

# ADB Series (Aluminium) Flat Face/Dry Break

FLUID TRANSFER  
AND HYDRAULIC



Eaton's Aluminium Flat Face ADB coupling is a flat face/dry break coupling used for cooling systems in electric applications with circulating water and antifreeze fluids. This coupling is providing an enhanced solution for preventing spillage of cooling agent which can cause technical failures, system shutdowns, and difficult clean-ups.

## Product Features

- Aluminium construction extends life for safer operations and reduced maintenance.
- Enhances operations in demanding applications with heat and vibration compared to plastic couplings.
- Up to 62% higher flow than ISO 16028 requirements to improve efficiency.
- 4-times safety factor at maximum operating pressure of 25 bar.
- Options are available for railway applications with an enhanced version for vibration resistance tested according to EN 61373.
- Pre-guided system that helps users pre-position the coupling in difficult environments, making connection easy and reducing maintenance time.
- Full range of optional seals, end connections and sizes, helping manufacturers benefit from the design in any type of application.

## Physical Characteristics

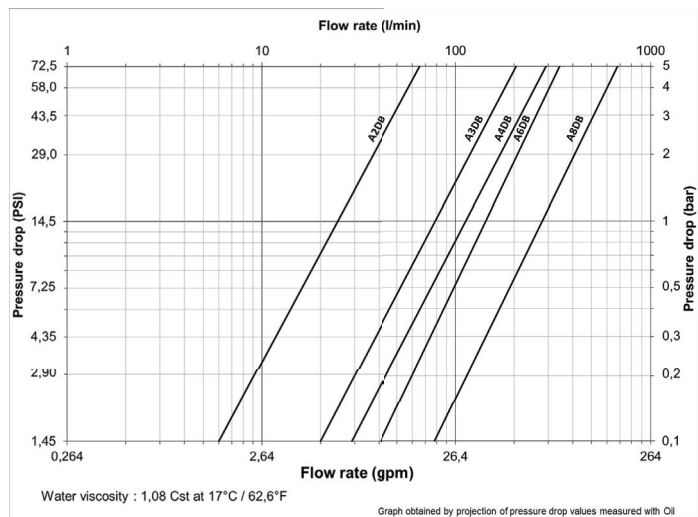
ADB Model	ISO size	Body size	Nominal Flow Diameter	Max. Operating Pressure	Rated* Flow	Air Inclusion	Fluid Loss	Force to Connect		
-	(mm)	(in)	(mm)	(bar)	(psi)	(lpm)	ml-cc.	N	lbf	
A2DB	6.3	1/4"	5.9	25	360	25	0.002	0.001	77	17
A3DB	10	3/8"	9	25	360	80	0.012	0.03	103	23
A4DB	12.5	1/2"	11.5	25	360	110	0.012	0.025	110	25
A6DB	19	3/4"	15	25	360	150	0.03	0.05	193	43
A8DB	25	1"	18.5	25	360	290	0.15	0.13	180	40

\* Indicated values refer to a 1 bar / 14.5 psi pressure drop with water values obtained by projection of pressure drops measured with Oil

## Applications & Markets

- Electrical cooling applications
- Renewable energy
- Railway
- Processing industry
- Datacenters

## Flow Data



## Seal Elastomer Data\*

Seal Elastomer	Max. Operation Temperature Range
FKM	-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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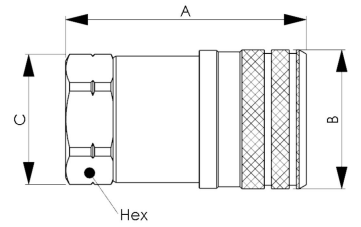


Figure 1

## Sockets (Female)

Part Number	Thread Size		Dimensions								Weight	
	Body Size	BSPP	A (in)	B (in)	C (in)	Hex (in)	A (mm)	B (mm)	C (mm)	Hex (mm)	lbs	grams
A2DBS25BS192	1/4'	1/4'	1.84	1.06	0.96	0.87	46.7	26.8	24.5	22	0.098	44.4
A3DBS37BS192	3/8'	3/8'	2.42	1.26	1.16	1.06	61.5	32	29.5	27	0.186	84.3
A4DBS50BS192	1/2'	1/2'	2.49	1.49	1.4	1.26	63.3	37.9	35.5	32	0.276	125.4
A6DBS75BS192	3/4'	3/4'	3.48	1.89	1.83	1.61	88.5	48	46.5	41	0.597	270.7
A8DBS100BS192	1'	1'	3.70	2.26	2.16	1.97	93.9	57.4	54.9	50	0.928	421

\*Alternative end connections available upon request.

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

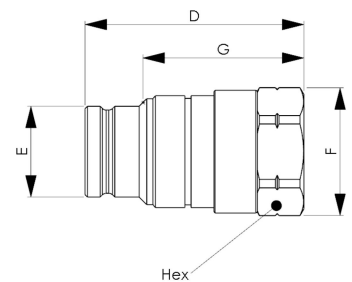


Figure 2

## Plugs (Male)

Part Number	Thread Size		Dimensions								Weight			
	Body Size	BSPP	D (in)	E (in)	F (in)	G (in)	Hex (in)	D (mm)	E (mm)	F (mm)	G (mm)	Hex (mm)	lbs	grams
A2DBP25BS192	1/4'	1/4'	1.71	0.65	0.96	1.26	0.87	43.5	16.5	24.5	32.1	22	0.063	28.4
A3DBP37BS192	3/8'	3/8'	2.25	0.77	1.16	1.45	1.06	57.1	19.7	29.5	39.5	27	0.111	50.35
A4DBP50BS192	1/2'	1/2'	2.39	0.99	1.4	1.59	1.26	60.6	25.2	35.5	40.4	32	0.187	85
A6DBP75BS192	3/4'	3/4'	3.28	1.29	1.83	2.27	1.61	83.4	32.8	46.5	57.7	41	0.376	170.7
A8DBP100BS192	1'	1'	3.52	1.59	2.16	2.44	1.97	89.4	40.4	54.9	62	50	0.575	261

\*Alternative end connections available upon request.

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

## Color Coding Ring Option\*

Body Size (in)	ISO Size (mm)	Size	Socket/Female Ring Part Number**				Plug/Male Ring Part Number**				Tool Part Number	Tool & Rings Kit Part Number***
			Blue	Red	Yellow	Green	Blue	Red	Yellow	Green		
1/2	12.5	12FF	CR12FFSLB	CR12FFSRD	CR12FFSYL	CR12FFSDG	CR12FFPLB	CR12FFPRD	CR12FFPYL	CR12FFPDG	CR12FFSP93	CRKIT12FF

For color coded rings TPE material is used that offers excellent flexibility which allows a very good shock resistance in demanding applications.

Good thermal, chemical and weather resistance provides a great fit on the coupling and a extended life time in toughest conditions.

The color coded rings are easy to install by using the referenced tools. Please refer to the user guide on "eaton.com"

\* For requests on alternative colors 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 color.



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