

MLDB Series

Stainless Steel Flat Face/Dry Break



The Eaton MLDB Series stainless steel coupling is a flat face/dry break coupling used for fluid transfer applications. The new and improved design offers the ability to connect with less force, higher sealing performance and are available in multiple configurable end connections.

Product Features

- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive (PED) 97/23 EC
- Safety sleeve lock prevents accidental disconnections
- Push to connect with double shut-off valving
- Capable of working under high temperature applications
- Shock resistant colour coding ring option available in 1/2" size
- Serviceable design allows for easy cleaning and seal replacement
- Designed with higher flow capacity and resistance to aggressive fluids and corrosion
- Standard body material- 316/316L Stainless steel corrosion resistant
- Standard seal material: FKM, EPDM, Kalrez® and generic FFKM

Physical Characteristics

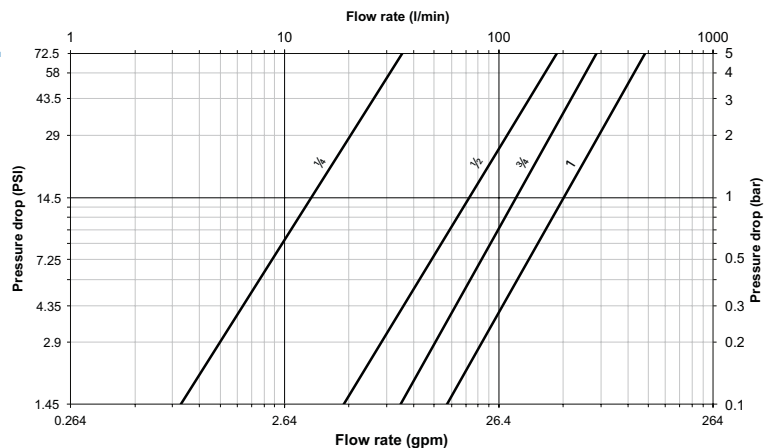
Body Size (in)	Nominal Flow Diameter (mm)	Max. Operating Pressure		Rated* Flow		Air Inclusion	Fluid Loss	Force to Connect	
		bar	(psi)	L/min	(gpm)	ml-cc.	ml-cc.	N	lbf
1/4	5.9	25	360	15	4	0.002	0.001	85	19
1/2	11.5	25	360	73	19	0.012	0.025	150	34
3/4	15.0	25	360	120	32	0.030	0.050	170	38
1	18.5	25	360	200	53	0.150	0.130	180	41

* Indicated values refer to a 1 bar/14.5 psi pressure drop.

Applications & Markets



- Process/Fluid transfer
- Cooling
- Corrosive environments
- Chemicals/Petrochemicals
- Pharmaceuticals
- Food processing
- Electrical



Test Fluid: Oil viscosity 30 cSt at 40°C/104°F

The former DB series interchanges with the new MLDB series, however close attention is requested to the differences in performance. Eaton recommends to connect an MLDB plug(male) with an MLDB socket(female).

Seal Elastomer Data*

Seal Elastomer	Max. Operation Temperature Range
FKM (Fluorocarbon)	-20°C +200°C/-4°F +392°F
EPDM (Ethylene-Propylene)	-40°C +150°C/-40°F +302°F
Kalrez® 6375	-20°C +275°C/-4°F +527°F
Generic FFKM (Perfluorocarbon)	-15°C +275°C/+5°F +527°F

* For reference only, based on Eaton recommended temperatures.

Contact Eaton technical support for further information on fluid compatibility

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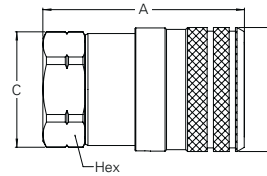


Fig. 1

Sockets (Female)

Part Number				Body Size	Thread Size* (Female)			Dimensions							Weight		
FKM	EPDM	Kalrez® 6375	Generic FFKM	(in)	NPT	BSPP	Fig.	A (in)	B (in)	C (in)	Hex (in)	A (mm)	B (mm)	C (mm)	Hex (mm)	lbs	grams
ML2DBS25FBS	ML2DBS25FBS292	ML2DBS25FBS242	ML2DBS25FBS503	¼	-	¼-19	1	1.79	1.06	0.96	0.87	45.4	26.8	24.5	22	0.26	116
ML2DBS25F	ML2DBS25F292	ML2DBS25F242	ML2DBS25F503	¼	¼-18	-	1	1.73	1.06	0.96	0.87	43.9	26.8	24.5	22	0.26	116
ML4DBS50FBS	ML4DBS50FBS292	ML4DBS50FBS242	ML4DBS50FBS503	½	-	½-14	1	2.44	1.50	1.4	1.26	61.9	38.2	35.5	32	0.73	330
ML4DBS50F	ML4DBS50F292	ML4DBS50F242	ML4DBS50F503	½	½-14	-	1	2.44	1.50	1.4	1.26	61.9	38.2	35.5	32	0.73	330
ML6DBS75FBS	ML6DBS75FBS292	ML6DBS75FBS242	ML6DBS75FBS503	¾	-	¾-14	1	3.02	1.89	1.83	1.61	76.8	47.9	46.5	41	1.34	610
ML6DBS75F	ML6DBS75F292	ML6DBS75F242	ML6DBS75F503	¾	¾-14	-	1	3.02	1.89	1.83	1.61	76.8	47.9	46.5	41	1.34	610
ML8DBS100FBS	ML8DBS100FBS292	ML8DBS100FBS242	ML8DBS100FBS503	1	-	1-11	1	3.54	2.26	2.16	1.97	89.9	57.4	54.9	50	2.31	1050
ML8DBS100F	ML8DBS100F292	ML8DBS100F242	ML8DBS100F503	1	1-11½	-	1	3.42	2.26	2.16	1.97	86.9	57.4	54.9	50	2.31	1050

* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

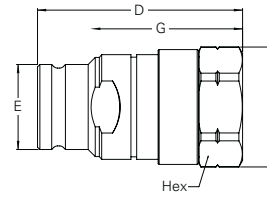


Fig. 2

Plugs (Male)

Part Number				Body Size	Thread Size* (Female)			Dimensions							Weight				
FKM	EPDM	Kalrez® 6375	Generic FFKM	(in)	NPT	BSPP	Fig.	D (in)	E (in)	F (in)	G (in)	Hex (in)	D (mm)	E (mm)	F (mm)	G (mm)	Hex (mm)	lbs	grams
ML2DBP25FBS	ML2DBP25FBS292	ML2DBP25FBS242	ML2DBP25FBS503	¼	-	¼-19	2	1.72	0.65	0.96	1.31	0.87	43.6	16.5	24.5	33.2	22	0.17	78
ML2DBP25F	ML2DBP25F292	ML2DBP25F242	ML2DBP25F503	¼	¼-18	-	2	1.66	0.65	0.96	1.25	0.87	42.1	16.5	24.5	31.7	22	0.17	78
ML4DBP50FBS	ML4DBP50FBS292	ML4DBP50FBS242	ML4DBP50FBS503	½	-	½-14	2	2.39	0.99	1.4	1.8	1.26	60.7	25.2	35.5	45.7	32	0.46	210
ML4DBP50F	ML4DBP50F292	ML4DBP50F242	ML4DBP50F503	½	½-14	-	2	2.39	0.99	1.4	1.8	1.26	60.7	25.2	35.5	45.7	32	0.46	210
ML6DBP75FBS	ML6DBP75FBS292	ML6DBP75FBS242	ML6DBP75FBS503	¾	-	¾-14	2	2.97	1.29	1.83	2.11	1.61	75.5	32.8	46.5	53.6	41	0.87	395
ML6DBP75F	ML6DBP75F292	ML6DBP75F242	ML6DBP75F503	¾	¾-14	-	2	2.97	1.29	1.83	2.11	1.61	75.5	32.8	46.5	53.6	41	0.87	395
ML8DBP100FBS	ML8DBP100FBS292	ML8DBP100FBS242	ML8DBP100FBS503	1	-	1-11	2	3.52	1.59	2.16	2.60	1.97	89.4	40.4	54.9	66.1	50	1.54	700
ML8DBP100F	ML8DBP100F292	ML8DBP100F242	ML8DBP100F503	1	1-11½	-	2	3.4	1.59	2.16	2.48	1.97	86.4	40.4	54.9	63.1	50	1.54	700

For installation instructions, please contact your Eaton sales representative.

Seal Kit and Tool for Servicing Sockets (Female)

Body Size	Tool Part Number	Seal Kit Part Number (includes 5 sets)		Seal Kit Part Number (includes 1 set)	
		FKM	EPDM	Kalrez® 6375	Generic FFKM
¼	ML2DBS93	2DBSG143	2DBSG292	2DBSG242	2DBSG503
½	ML4DBS93	4DBSG143	4DBSG292	4DBSG242	4DBSG503
¾	ML6DBS93	6DBSG143	6DBSG292	6DBSG242	6DBSG503
1	ML8DBS93	8DBSG143	8DBSG292	8DBSG242	8DBSG503

For installation instructions, please contact your Eaton sales representative.

Seal Kit for Servicing Plugs (Male)

Body Size	Seal Kit Part Number (includes 5 sets)		Seal Kit Part Number (includes 1 set)	
	FKM	EPDM	Kalrez® 6375	Generic FFKM
¼	2DBPG143	2DBPG292	2DBPG242	2DBPG503
½	4DBPG143	4DBPG292	4DBPG242	4DBPG503
¾	6DBPG143	6DBPG292	6DBPG242	6DBPG503
1	8DBPG143	8DBPG292	8DBPG242	8DBPG503

For installation instructions, please contact your Eaton sales representative. No tool required for servicing of the plug (male).

Colour Coding Ring Option*

Body Size	Socket/Female Ring**		Plug/Male Ring**		Tool Part Number	Tool & Rings Kit Part Number***
	Colour	Part Number	Colour	Part Number		
½	Blue	CR12FFSLB	Blue	CR12FFPLB	CR4DBSP93	CRKIT4DB
	Red	CR12FFSRD	Red	CR12FFPRD		
	Yellow	CR12FFSYL	Yellow	CR12FFPYL		
	Green	CR12FFSDG	Green	CR12FFPDG		

* For requests on other sizes, alternative colours or installation instructions, please contact your Eaton sales representative.

** Orders must be in multiples of 10 pcs.

*** The kit consists of a tool plus 10 socket rings and 10 plug rings of each colour.

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