



EC..M type directional solenoid valves – 2 way / 2 positions

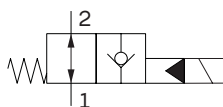
- Poppet type
- Piloted acting with on-off solenoid
- External zinc-plated and corrosion-proof components
- Normally open and closed configurations
- Different types of emergencies available
- From SAE08 to SAE16 cavities

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

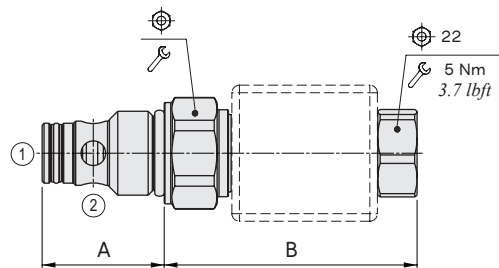
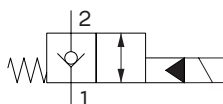
	EC08M	EC10M	EC12M	EC16M
Max. flow	40 l/min (10.5 US gpm)	70 l/min (18.5 US gpm)	150 l/min (40 US gpm)	150 l/min (40 US gpm)
Max. pressure	380 bar (5500 psi)			
Oil leakage	at 210 bar (3050 psi) 0.25 cm ³ /min (0.015 in ³ /min)			
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties			
Viscosity	10-200 cSt			
Max level of contamination	18/16/13 ISO4406			
Fluid temperature	with NBR seals+Polyurethane with FPM seals			
Environmental temp. for working conditions	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)			
Cavity	SAE 08/2	SAE 10/2	SAE 12/2	SAE 16/2
Coil type*	BER			
Nominal voltages	12VDC - 24VDC ±10%			
Power rating	19 W (12VDC - 24VDC)			
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 201.

Normally open configuration



Normally closed configuration

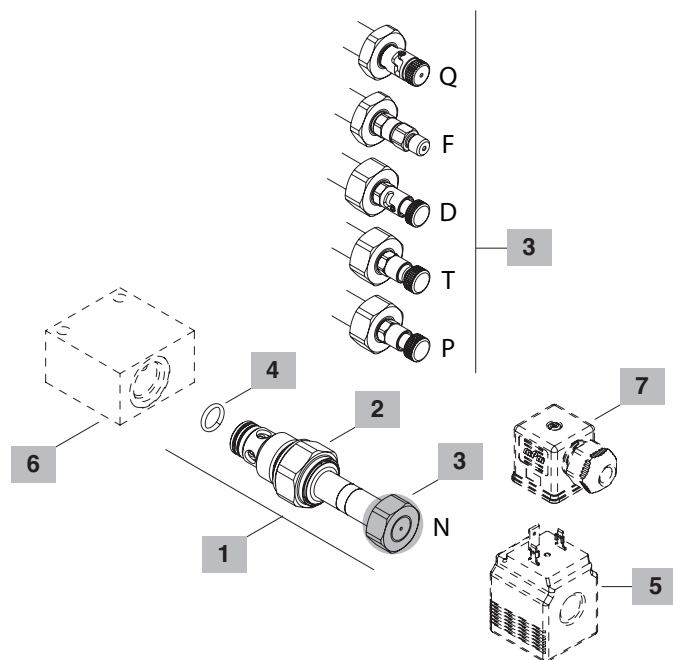
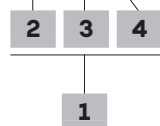


Valve type	A		B		 Nm lbft	
	mm	in	mm	in		
EC10M/1	32.3	1.27	66.9	2.63	27	50 37

For dimensions with different type of emergency see list page 147

Ordering codes and description composition

EC08M/ 1 0 N B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/2		
EC08M/10NB	OEC08002031	Normally open (N.O.) without emergency
EC08M/10PB	OEC08002033	(N.O.) push button emergency
EC08M/10TB	OEC08002034	(N.O.) screw type emergency
EC08M/10DB	OEC08002035	(N.O.) push type with detent emergency
EC08M/20NB	OEC08002032	Normally closed (N.C.) without emergency
EC08M/20FB	OEC08002036	(N.C.) pull button emergency
EC08M/20TB	OEC08002037	(N.C.) screw type emergency
EC08M/20QB	OEC08002038	(N.C.) pull type with detent emergency
SAE cavity 10/2		
EC10M/10NB	OEC10002012	Normally open (N.O.) without emergency
EC10M/10PB	OEC10002014	(N.O.) push button emergency
EC10M/10TB	OEC10002015	(N.O.) screw type emergency
EC10M/10DB	OEC10002016	(N.O.) push type with detent emergency
EC10M/20NB	OEC10002013	Normally closed (N.C.) without emergency
EC10M/20FB	OEC10002017	(N.C.) pull button emergency
EC10M/20TB	OEC10002018	(N.C.) screw type emergency
EC10M/20QB	OEC10002019	(N.C.) pull type with detent emergency
SAE cavity 12/2		
EC12M/10NB	OEC12002007	Normally open (N.O.) without emergency
EC12M/10PB	OEC12002009	(N.O.) push button emergency
EC12M/10TB	OEC12002010	(N.O.) screw type emergency
EC12M/10DB	OEC12002011	(N.O.) push type with detent emergency
EC12M/20NB	OEC12002008	Normally closed (N.C.) without emergency
EC12M/20FB	OEC12002012	(N.C.) pull button emergency
EC12M/20TB	OEC12002013	(N.C.) screw type emergency
EC12M/20QB	OEC12002014	(N.C.) pull type with detent emergency
SAE cavity 16/2		
EC16M/10NB	OEC16002020	Normally open (N.O.) without emergency
EC16M/10PB	OEC16002022	(N.O.) push button emergency
EC16M/10TB	OEC16002023	(N.O.) screw type emergency
EC16M/10DB	OEC16002024	(N.O.) push type with detent emergency
EC16M/20NB	OEC16002021	Normally closed (N.C.) without emergency
EC16M/20FB	OEC16002025	(N.C.) pull button emergency
EC16M/20TB	OEC16002026	(N.C.) screw type emergency
EC16M/20QB	OEC16002027	(N.C.) pull type with detent emergency

5 Coil

TYPE	CODE	DESCRIPTION
BER12VDC	4SLE001200A	12VDC-ISO4400 coil

For complete coils list see page 201

6 Valve body

TYPE	CODE	DESCRIPTION
SAE08/2-SAE8	3CC0820K11	Aluminium body for cavity 08 valve, SAE8 std thread
SAE10/2-SAE8	3CC1020K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE12/2-SAE10	3CC1220L11	Aluminium body for cavity 12 valve, SAE10 std thread
SAE16/2-SAE12	3CC1620M11	Aluminium body for cavity 16 valve, SAE12 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 208

7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995B	Connector

For complete connectors list see from page 201

2 Spool

TYPE	DESCRIPTION
1	Normally open configuration
2	Normally closed configuration

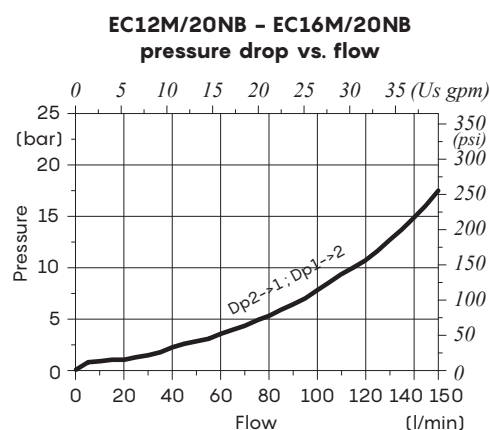
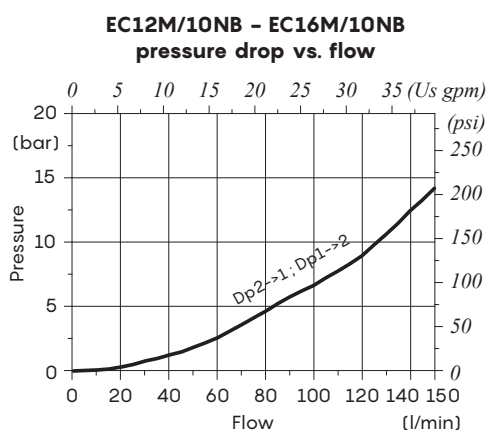
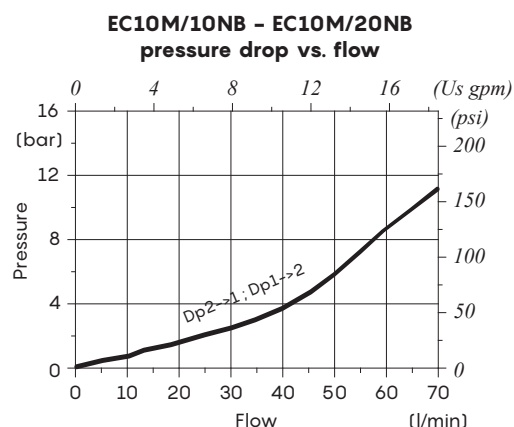
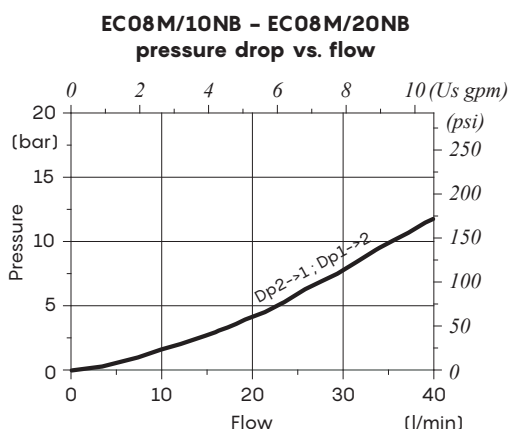
3 Emergency

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)+Polyurethane o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

Rating diagrams



Types and dimensions

Valve type	A		B												 		
			N without emergency		T screw		P push button		D push type with detent		F pull button		Q pull type with detent				
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	Nm	lbf·ft	
EC08M/1	28	1.10	67.2	2.64	90.1	3.55	90.1	3.55	92.8	3.65	-	-	-	-	24	30	22
EC08M/2	28	1.10	63.3	2.49	77.8	3.06	-	-	-	-	91.3	3.59	84.4	3.32	24	30	22
EC10M/1	32.3	1.27	66.9	2.63	89.8	3.54	89.8	3.54	92.5	3.64	-	-	-	-	27	50	37
EC10M/2	32.3	1.27	63	2.48	77.5	3.05	-	-	-	-	91	3.58	84.1	3.31	27	50	37
EC12M/1	45	1.77	61.2	2.40	84.2	3.31	84	3.31	86.8	3.42	-	-	-	-	32	80	59
EC12M/2	45	1.77	57.1	2.25	73.7	2.9	-	-	-	-	85.1	3.35	78	3.07	32	80	59
EC16M/1	46	1.81	61.2	2.40	84	3.31	84.1	3.31	86	3.39	-	-	-	-	38	80	59
EC16M/2	46	1.81	57	2.24	71.6	2.82	-	-	-	-	85	3.35	78.3	3.08	38	80	59