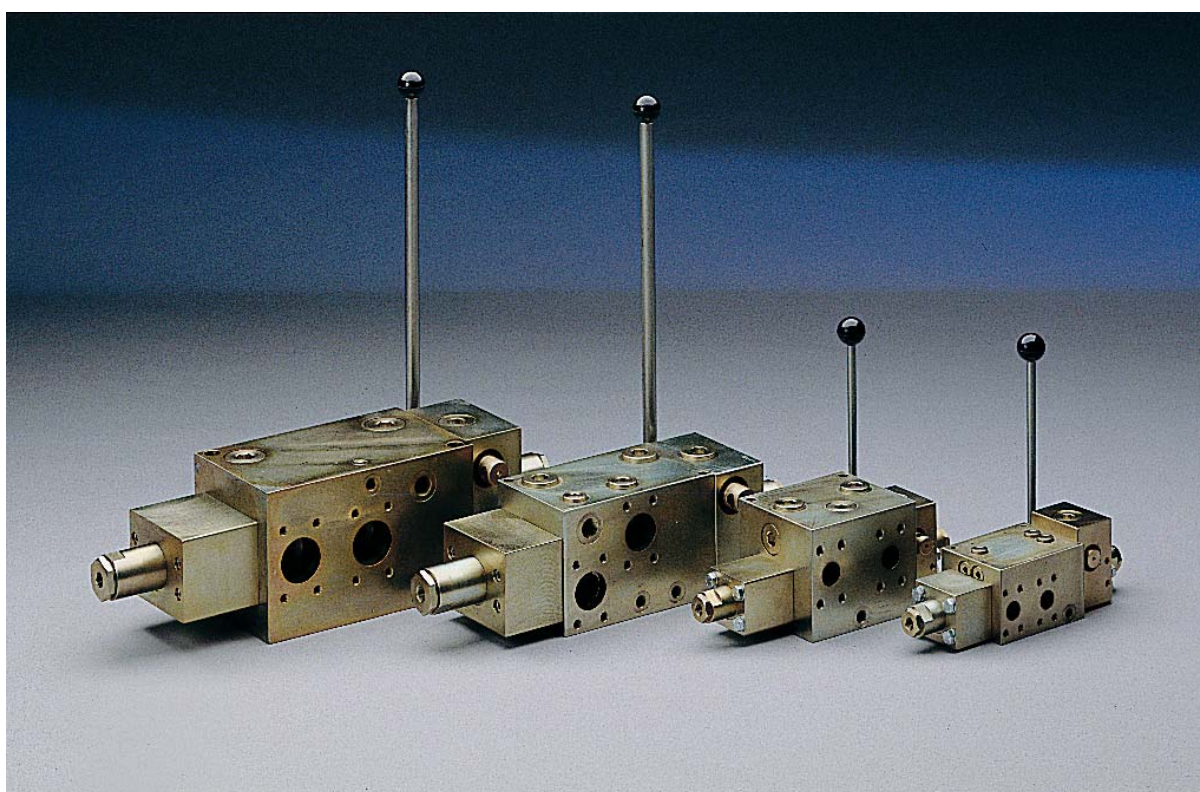


DENISON Lokomec Proportional Marine Control Valve NS20 - NS63



Publ. 4-EN 3900-A

DENISON Lokomec

FEATURES

Excellent control in marine conditions.
 Low pressure drop at high flows.
 Hand lever and hydraulic remote control available.

DESCRIPTION

4/3-proportional marine control valves are especially designed for winch controls. Controllability is excellent from low speed up to maximum. Sound construction and professional desing guarantees perfect function in tough marine conditions within wide temperature range. Hand lever and optional hydraulic pilot pistons enable local and remote control. The valves are designed to be flange or manifold mounted

CHARACTERISTICS

Design	Spool valve
Type of mounting	Flange or manifold mounting
Mounting position	Optional
Ambient temperature range	-30° C ... +50° C
Operating pressure (P,T,A,B)	350 bar (note limitations of SAE -flanges)
Permissible drain line (L) pressure	50 bar
Pilot pressure (SA, SB)	NS20: 10 ... 35 bar NS30: 10 ... 35 bar NS50: 10 ... 35 bar NS63: 10 ... 40 bar
Nominal flow	NS20: 250 l/min NS30: 450 l/min NS50: 800 l/min NS63: 1200 l/min
Fluid	Mineral oil according to DIN 51524 and DIN51525
Fluid temperature range	-20° C ... +70° C
Contamination level	Max. permissible contamination level according to NAS 1638 Class 8 (Class 9 for 15 Micron and smaller) or ISO 17/14
Weight	NS20 = 18 kg NS30 = 43 kg (flange mounted) 28 kg (manifold mounted) NS50 = 65 kg NS63 = 107 kg

ORDERING CODE

Type:

W MH 43 R 20 A 01 L1

Directional control valve _____

Control _____

M = manual hand lever
 MH = manual hand lever and hydraulic remote control

4-way 3-position valve _____

Mounting _____

P = manifold mounted
 R = flange mounted

Nominal size _____

20, 30, 50, 63

Design letter _____

Spool type _____

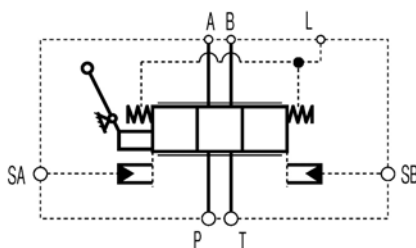
01 = spool 01
 03 = spool 03
 07 = spool 07
 08 = spool 08

SAE-flanges _____

Code	Mounting	Connections	Availability
L1	Flange mounted	P, T, A, B = SAE 1" 3000 psi	NS20
L3	Flange mounted	P, T, A, B = SAE 1 1/2" 3000 psi	NS30
L5	Flange mounted	P, T, A, B = SAE 2 1/2" 3000 psi	NS63
L7	Manifold mounted	P, T = SAE 2" 3000 psi	NS30, NS50
L8	Manifold mounted	P, T = SAE 3" 3000 psi	NS63
L9	Flange mounted	P, T = SAE 2" 3000 psi, A, B = SAE 1 1/2" 3000 psi	NS50
H2	Flange mounted	P, T, A, B = SAE 1 1/4" 6000 psi	NS30

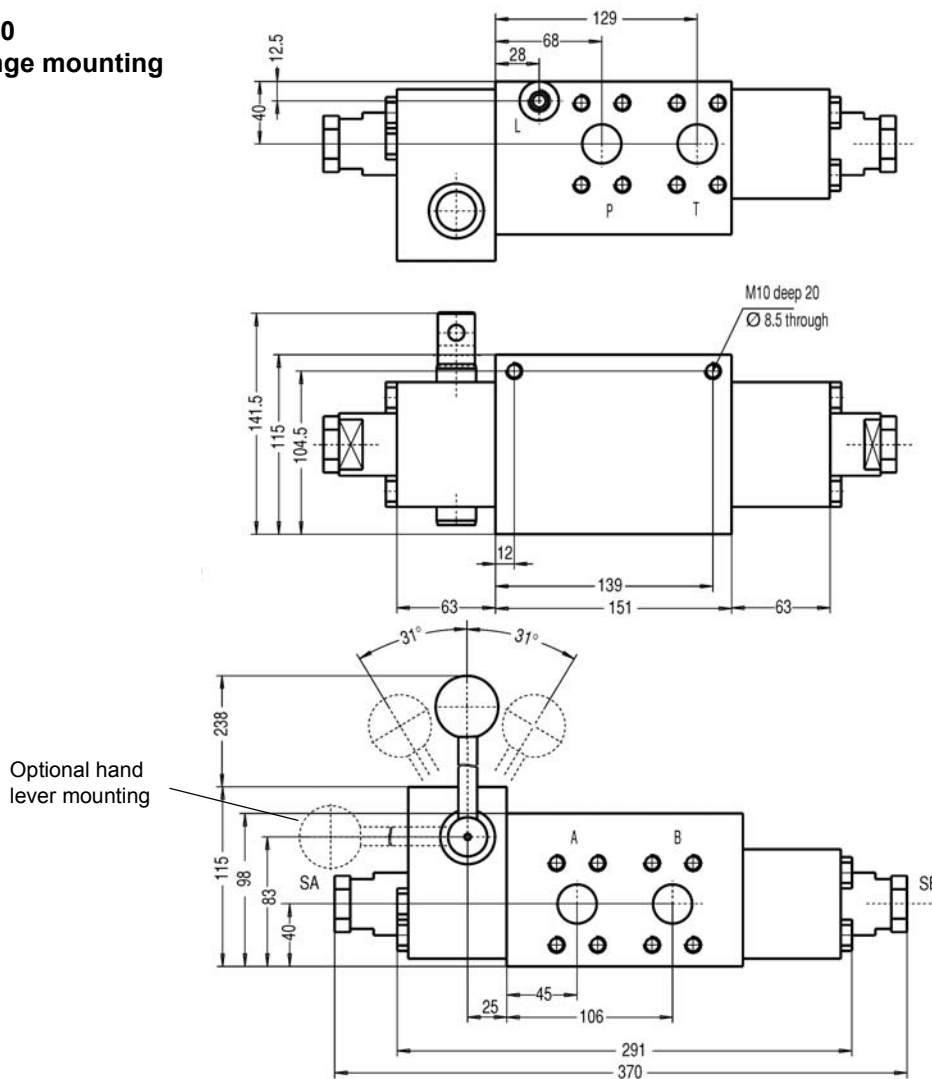
SYMBOLS

Spool type /
spring centered



- 01
- 03
- 07
- 08

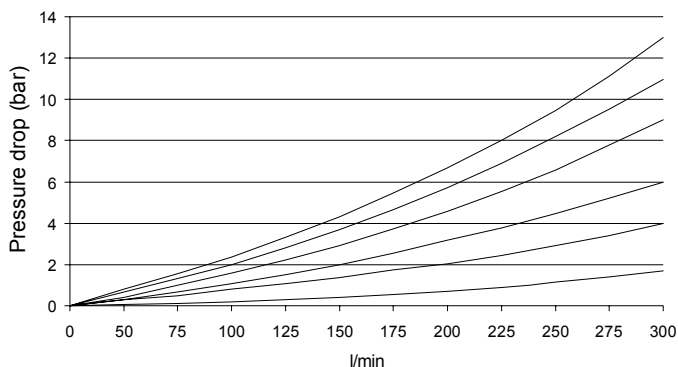
NS20
Flange mounting



CONNECTIONS

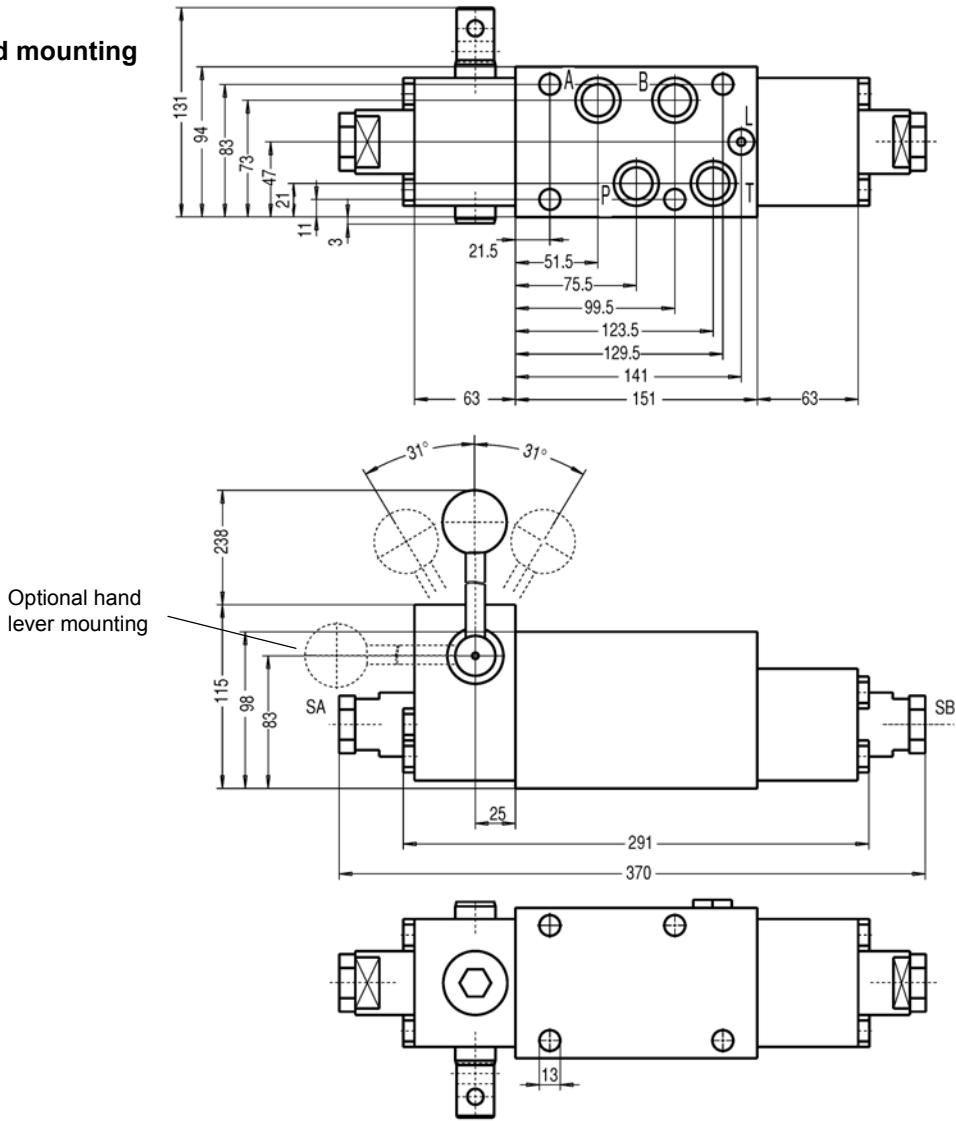
Flange mounting:
P, T, A, B = SAE 1" 3000 psi
SA, SB = R 3/8" BSP
L = R 1/4" BSP

PRESSURE DROP CURVES



MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43R20A01 /	P-A	1	WM43R20A07 /	P-A	2
WMH43R20A01	P-B	1	WMH43R20A07	P-B	2
	A-T	6		A-T	4
	B-T	1		B-T	2
	P-T	2		P-T	3
WM43R20A03 /	P-A	3	WM43R20A08 /	P-A	2
WMH43R20A03	P-B	3	WMH43R20A08	P-B	2
	A-T	4		A-T	4
	B-T	3		B-T	2

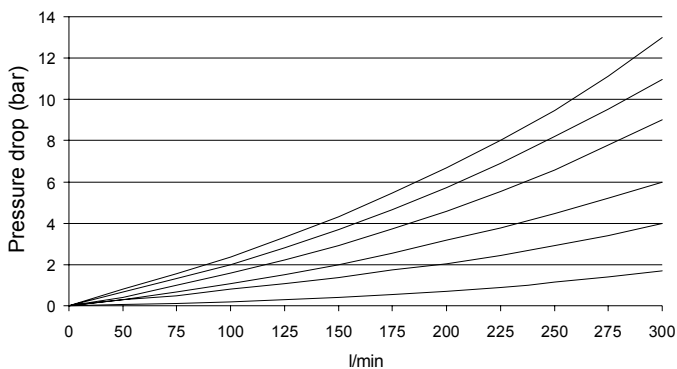
NS20
Manifold mounting



CONNECTIONS

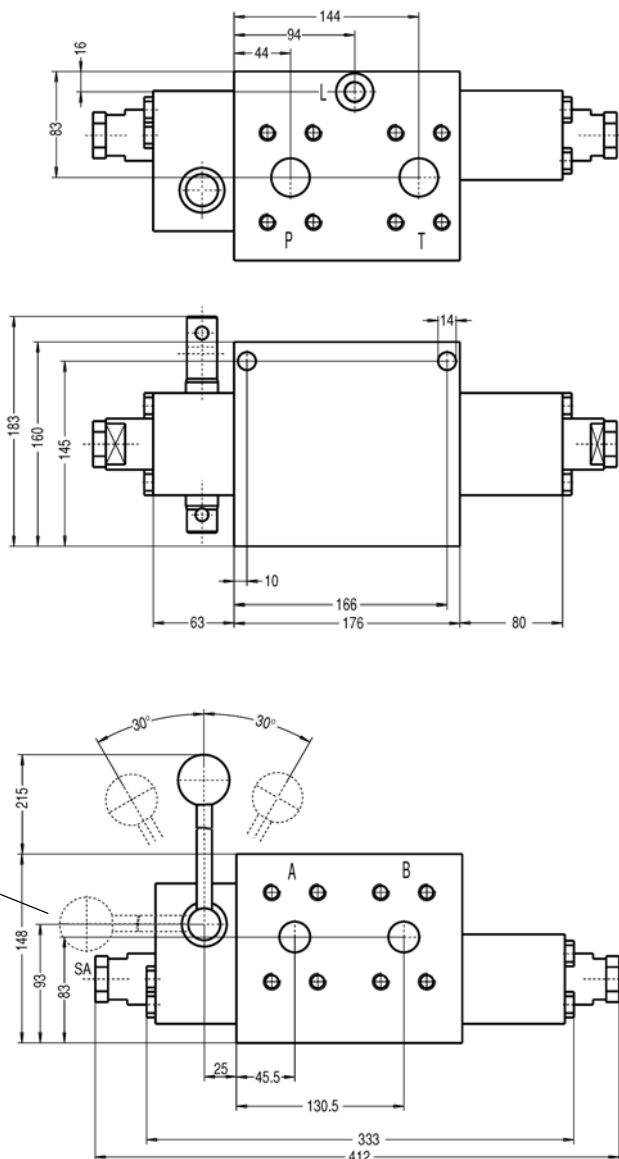
Manifold mounting:
P, T, A, B = Ø 20
SA, SB = R 3/8" BSP
L = Ø 5

PRESSURE DROP CURVES



MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43P20A01 / WMH43P20A01	P-A	3	WM43P20A07 / WMH43P20A07	P-A	4
	P-B	3		P-B	4
	A-T	4		A-T	6
	B-T	3		B-T	5
	P-T	4		P-T	4
WM43P20A03 / WMH43P20A03	P-A	5	WM43P20A08 / WMH43P20A08	P-A	4
	P-B	5		P-B	4
	A-T	6		A-T	6
	B-T	5		B-T	4

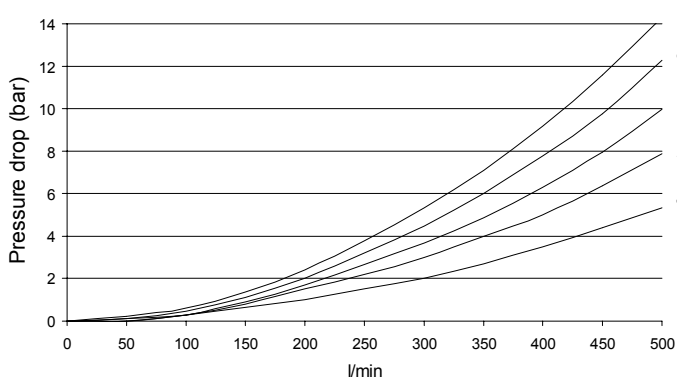
NS30
Flange mounting



CONNECTIONS

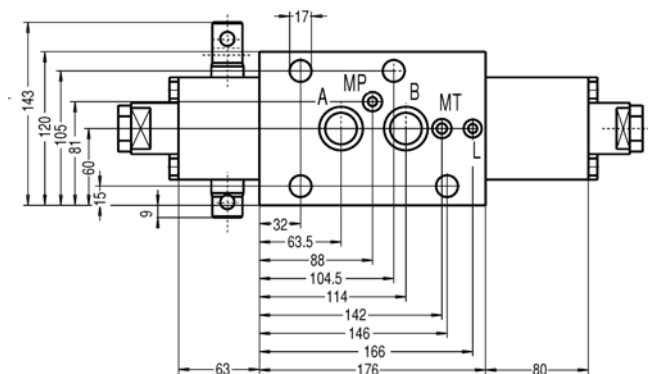
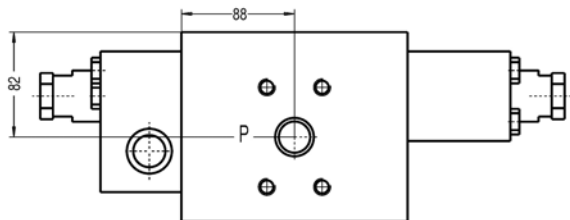
Flange mounting:
 P, T, A, B = SAE 1 1/2" 3000 psi
 or P, T, A, B = SAE 1 1/4" 6000 psi
 SA, SB, L = R 3/8" BSP

PRESSURE DROP CURVES

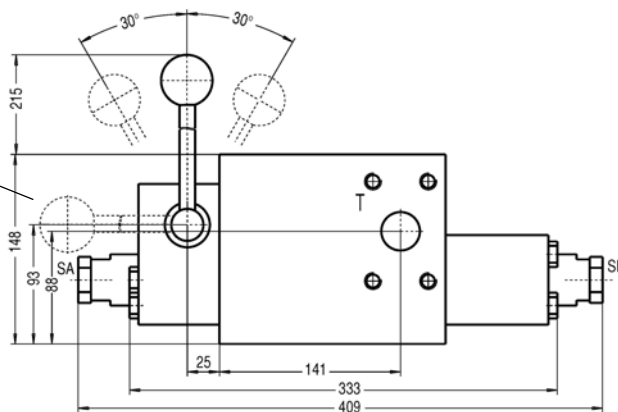


MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43R30A01 /	P-A	3	WM43R30A07 /	P-A	5
WMH43R30A01	P-B	2	WMH43R30A07	P-B	4
	A-T	2		A-T	5
	B-T	1		B-T	3
	P-T	2		P-T	3
WM43R30A03 /	P-A	4	WM43R30A08 /	P-A	3
WMH43R30A03	P-B	4	WMH43R30A08	P-B	3
	A-T	4		A-T	3
	B-T	3		B-T	2

NS30
Manifold mounting



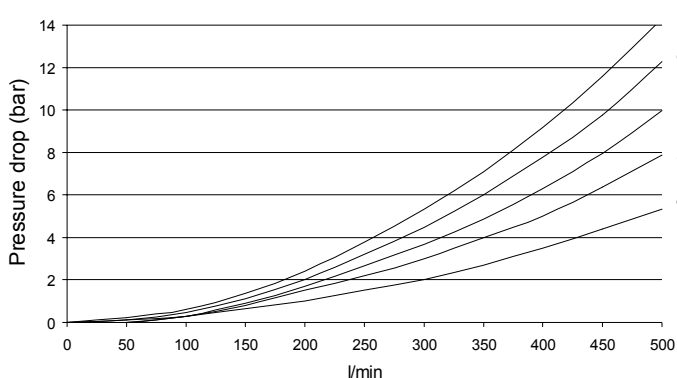
Optional hand lever mounting



CONNECTIONS

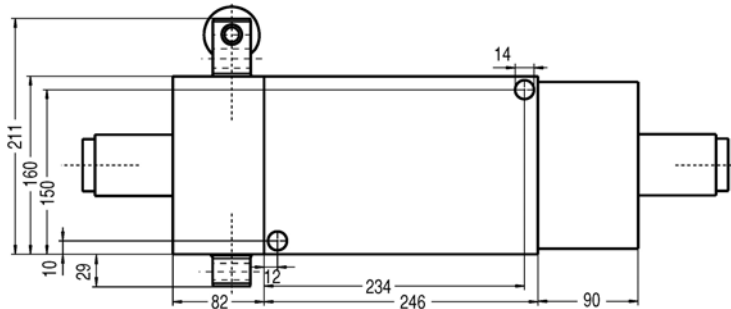
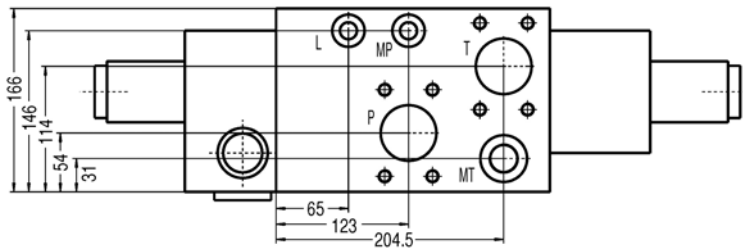
Manifold mounting :
 P, T = SAE 2" 3000 psi
 A, B = Ø 24.5
 SA, SB = R 3/8" BSP
 MT = Ø 8
 MP, L = Ø 7

PRESSURE DROP CURVES

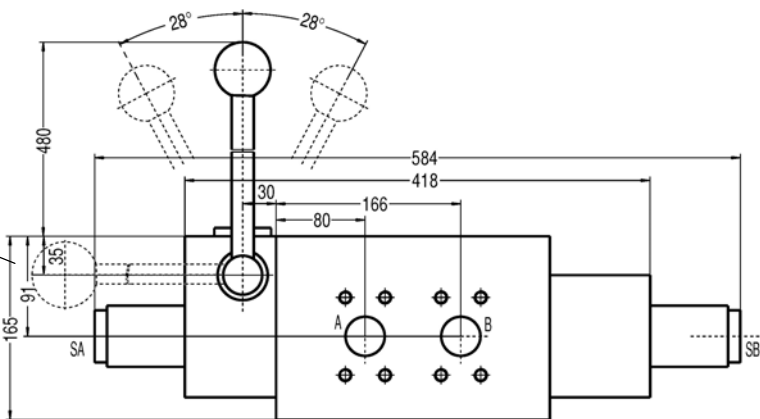


MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43P30A01 /	P-A	2	WM43P30A07 /	P-A	3
WMH43P30A01	P-B	2	WMH43P30A07	P-B	2
	A-T	4		A-T	5
	B-T	3		B-T	4
	P-T	2		P-T	3
WM43P30A03 /	P-A	2	WM43P30A08 /	P-A	2
WMH43P30A03	P-B	2	WMH43P30A08	P-B	2
	A-T	5		A-T	5
	B-T	4		B-T	4

NS50
Flange mounting



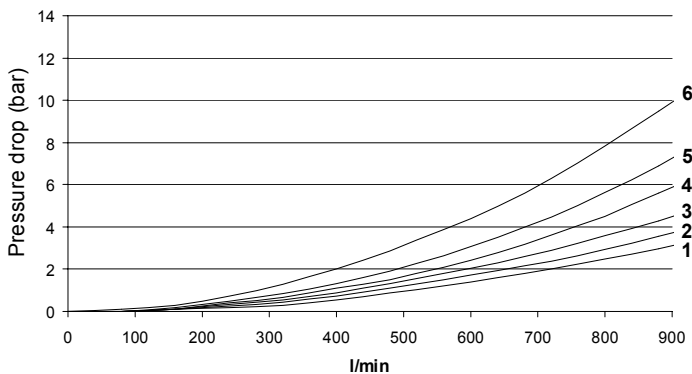
Optional hand lever mounting



CONNECTIONS

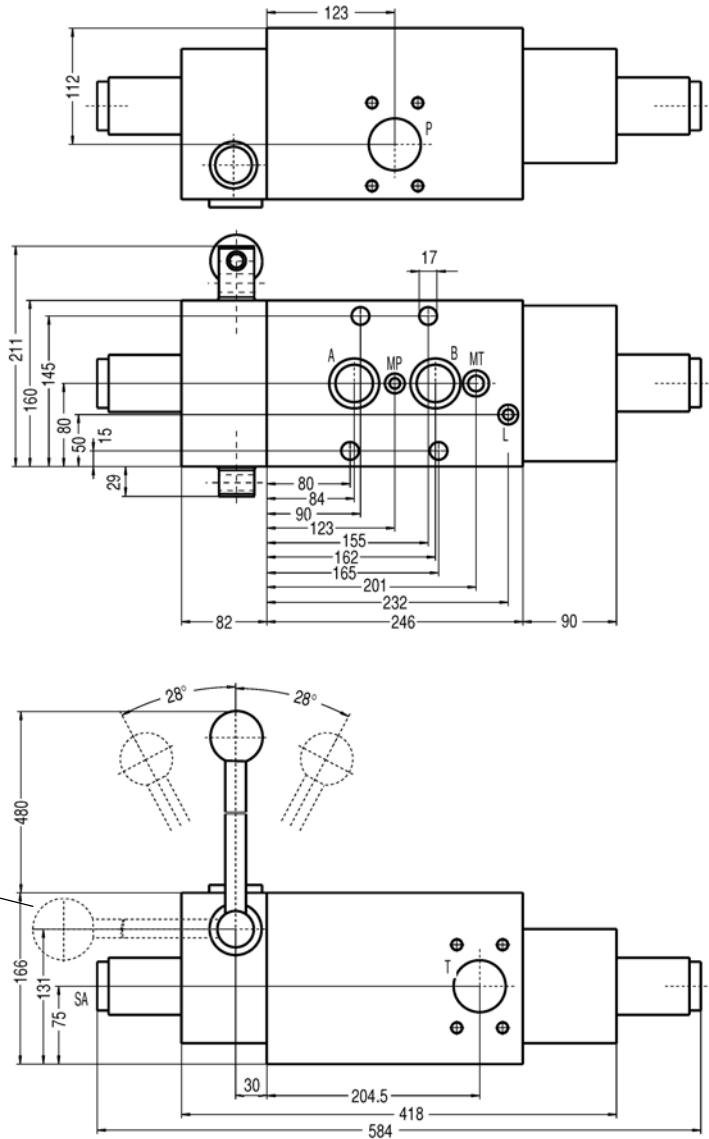
Flange mounting:
 P, T = SAE 2" 3000 psi
 A, B = SAE 1 1/2" 3000 psi
 SA, SB = R 1/2" BSP
 MP, L = R 3/8" BSP
 MT = R 3/4" BSP

PRESSURE DROP CURVES



MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43R50A01 /	P-A	1	WM43R50A07 /	P-A	5
WMH43R50A01	P-B	4	WMH43R50A07	P-B	5
	A-T	6		A-T	6
	B-T	4		B-T	5
	P-T	4		P-T	5
WM43R50A03 /	P-A	4	WM43R50A08 /	P-A	4
WMH43R50A03	P-B	4	WMH43R50A08	P-B	4
	A-T	6		A-T	6
	B-T	3		B-T	2

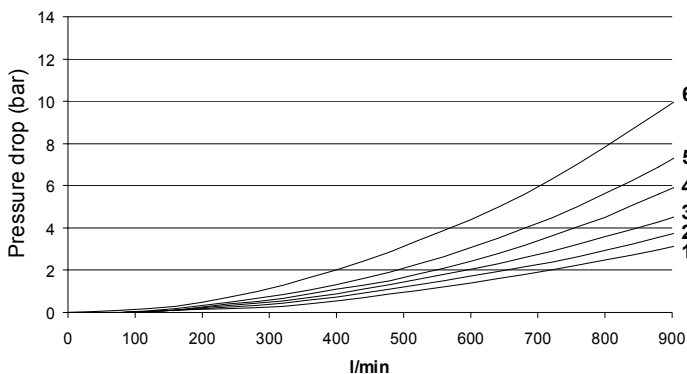
**NS50
Manifold mounting**



CONNECTIONS

Manifold mounting :
 P, T = SAE 2" 3000 psi
 A, B = Ø 36
 SA, SB = R 1/2" BSP
 MP, L = Ø 8
 MT = Ø 15

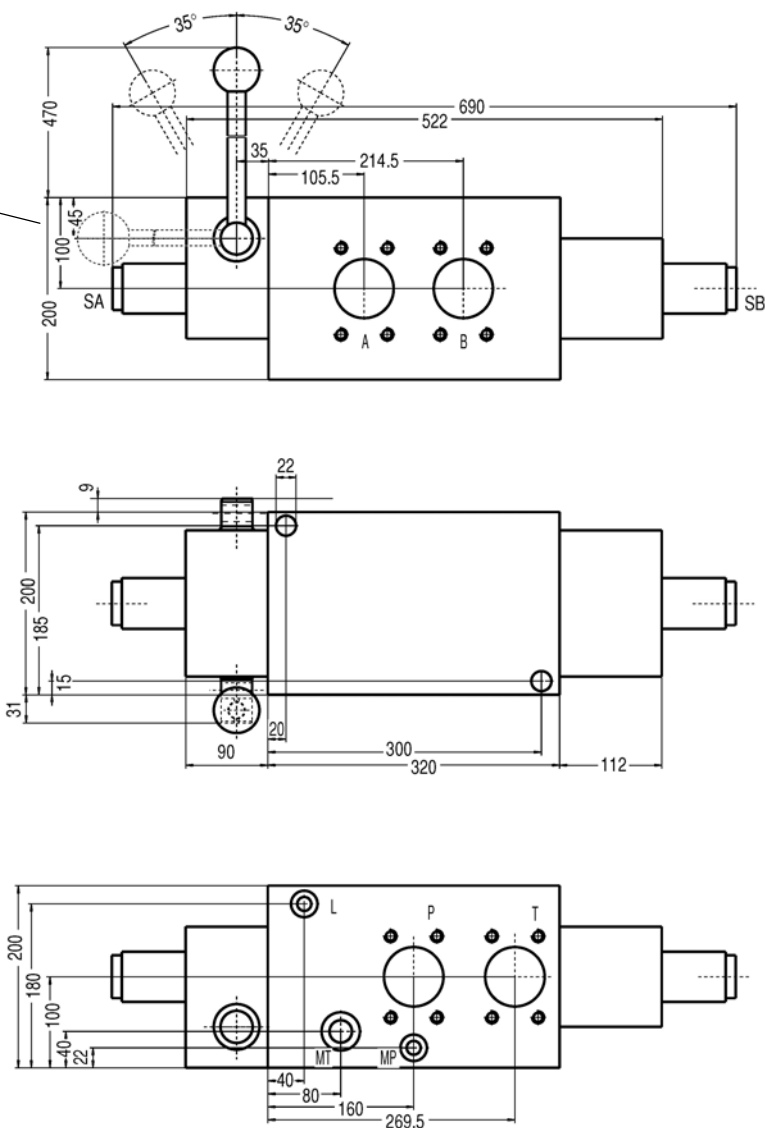
PRESSURE DROP CURVES



MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43P50A01 /	P-A	2	WM43P50A07 /	P-A	3
WMH43P50A01	P-B	2	WMH43P50A07	P-B	3
	A-T	3		A-T	4
	B-T	1		B-T	3
	P-T	2		P-T	3
WM43P50A03 /	P-A	3	WM43P50A08 /	P-A	3
WMH43P50A03	P-B	3	WMH43P50A08	P-B	3
	A-T	3		A-T	3
	B-T	1		B-T	1

**NS63
Flange mounting**

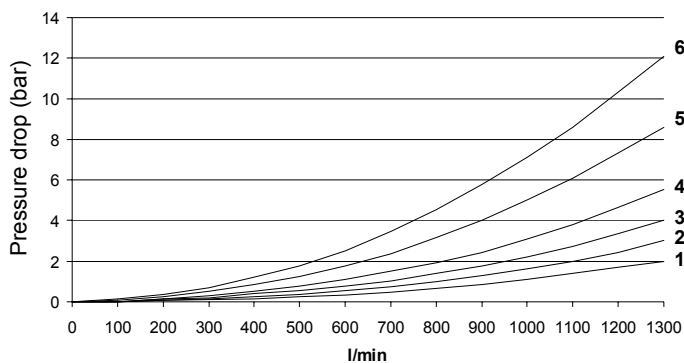
Optional hand lever mounting



CONNECTIONS

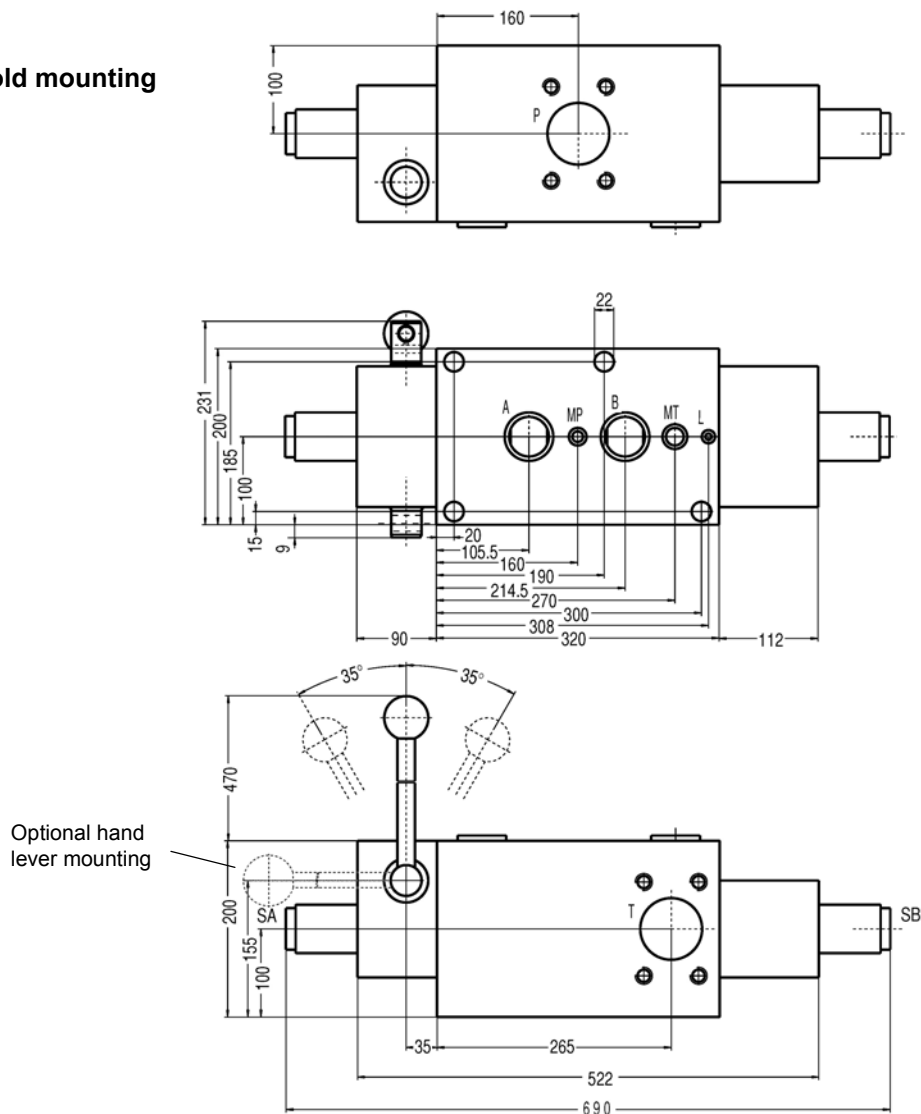
Flange mounting:
 P, T, A, B = SAE 2 1/2" 3000 psi
 SA, SB = R 1/2" BSP
 MP, L = R 3/8" BSP
 MT = R 3/4" BSP

PRESSURE DROP CURVES



MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43R63A01 /	P-A	1	WM43R63A07 /	P-A	3
WMH43R63A01	P-B	1	WMH43R63A07	P-B	3
	A-T	6		A-T	6
	B-T	1		B-T	3
	P-T	4		P-T	5
WM43R63A03 /	P-A	3	WM43R63A08 /	P-A	3
WMH43R63A03	P-B	3	WMH43R63A08	P-B	3
	A-T	6		A-T	6
	B-T	3		B-T	2

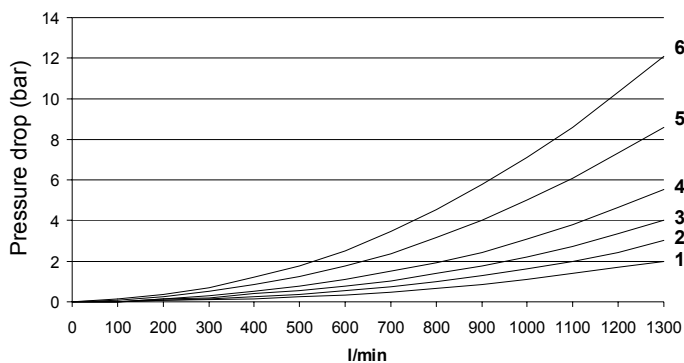
NS63
Manifold mounting



CONNECTIONS

Manifold mounting :
 P, T = SAE 3" 3000 psi
 A, B = Ø 45
 SA, SB = R 1/2"
 MP = Ø 12
 MT = Ø 20
 L = Ø 8

PRESSURE DROP CURVES



MODEL	FLOW DIR.	CURVE	MODEL	FLOW DIR.	CURVE
WM43P63A01 /	P-A	2	WM43P63A07 /	P-A	4
WMH43P63A01	P-B	2	WMH43P63A07	P-B	4
	A-T	3		A-T	5
	B-T	1		B-T	2
	P-T	3		P-T	4
WM43P63A03 /	P-A	3	WM43P63A08 /	P-A	3
WMH43P63A03	P-B	4	WMH43P63A08	P-B	4
	A-T	5		A-T	3
	B-T	1		B-T	1

150 In Europe:

Cyprus
Czech Republic
Eastern Europe
The Faroe Islands
Finland
Greece
Hungary
Iceland
Norway
Poland
Portugal
Romania
Russia
Serbia Montenegro
Slovakia
Slovenia
Switzerland
Turkey

In Africa:

Algeria
Egypt
Ivory Coast
Morocco
Nigeria
South Africa
Togo
Tunisia

In Middle East:

Bahrain
Iran
Israel
Jordan
Lebanon
Pakistan
Qatar
Saudi Arabia
Syria
United Arab Emirates

In Far East:

Indonesia
Korea
Malaysia
New Zealand
Philippines
Taiwan
Thailand

Australia

DENISON HYDRAULICS Pty. Ltd.
41-43 St. Hillers Road
P.O. Box 192
Auburn, N.S.W. 2144
Aus^tralia
Tel. (612) 9646 5200
Fax (612) 9643 1305

Other sales offices:
Queenstand
South Wantirna Victoria
Western Australia

Austria

DENISON HYDRAULIK GmbH
Zweigniederlassung Linz
Haidbachstraße 69
A-4061 Pasching
Austria
Tel. (43) 7229 4887
Fax (43) 7229 63092

Benelux

DENISON HYDRAULICS
BENELUX B. V.
Pascalstraat 100
3316 Dordrecht
Holland
Tel. (31) 786179 900
Fax (31) 786175 755

Canada

DENISON HYDRAULICS
CANADA Inc.
2320 Bristol Circle, Unit 1
Oakville, ON L6H 5S2
Canada
Tel. (905) 829 5800
Fax (905) 829 5805

Other sales offices:
Montreal, QC
Calgary, AB

Denmark

DENISON HYDRAULIK
DENMARK A/S
Industrikrogen 2
DK-2635 Ishøj
Denmark
Tel. (45) 4371 15 00
Fax (45) 4371 15 16

Finland

DENISON LOKOMEK OY
P.O. Box 116
Polunmäenkatu 22
FIN-33721 TAMPERE
Finland
Tel. (358) 3 3575 100
Fax.(358) 3 3575 111

Other sales offices: Lohja

France

DENISON HYDRAULICS
FRANCE SA
14, route du Bois Blanc
BP 539
18105 Vierzon
France
Tel. (33) 2 48 53 01 20
Fax (33) 2 48 75 02 91

Other sales offices:
Bordeaux
Lyon
Paris

Germany

DENISON HYDRAULIK GmbH
Herderstrasse 26
D-40721 Hilden
Germany
Tel. (49) 2103 940-6
Fax (49) 2103 940-880

Other sales offices:
Dresden
Hanover
Stuttgart

Great Britain

DENISON HYDRAULICS U.K.
Ltd.
Kenmore Road
Wakefield 41, Industrial Estate
Wakefield, WF20XE
West Yorkshire
England
Tel. (44) 19 24 826 021
Fax (44) 19 24 826 146

Other sales offices:
Burgess Hill

Hong Kong

DENISON HYDRAULICS Ltd.
Unit 3, 25/F Cable TV Tower
9 Hoi Shing Road
Tsuen Wan
N.T., Hong Kong
Tel. (852) 24988381
Fax (852) 24991522

Italy

DENISON HYDRAULICS S.r.l.
Viale Europa 68
20090 Cusago
Milano
Italy
Tel. (39) 2 90330 1
Fax (39) 2 90390 695

Japan

DENISON JAPAN Inc.
4-2-1 Tsujido-Shinmachi
Fujisawa 251,
Japan
Tel. (81) 466 35 3257
Fax (81) 466 35 2029

Other sales office:
Osaka

Mexico, Central America, South America and Caribbean Countries Contact

DENISON HYDRAULICS Inc.
6167 NW 181 Terrace Circle North
Miami, FL 33015
USA
Tel. (305) 362 2246
Fax (305) 362 6220

P.R. China

SHANGHAI DENISON HYDRAULICS
ENGINEERING Ltd.
3F, No. 1, Mao Jia Zhai, Bai Lian Jing
Pudong New Area,
Shanghai 200126, China
Tel. (86) 21 5886 6599
Fax (86) 21 5886 7018

Singapore

DENISON HYDRAULICS S.E.A.
Pte. Ltd.
No. 11 Lorong Tukang Dua
Singapore 2261
Tel. (65) 2687840
Fax (65) 2687847

Spain

DENISON HYDRAULICS, S.A.
Gomis, 1
08023 Barcelona
Spain
Tel. (34) 3418 46 87
Fax (34) 3211 65 07

Other sales offices:
San Sebastian

Sweden

DENISON HYDRAULICS
SVENSKA AB
Sporregatan 13
213 77 - Malmö
Sweden
Tel. (46) 40 600 13 00
Fax (46) 40 600 13 50

Other sales offices:
Järfälla

Taiwan

DENISON HYDRAULICS Ltd.
6F-10, No. 79, Sec. 2, Roosevelt
road,
Taipei, Taiwan, R.O.C.
Tel. (886) 2 23645101 / 23645102
Fax (886) 2 23639025

USA

DENISON HYDRAULICS Inc.
14249 Industrial Parkway
Marysville, OH 43040
USA
Tel. 937 644 3915
Fax 937 642 3738
For nearest Distributor:
Call toll free 1 800 551 5956
E-Mail address:
denison@denisonhydraulics.com
WWW address:
http://www.denisonhydraulics.com

Other sales offices:

Fulton, CA
Mulberry, FL
Moline, IL
Rock Island, IL
Kentwood, MI
Portland, OR
Canton, MS
Arlington, TX
Houston, TX

Other European, Middle East and African Countries Contact

DENISON HYDRAULICS
FRANCE SA
14, route du Bois Blanc
BP 539
18105 Vierzon Cedex
France
Tel. (33) 2 48 53 01 44
Fax (33) 2 48 53 01 46

Your local DENISON representative:

