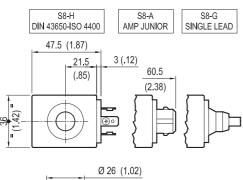
#### Adjustment of priority flow

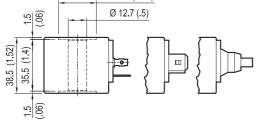
The volume of priority flow from port "A" can be easily modified by turning the screw (1): the flow increases by turning the screw counterclockwise and, once adjusted to the desired level, it remains constant independently from the working pressure.

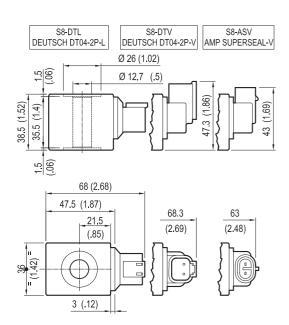
#### Adjustment of maximum priority pressure

The maximum pressure in the priority line "A" can be adjusted by turning the screw (5) of the small relief cartridge (6) which controls the maximum pressure in the chamber (3): when this "pilot" cartridge opens, the pressure in chamber (3) drops and the priority flow is stopped.

Note: the relief cartridge (6) controls only the maximum pressure in the priority outlet "A", and does not control the pressure in the by-pass and main line: the main line must be protected by another relief valve, capable to discharge the full oil flow. Ordering code: OD.02.17 - X - Y - Z







#### COILS

ILS

Attention: indicated coils fit every hammer valve versions

TECHNICAL DATA Weight: 0.180 kg (0.4 lbs) Encapsulating material: IXEF Heat insulation Class H: 180°C (356°F) Ambient temperature range: -30/+60°C (-86/+140°F) Inlet voltage fluctuations must not exceed ±10% of nominal voltage to obtain correct operation and long life coils.

X	Y	Connections	Circuit	Voltage	
01	30	DIN 43650 - ISO 4400	Standard	DC-RAC	
07	30	AMP JUNIOR	Standard	DC only	
0G	03	SINGLE LEAD	Standard	DC only *	
14	30	DIN 43650 - ISO 4400	Bidirectionl Diode	DC only	
15	30	AMP JUNIOR	Bidirectional Diode	DC only	
ОH	03 SINGLE LEAD Bidirectional Diode DC only *				
* Length	300mm (	11.8 inches). Ext. diameter 6.3mm (0.2	25 inches). External and internal Shealt	h Silicone rubber.	

	Voltage V	Resistance Ohm (±7%)	Power W	Current A		ΔT °C (°F)
z	Nominal	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage
OB	12 DC	7.4	20	1.62	1.19	
OC	24 DC	28.5	20	0.85	0.61	105-110 (221-230)
OG	14 DC		20			(221-230)
AC	26 DC	34.3	20	0.76	0.54	

Х	Υ		Connections	Ci	rcuit		Voltage		
20	30		DEUTSCH DT04-2P-L	Standard				DC only	
20	ЗP		DEUTSCH DT04-2P-V	Sta	ndard			DC only	
30	3P		AMP SUPERSEAL-V	Sta	ndard			DC only	
22	30	0	DEUTSCH DT04-2P-L	Bidirect	ionl Diode			DC only	
22	ЗP		DEUTSCH DT04-2P-V	Bidirecti	onal Diode			DC only	
32	ЗP		AMP SUPERSEAL-V	Bidirecti	onal Diode		DC only		
	Voltage	V	Resistance Ohm (±7%)	Power W	Curre	ent A		∆T °C (°F)	
z	Nomina	al	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot	coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage	
ОВ	12 DC	)	7.4	20	1.62	1.19			
OC	24 D0	С	28.5	20	0.85	0.	61	105-110 (221-230)	
AC	26 DC	2	34.3	20	0.76	0.	54	(221 200)	

Protection IP69 - DIN 40050 part 9

These coils have passed the THERMAL SHOCK DUNK TEST

Note: Please refer to data sheet RE 18325-90 for coils and connectors readily available and for further details.

#### SPARE PARTS

SOLENOID	CARTRIDGE	RELIEF CARTRIDGE			
Port size	Ordering code	Port size	Ordering code		
0M.43.12.80.03.20		0M.43.12.80.03.20			
0M.43.12.80.03.35	OD1502181AS000	0M.43.12.80.04.20	041148035620000		
0M.43.12.80.04.20	R901091102	0M.43.12.80.05.20	R901104097		
0M.43.12.80.04.35					
0M.43.12.80.05.20		0M.43.12.80.03.35			
01.43.12.80.05.20	OD132067390000	0M.43.12.80.04.35	041148035635000		
0M.43.12.80.05.35	R934000629	0M.43.12.80.05.35	R901104099		

#### Ordering code

0M.43.12.80	Y	Z
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5-Way heavy duty flow control, with pressure compensated and solenoid controlled priority flow, for two pumps systems

	Priority	range	
	Adj. pressure range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting Q=5 (I/min.) bar (psi)
= 20	50-210	48	200
	(725-3000)	(696)	(2900)
= 35	100-350	95	350
	(1450-5000)	(1378)	(5000)

	Р	ort sizes	i		flow ax)	Regulated priority flow		
	P1-P2			l/min	(gpm)	l/min (gpm)	l/min (gpm)	
	B1-B2			P2	max	per turn		
= 03	G 1/2	G 3/4	G 1/4	100 (26)	100 (26)	150 (40)	approx. 32 (8.45)	
= 04	G 3/4	G 1	G 1/4	200 (53)	200 (53)	250 (65)	approx. 35 (9.25)	
= 05	G 1	G 1-1/4	G 1/4	300 (79)	300 (79)	390 (103)	approx. 46 (12.15)	

Туре	Material number	Туре	
0M431280032000C	R930004361		
0M4312800335000	R930000354		
0M431280042000C	R930004362		
0M4312800435000	R930000355		
0M431280052000D	R930004363		
0M4312800535000	R930000366		

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## Rexroth Bosch Group

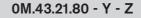
1/6

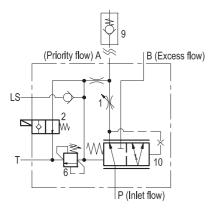
# 3-Way heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow



**RE 18309-63/04.10** Replaces: RE 00171/02.07

# A-VRFC3C-VEI-VS-LS





#### Description

The flow control valves series "A-VRFC3C-VEI-VS" are 3 way, with one inlet "P" and two outlets "A" and "B", the first outlet "A" being priority, pressure compensated type, with pressure relief valve and available on demand through a solenoid cartridge; the second outlet "B" is the by-pass for all flow in excess of what demanded by priority. Both flows from "A" and "B" ports can be employed to power different functions of the machine. A pressure signal "LS" from the valve is delivered to the load sensing circuit to increase the pump flow in order to match the requirement.

These valves provide a simple and efficient way to power hydraulic tools (such as hydraulic hammers) from the existing hydraulic system, without any need to modify the directional control valve. They allow the simultaneous operations, independently from the respective working pressures, of both the hydraulic actuator powered by the priority outlet "A", and of the normal functions of the machine (traction, slewing, cylinder motions, etc.) supplied by the main directional valve through the by-pass outlet "B".

#### Technical data

#### Hydraulic

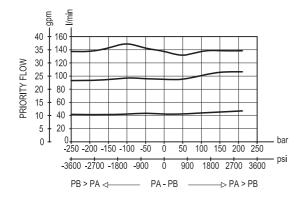
Max. operating pressure	bar (psi)	350 (5000)
Max. priority line pressure: limited table on page 5.	e (6). See "priority pressure range"	
Back pressure at T port	bar (psi)	max 1.5 (20)
Drain from T, with solenoid valve non-energized	l/min (gpm)	up to 1.5 (0.4)

#### General

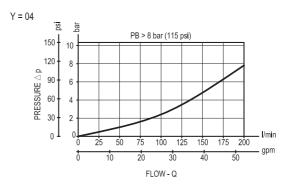
Manifold material		Steel
Weight		See "Dimensions"
Viscosity		20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range	°C (°F)	between -20 (-4) and +80 (176)
Other technical data		see data sheet RE 18350-50

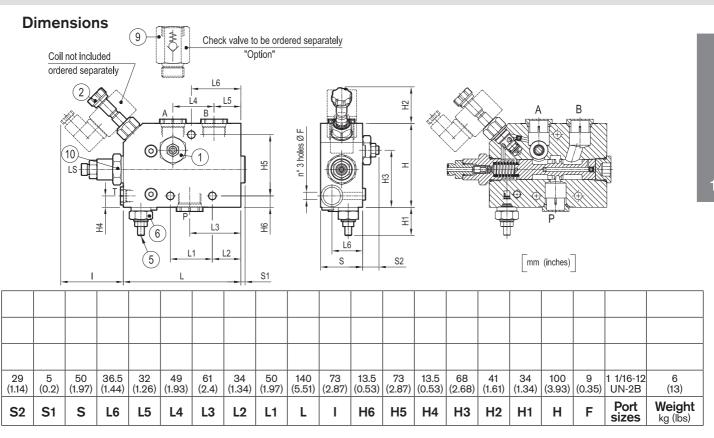
#### Performance graphs

**Priority Flow vs Pressure** 



By-pass line pressure drop





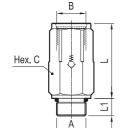
#### Fitting and connections

When positioning and tightening the valve, avoid any deflection of the body which could prevent the internal spool from sliding freely and impair the metering performance; it is recommended to use the 3 available fixation holes as locating points and to fit 3 equal spacers (metal washers), one on each point, between the valve body and the supporting structure.

Connections to the hydraulic system:

- Port "P" (inlet) to the main line from the pump.
- Port "A" (priority outlet) to the line feeding the hydraulic hammer, or the attachment. Important: for the correct metering of the compensating spool the priority outlet shall be always pressurized, with a back-pressure of at least 8-9 bar (115-130 psi); if necessary, fit a check valve with the needed cracking pressure.
- Port "B" (by-pass, or excess flow outlet) to the line delivering the oil to the main directional valve.
- Port "T" to a tank line. It is absolutely necessary that port "T" is connected to a low pressure tank line, 1-1.5 bar max (15-22 psi max).
- Port "LS" to the load sensing line

#### Sleeve type check valves



Port sizes A - B	Cracking pressure bar (psi)	Dime C	nsions mm (ind L	ches) L1	Ordering code
1 1/16-12 UN-2B	8 (115)	36 (1.42)	69 (2.72)	16 (0.63)	043117005701000 R930000453

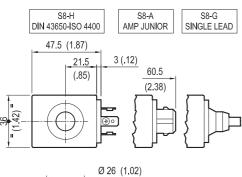
#### Adjustment of priority flow

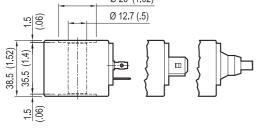
The volume of priority flow from port "A" can be easily modified by turning the screw (1): the flow increases by turning the screw counterclockwise and, once adjusted to the desired level, it remains constant independently from the working pressure.

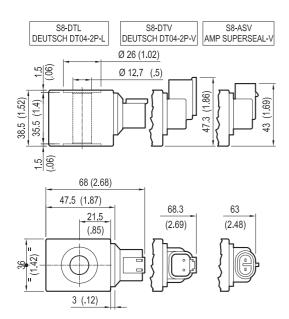
#### Adjustment of maximum priority pressure

The maximum pressure in the priority line "A" can be adjusted by turning the screw (5) of the small relief cartridge (6) which controls the maximum pressure in the chamber (3): when this "pilot" cartridge opens, the pressure in chamber (3) drops and the priority flow is stopped.

Note: the relief cartridge (6) controls only the maximum pressure in the priority outlet "A", and does not control the pressure in the by-pass and main line: the main line must be protected by another relief valve, capable to discharge the full oil flow. Ordering code: OD.02.17 - X - Y - Z







#### COILS

LS A

Attention: indicated coils fit every hammer valve versions

TECHNICAL DATA Weight: 0.180 kg (0.4 lbs) Encapsulating material: IXEF Heat insulation Class H: 180°C (356°F) Ambient temperature range: -30/+60°C (-86/+140°F) Inlet voltage fluctuations must not exceed ±10% of nominal voltage to obtain correct operation and long life coils.

X	Y	Connections	Circuit	Voltage							
01	30	DIN 43650 - ISO 4400	Standard	DC-RAC							
07	30	AMP JUNIOR	Standard	DC only							
0G	03	SINGLE LEAD	Standard	DC only *							
14	30	DIN 43650 - ISO 4400	Bidirectionl Diode	DC only							
15	30	AMP JUNIOR	Bidirectional Diode	DC only							
ОH	03	SINGLE LEAD	Bidirectional Diode	DC only *							
* Length	300mm (	11.8 inches). Ext. diameter 6.3mm (0.2	25 inches). External and internal Shealt	h Silicone rubber.							

	Voltage V	Resistance Ohm (±7%)	Power W	Curre	ent A	Δ <b>T</b> °C (°F)
z	Nominal	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage
OB	12 DC	7.4	20	1.62	1.19	
OC	24 DC	28.5	20	0.85	0.61	105-110 (221-230)
OG	14 DC	DC				(221-230)
AC	26 DC	34.3	20	0.76	0.54	

Χ	Y		Connections	Ci	rcuit		Voltage			
20	30		DEUTSCH DT04-2P-L	Sta	ndard		DC only			
20	3P	0	DEUTSCH DT04-2P-V	Sta	ndard			DC only		
30	3P		AMP SUPERSEAL-V	Sta	ndard			DC only		
22	30	0	DEUTSCH DT04-2P-L	Bidirect	ionl Diode			DC only		
22	3P	0	DEUTSCH DT04-2P-V	Bidirecti	onal Diode		DC only			
32	3P		AMP SUPERSEAL-V	Bidirecti	onal Diode		DC only			
	Voltage	V	Resistance Ohm (±7%)	Power W Current A				∆T °C (°F)		
Z	ZNominal		minal $Ta = 20-25^{\circ}C (68-77^{\circ}F)$		Cold coil	old coil Hot		1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage		
OB	12 DC 7.4		20	1.62	1.	19				
OC	24 DC 28.5		28.5	20	0.85	0.	61	105-110 (221-230)		
AC	26 DC	2	34.3	20	0.76	0.	54	(221-230)		

Protection IP69 - DIN 40050 part 9

These coils have passed the THERMAL SHOCK DUNK TEST

Note: Please refer to data sheet RE 18325-90 for coils and connectors readily available and for further details.

#### SPARE PARTS

SOLENOID	CARTRIDGE	RELIEF CARTRIDGE					
Port size	Ordering code	Port size	Ordering code				
0M.43.21.80.57.20	OD1502181AS000	0M.43.21.80.57.20	041148035620000				
0M.43.21.80.57.35	R901091102		R901104097				
		0M.43.21.80.57.35	041148035635000 R901104099				

#### Ordering code

#### 0M.43.21.80 Y Z

3-Way heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow

	Priori	ity pressure	range
	Adj. pressure range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting Q=5 (I/min.) bar (psi)
= 20	50-210 (725-3000)	48 (696)	200 (2900)
= 35	100-350 (1450-5000)	95 (1378)	350 (5000)

	Port siz	es	Regulate	ed priority flow
	P-A	T-LS	l/min (gpm) max	l/min (gpm) per turn
= 57	1 1/16-12 UN-2B	9/16-18 UNF	140 (37)	approx. 20 (5.3)

Туре	Material number	Туре	Material number
0M4321805720000	R930005433		
0M4321805735000	R930001968		

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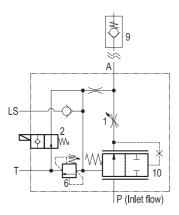
# 2-Way heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow



1

# A-VRFC2C-VEI-VS-LS

0M.28.03.80 - Y - Z



#### Description

The FLOW CONTROL VALVES code OM.28.03.80 are 2 way, with one inlet "P" and one outlet "A", being the port "A" the priority line port, pressure compensated, with pressure relief valve, and available on demand through a solenoid cartridge. A pressure signal "**LS**" from the valve is delivered to the load sensing circuit to increase the pump flow in order to match the requirement.

These valves provide a simple and efficient way to power hydraulic tools (such as hydraulic hammers) from the existing hydraulic system, without any need to modify the directional control valve.

#### **Technical data**

#### Hydraulic

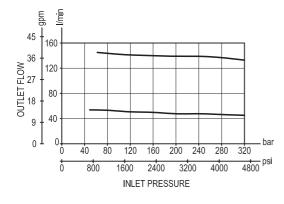
Max. operating pressure	bar (psi)	350 (5000)				
Max. priority line pressure: limited table on page 5.	by relief valv	e (6). See "priority pressure range"				
Back pressure at T port	bar (psi)	max 1.5 (20)				
Drain from T, with solenoid valve non-energized	l/min (gpm)	up to 1.5 (0.4)				

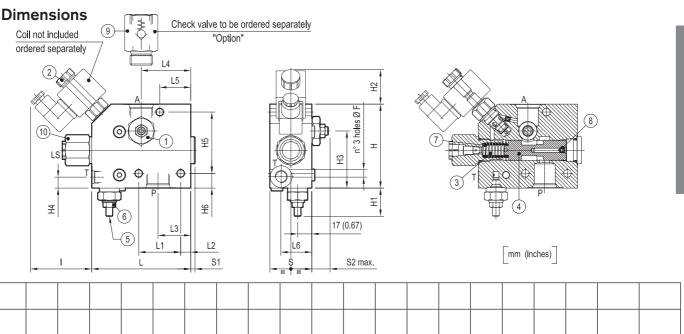
#### General

Manifold material		Steel
Weight		See "Dimensions"
Viscosity		20 to 380 mm <sup>2</sup> /s (cSt)
Fluid temperature range	°C (°F)	between -20 (-4) and +80 (176)
Other technical data		see data sheet RE 18350-50

## Performance graphs

#### **Priority Flow vs Pressure**





28.5 max		50	36.5	37	59	39	12	50	118	73	17.5	73	13.5	68	41	34	100	9	1 1/16-12	
(1.12 max)	. ,	(1.97)		. ,		. ,	(0.47)	(1.97)	(4.65)	(2.87)		. ,				. ,	(3.93)	(0.35)	UN-2B Port	10.1) Weight
S2	S1	S	L6	L5	L4	L3	L2	L1	L	I	H6	H5	H4	H3	H2	H1	н	F	sizes	kg (lbs)

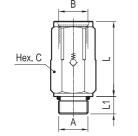
#### Fitting and connections

When positioning and tightening the valve, avoid any deflection of the body which could prevent the internal spool from sliding freely and impair the metering performance; it is recommended to use the 3 available fixation holes as locating points and to fit 3 equal spacers (metal washers), one on each point, between the valve body and the supporting structure.

Connections to the hydraulic system:

- Port "P" (inlet) to the main line from the pump.
- Port "A" (priority outlet) to the line feeding the hydraulic hammer, or the attachment. Important: for the correct metering of the compensating spool the priority outlet shall be always pressurized, with a back-pressure of at least 8-9 bar (115-130 psi); if necessary, fit a check valve with the needed cracking pressure.
- Port "T" to a tank line. It is absolutely necessary that port "T" is connected to a low pressure tank line, 1-1.5 bar max (15-22 psi max).
- Port "LS" to the load sensing line

#### Sleeve type check valves



Port sizes	Cracking pressure	Dimensions mm (inches)			Ordering code	
A - B bar (psi)	С	L	L1			
1 1/16-12 UN-2B	8 (115)	36 (1.42)	69 (2.72)	16 (0.63)	043117005701000 R930000453	

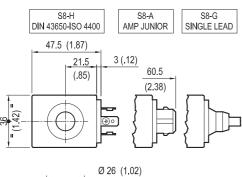
#### Adjustment of priority flow

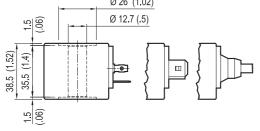
The volume of priority flow from port "A" can be easily modified by turning the screw (1): the flow increases by turning the screw counterclockwise and, once adjusted to the desired level, it remains constant independently from the working pressure.

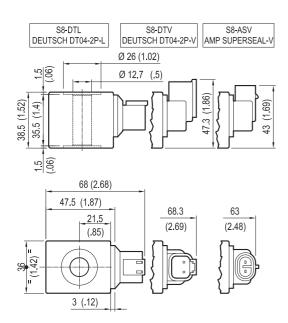
#### Adjustment of maximum priority pressure

The maximum pressure in the priority line "A" can be adjusted by turning the screw (5) of the small relief cartridge (6) which controls the maximum pressure in the chamber (3): when this "pilot" cartridge opens, the pressure in chamber (3) drops and the priority flow is stopped.

Note: the relief cartridge (6) controls only the maximum pressure in the priority outlet "A", and does not control the pressure in the by-pass and main line: the main line must be protected by another relief valve, capable to discharge the full oil flow. Ordering code: OD.02.17 - X - Y - Z







#### COILS

ILS

Attention: indicated coils fit every hammer valve versions

TECHNICAL DATA Weight: 0.180 kg (0.4 lbs) Encapsulating material: IXEF Heat insulation Class H: 180°C (356°F) Ambient temperature range: -30/+60°C (-86/+140°F) Inlet voltage fluctuations must not exceed ±10% of nominal voltage to obtain correct operation and long life coils.

	1					
X	Y	Connections	Circuit	Voltage		
01	30	DIN 43650 - ISO 4400	Standard	DC-RAC		
07	30	AMP JUNIOR	Standard	DC only		
0G	03	SINGLE LEAD	Standard	DC only *		
14	30	DIN 43650 - ISO 4400	Bidirectionl Diode	DC only		
15	30	AMP JUNIOR	Bidirectional Diode	DC only		
ОН	03	SINGLE LEAD	Bidirectional Diode	DC only *		
* Length	* Length 300mm (11.8 inches). Ext. diameter 6.3mm (0.25 inches). External and internal Shealth Silicone rubber.					

	Voltage V	Resistance Ohm (±7%)	Power W	Curre	ent A	ΔT °C (°F)
z	Nominal	Ta = 20-25°C (68-77°F)	Cold coil	Cold coil	Hot coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage
OB	12 DC	7.4	20	1.62	1.19	
OC	24 DC	28.5	20	0.85	0.61	105-110 (221-230)
OG	14 DC		20			(221-230)
AC	26 DC	34.3	20	0.76	0.54	

Χ	Υ		Connections	Ci	Circuit		Voltage	
20	30		DEUTSCH DT04-2P-L	Sta	ndard			DC only
20	ЗP	0	DEUTSCH DT04-2P-V	Sta	ndard			DC only
30	ЗP		AMP SUPERSEAL-V	Sta	ndard			DC only
22	30	0	DEUTSCH DT04-2P-L	Bidirect	ionl Diode			DC only
22	3P	C	DEUTSCH DT04-2P-V	Bidirecti	onal Diode			DC only
32	3P		AMP SUPERSEAL-V	Bidirecti	ional Diode		DC only	
	Voltage	V	Resistance Ohm (±7%)	Power W	Curre	ent A		∆T °C (°F)
z	Nominal $T_a = 20.25^{\circ}C (68.77^{\circ}F)$		Cold coil	Cold coil	Hot	coil	1 hour energized at Ta=20-25°C (68-77°F) Nominal voltage	
OB	12 DC 7.4		20	1.62	1.	19		
OC	24 DC 28.5		20	0.85	0.	61	105-110 (221-230)	
AC	26 DC	2	34.3	20	0.76	0.	54	(221 200)

Protection IP69 - DIN 40050 part 9

These coils have passed the THERMAL SHOCK DUNK TEST

Note: Please refer to data sheet RE 18325-90 for coils and connectors readily available and for further details.

#### SPARE PARTS

SOLENOID	CARTRIDGE	RELIEF C	ARTRIDGE
Port size	Ordering code	Port size	Ordering code
0M.28.03.80.57.20	OD15021811AS00	0M.28.03.80.57.20	041148035620000
0M.28.03.80.57.35	R901091102		R901104097
		0M.28.03.80.57.35	041148035635000 R901104099

#### Ordering code

#### 0M.28.03.80 Y Z

2-Way heavy duty flow control, with pressure compensated, solenoid and load sensing controlled priority flow

	Priority pressure range						
	Adj. pressure range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting Q=5 (I/min.) bar (psi)				
= 20	50-210 (725-3000)	48 (696)	200 (2900)				
= 35	100-350 (1450-5000)	95 (1378)	350 (5000)				

	Port siz	es	Regulated priority flow		
	P-A	T-LS	l/min (gpm) max	l/min (gpm) per turn	
= 57	1 1/16-12 UN-2B	9/16-18 UNF	140 (37)	approx. 20 (5.3)	

pe	Material number	Туре	N
M2803805720000	R930004218		
M2803805735000	R930004219		

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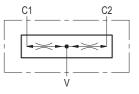


1

**RE 18309-55/06.10** 1/2 Replaces: RE 00171/02.07

# Flow divider, combiner

#### DRF

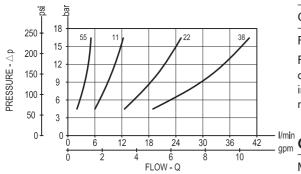


0M.51.03.90.02 - Z

Description

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



#### **Technical data**

#### Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)

Flow division ratio: 50% - 50%

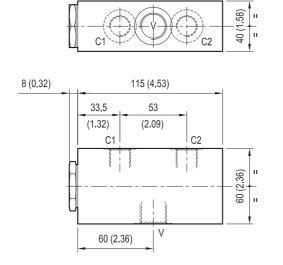
For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

#### **General**

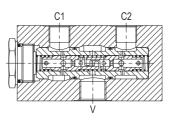
Manifold material		Aluminium	
exceeding 210 bar		enough for operating pressures g from the fatigue life expected in the ur Service Network.	
Weight	kg (lbs)	0.9 (1.98)	

Weight	kg (lbs)	0.9 (1.98)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

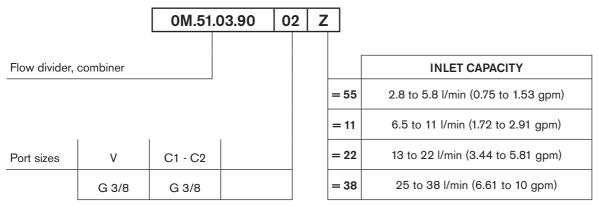
#### Dimensions







#### Ordering code



Туре	Material number	Туре
0M510390021100A	R930001708	
0M510390022200A	R930001714	
0M510390023800A	R930001839	
0M510390025500B	R930001510	

Туре	Material number

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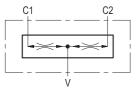
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**RE 18309-56/06.10** 1/2 Replaces: RE 00171/02.07

## Flow divider, combiner

#### DRF

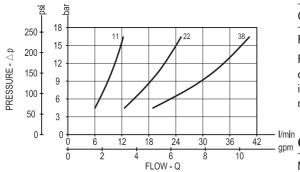


## Description

0M.51.03.90.03 - Z

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



#### **Technical data**

#### Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)

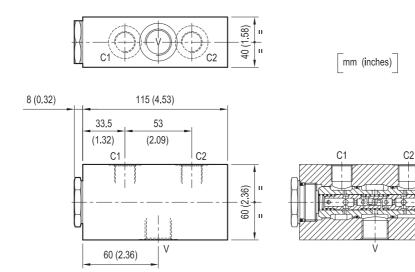
Flow division ratio: 50% - 50%

For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

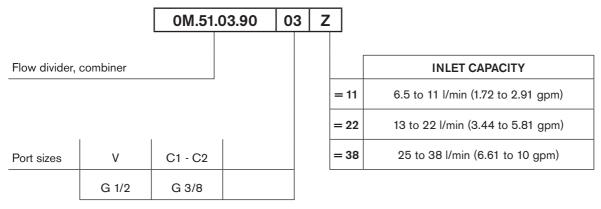
#### **General**

Manifold material		Aluminium				
Note: aluminium bodies are often strong enough for operating pressures exceeding 210 bar (3000 psi), depending from the fatigue life expected in the specific application. If in doubt, consult our Service Network.						
Weight	kg (lbs)	0.9 (1.98)				

Weight	kg (lbs)	0.9 (1.98)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



#### Ordering code



Туре	Material number	Туре
0M510390031100A	R930001710	
0M510390032200A	R930001754	
0M510390033800A	R930001840	

<b>T</b>	
Туре	Material number

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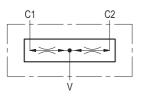
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1/2 **RE 18309-57/07.12** Replaces: RE 18309-57/04.10

# Flow divider, combiner

### DRF

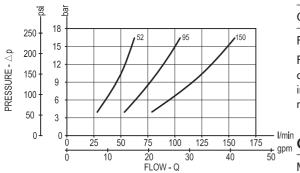


## 0M.51.03.90.04 - Z

#### Description

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



### **Technical data**

#### Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)
Flow division ratio: 50% 50%		

Flow division ratio: 50% - 50%

For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

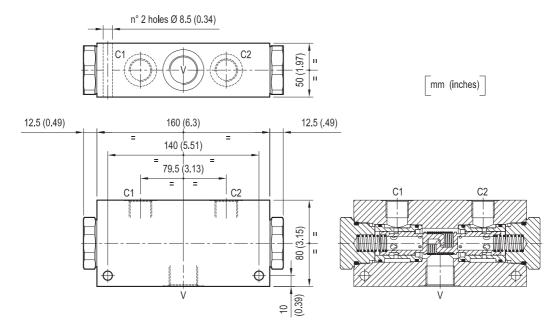
nin	<b>•</b> • • • •
om	General

Manifold material		Aluminium	
exceeding 210 bar		enough for operating pressures g from the fatigue life expected in the ur Service Network.	
Weight	kg (lbs)	2.2 (4.9)	

Weight	kg (lbs)	2.2 (4.9)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50

Note: for applications outside these parameters, please consult us.

1



#### Ordering code

		OM.51.	03.90	04	Z		
Flow divider,	combiner						INLET CAPACITY
						= 52	28 to 55 l/min (7.4 to 14.53 gpm)
						= 95	56 to 95 l/min (14.8 to 25.1 gpm)
Port sizes	v	C1 - C2				= 150	90 to 150 l/min (27.78 to 39.63 gpm)
	G 3/4	G 1/2			_		

Туре	Material number
0M510390045200A	R930001930
0M510390049500A	R930001889
0M510390041500A	R930005816

Туре	Material number

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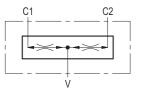
1

### Rexroth Bosch Group

1/2 **RE 18309-58/07.12** Replaces: RE 18309-58/04.10

# Flow divider, combiner

#### DRF

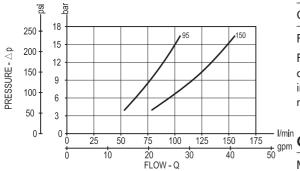


Description

0M.51.03.90.05 - Z

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



### **Technical data**

#### Hydraulic

Operating pressure	bar (psi)	up to 210 (3000)	
Flow division ratio: 50% 50%			

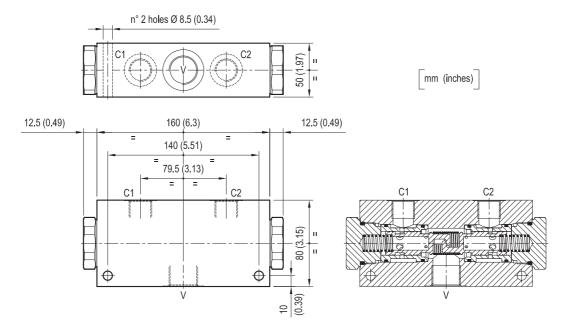
Flow division ratio: 50% - 50%

For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

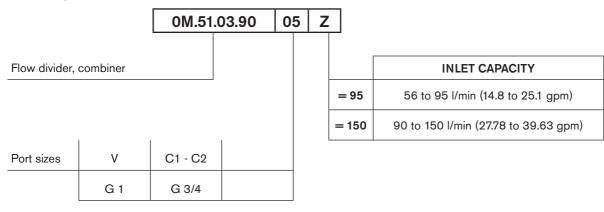
min	<b>•</b> • • • •
om	General

Manifold material		Aluminium	
exceeding 210 bar		enough for operating pressures g from the fatigue life expected in the ur Service Network.	
Weight kg (lbs) 2.2 (4.9)		2.2 (4.9)	

Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



#### Ordering code



Туре	Material number	Туре	Material number
0M510390059500A	R930001891		
0M510390051500A	R930005817		
		_	

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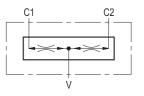


1

#### **RE 18309-59/04.10** 1/2 Replaces: RE 00171/02.07

# Flow divider, combiner

#### A-DRF



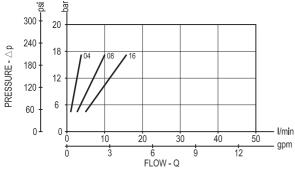
#### 0M.E1.21.90.02 - Z



#### Description

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



#### **Technical data**

#### Hydraulic

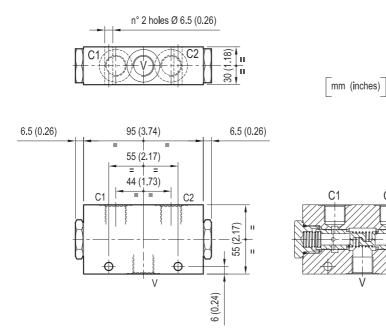
Max operating pressure	bar (psi)	350 (5000)
------------------------	-----------	------------

Flow division ratio: 50% - 50%

For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

#### <sup>®</sup> General

Manifold material		Steel
Weight	kg (lbs)	1.1 (2.43)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



#### Ordering code

		OM.E1.	21.90	02	Z		
Flow divider,	combiner						INLET CAPACITY
						=04	2 to 4 l/min (0.53 to 1.04 gpm)
						= 08	4 to 8 l/min (1.06 to 2.11 gpm)
Port sizes	v	C1 - C2				= 16	8 to 16 l/min (2.11 to 4.23 gpm)
	G 3/8	G 3/8				·	

Туре	Material number
0ME12190020400B	R930004500
0ME12190020800B	R930004502
0ME12190021600B	R930004503

Туре	Material number

C2

V

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kg (lbs)

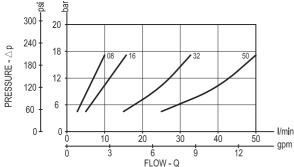
°C (°F)

Note: for applications outside these parameters, please consult us.

#### Performance

C1

A-DRF



### **Technical data**

Flow division ratio: 50% - 50%

For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

Steel

1.1 (2.43)

between -30 (-22) and +100 (212)

see data sheet RE 18350-50

General

Weight

Manifold material

Fluid temperature range

Other technical data

### 

Max operating pressure	bar (psi)	350 (5000)

Max operating pressure	bar (psi) 350 (5000)	
------------------------	----------------------	--

Hydraulic		
Max operating process	har(nai) 250 (5000)	

### Description

0M.E1.21.90.03 - Z

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1+2% of the available flow can be forced through the port still open.

# Flow divider, combiner

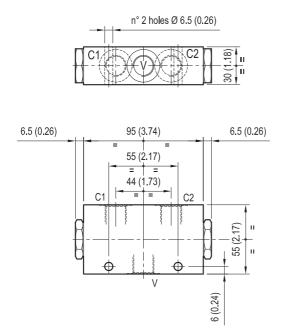
C.2

RE 18309-60/04.10 1/2

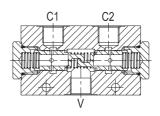
1

Replaces: RE 00171/02.07









#### Ordering code

		0M.E1.	21.90	03	Z		
Flow divider,	combiner						INLET CAPACITY
						= 08	4 to 8 l/min (1.06 to 2.11 gpm)
						= 16	8 to 16 l/min (2.11 to 4.23 gpm)
Port sizes	V	C1 - C2				= 32	16 to 32 l/min (4.23 to 8.45 gpm)
	G 1/2	G 3/8				= 50	25 to 50 l/min (6.61 to 13.21 gpm)

Туре	Material number	Ty
0ME12190030800B	R930004506	
0ME12190031600B	R930004507	
0ME12190033200B	R930004509	
0ME12190035000B	R930004510	

Туре	Material number

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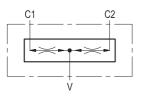
## Rexroth Bosch Group

1

1/2 **RE 18309-61/07.12** Replaces: RE 18309-61/04.10

# Flow divider, combiner

#### A-DRF

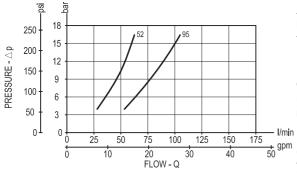


### Description

0M.E1.03.90.04 - Z

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



### **Technical data**

#### Hydraulic

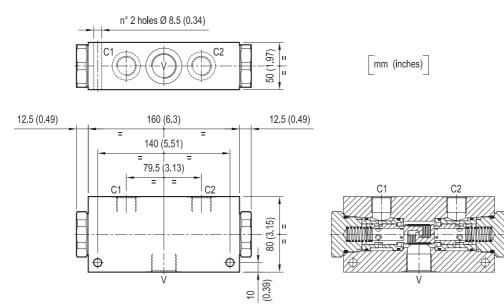
Max. operating pressure	bar (psi) 350 (5000)	
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Flow division ratio: 50% - 50%

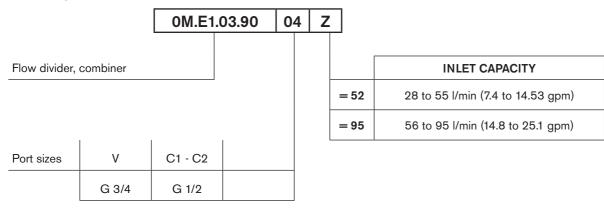
For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

#### <sup>m</sup> General

Manifold material		Steel
Weight	kg (lbs)	4.5 (9.9)
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)
Other technical data		see data sheet RE 18350-50



#### Ordering code



Туре	Material number	Туре	Material number
0ME10390045200A	R930001929		
0ME10390049500A	R930001901		

Bosch Rexroth Oil Control S.p.A. Via Leonardo da Vinci 5 P.O. Box no. 5 41015 Nonantola – Modena, Italy Tel. +39 059 887 611 Fax +39 059 547 848 motion-control-valves@oilcontrol.com www.boschrexroth.com **400**   $\ensuremath{\mathbb{C}}$  This document, as well as the data, specifications and other information set forth in it, are the exclusive property of Bosch Rexroth Oil Control S.p.a.. It may not be reproduced or given to third parties without its consent.

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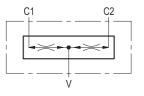


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1/2 **RE 18309-62/07.12** Replaces: RE 18309-62/04.10

# Flow divider, combiner

#### A-DRF

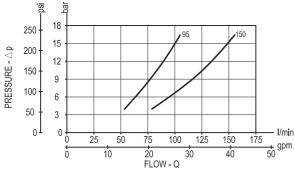


Description

0M.E1.03.90.05 - Z

This valve gives division of input flow from V to C1-C2, and re-combines flows in reverse direction from C1-C2 to V. The ratio between the flows through C1 and through C2 is maintained constant (typically 50% / 50%) over a wide range of pressure variations and of pressure imbalance in order to synchronize the motion of 2 actuators in both forward and reverse directions. In flow division mode, should either C1 or C2 be blocked, approximately 1÷2% of the available flow can be forced through the port still open.

#### Performance



#### **Technical data**

#### Hydraulic

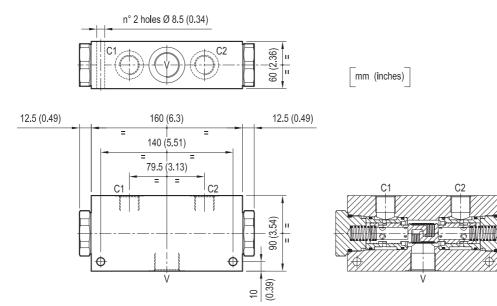
Max. operating pressure	bar (psi)	350 (5000)	
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Flow division ratio: 50% - 50%

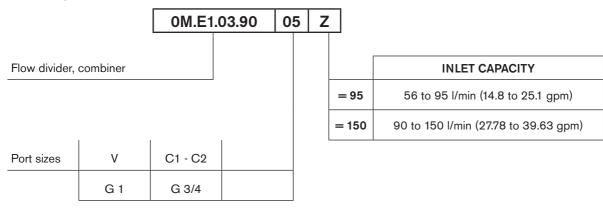
For any chosen inlet flow capacity (refer to table Z), the slippage, or the difference from theoretical value between the divided flows, depends from the inlet flow, and is lowest in the top portion of the selected range: generally it never exceeds  $\pm$  3%.

#### <sup>m</sup> General

Manifold material		Steel	
Weight	kg (lbs)	6.1 (13.3)	
Fluid temperature range	°C (°F)	between -30 (-22) and +100 (212)	
Other technical data		see data sheet RE 18350-50	



#### Ordering code



Туре	Material number	Туре	Material number
0ME10390059500A	R930001903		
0ME10390051500A	R930005819		
-			

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