



EA08 type directional solenoid valve - 2 ways / 2 positions

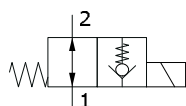
- Direct acting
- Poppet type
- Normally open and closed configurations

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

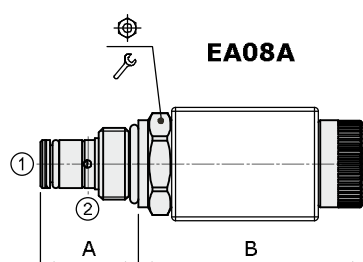
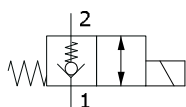
	EA08A	EA08B
Nominal flow	1 l/min (0.26 US gpm)	1 l/min (0.26 US gpm)
Max. pressure	210 bar (3050 psi)	350 bar (5100 psi)
Oil leakage	at 210 bar (3050 psi) 0.25 cm ³ /min (0.015 in ³ /min)	
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 8/2	
Coil type*	BE	BT
Nominal voltages	12 VDC - 24 VDC ± 10%	12 VDC - 24 VDC ± 10%
Power rating	18.7 W (12 VDC) 18.6 W (24 VDC)	21 W (12-24 VDC)
Weight	0.130 kg (0.28 lb)	0.130 kg (0.28 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

Normally open configuration



Normally closed configuration

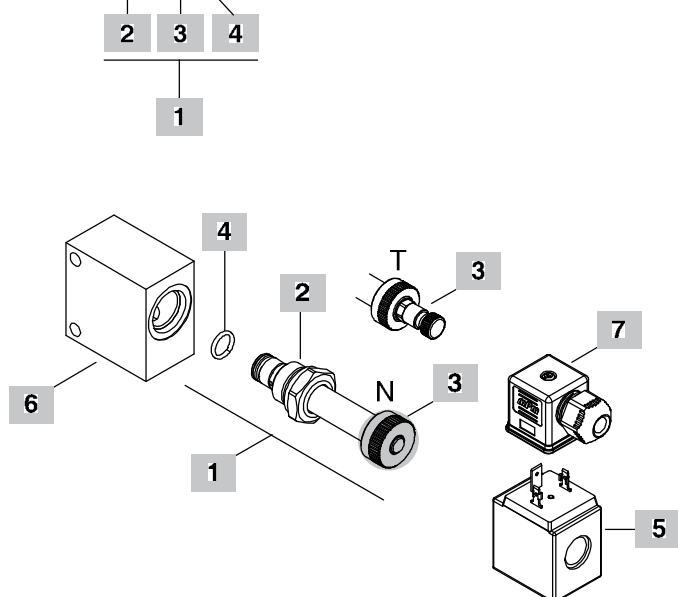


Valve type	A		B			Nm	lbft
	mm	in	mm	in			
EA08A/	10NB	27.5	1.08	60	2.36	24	30
	20NB	27.5	1.08	59	2.32	24	30
EA08B/	10NB	27.5	1.08	70.9	2.79	24	30
	20NB	27.5	1.08	65.5	2.58	24	30

For dimensions with different type of emergency see page 213

Ordering codes and description composition

EA08A/10 NB



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EA08A/10NB	0EA08002001	Normally open configuration (N.O.) without emergency
EA08B/10NB	0EA08002003	(N.O.) without emergency
EA08A/10TB	0EA08002007	(N.O.) screw type emergency
EA08B/10TB	0EA08002005	(N.O.) screw type emergency
EA08A/20NB	0EA08002000	Normally closed configuration (N.C.) without emergency
EA08B/20NB	0EA08002002	(N.C.) without emergency
EA08A/20TB	0EA08002009	(N.C.) screw type emergency
EA08B/20TB	0EA08002004	(N.C.) screw type emergency

2 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
T	Screw type

Note: for configurations with different emergency contact Sales Dept.

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BE 12VDC	4SL1000120	12VDC-ISO4400 coil for EA08A
BT 12VDC	4SL3000120	12VDC-ISO4400 coil for EA08B

For complete coils list see page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 1/4	3CC0820B11	Aluminium body for cavity 08 valve, G1/4 std thread

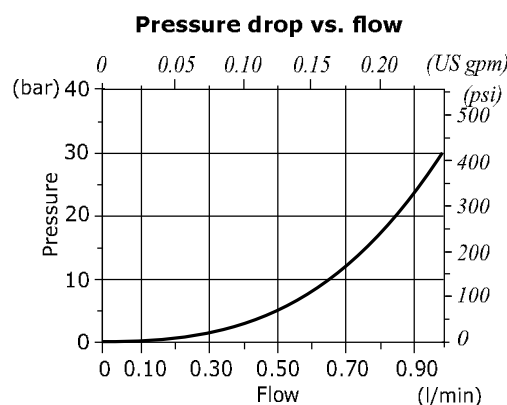
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see page 206

Rating diagrams





EE..A type directional solenoid valves - 2 ways / 2 positions

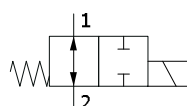
- Direct acting
- Spool type
- Normally open and closed configurations
- From SAE08 to SAE12 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

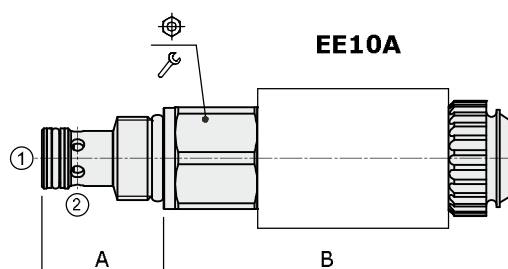
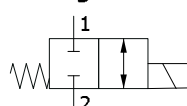
	EE08A	EE10A	EE12A
Nominal flow	8 l/min (2.11 US gpm)	30 l/min (7.9 US gpm)	40 l/min (10.5 US gpm)
Max. pressure	210 bar (3050 psi)		
Oil leakage	at 210 bar (3050 psi) 30 cm³/min (1.83 in³/min)	55 cm³/min (3.35 in³/min)	75 cm³/min (4.58 in³/min)
Fluid	mineral based oil		
Viscosity	10-200 cSt		
Max level of contamination	18/16/13 ISO4406		
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)		
Cavity	SAE 08/2	SAE 10/2	SAE 12/2
Coil type*	BER	BIN 19	BIN 22
Nominal voltages	12 VDC - 24 VDC ± 10%		
Power rating	22.8 W (12 VDC) 22.5 W (24 VDC)	29 W (12 VDC) 31 W (24 VDC)	32.6 W (12 VDC) 31 W (24 VDC)
Weight	0.18 kg (0.40 lb)	0.28 kg (0.64 lb)	0.44 kg (0.97 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

Normally open configuration



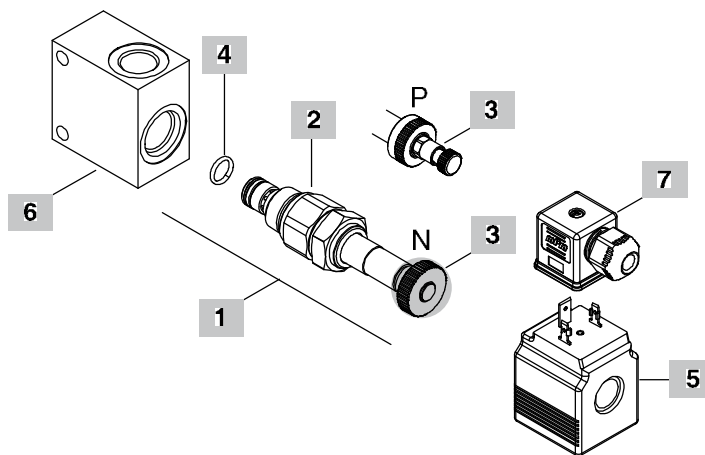
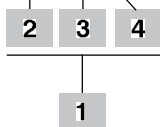
Normally closed configuration



Valve type	A		B					
	mm	in	mm	in				
EE08A/	10NB	27.6	1.09	76	2.99	24	30	22
	20NB	27.6	1.09	76	2.99	24	30	22
EE10A/	10PB	32.3	1.27	90.3	3.56	27	50	37
	20PB	32.3	1.27	90.3	3.56	27	50	37
EE12A/	10PB	46	1.81	102	4.02	32	80	59
	20PB	46	1.81	90.3	3.56	32	80	59

Ordering codes and description composition

EE08A/10 NB



4 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EE08A/10NB	0EE08002001	Normally open configuration (N.O.) without emergency
EE08A/20NB	0EE08002000	Normally closed configuration (N.C.) without emergency
SAE cavity 10/2		
EE10A/10PB	0EE10002003	Normally open configuration (N.O.) with push-button emergency
EE10A/20PB	0EE10002002	Normally closed configuration (N.C.) with push-button emergency
SAE cavity 12/2		
EE12A/10PB	0EE12002005	Normally open configuration (N.O.) with push-button emergency
EE12A/20PB	0EE12002004	Normally closed configuration (N.C.) with push-button emergency

1 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

2 Emergency

TYPE	DESCRIPTION
N	Without emergency only for 8/2
P	Push button type only for 10/2 and 12/2

Note: for configurations with different emergency contact Sales Dept.

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BER 12 VDC	4SLE001200	12VDC-ISO4400 coil for EE08A
BIN 19 VDC	4SL6000121	12VDC-ISO4400 coil for EE10A
BIN 22 VDC	4SL6000128	12VDC-ISO4400 coil for EE12A

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 3/8	3CC0820C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 10/2-G 3/8	3CC1020C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 12/2-G 1/2	3CC1220D11	Aluminium body for cavity 12 valve, G1/2 std thread

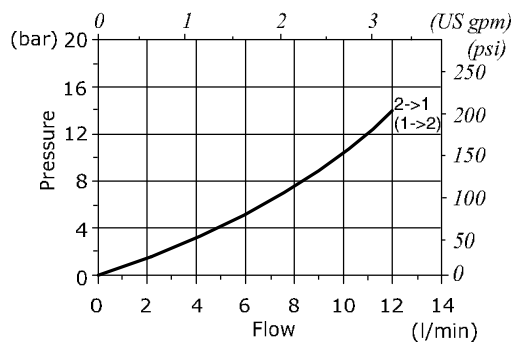
For steel bodies or different threading see from page 215

7 Connector

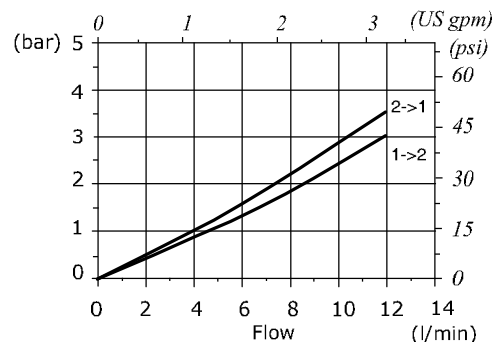
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

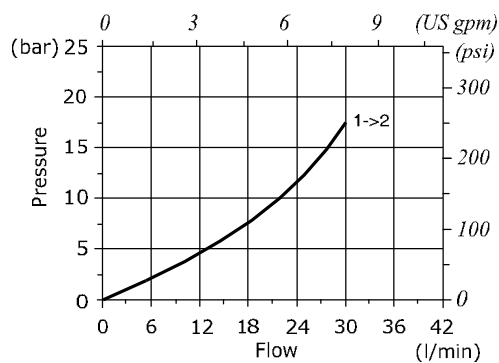
EE08A pressure drop vs. flow
- Spool 1 -



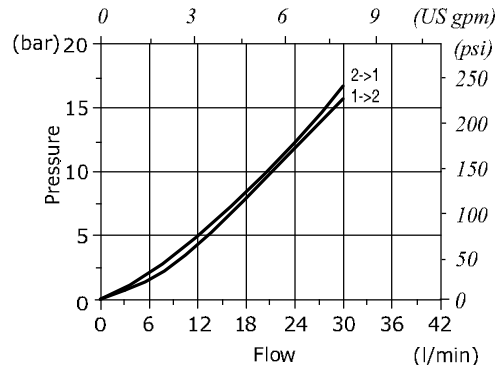
EE08A pressure drop vs. flow
- Spool 2 -



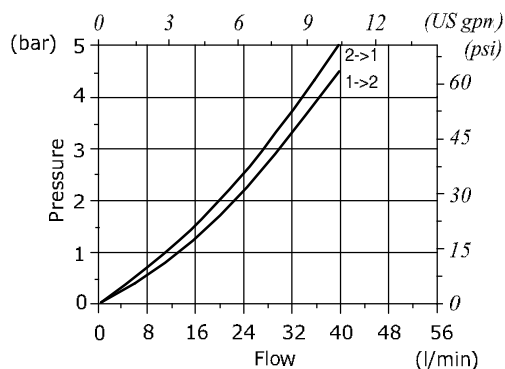
EE10A pressure drop vs. flow
- Spool 1 -



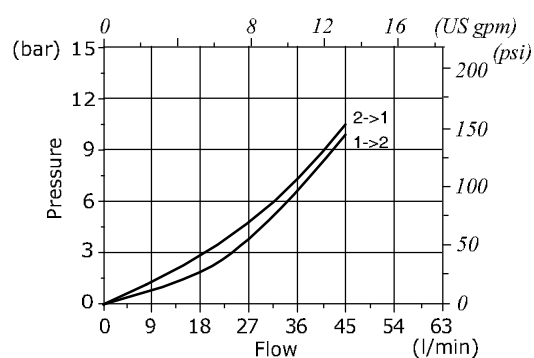
EE10A pressure drop vs. flow
- Spool 2 -



EE12A pressure drop vs. flow
- Spool 1 -



EE12A pressure drop vs. flow
- Spool 2 -





EC..M type directional solenoid valves - 2 ways / 2 positions

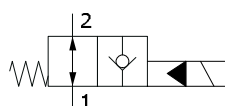
- Pilot operated
- Poppet type
- Oil leakage free from port 2 to port 1
- Normally open and closed configurations
- From SAE08 to SAE16 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

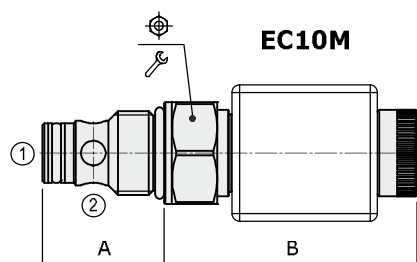
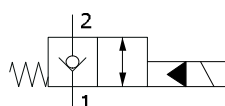
		EC08M	EC10M	EC12M	EC16M
Nominal flow		40 l/min (10.5 US gpm)	70 l/min (18.5 US gpm)	150 l/min (40 US gpm)	150 l/min (40 US gpm)
Max. pressure		380 bar (5500 psi)			
Oil leakage	at 210 bar (3050 psi)	0.25 cm³/min (0.015 in³/min)	0.25 cm³/min (0.015 in³/min)	0.25 cm³/min (0.015 in³/min)	0.25 cm³/min (0.015 in³/min)
Fluid		mineral based oil			
Viscosity		10-200 cSt			
Max level of contamination		18/16/13 ISO4406			
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)			
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)			
Cavity		SAE 08/2	SAE 10/2	SAE 12/2	SAE 16/2
Coil type*		BER			
Nominal voltages		12 VDC - 24 VDC ± 10%			
Power rating		19.2 W (12 VDC - 24 VDC)			
Weight		0.135 kg (0.30 lb)	0.170 kg (0.37 lb)	0.230 kg (0.51 lb)	0.315 kg (0.69 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

Normally open configuration



Normally closed configuration

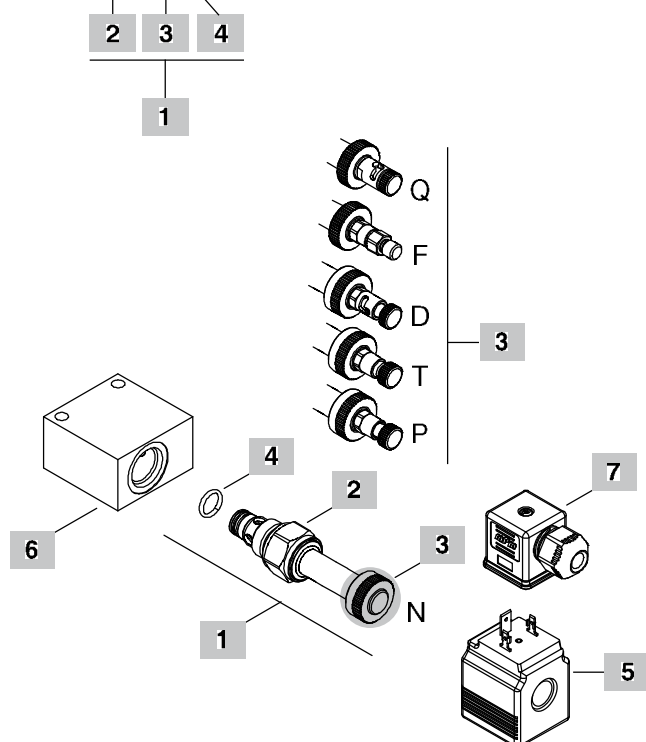


Valve type		A		B				
		mm	in	mm	in			
EC08M/	10NB	28	1.10	67.2	2.64	24	30	22
	20NB	28	1.10	63.3	2.49	24	30	22
EC10M/	10NB	32.3	1.27	66.9	2.63	27	50	37
	20NB	32.3	1.27	63	2.48	27	50	37
EC12M/	10NB	45	1.77	61.1	2.40	32	80	59
	20NB	45	1.77	57.2	2.25	32	80	59
EC16M/	10NB	46	1.81	61.2	2.41	38	80	59
	20NB	46	1.81	57.3	2.26	38	80	59

For dimensions with different type of emergency see page 213

Ordering codes and description composition

EC08M/10 NB



1 Cartucce

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EC08M/10NB	0EC08002031	Normally open (N.O.) without emergency
EC08M/10PB	0EC08002033	(N.O.) push button emergency
EC08M/10TB	0EC08002034	(N.O.) screw type emergency
EC08M/10DB	0EC08002035	(N.O.) push type with detent emergency
EC08M/20NB	0EC08002032	Normally closed (N.C.) without emergency
EC08M/20FB	0EC08002036	(N.C.) pull button emergency
EC08M/20TB	0EC08002037	(N.C.) screw type emergency
EC08M/20QB	0EC08002038	(N.C.) pull type with detent emergency
SAE cavity 10/2		
EC10M/10NB	0EC10002012	Normally open (N.O.) without emergency
EC10M/10PB	0EC10002014	(N.O.) push button emergency
EC10M/10TB	0EC10002015	(N.O.) screw type emergency
EC10M/10DB	0EC10002016	(N.O.) push type with detent emergency
EC10M/20NB	0EC10002013	Normally closed (N.C.) without emergency
EC10M/20FB	0EC10002017	(N.C.) pull button emergency
EC10M/20TB	0EC10002018	(N.C.) screw type emergency
EC10M/20QB	0EC10002019	(N.C.) pull type with detent emergency
SAE cavity 12/2		
EC12M/10NB	0EC12002007	Normally open (N.O.) without emergency
EC12M/10PB	0EC12002009	(N.O.) push button emergency
EC12M/10TB	0EC12002010	(N.O.) screw type emergency
EC12M/10DB	0EC12002011	(N.O.) push type with detent emergency
EC12M/20NB	0EC12002008	Normally closed (N.C.) without emergency
EC12M/20FB	0EC12002012	(N.C.) pull button emergency
EC12M/20TB	0EC12002013	(N.C.) screw type emergency
EC12M/20QB	0EC12002014	(N.C.) pull type with detent emergency
SAE cavity 16/2		
EC16M/10NB	0EC16002020	Normally open (N.O.) without emergency
EC16M/10PB	0EC16002022	(N.O.) push button emergency
EC16M/10TB	0EC16002023	(N.O.) screw type emergency
EC16M/10DB	0EC16002024	(N.O.) push type with detent emergency
EC16M/20NB	0EC16002021	Normally closed (N.C.) without emergency
EC16M/20FB	0EC16002025	(N.C.) pull button emergency
EC16M/20TB	0EC16002026	(N.C.) screw type emergency
EC16M/20QB	0EC16002027	(N.C.) pull type with detent emergency

2 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
P	Push button type (N.O.)
T	Screw type
D	Push type with detent (N.O.)
F	Pull button type (N.C.)
Q	Pull type with detent (N.C.)

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

5 Coil

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 3/8	3CC0820C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 10/2-G 3/8	3CC1020C11	Aluminium body for cavity 10 valve, G3/8 std thread
SAE 12/2-G 1/2	3CC1220D11	Aluminium body for cavity 12 valve, G1/2 std thread
SAE 16/2-G 3/4	3CC1620E11	Aluminium body for cavity 16 valve, G3/4 std thread

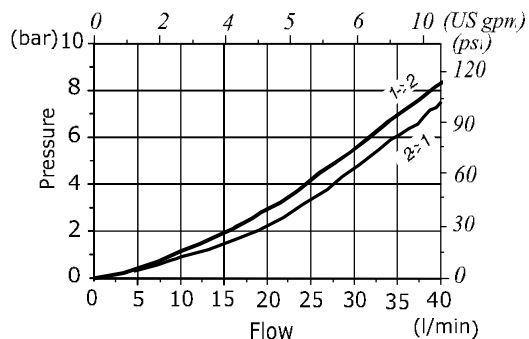
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connettore

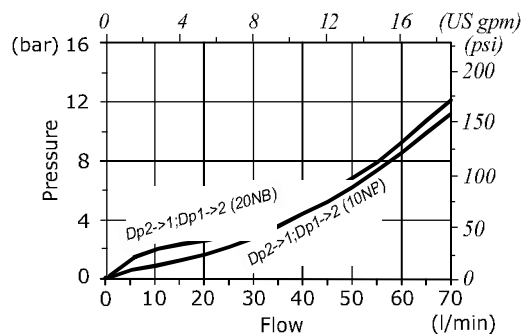
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

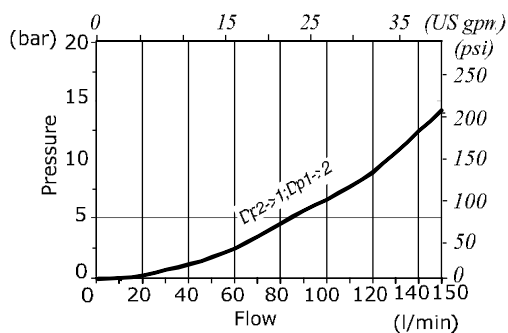
EC08M/10NB - EC08M/20N
pressure drop vs. flow



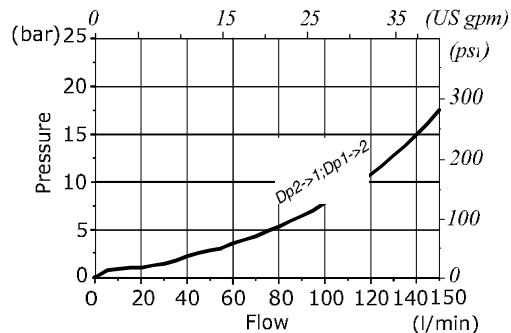
EC10M/10NB - EC10M/20NB
pressure drop vs. flow



EC12M/10NB - EC16M/10NB
pressure drop vs. flow



EC12M/20NB - EC16M/20NB
pressure drop vs. flow





EF..M type

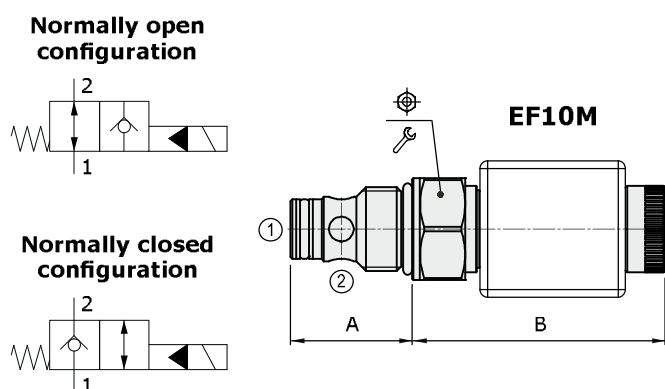
directional solenoid valves - 2 ways / 2 positions

- Pilot operated
- Poppet type
- Oil leakage free from port 1 to port 2
- Normally open and closed configurations
- From SAE08 to SAE16 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

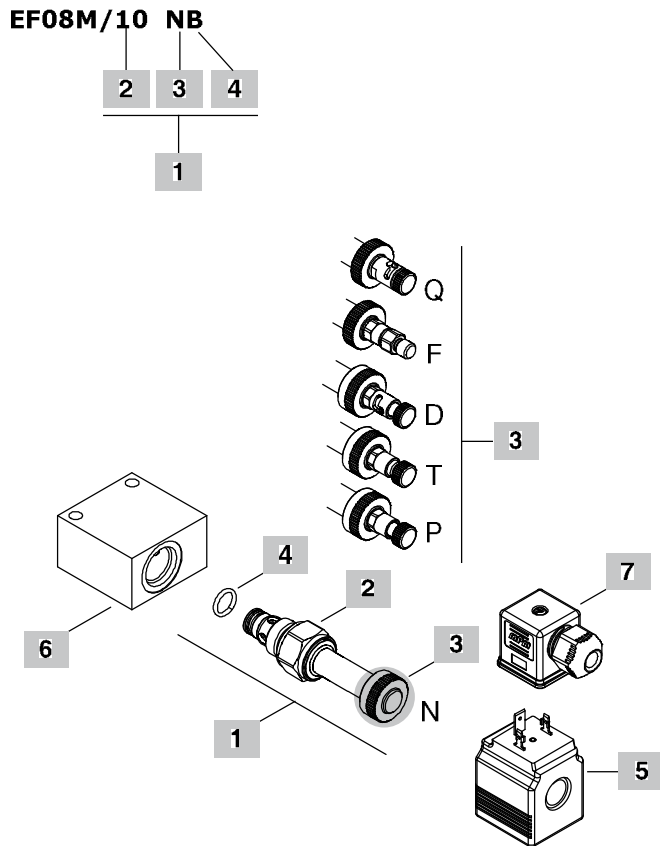
		EF08M	EF10M	EF12M	EF16M
Nominal flow		40 l/min (10.5 US gpm)	70 l/min (18.5 US gpm)	150 l/min (40 US gpn.)	150 l/min (40 US gpm)
Max. pressure		380 bar (5500 psi)			
Oil leakage	at 210 bar (3050 psi)	0.50 cm ³ /min (0.030 in ³ /min)	0.50 cm ³ /min (0.030 in ³ /min)	0.50 cm ³ /min (0.030 in ³ /min)	0.50 cm ³ /min (0.030 in ³ /min)
Fluid		mineral based oil			
Viscosity		10-200 cSt			
Max level of contamination		18/16/13 ISO4406			
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)			
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)			
Cavity		SAE 08/2	SAE 10/2	SAE 12/2	SAE 16/2
Coil type*		BER			
Nominal voltages		12 VDC - 24 VDC ± 10%			
Power rating		22.8 W (12 VDC) - 22.5 W (24 VDC)			
Weight		0.135 kg (0.30 lb)	0.170 kg (0.37 lb)	0.230 kg (0.51 lb)	0.315 kg (0.69 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.



Valve type	A		B				Nm	lbft
	mm	in	mm	in				
EF08M/	10NB	28	1.10	67.2	2.64	24	30	22
	20NB	28	1.10	63.3	2.49	24	30	22
EF10M/	10NB	32.3	1.27	66.9	2.63	27	50	37
	20NB	32.3	1.27	63	2.48	27	50	37
EF12M/	10NB	45	1.77	61.1	2.40	32	80	59
	20NB	45	1.77	57.2	2.25	32	80	59
EF16M/	10NB	46	1.81	61.2	2.41	38	80	59
	20NB	46	1.81	57.3	2.26	38	80	59

For dimensions with different type of emergency see page 213

Ordering codes and description composition

2 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
P	Push button type (N.O.)
T	Screw type
D	Push type with detent (N.O.)
F	Pull button type (N.C.)
Q	Pull type with detent (N.C.)

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

1 Cartucce

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EF08M/10NB	0EF08002000	Normally open (N.O.) without emergency
EF08M/10PB	0EF08002002	(N.O.) push button emergency
EF08M/10TB	0EF08002003	(N.O.) screw type emergency
EF08M/10DB	0EF08002004	(N.O.) push type with detent emergency
EF08M/20NB	0EF08002001	Normally closed (N.C.) without emergency
EF08M/20FB	0EF08002005	(N.C.) pull button emergency
EF08M/20TB	0EF08002006	(N.C.) screw type emergency
EF08M/20QB	0EF08002007	(N.C.) pull type with detent emergency
SAE cavity 10/2		
EF10M/10NB	0EF10002000	Normally open (N.O.) without emergency
EF10M/10PB	0EF10002002	(N.O.) push button emergency
EF10M/10TB	0EF10002003	(N.O.) screw type emergency
EF10M/10DB	0EF10002004	(N.O.) push type with detent emergency
EF10M/20NB	0EF10002001	Normally closed (N.C.) without emergency
EF10M/20FB	0EF10002005	(N.C.) pull button emergency
EF10M/20TB	0EF10002006	(N.C.) screw type emergency
EF10M/20QB	0EF10002007	(N.C.) pull type with detent emergency
SAE cavity 12/2		
EF12M/10NB	0EF12002000	Normally open (N.O.) without emergency
EF12M/10PB	0EF12002002	(N.O.) push button emergency
EF12M/10TB	0EF12002003	(N.O.) screw type emergency
EF12M/10DB	0EF12002004	(N.O.) push type with detent emergency
EF12M/20NB	0EF12002001	Normally closed (N.C.) without emergency
EF12M/20FB	0EF12002005	(N.C.) pull button emergency
EF12M/20TB	0EF12002006	(N.C.) screw type emergency
EF12M/20QB	0EF12002007	(N.C.) pull type with detent emergency
SAE cavity 16/2		
EF16M/10NB	0EF16002000	Normally open (N.O.) without emergency
EF16M/10PB	0EF16002002	(N.O.) push button emergency
EF16M/10TB	0EF16002003	(N.O.) screw type emergency
EF16M/10DB	0EF16002004	(N.O.) push type with detent emergency
EF16M/20NB	0EF16002001	Normally closed (N.C.) without emergency
EF16M/20FB	0EF16002005	(N.C.) pull button emergency
EF16M/20TB	0EF16002006	(N.C.) screw type emergency
EF16M/20QB	0EF16002007	(N.C.) pull type with detent emergency

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 3/8	3CC0820C11	Aluminium body for cavity 08 valve, G 3/8 std thread
SAE 10/2-G 3/8	3CC1020C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE 12/2-G 1/2	3CC1220D11	Aluminium body for cavity 12 valve, G 1/2 std thread
SAE 16/2-G 3/4	3CC1620E11	Aluminium body for cavity 16 valve, G 3/4 std thread

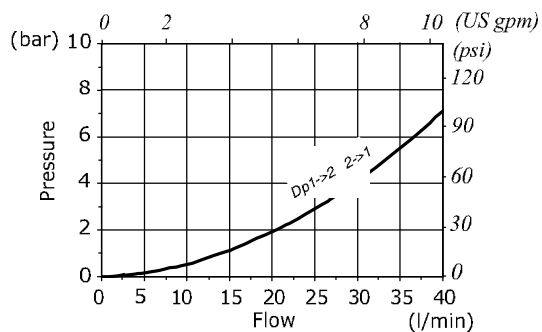
Note: aluminium body can stand up to 210 bar (3050 psi)
 For steel bodies or different threading see from page 215

7 Connector

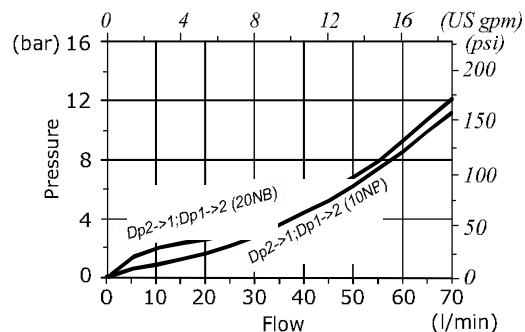
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

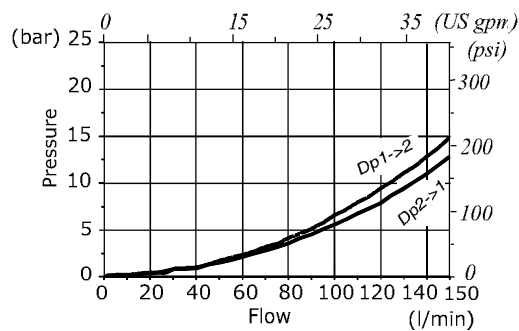
EF08M/10NB - EF08M/20NB
pressure drop vs. flow



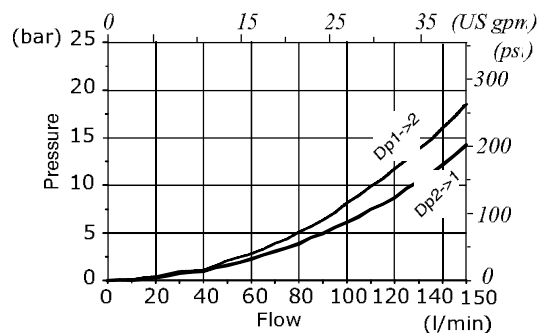
EF10M/10NB - EF10M/20NB
pressure drop vs. flow



EF12M/10NB - EF16M/10NB
pressure drop vs. flow



EF12M/20NB - EF16M/20NB
pressure drop vs. flow





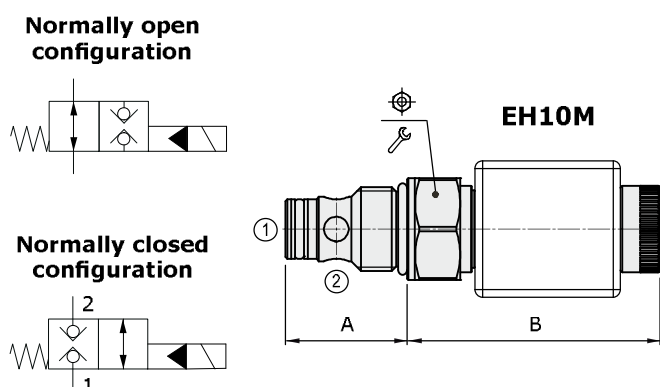
EH..M type directional solenoid valves - 2 ways / 2 positions

- Pilot operated
- Poppet type
- With check in both directions
- Normally open and closed configurations
- From SAE08 to SAE16 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		EH08M	EH10M	EH12M	EH16M
Nominal flow		40 l/min (10.5 US gpm)	70 l/min (18.5 US gpm)	150 l/min (40 US gpm)	150 l/min (40 US gpm)
Max. pressure		380 bar (5500 psi)	380 bar (5500 psi)	350 bar (5100 psi)	380 bar (5500 psi)
Oil leakage	at 210 bar (3050 psi)	0.50 cm³/min (0.030 in²/min)	0.50 cm³/min (0.030 in²/min)	1 cm³/min (0.061 in²/min)	1 cm³/min (0.061 in²/min)
Fluid		mineral based oil			
Viscosity		10-200 cSt			
Max level of contamination		18/16/13 ISO4406			
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)			
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)			
Cavity		SAE 08/2	SAE 10/2	SAE 12/2	SAE 16/2
Coil type*		BER			
Nominal voltages		12 VDC - 24 VDC ± 10%			
Power rating		22.8 W (12 VDC) - 22.5 W (24 VDC)			
Weight		0.135 kg (0.30 lb)	0.170 kg (0.37 lb)	0.230 kg (0.51 lb)	0.315 kg (0.69 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

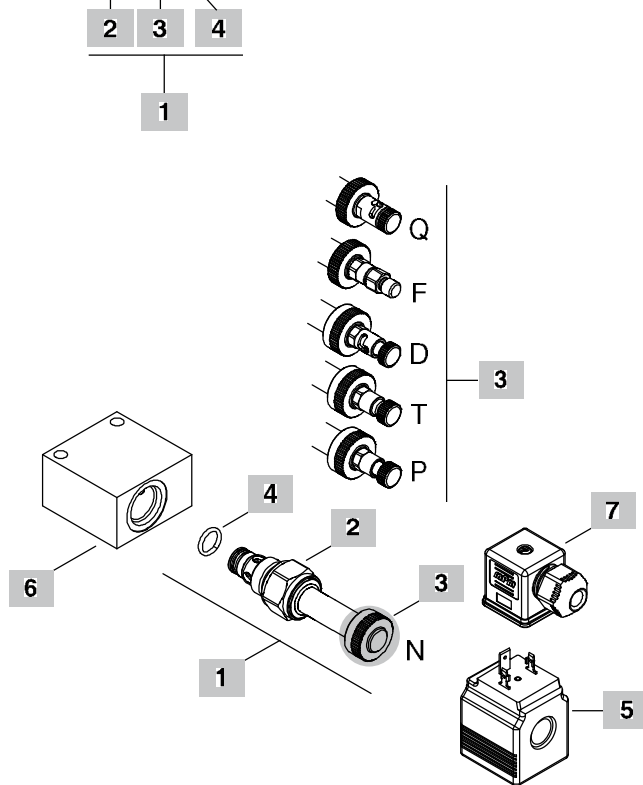


Valve type	A		B				Nm	lbft
	mm	in	mm	in				
EH08M/	10NB	28	1.10	67.2	2.64	24	30	22
	20NB	28	1.10	63.3	2.49	24	30	22
EH10M/	10NB	32.3	1.27	66.9	2.63	27	50	37
	20NB	32.3	1.27	63	2.48	27	50	37
EH12M/	10NB	45	1.77	61.1	2.40	32	80	59
	20NB	45	1.77	57.2	2.25	32	80	59
EH16M/	10NB	46	1.81	61.2	2.41	38	80	59
	20NB	46	1.81	57.3	2.26	38	80	59

For dimensions with different type of emergency see page 213

Ordering codes and description composition

EH08M/10 NB



1 Cartucce

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EH08M/10NB	0EH08002000	Normally open (N.O.) without emergency
EH08M/10PB	0EH08002002	(N.O.) push button emergency
EH08M/10TB	0EH08002003	(N.O.) screw type emergency
EH08M/10DB	0EH08002004	(N.O.) push type with detent emergency
EH08M/20NB	0EH08002001	Normally closed (N.C.) without emergency
EH08M/20FB	0EH08002005	(N.C.) pull button emergency
EH08M/20TB	0EH08002006	(N.C.) screw type emergency
EH08M/20QB	0EH08002007	(N.C.) pull type with detent emergency
SAE cavity 10/2		
EH10M/10NB	0EH10002000	Normally open (N.O.) without emergency
EH10M/10PB	0EH10002002	(N.O.) push button emergency
EH10M/10TB	0EH10002003	(N.O.) screw type emergency
EH10M/10DB	0EH10002004	(N.O.) push type with detent emergency
EH10M/20NB	0EH10002001	Normally closed (N.C.) without emergency
EH10M/20FB	0EH10002005	(N.C.) pull button emergency
EH10M/20TB	0EH10002006	(N.C.) screw type emergency
EH10M/20QB	0EH10002007	(N.C.) pull type with detent emergency
SAE cavity 12/2		
EH12M/10NB	0EH12002000	Normally open (N.O.) without emergency
EH12M/10PB	0EH12002002	(N.O.) push button emergency
EH12M/10TB	0EH12002003	(N.O.) screw type emergency
EH12M/10DB	0EH12002004	(N.O.) push type with detent emergency
EH12M/20NB	0EH12002001	Normally closed (N.C.) without emergency
EH12M/20FB	0EH12002005	(N.C.) pull button emergency
EH12M/20TB	0EH12002006	(N.C.) screw type emergency
EH12M/20QB	0EH12002007	(N.C.) pull type with detent emergency
SAE cavity 16/2		
EH16M/10NB	0EH16002000	Normally open (N.O.) without emergency
EH16M/10PB	0EH16002002	(N.O.) push button emergency
EH16M/10TB	0EH16002003	(N.O.) screw type emergency
EH16M/10DB	0EH16002004	(N.O.) push type with detent emergency
EH16M/20NB	0EH16002001	Normally closed (N.C.) without emergency
EH16M/20FB	0EH16002005	(N.C.) pull button emergency
EH16M/20TB	0EH16002006	(N.C.) screw type emergency
EH16M/20QB	0EH16002007	(N.C.) pull type with detent emergency

2 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
P	Push button type (N.O.)
T	Screw type
D	Push type with detent (N.O.)
F	Pull button type (N.C.)
Q	Pull type with detent (N.C.)

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 3/8	3CC0820C11	Aluminium body for cavity 08 valve, G 3/8 std thread
SAE 10/2-G 3/8	3CC1020C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE 12/2-G 1/2	3CC1220D11	Aluminium body for cavity 12 valve, G 1/2 std thread
SAE 16/2-G 3/4	3CC1620E11	Aluminium body for cavity 16 valve, G 3/4 std thread

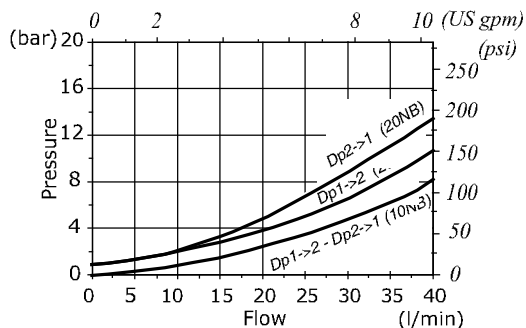
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connector

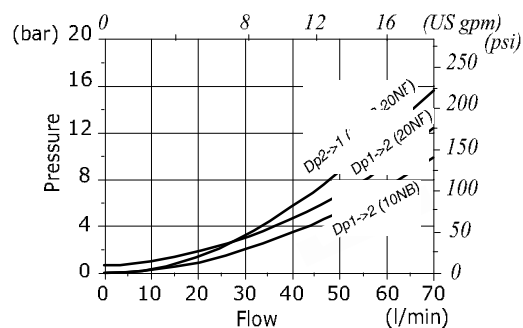
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

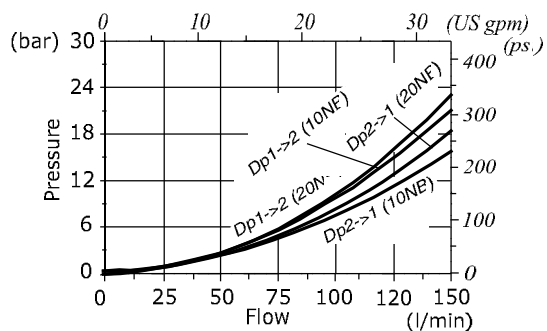
EH08M/10NB - EH08M/20NB
pressure drop vs. flow



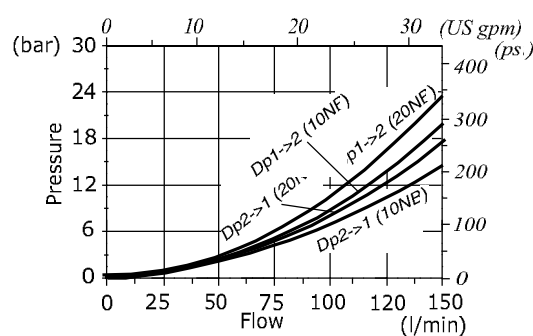
EH10M/10NB - EH10M/20NB
pressure drop vs. flow



EH12M/10NB - EH12M/20NB
pressure drop vs. flow



EH16M/10NB - EH16M/20NB
pressure drop vs. flow





EW... type directional solenoid valves - 2 ways / 2 positions

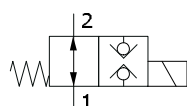
- Direct acting
- Poppet type
- Normally open and closed configurations
- With check in both directions
- From SAE08 to SAE12 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

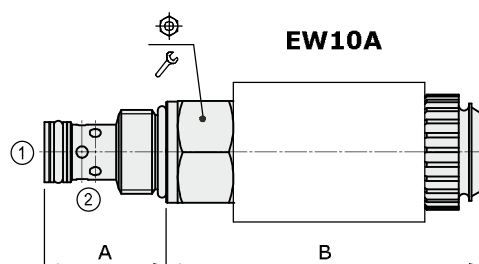
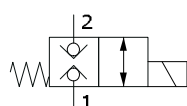
	EW08A	EW10A-EW10B	EW12B-EW12C
Nominal flow	10 l/min (2.64 US gpm)	25-30 l/min (6.6 - 7.9 US gpm)	50 l/min (13.2 US gpm)
Max. pressure		210 bar (3050 psi)	
Oil leakage	at 210 bar (3050 psi) 0.25 cm ³ /min (0.015 in ³ /min)	0.25 cm ³ /min (0.015 in ³ /min)	0.25 cm ³ /min (0.015 in ³ /min)
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamin.		18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 08/2	SAE 10/2	SAE 12/2
Coil type*	BT	BIN 19	BIN 22
Nominal voltages		12 VDC - 24 VDC ± 10%	
Power rating	21 W	29 W (12 VDC) - 31 W (24 VDC)	32.6 W (12 VDC) - 31 W (24 VDC)
Weight	0.16 kg (0.35 lb)	0.25 kg (0.55 lb)	0.44 kg (0.97 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

Normally open configuration

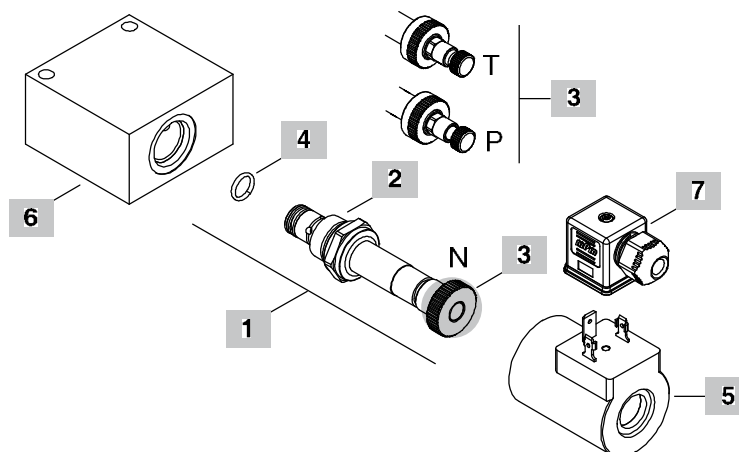
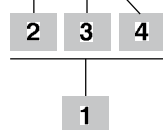


Normally closed configuration



Valve type	A		B				
	mm	in	mm	in			
EW08A/10NB	28.5	1.12	65.7	2.59	24	30	22
EW08A/20NB	28.5	1.12	70.9	2.79	24	30	22
EW10A/20PB	32.3	1.27	83.3	3.28	27	50	37
EW10B/10NB	32.3	1.27	99.8	3.93	27	50	37
EW12C/20PB	46	1.81	98.7	3.89	32	80	59
EW12B/10NB	46	1.81	102.8	4.05	32	80	59

For dimensions with different type of emergency see page 213

Ordering codes and description composition
EW08A/10 NB

4 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EW08A/10NB	0EW08002001	Normally open configuration (N.O.) without emergency
EW08A/10TB	0EW08002003	Normally open configuration (N.O.) with screw type emergency
EW08A/20NB	0EW08002006	Normally closed configuration (N.C.) Without emergency
EW08A/20PB	0EW08002004	Normally closed configuration (N.C.) with push button emergency
EW08A/20TB	0EW08002002	Normally open configuration (N.C.) with screw type emergency
SAE cavity 10/2		
EW10B/10NB	0EW10002004	Normally open configuration (N.O.) without emergency
EW10A/20PB	0EW10002002	Normally closed configuration (N.C.) with push button emergency
SAE cavity 12/2		
EW12B/10NB	0EW12002005	Normally open configuration (N.O.) without emergency
EW12C/20PB	0EW12002003	Normally closed configuration (N.C.) with push button emergency

1 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

2 Emergency

TYPE	DESCRIPTION
N	Without emergency
T	Screw type
P	Push button type (N.C.)

Note: emergency type depends on cavity type. See chapter 4 for availability.

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BT 12VDC	4SL3000120	12VDC-ISO4400 coil for EW08A
BIN 19 VDC	4SL6000121	12VDC-ISO4400 coil for EW10A-EW10B
BIN 22 VDC	4SL6000128	12VDC-ISO4400 coil for EW12A-EW12C

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 3/8	3CC0820C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 10/2-G 3/8	3CC1020C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 12/2-G 1/2	3CC1220D11	Aluminium body for cavity 12 valve, G1/2 std thread

For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

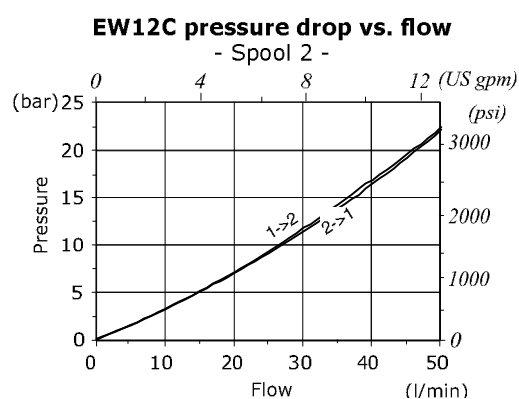
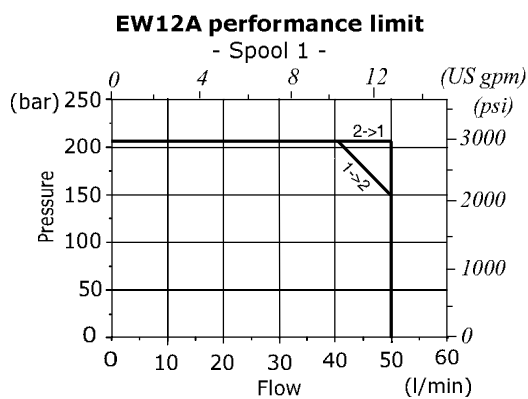
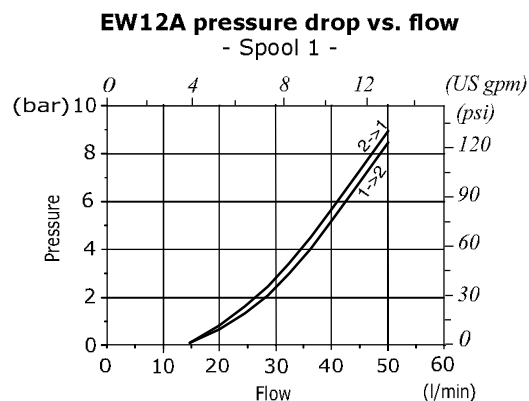
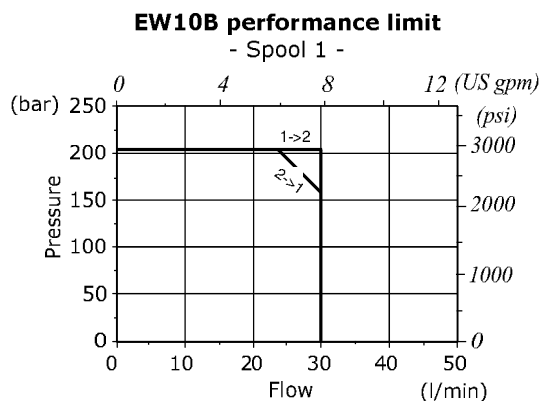
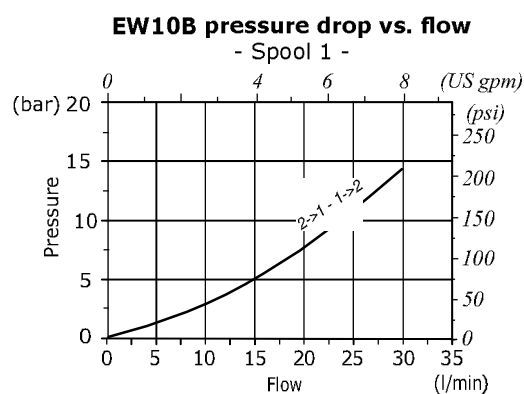
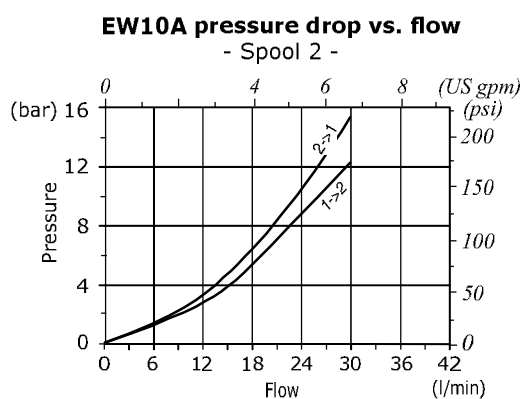
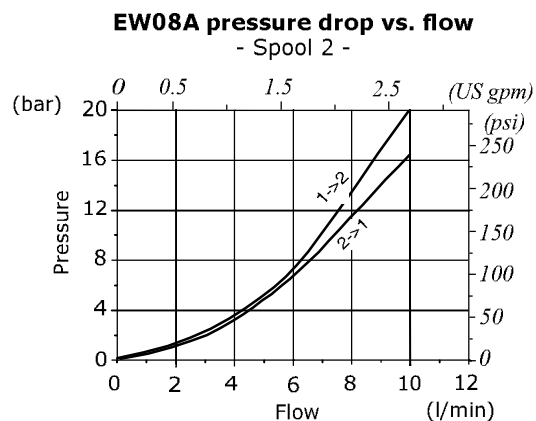
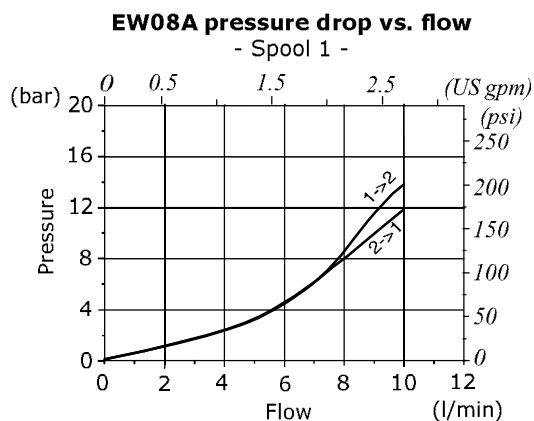
For complete connectors list see from page 206

Directional control valves

Directional solenoid valves - 2 ways / 2 positions

EW... type

Rating diagrams





EW..M type directional solenoid valves - 2 ways / 2 positions

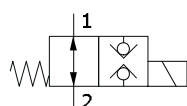
- Direct acting
- Poppet type
- Normally open and closed configurations
- With check in both directions
- From SAE08 to SAE10 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

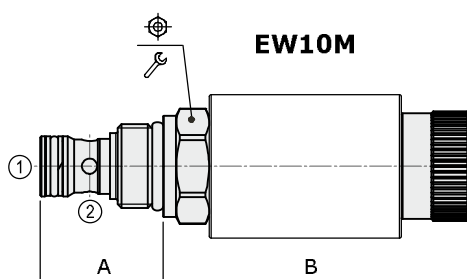
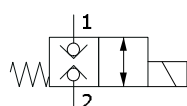
	EW08M	EW10M
Nominal flow	20 l/min (5.28 US gpm)	40 l/min (10.6 US gpm)
Max. pressure	250 bar (3600 psi)	350 bar (5075 psi)
Oil leakage	at 210 bar (3050 psi) 0.25 cm ³ /min (0.015 in ³ /min)	0.25 cm ³ /min (0.015 in ³ /min)
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 08/2	SAE 10/2
Coil type*	BER	BH
Nominal voltages	12 VDC - 24 VDC ± 10%	
Power rating	22.8 W (12 VDC) - 22.5 W (24 VDC)	33 W
Weight	0.15 kg (0.33 lb)	0.30 kg (0.66 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

Normally open configuration

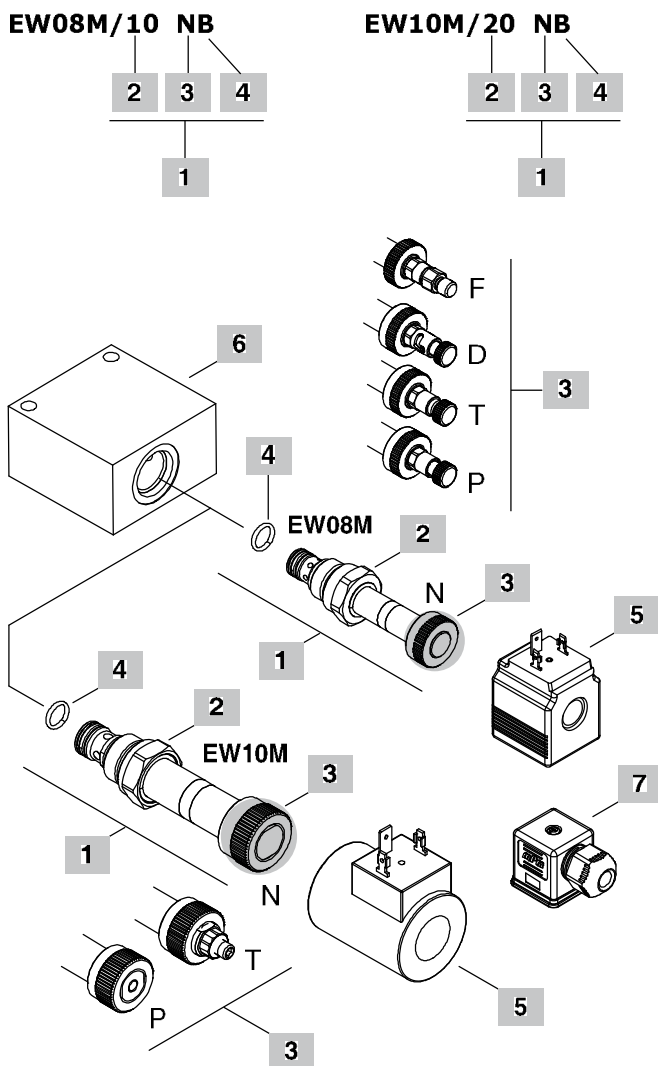


Normally closed configuration



Valve type	A		B				
	mm	in	mm	in			
EW08M/10NB	28	1.10	60.2	2.37	24	30	22
EW08M/20NB	28	1.10	62.5	2.46	24	30	22
EW10M/20NB	32.5	1.28	81.3	3.20	27	50	37

For dimensions with different type of emergency see page 213

Ordering codes and description composition

1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EW08M/10NB	0EW08002014	Normally open (N.O.) without emergency
EW08M/10FB	0EW08002015	(N.O.) pull button emergency
EW08M/10TB	0EW08002016	(N.O.) screw type emergency
EW08M/20NB	0EW08002018	Normally closed (N.C.) without emergency
EW08M/20PB	0EW08002019	(N.C.) push button emergency
EW08M/20TB	0EW08002020	(N.C.) screw type emergency
EW08M/20DB	0EW08002021	(N.C.) push type with detent emergency
SAE cavity 10/2		
EW10M/20NB	0EW10002008	Normally closed (N.C.) without emergency
EW10M/20TB	0EW10002009	(N.C.) screw type emergency
EW10M/20PB	0EW10002010	(N.C.) push button emergency

2 Spool

TIPO	DESCRIZIONE
1	Configurazione normalmente aperta
2	Configurazione normalmente chiusa

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
P	Push button type (N.C.)
T	Screw type (N.C. - N.O. for EW08M / N.C. for EW10M)
D	Push type with detent (N.C.)
F	Pull button type (N.O.)

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil for EW08M
BH 12VDC	4SLD001200	12VDC-ISO4400 coil for EW10M

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/2-G 3/8	3CC0820C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 10/2-G 3/8	3CC1020C11	Aluminium body for cavity 10 valve, G3/8 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)

For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

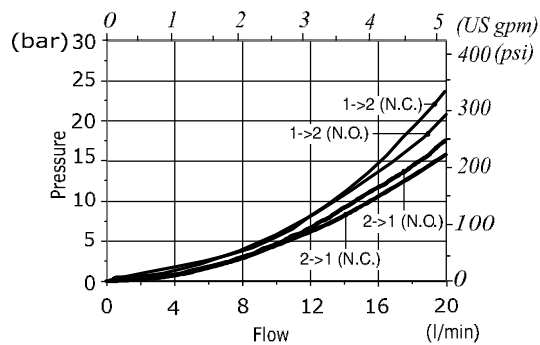
Directional control valves

Directional solenoid valves - 2 ways / 2 positions

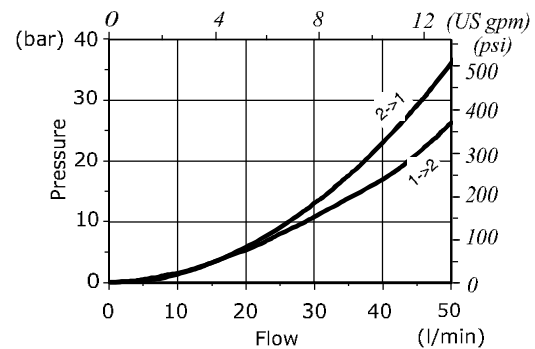
EW..M type

Rating diagrams

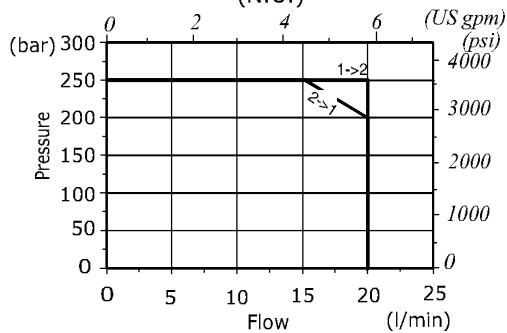
EW08M pressure drop vs. flow



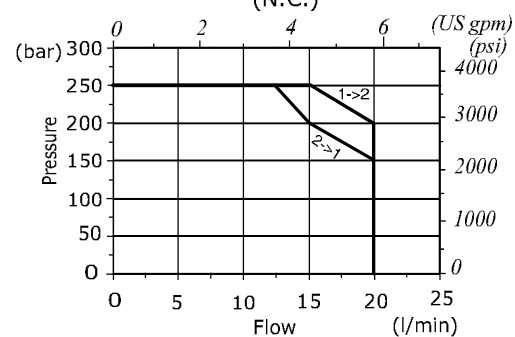
EW10M pressure drop vs. flow
(N.C.)



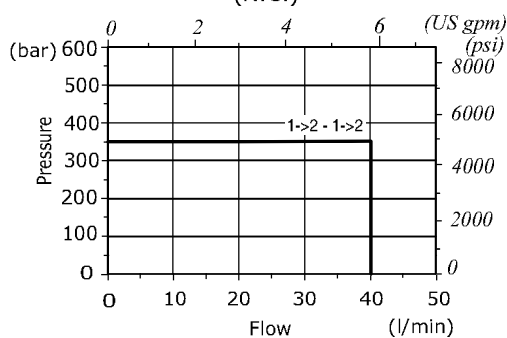
EW08M performance limit
(N.O.)



EW08M performance limit
(N.C.)



EW10M performance limit
(N.C.)





EJ08F type

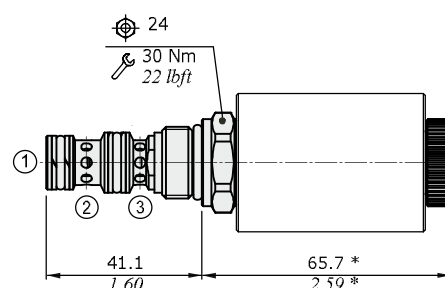
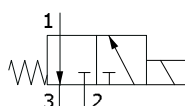
directional solenoid valve - 3 ways / 2 positions

- Direct acting
- Spool type
- Suitable for low pressure: 50 bar (725 psi)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

EJ08F		
Nominal flow		12 l/min (3.17 US gpm)
Max. pressure		50 bar (725 psi)
Oil leakage	at 50 bar (725 psi)	5 cm ³ /min (0.30 in ³ /min)
Fluid		mineral based oil
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)
Cavity		SAE 08/3
Coil type*		BT
Nominal voltages		12 VDC - 24 VDC ± 10%
Power rating		21 W
Weight		0.175 kg (0.38 lb)

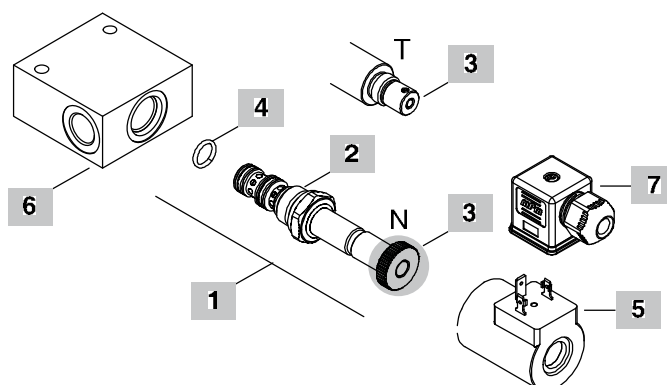
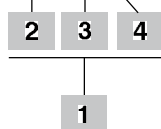
NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.



NOTE (*): dimension for configuration **EJ08F/20NB**, for dimensions with different type of emergency see page 213.

Ordering codes and description composition

EJ08F/20 NB



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
EJ08F/20NB	0EJ08002029	Without emergency
EJ08F/20TB	0EJ08002043	Screw type emergency

2 Spool

TYPE	DESCRIPTION
2	Spool 2

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
T	Screw type

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BT 12VDC	4SL3000120	12VDC-ISO4400 coil
For complete coils list see from page 206		

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G3/8 std thread

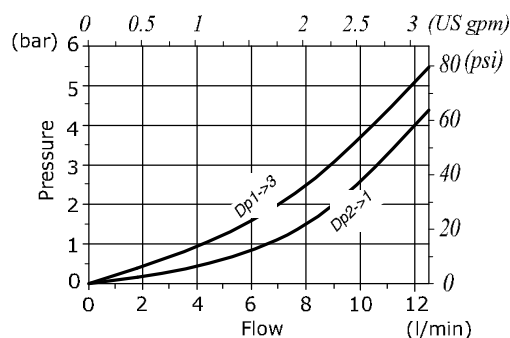
For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector
For complete connectors list see from page 206		

Rating diagrams

Pressure drop vs. flow





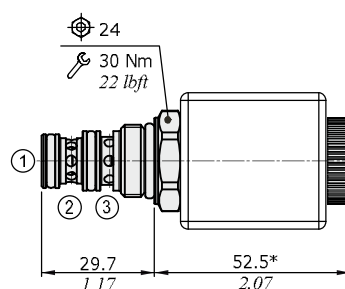
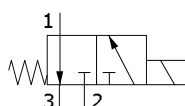
EJ8CA type directional solenoid valve - 3 ways / 2 positions

- Direct acting
- Spool type
- Suitable for low pressure: 70 bar (1015 psi)
- SAE 08/3C cavity

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

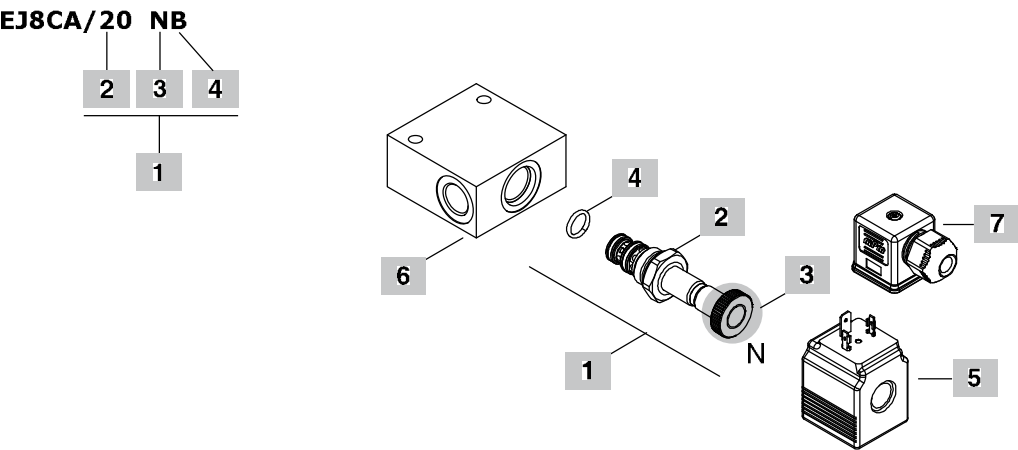
EJ8CA		
Nominal flow		10 l/min (2.64 US gpm)
Max. pressure		70 bar (1015 psi)
Oil leakage	at 70 bar (1015 psi)	20 cm ³ /min (1.22 in ³ /min)
Fluid		olio a base minerale
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)
Cavity		SAE 08/3C
Coil type ⁽¹⁾		BER
Nominal voltages		12 VDC - 24 VDC ± 10%
Power rating		22.8 W (12 VDC) - 22.5 W (24 VDC)
Weight		0.116 kg (0.26 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - ⁽¹⁾ For coils further features see from page 206.



NOTE (*): dimension for configuration
EJ8CA/20NB, for dimensions with different
type of emergency see page 213.

Ordering codes and description composition



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3C		
EJ8CA/20NB	0EJ8C002000	Without emergency

2 Spool

TYPE	DESCRIPTION
2	Spool 2

3 Emergency

TYPE	DESCRIPTION
N	Without emergency

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil
For complete coils list see from page 206		

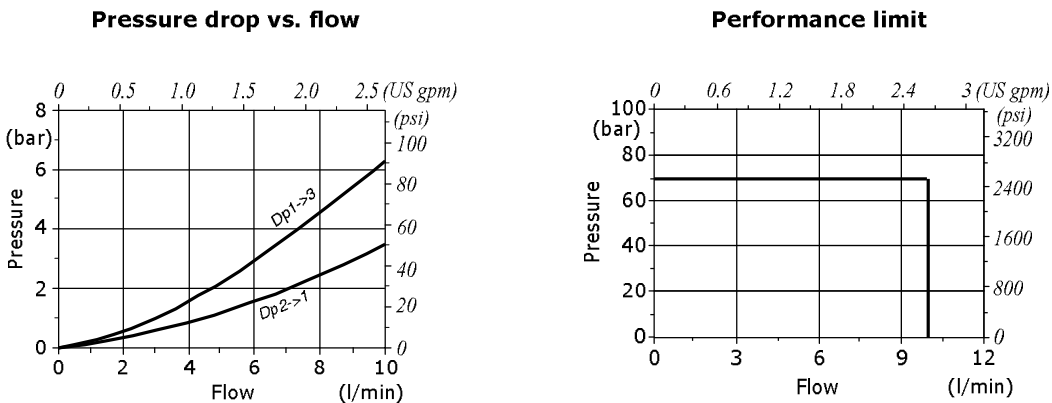
6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3C-G 3/8	3CC0833C11	Aluminium body for cavity 08C valve, G3/8 std thread
For steel bodies or different threading see from page 215		

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector
For complete connectors list see from page 206		

Rating diagrams





EJ08G type

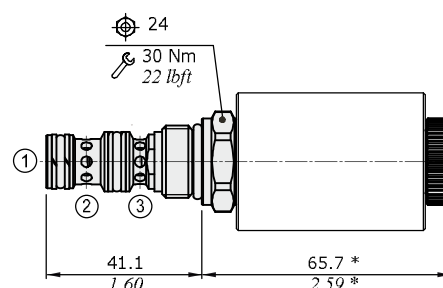
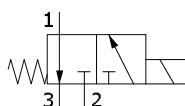
directional solenoid valve - 3 ways / 2 positions

- Direct acting
- Spool type
- Suitable for high pressure: 350 bar (5100 psi)

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

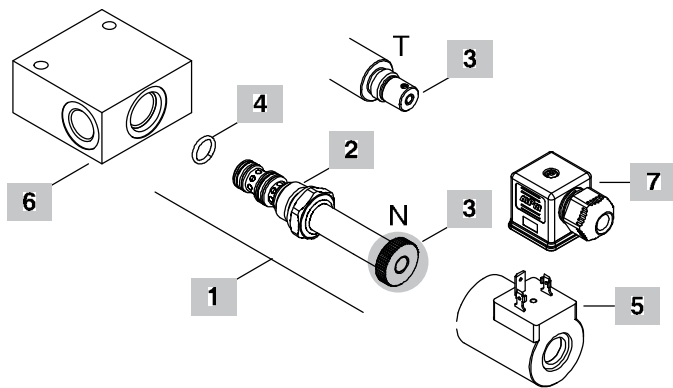
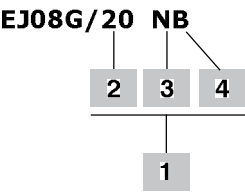
EJ08G		
Nominal flow		3 l/min (0.80 US gpm)
Max. pressure		350 bar (5100 psi)
Oil leakage	at 210 bar (3050 psi)	10 cm ³ /min (0.61 in ³ /min)
Fluid		mineral based oil
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)
Cavity		SAE 08/3
Coil type*		BT
Nominal voltages		12 VDC - 24 VDC ± 10%
Power rating		21 W
Weight		0.134 kg (0.29 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.



NOTE (*): dimension for configuration
EJ08G/20NB, for dimensions with different
type of emergency see page 213.

Ordering codes and description composition



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
EJ08G/20NB	0EJ08002035	Without emergency
EJ08G/20TB	0EJ08002042	Screw type emergency

2 Spool

TYPE	DESCRIPTION
2	Spool 2

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
T	Screw type

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BT 12VDC	4SL3000120	12VDC-ISO4400 coil

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 1/4	3CC0830B11	Aluminium body for cavity 08 valve, G1/4 std thread

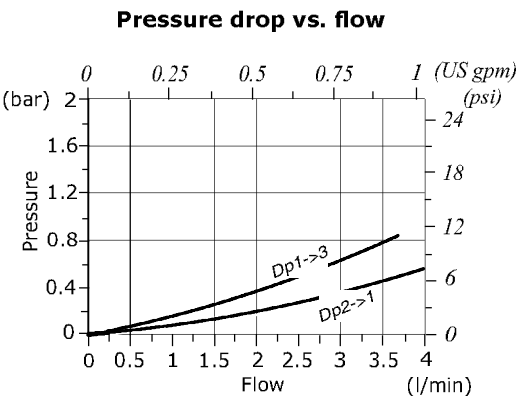
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

Rating diagrams





EJ..M type directional solenoid valve - 3 ways / 2 positions

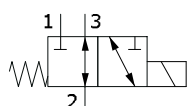
- Direct acting
- Spool type
- From SAE08 to SAE10 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

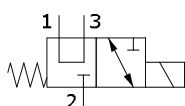
	EJ08M	EJ10M
Nominal flow	25 l/min (6.6 US gpm)	40 l/min (10.5 US gpm)
Max. pressure	250 bar (3600 psi)	250 bar (3600 psi)
Oil leakage	at 210 bar (3050 psi) 40 cm³/min (2.44 in³/min)	80 cm³/min (4.88 in³/min)
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 08/3	SAE 10/3
Coils type*	BER	BC16
Nominal voltages	12 VDC - 24 VDC ± 10%	12 VDC - 24 VDC ± 10%
Power rating	22.8 W (12 VDC) - 22.5 W (24 VDC)	26.1 W (12 VDC) - 25.9 W (24 VDC)
Weight	0.125 kg (0.27 lb)	0.300 kg (0.661 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

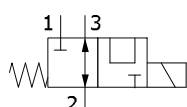
Spool 1



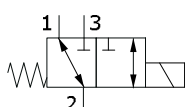
Spool 2



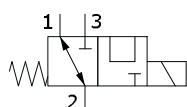
Spool 3 (only EJ08M)



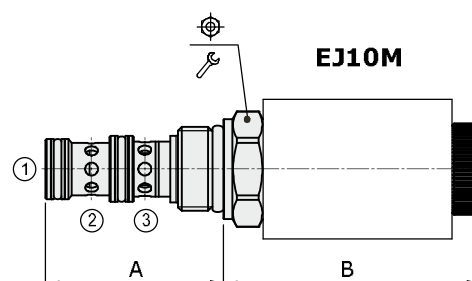
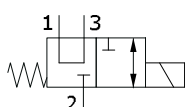
Spool 4



Spool 5



Spool 6 (only EJ10M)

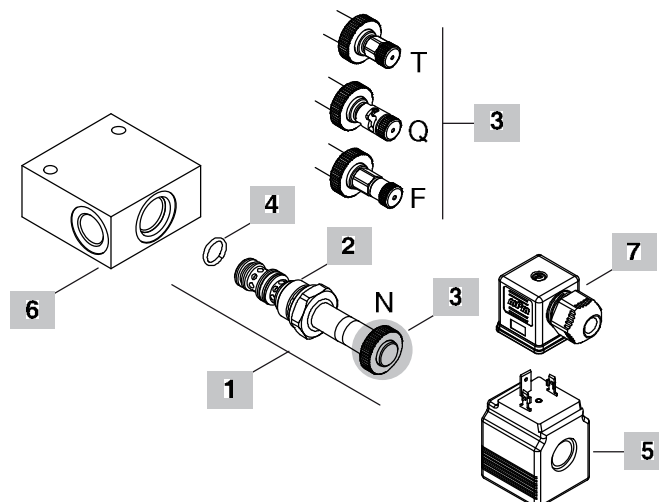
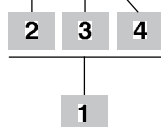


Valve type	A		B				
	mm	in	mm	in			
EJ08M/10NB	41.1	1.62	56.1	2.21	24	30	22
EJ10M/10NB	47	1.85	68	2.68	27	50	37

For dimensions with different type of emergency see page 213

Ordering codes and description composition

EJ08M/10 NB



4 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
EJ08M/10NB	0EJ08002030	Without emergency, spool 1
EJ08M/20NB	0EJ08002031	Without emergency, spool 2
EJ08M/30NB	0EJ08002032	Without emergency, spool 3
EJ08M/40NB	0EJ08002033	Without emergency, spool 4
EJ08M/50NB	0EJ08002033	Without emergency, spool 5
SAE cavity 10/3		
EJ10M/10NB	0EJ10002018	Without emergency, spool 1
EJ10M/20NB	0EJ10002019	Without emergency, spool 2
EJ10M/40NB	0EJ10002021	Without emergency, spool 3
EJ10M/50NB	0EJ10002022	Without emergency, spool 4
EJ10M/60NB	0EJ10002023	Without emergency, spool 5

1 Spool

TYPE	DESCRIPTION
1	Spool 1
2	Spool 2
3	Spool 3
4	Spool 4
5	Spool 5
6	Spool 6

2 Emergency

TYPE	DESCRIPTION
N	Without emergency
F	Pull button type
Q	Pull type with detent
T	Screw type

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil for EJ08M
BC 12VDC	4SL8000120	12VDC-ISO4400 coil for EJ10M

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G3/8 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

Directional control valves

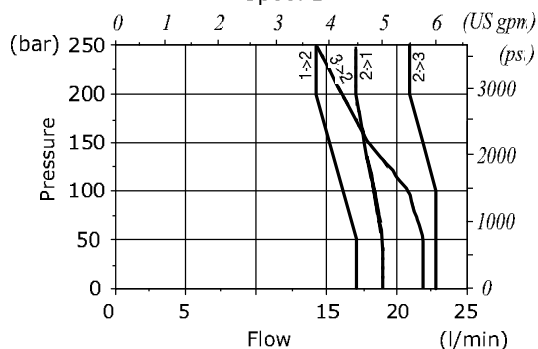
Directional solenoid valves - 3 ways / 2 positions

EJ..M type

Rating diagrams

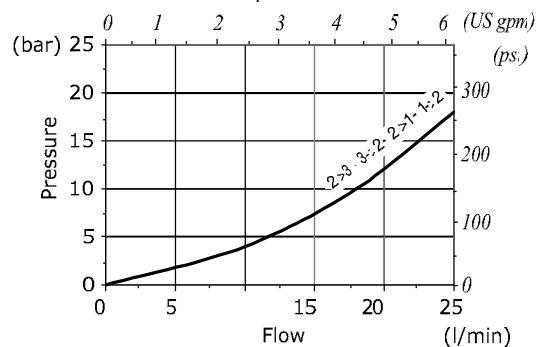
EJ08M performance limit

- Spool 1 -



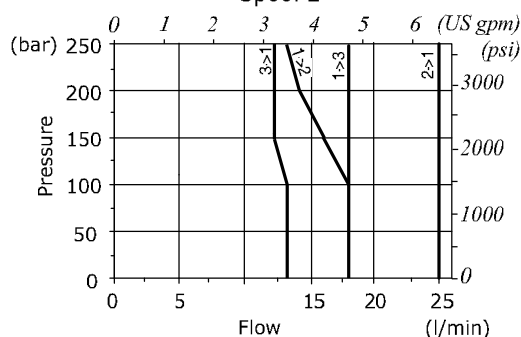
EJ08M pressure drop vs. flow

- Spool 1 -



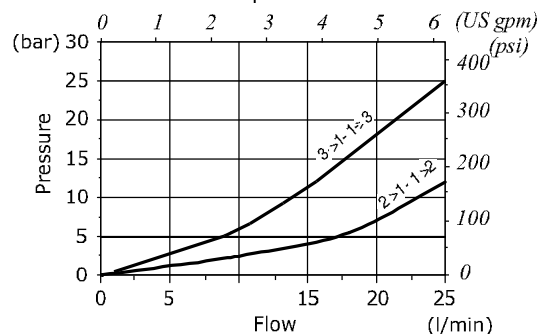
EJ08M performance limit

- Spool 2 -



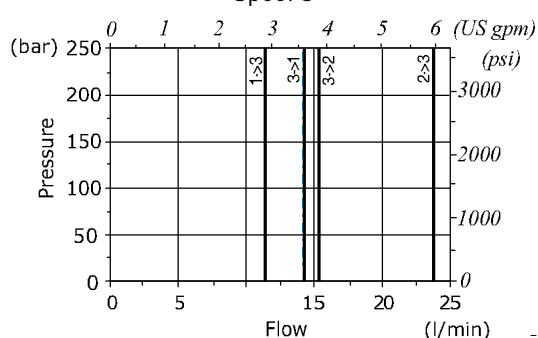
EJ08M pressure drop vs. flow

- Spool 2 -



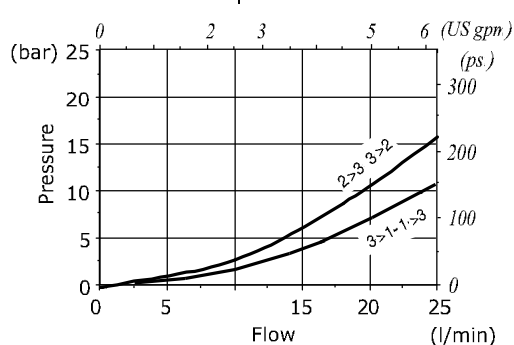
EJ08M performance limit

- Spool 3 -



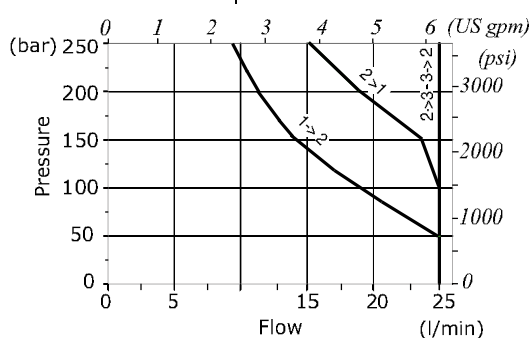
EJ08M pressure drop vs. flow

- Spool 3 -



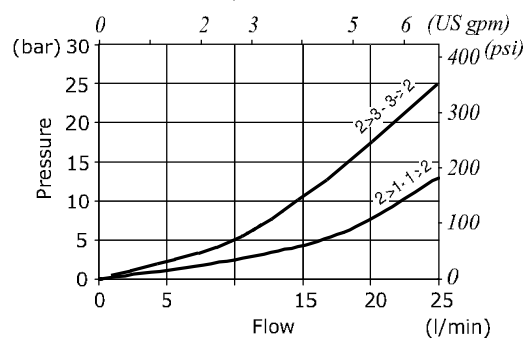
EJ08M performance limit

- Spool 4 -



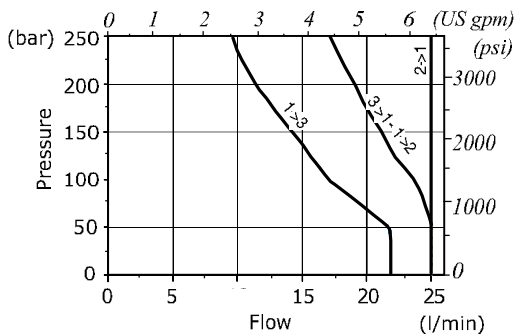
EJ08M pressure drop vs. flow

- Spool 4 -

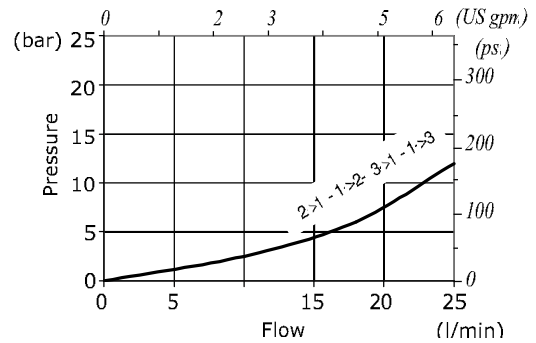


Rating diagrams

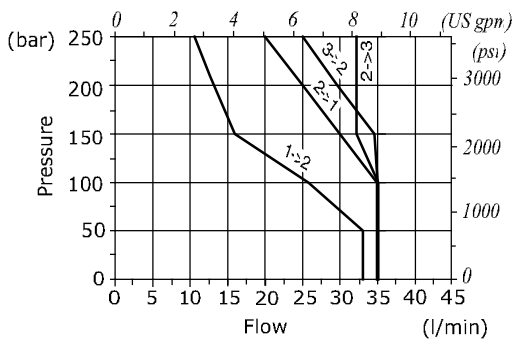
EJ08M performance limit
- Spool 5 -



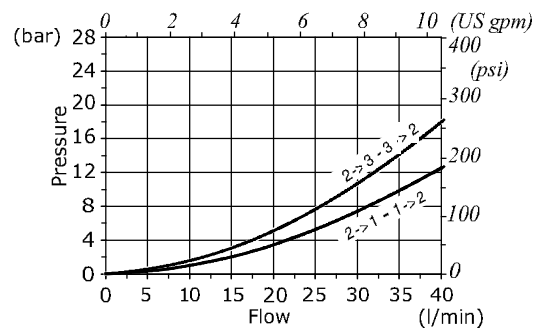
EJ08M pressure drop vs. flow
- Spool 5 -



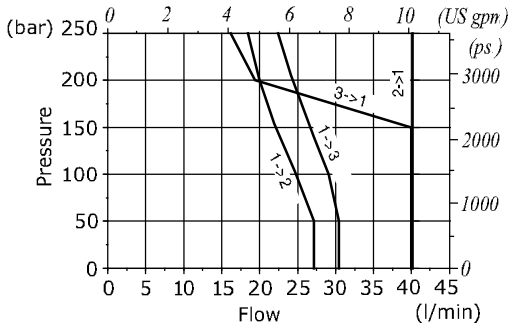
EJ10M performance limit
- Spool 1 -



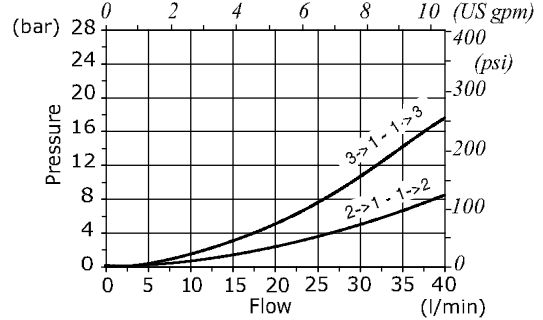
EJ10Mp pressure drop vs. flow
- Spool 1 -



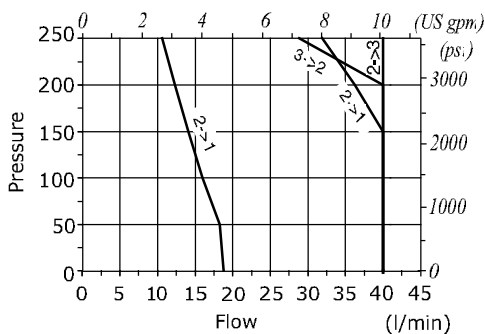
EJ10M performance limit
- Spool 2 -



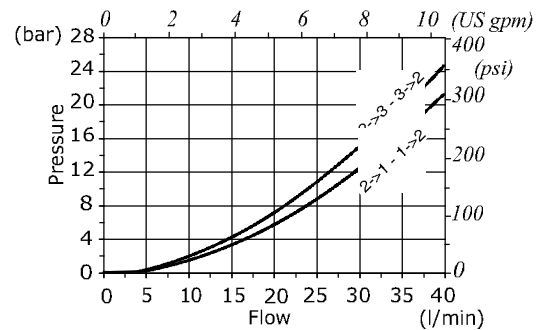
EJ10M pressure drop vs. flow
- Spool 2 -



EJ10M performance limit
- Spool 4 -

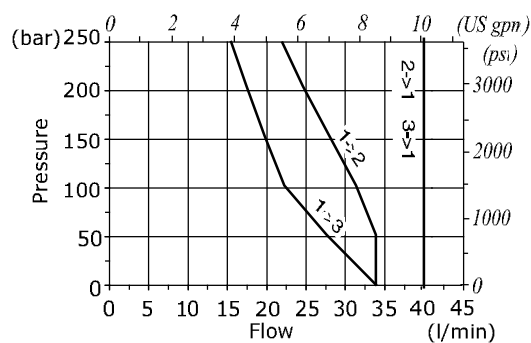


EJ10M pressure drop vs. flow
- Spool 4 -



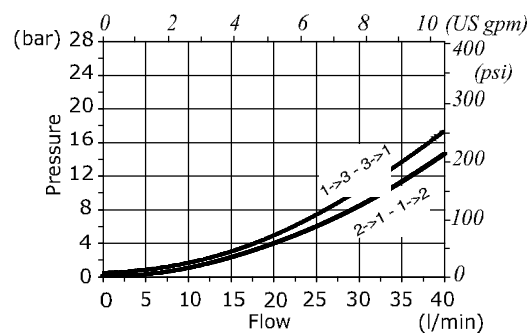
EJ10M performance limit

- Spool 5 -



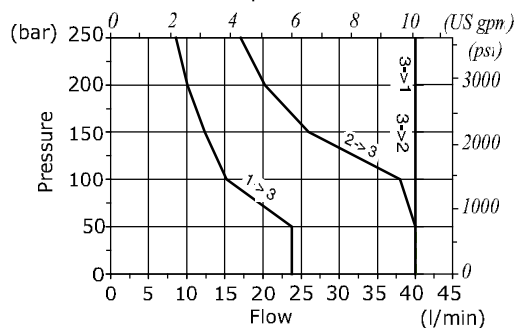
EJ10M pressure drop vs. flow

- Spool 5 -



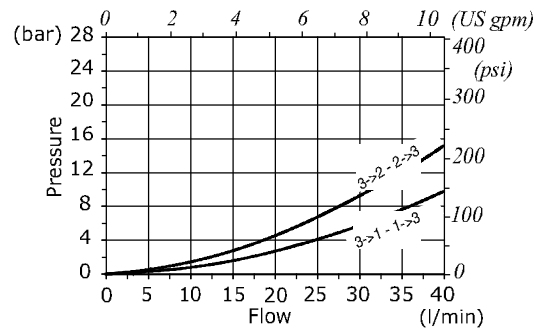
EJ10M performance limit

- Spool 6 -



EJ10M pressure drop vs. flow

- Spool 6 -





EJ12A type directional solenoid valve - 3 ways / 2 positions

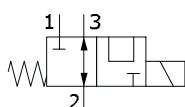
- Direct acting
- Spool type

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

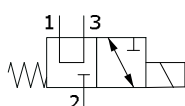
EJ12A		
Nominal flow		40 l/min (10.5 US gpm)
Max. pressure		210 bar (3050 psi)
Oil leakage	at 210 bar (3050 psi)	120 cm ³ /min (7.32 in ³ /min)
Fluid		mineral based oil
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)
Cavity		SAE 12/3
Coil type*		BIN 22
Nominal voltages		12 VDC - 24 VDC ± 10%
Power rating		32.6 W (12 VDC) - 31 W (24 VDC)
Weight		0.500 kg (1.10 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

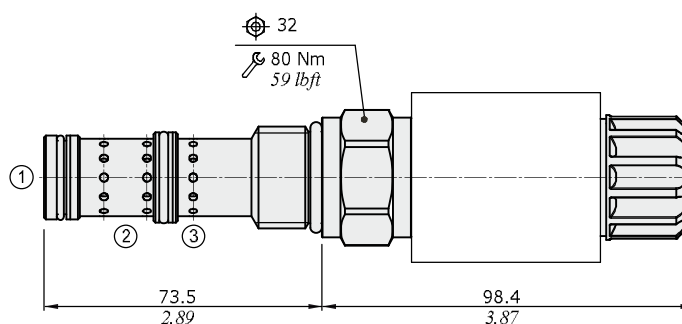
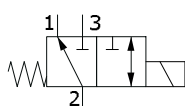
Spool 1



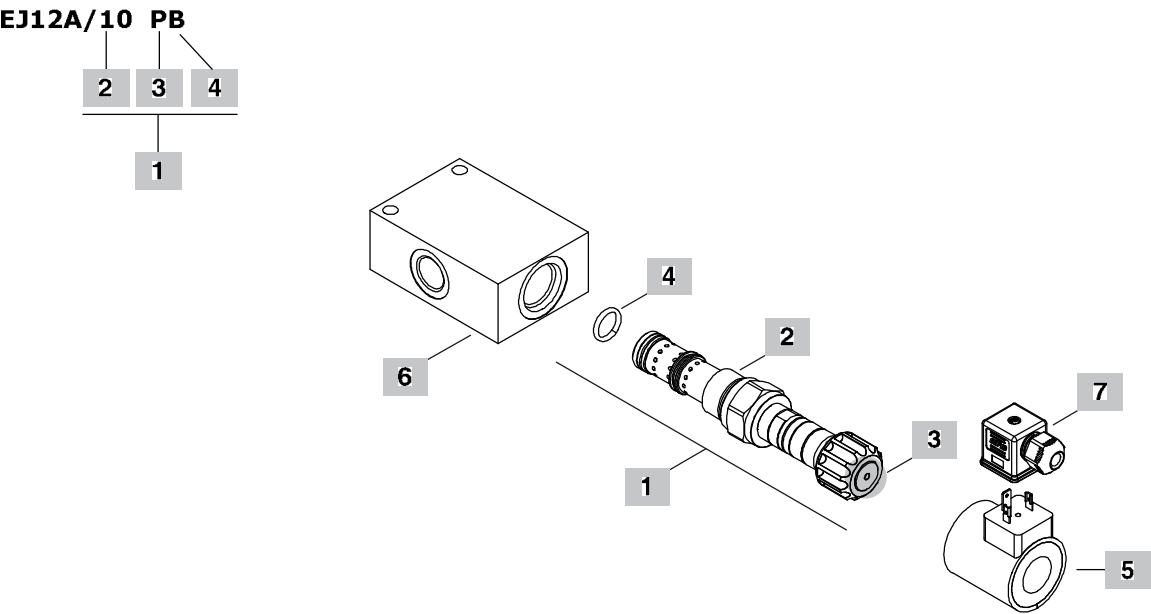
Spool 2



Spool 4



Ordering codes and description composition



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 12/3		
EJ12A/10PB	0EJ12002005	Push button emergency, spool 1
EJ12A/20PB	0EJ12002006	Push button emergency, spool 2
EJ12A/40PB	0EJ12002008	Push button emergency, spool 4

2 Spool

TYPE	DESCRIPTION
1	Spool 1
2	Spool 2
4	Spool 4

3 Emergency

TYPE	DESCRIPTION
P	Push button type

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BIN22 12VDC	4SL6000128	12VDC-ISO4400 Coil
For complete coils list see from page 206		

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 12/3-G 1/2	3CC1230D11	Aluminium body for cavity 12 valve, G1/2 std thread
For steel bodies or different threading see from page 215		

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector
For complete connectors list see from page 206		

Directional control valves

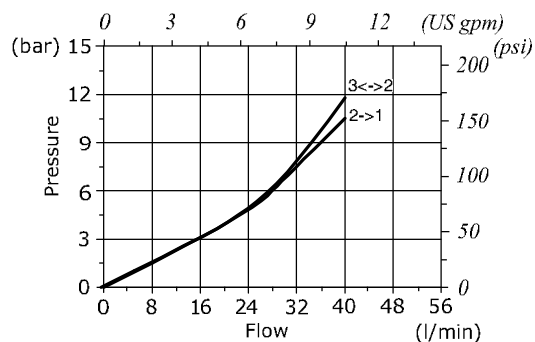
Directional solenoid valves - 3 ways / 2 positions

EJ12A type

Rating diagrams

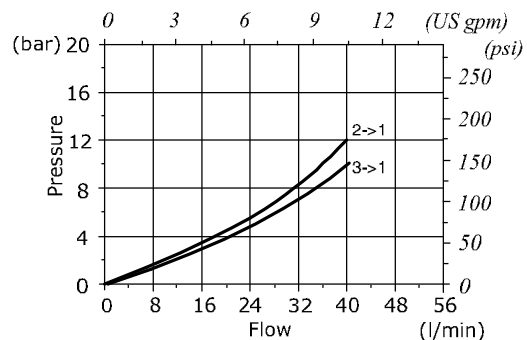
Pressure drop vs. flow

- Spool 1 -



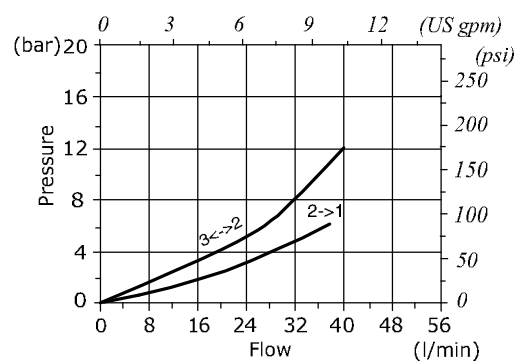
Pressure drop vs. flow

- Spool 2 -



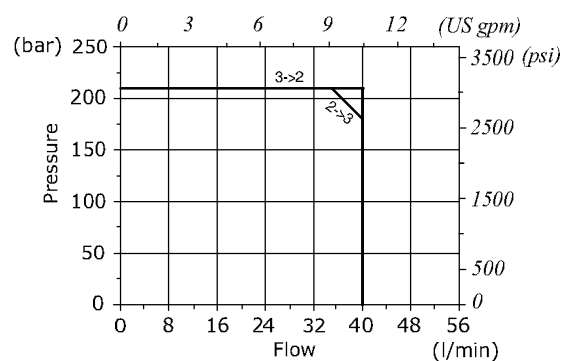
Pressure drop vs. flow

- Spool 4 -



Performance limit

- Spool 4 -





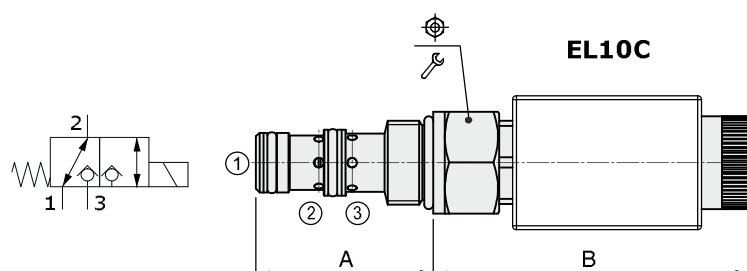
EL... type directional solenoid valve - 3 ways / 2 positions

- Direct acting
- Poppet type
- From SAE08 to SAE10 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	EL08A	EL10C
Nominal flow	10 l/min (2.64 US gpm)	20 l/min (5.28 US gpm)
Max. pressure	210 bar (3050 psi)	
Oil leakage	at 210 bar (3050 psi)	0.25 cm ³ /min (0.015 in ³ /min)
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 08/3	SAE 10/3
Coil type*	BC	BQ16
Nominal voltages	12 VDC - 24 VDC ± 10%	12 VDC ± 10%
Power rating	26.1 W (12 VDC) 25.9 W (24 VDC)	30 W
Weight	0.23 kg (0.50 lb)	0.27 kg (0.59 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

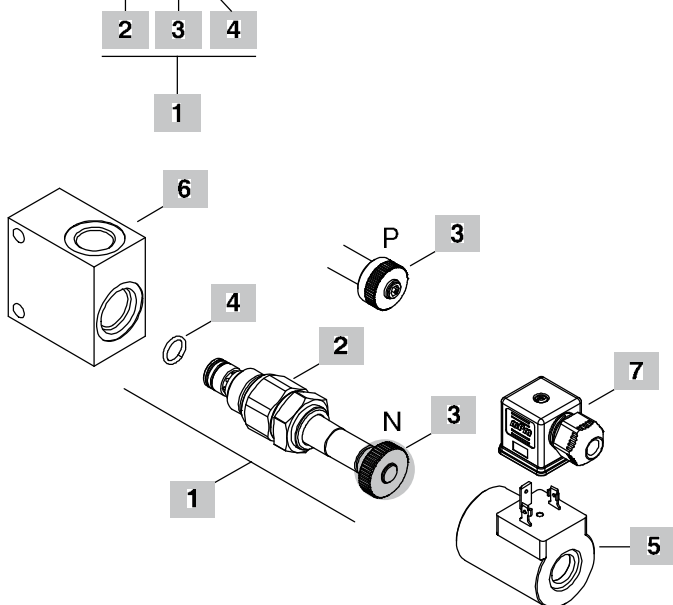


Valve type	A		B			
	mm	in	mm	in	Nm	lbft
EL08A/10NB	41,2	1.62	94.9	3.74	27	50 22
EL10C/10NB	46	1.81	86.7	3.41	27	50 37

For dimensions with different type of emergency see page 213

Ordering codes and description composition

EL08A/10 NB



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
EL08A/10NB	0EL08002001	Without emergency
EL08A/10PB	0EL08002000	With push-button emergency
SAE cavity 10/3		
EL10C/10NB	0EL10002008	Without emergency

2 Spool

TYPE	DESCRIPTION
1	Spool 1

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
P	Push button type

Note: for 10/2 cavity only **N** type

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BC 12 VDC	4SL8000120	12VDC-ISO4400 coil for EL08A
BQ16 12VDC	4SL8000121	12VDC-ISO4400 coil for EL10C

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 1/4	3CC0830B11	Aluminium body for cavity 08 valve, G 1/4 std thread
SAE 10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread

For steel bodies or different threading see from page 215

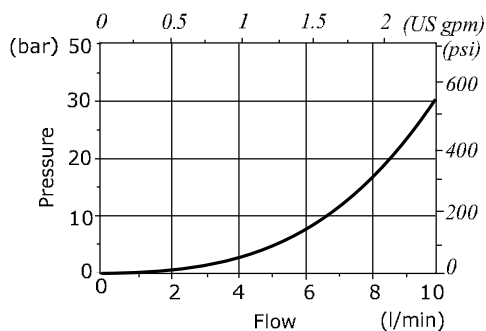
7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

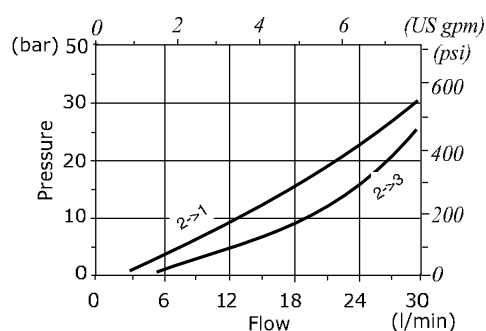
For complete connectors list see from page 206

Rating diagrams

Pressure drop vs. flow EL08A



Pressure drop vs. flow EL10C





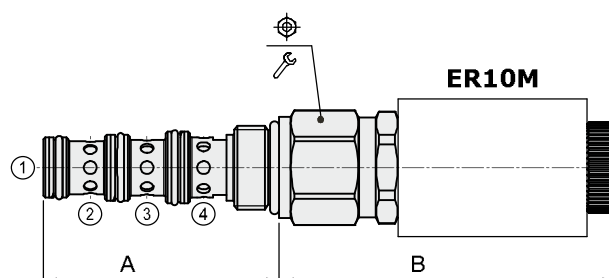
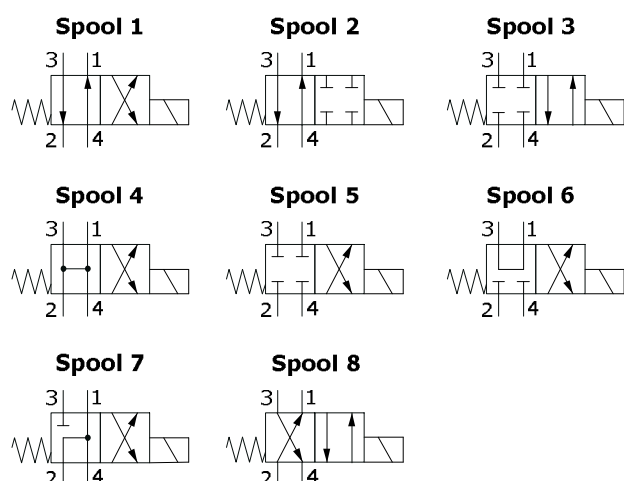
ER..M type directional solenoid valve - 4 ways / 2 positions

- Direct acting
- Spool type
- From SAE08 to SAE12 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

		ER08M	ER10M	ER12M
Nominal flow		20 l/min (5.3 US gpm)	40 l/min (10.5 US gpm)	60 l/min (15.8 US gpm)
Max. pressure	port 1	210 bar (3050 psi)		250 bar (3600 psi)
	port 2,3,4	210 bar (3050 psi)		320 bar (4600 psi)
Oil leakage	at 210 bar (3050 psi)	40 cm³/min (2.44 in³/min)	80 cm³/min (4.88 in³/min)	200 cm³/min (12.20 in³/min)
Fluid		mineral based oil		
Viscosity		10-200 cSt		
Max level of contamination		18/16/13 ISO4406		
Fluid temperature	with NBR seals	from -20°C (-4°F) to 80°C (176°F)		
	with FPM seals	from -20°C (-4°F) to 100°C (212°F)		
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)		
Cavity		SAE 08/4	SAE 10/4	SAE 12/4
Coils type*		BER	BC	BH
Nominal voltages		12 VDC - 24 VDC ± 10%	12 VDC - 24 VDC ± 10%	12 VDC - 24 VDC ± 10%
Power rating		22.8 W (12 VDC)	26.1 W (12 VDC)	33 W (12/24 VDC)
		22.5 W (24 VDC)	25.9 W (24 VDC)	
Weight		0.20 kg (0.44 lb)	0.50 kg (1.10 lb)	0.73 kg (1.61 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

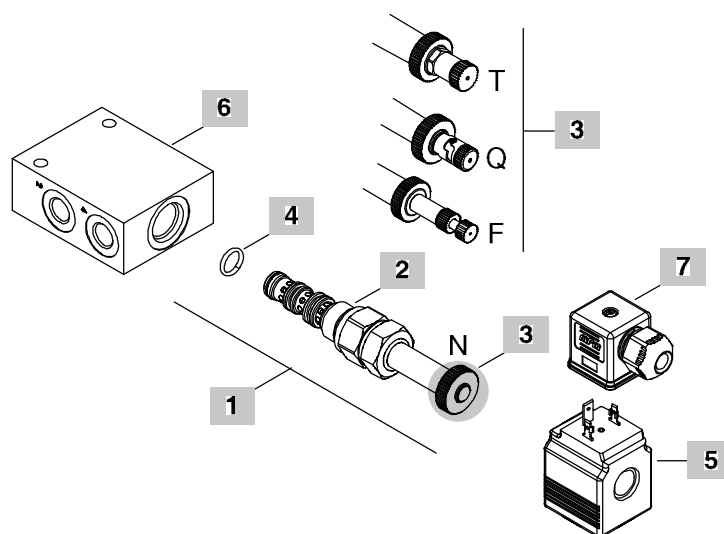
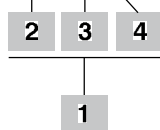


Valve type	A		B				
	mm	in	mm	in			
ER08M/..NB	53.6	2.11	75	2.95	24	30	22
ER10M/..NB	62.4	2.46	89	3.50	27	50	37
ER12M/..NB	81.4	3.20	85.5	3.37	32	85	63

For dimensions with different type of emergency see page 213

Ordering codes and description composition

ER08M/10 NB



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/4		
ER08M/10NB	0ER08002016	Without emergency, spool 1
ER08M/20NB	0ER08002017	Without emergency, spool 2
ER08M/30NB	0ER08002018	Without emergency, spool 3
ER08M/40NB	0ER08002019	Without emergency, spool 4
ER08M/50NB	0ER08002020	Without emergency, spool 5
ER08M/60NB	0ER08002021	Without emergency, spool 6
ER08M/70NB	0ER08002022	Without emergency, spool 7
ER08M/80NB	0ER08002023	Without emergency, spool 8
SAE cavity 10/4		
ER10M/10NB	0ER10002023	Without emergency, spool 1
ER10M/20NB	0ER10002024	Without emergency, spool 2
ER10M/30NB	0ER10002025	Without emergency, spool 3
ER10M/40NB	0ER10002026	Without emergency, spool 4
ER10M/50NB	0ER10002027	Without emergency, spool 5
ER10M/60NB	0ER10002028	Without emergency, spool 6
ER10M/70NB	0ER10002029	Without emergency, spool 7
ER10M/80NB	0ER10002030	Without emergency, spool 8
SAE cavity 12/4		
ER12M/10NB	0ER12002021	Without emergency, spool 1
ER12M/20NB	0ER12002023	Without emergency, spool 2
ER12M/50NB	0ER12002024	Without emergency, spool 5
ER12M/80NB	0ER12002022	Without emergency, spool 8

2 Spool

TYPE	DESCRIPTION
1	Spool 1
2	Spool 2
3	Spool 3
4	Spool 4
5	Spool 5
6	Spool 6
7	Spool 7
8	Spool 8

3 Emergency

TYPE	DESCRIPTION
N	Without emergency
F	Pull button type
Q	Pull type with detent
T	Screw type

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration (*)
V	FPM (Viton) o-ring seals, contact Sales Dept.

Note (*): for ER12M, NBR and polyurethane D-ring

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC-ISO4400	4SLE001200	12VDC-ISO4400 coil for ER08M
BC 12VDC-ISO4400	4SL8000120	12VDC-ISO4400 coil for ER10M
BH 12VDC-ISO4400	4SLD001200	12VDC-ISO4400 coil for ER12M

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/4-G 3/8	3CC0840C11	Aluminium body for cavity 08 valve, G3/8 std thread
SAE 10/4-G 3/8	3CC1020C11	Aluminium body for cavity 10 valve, G3/8 std thread
SAE 12/4-G 1/2	3CC1240D11	Aluminium body for cavity 12 valve, G1/2 thread

Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

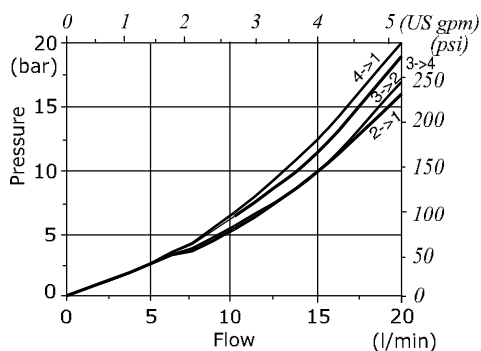
Directional control valves

Directional solenoid valves - 4 ways / 2 positions

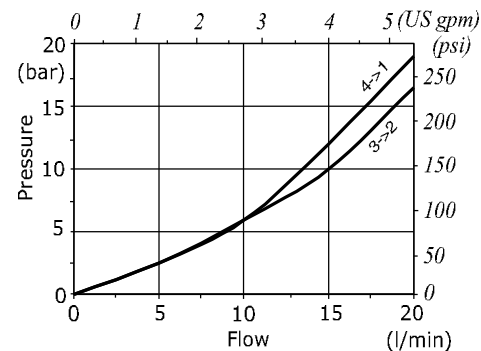
ER..M type

Rating diagrams

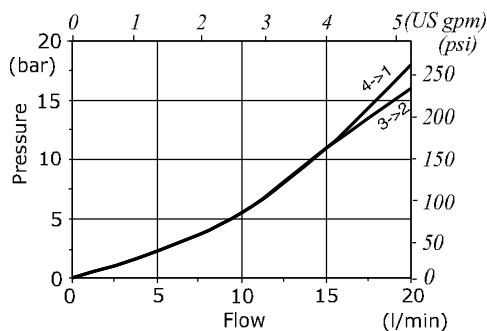
ER08M pressure drop vs. flow
- Spool 1 -



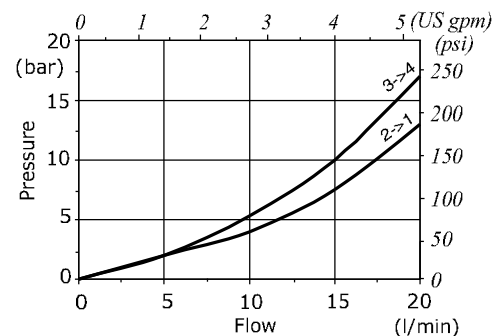
ER08M pressure drop vs. flow
- Spool 2 -



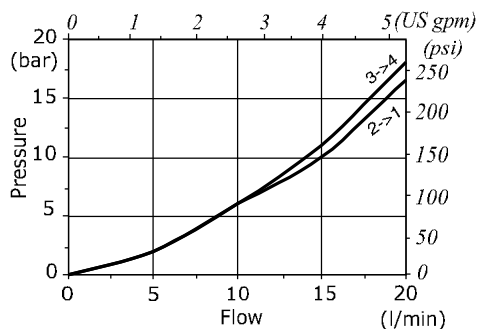
ER08M pressure drop vs. flow
- Spool 3 -



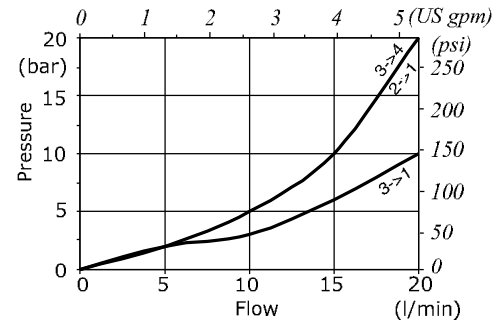
ER08M pressure drop vs. flow
- Spool 4 -



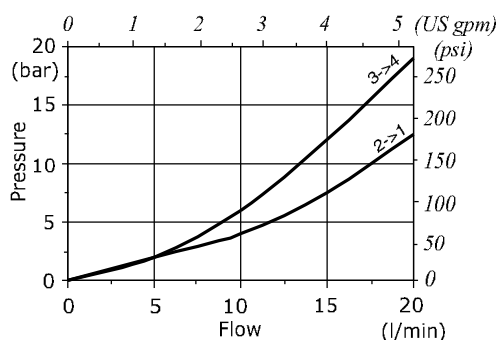
ER08M pressure drop vs. flow
- Spool 5 -



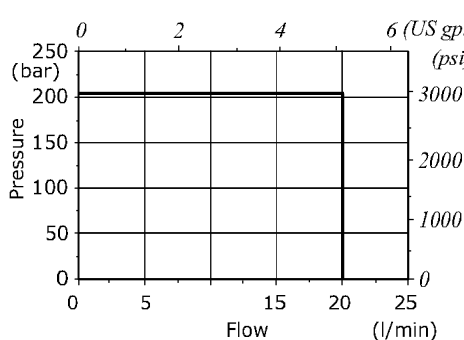
ER08M pressure drop vs. flow
- Spool 6 -



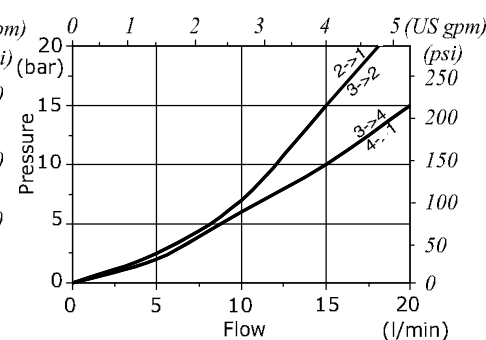
ER08M pressure drop vs. flow
- Spool 7 -



ER08M performance limit



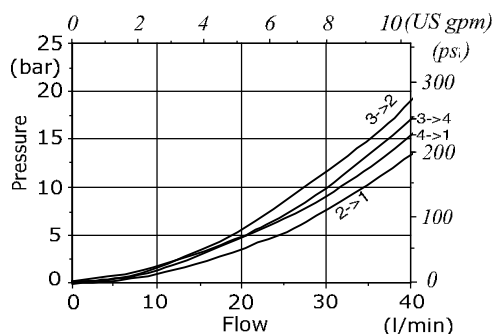
ER08M pressure drop vs. flow
- Spool 8 -



Rating diagrams

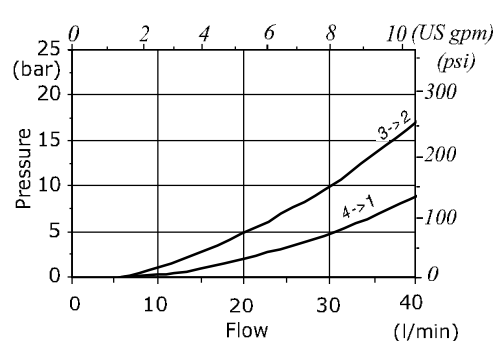
ER10M pressure drop vs. flow

- Spool 1 -



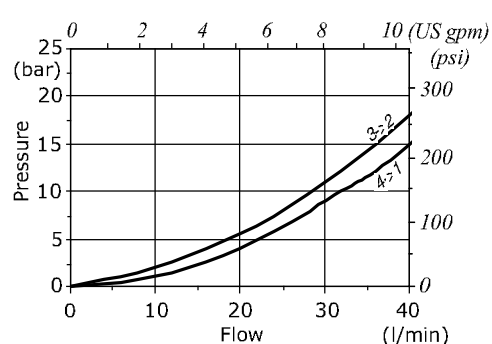
ER10M pressure drop vs. flow

- Spool 2 -



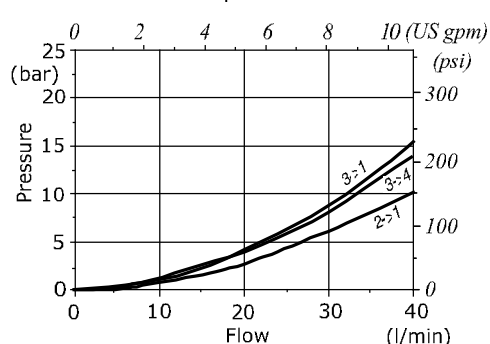
ER10M pressure drop vs. flow

- Spool 3 -



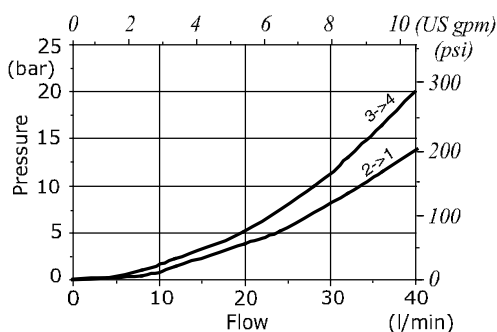
ER10M pressure drop vs. flow

- Spool 4 -



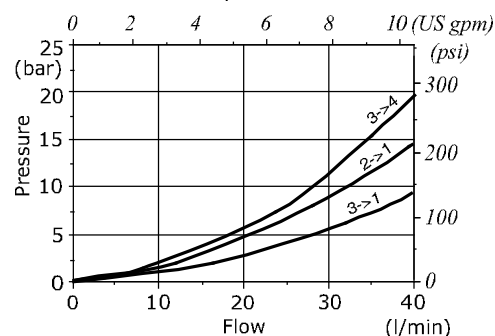
ER10M pressure drop vs. flow

- Spool 5 -



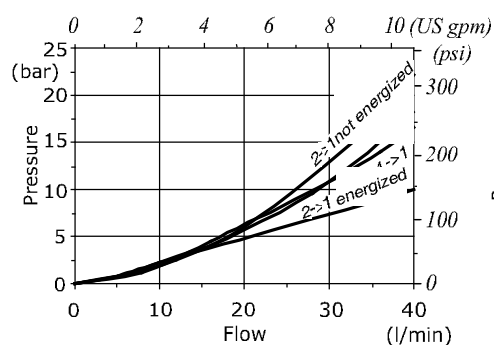
ER10M pressure drop vs. flow

- Spool 6 -

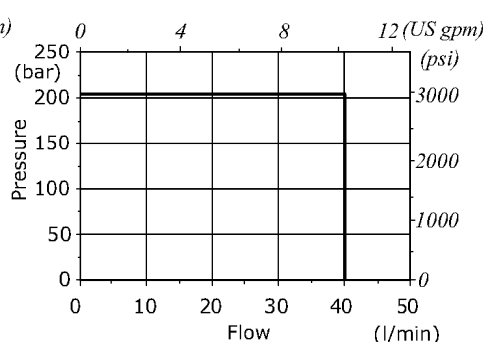


ER10M pressure drop vs. flow

- Spool 7 -

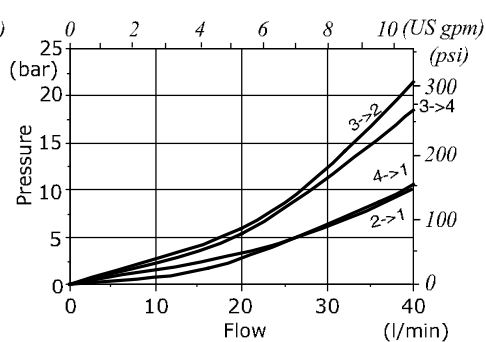


ER10M performance limit



ER10M pressure drop vs. flow

- Spool 8 -



Directional control valves

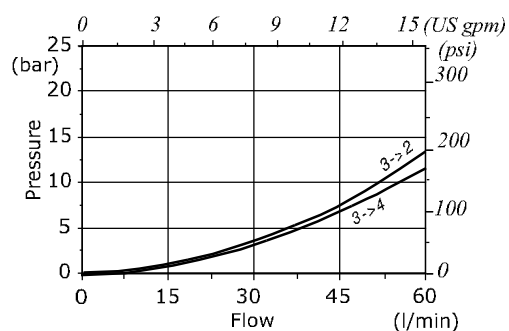
Directional solenoid valves - 4 ways / 2 positions

ER..M type

Rating diagrams

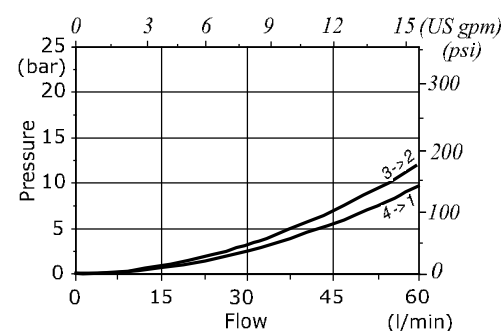
ER12M pressure drop vs. flow

- Spool 1 -



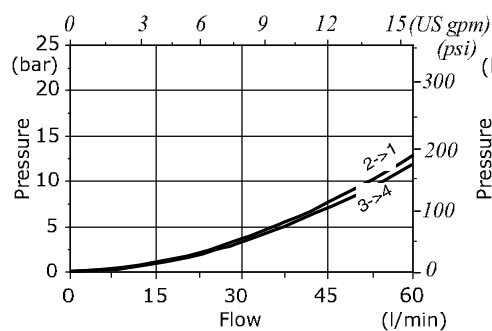
ER12M pressure drop vs. flow

- Spool 2 -

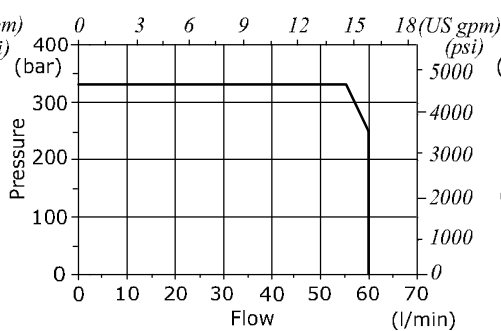


ER12M pressure drop vs. flow

- Spool 5 -

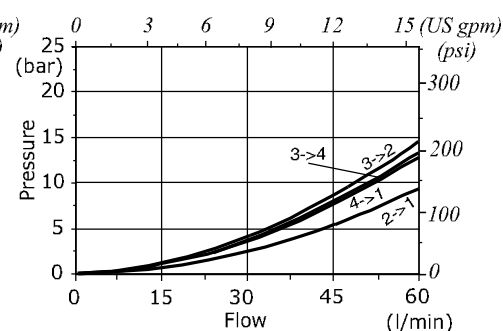


ER12M performance limit



ER12M pressure drop vs. flow

- Spool 8 -





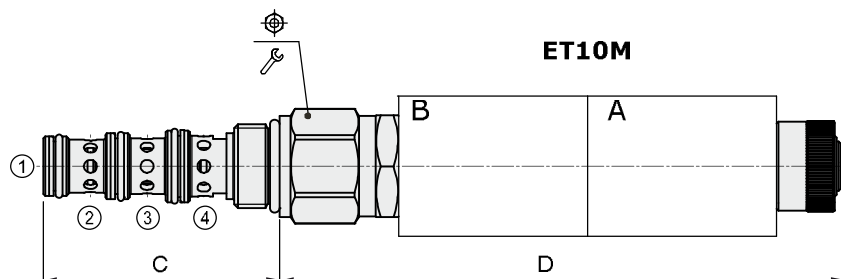
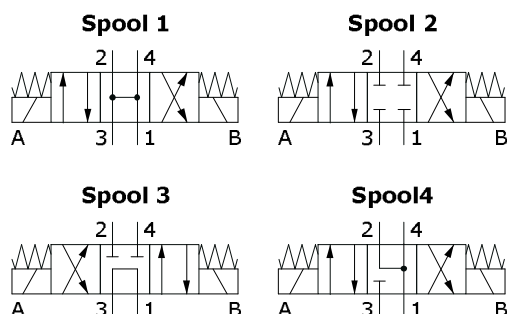
ET..M type directional solenoid valve - 4 ways / 3 positions

- Direct acting
- Spool type
- From SAE08 to SAE10 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	ET08M	ET10M
Nominal flow	18 l/min (4.7 US gpm)	40 l/min (10.5 US gpm)
Max. pressure	210 bar (3050 psi)	
Oil leakage	at 210 bar (3050 psi) 40 cm³/min (2.44 in³/min)	80 cm³/min (4.88 in³/min)
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 08/4	SAE 10/4
Coils type*	BER	BC
Nominal voltages	12 VDC - 24 VDC ± 10%	12 VDC - 24 VDC ± 10%
Power rating	22.8 W (12 VDC) - 22.5 W (24 VDC)	26.1 W (12 VDC) - 25.9 W (24 VDC)
Weight	0.25 kg (0.44 lb)	0.45 kg (1.10 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.

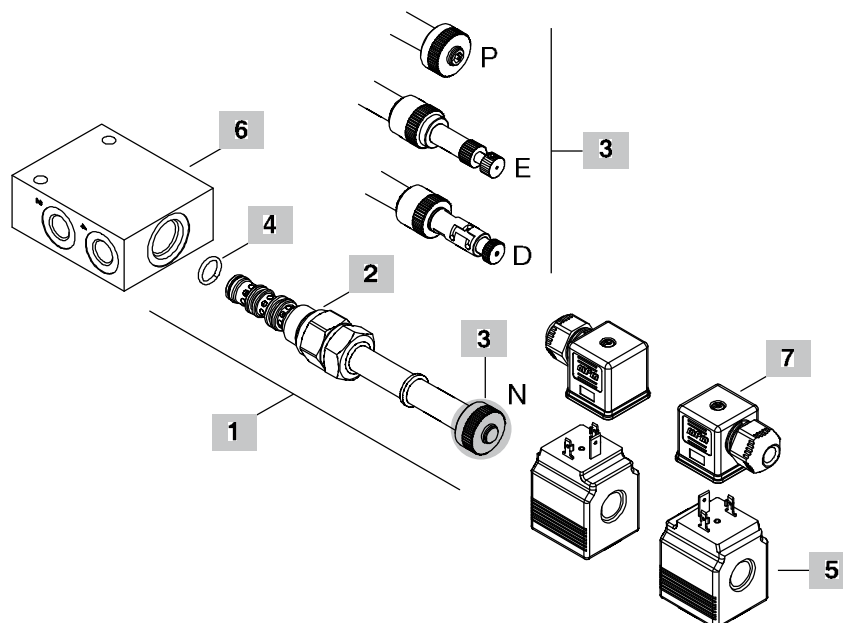
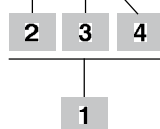


Valve type	C		D			
	mm	in	mm	in	Nm	lbf·ft
ET08M/..NB	53.6	2.11	120	4.72	24	30
ET10M/..NB	62.4	2.46	148.5	5.85	27	50

For dimensions with different type of emergency stop see page 213

Ordering codes and description composition

ET08M/10 NB



4 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/4		
ET08M/10NB	0ET08002017	Without emergency, spool 1
ET08M/20NB	0ET08002019	Without emergency, spool 2
ET08M/30NB	0ET08002020	Without emergency, spool 3
ET08M/40NB	0ER08002018	Without emergency, spool 4
SAE cavity 10/4		
ET10M/10NB	0ET10002023	Without emergency, spool 1
ET10M/20NB	0ET10002024	Without emergency, spool 2
ET10M/30NB	0ET10002025	Without emergency, spool 3
ET10M/40NB	0ET10002026	Without emergency, spool 4

1 Spool

TYPE	DESCRIPTION
1	Spool 1
2	Spool 2
3	Spool 3
4	Spool 4

2 Emergency

TYPE	DESCRIPTION
N	Without emergency
E	Pull/push-button type
D	Detent push/pull type
P	Push-button type

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils

TYPE	CODE	DESCRIPTION
BER 12VDC	4SLE001200	12VDC-ISO4400 coil for ET08M
BC 12VDC	4SL8000120	12VDC-ISO4400 coil for ET10M

For complete coils list see from page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/4-G 3/8	3CC0840C11	Aluminium body for cavity 08 valve, G 3/8 std thread
SAE 10/4-G 3/8	3CC1040C11	Aluminium body for cavity 10 valve, G 3/8 std thread

For steel bodies or different threading see from page 215

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

Directional control valves

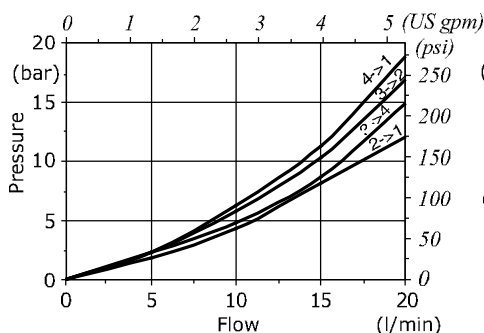
Directional solenoid valves - 4 ways / 3 positions

ET..M type

Rating diagrams

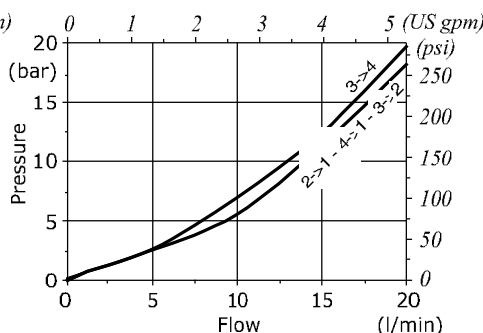
ET08M pressure drop vs. flow

- Spool 1 -



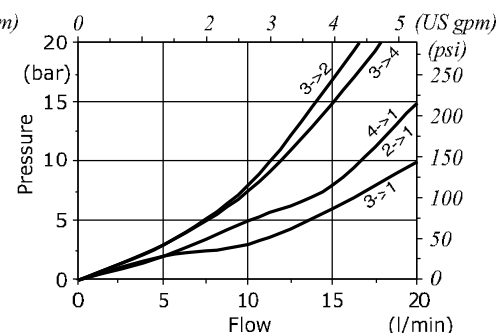
ET08M pressure drop vs. flow

- Spool 2 -



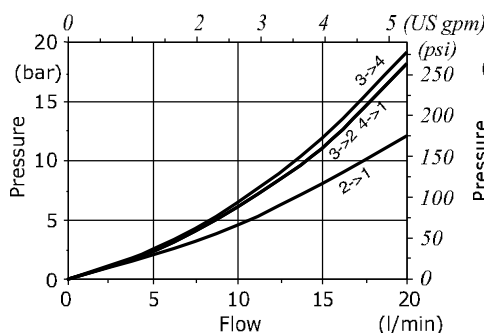
ET08M pressure drop vs. flow

- Spool 3 -

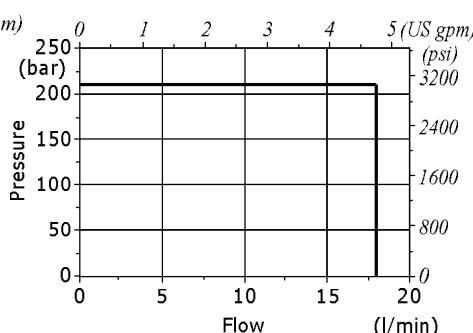


ET08M pressure drop vs. flow

- Spool 4 -

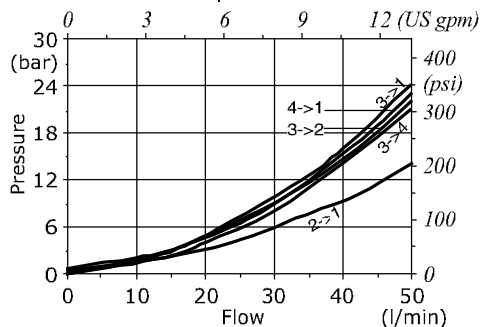


**ET08M
performance limit**



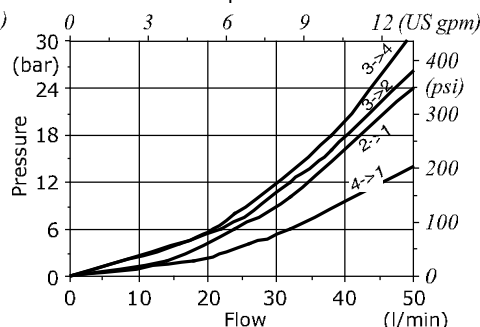
ET10M perdite di carico

- Spool 1 -



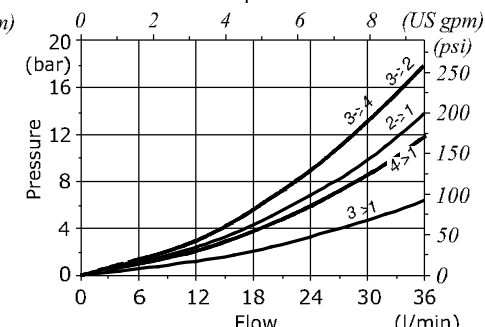
ET10M perdite di carico

- Spool 2 -



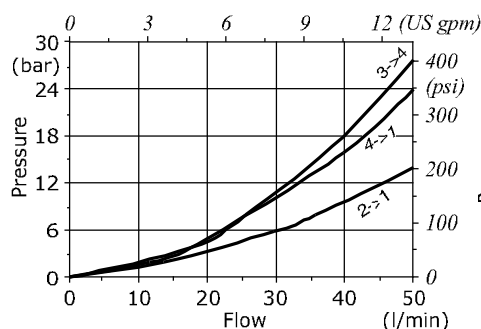
ET10M perdite di carico

- Spool 3 -

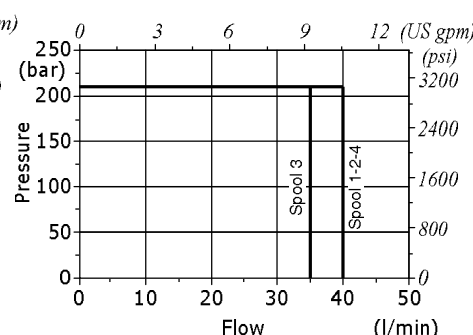


ET10M perdite di carico

- Spool 4 -



**ET10M
limiti di funzionamento**





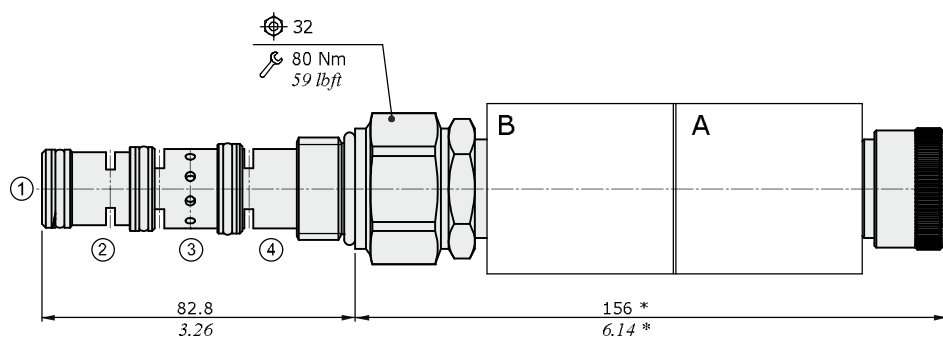
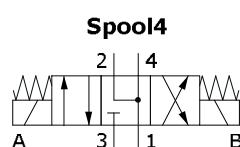
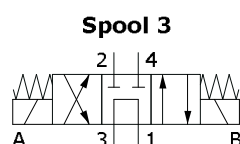
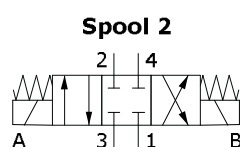
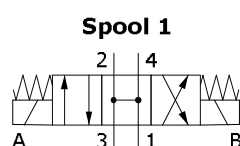
ET12A type directional solenoid valve - 4 ways / 3 positions

- Direct acting
- Spool type

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

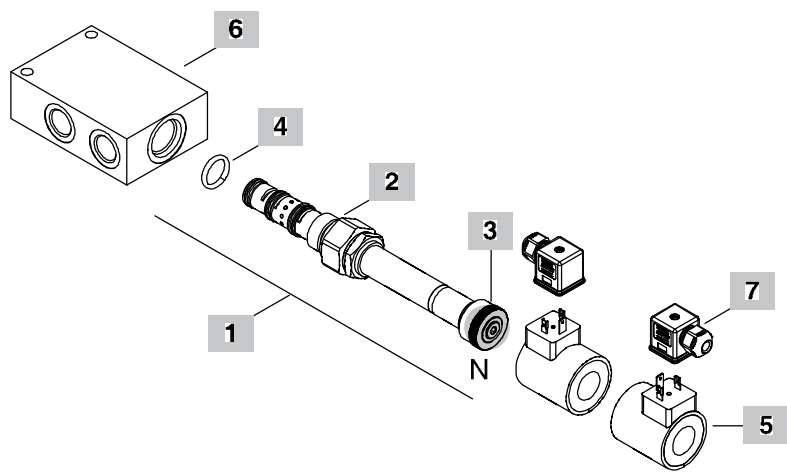
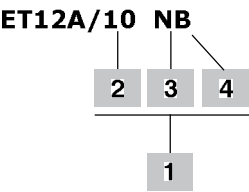
ET12A		
Nominal flow		40 l/min (10.5 US gpm)
Max. pressure		210 bar (3050 psi)
Oil leakage	at 210 bar (3050 psi)	120 cm ³ /min (7.32 in ³ /min)
Fluid		mineral based oil
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)
Cavity		SAE 12/4
Coil type*		BIN 22
Nominal voltages		12 VDC - 24 VDC ± 10%
Power rating		32.6 W (12 VDC) - 31 W (24 VDC)
Weight		0.720 kg (1.59 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 206.



NOTE (*) : dimensions for configuration **ET12A/10NB**, for dimensions with different type of emergency see page 213.

Ordering codes and description composition



1 Cartridges		
TYPE	CODE	DESCRIPTION
SAE cavity 12/4		
ET12A/10NB	0ET12002012	Without emergency, spool 1
ET12A/10PB	0ET12002013	Push-button emergency, spool 1
ET12A/20NB	0ET12002009	Without emergency, spool 2
ET12A/20PB	0ET12002014	Push-button emergency, spool 2
ET12A/30NB	0ET12002010	Without emergency, spool 3
ET12A/30PB	0ET12002015	Push-button emergency, spool 3
ET12A/40NB	0ET12002011	Without emergency, spool 4
ET12A/40PB	0ET12002016	Push-button emergency, spool 4

2 Spool	
TYPE	DESCRIPTION
1	Spool 1
2	Spool 2
3	Spool 3
4	Spool 4

3 Emergency	
TYPE	DESCRIPTION
N	Without emergency
P	Push button type

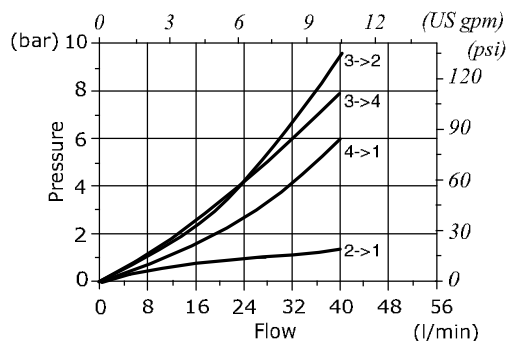
4 Seals	
TYPE	DESCRIPTION
B	NBR (Buna) o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept.

5 Coils		
TYPE	CODE	DESCRIPTION
BIN22 12VDC	4SL6000128	12VDC-ISO4400 coil
For complete coils list see from page 206		

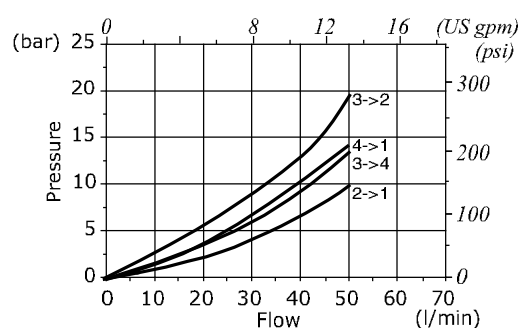
6 Valve body		
TYPE	CODE	DESCRIPTION
SAE 12/4-G 1/2	3CC1240D11	Aluminium body for cavity 12 valve, G1/2 std thread
For steel bodies or different threading see from page 215		

7 Connector		
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector
For complete connectors list see from page 206		

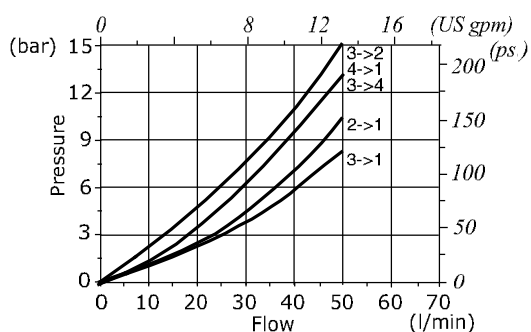
ET12A pressure drop vs. flow
- Spool 1 -



ET12A pressure drop vs. flow
- Spool 2 -



ET12A pressure drop vs. flow
- Spool 3 -



ET12A pressure drop vs. flow
- Spool 4 -

