

Eaton® FD85 Series Thread to Connect Couplings



The Eaton FD85 Series is a thread to connect coupling most commonly used in Oil and Gas applications, but can also be found on demanding applications on both mobile and stationary equipment where operating pressures of 5,000 psi are present.

Product Features

- Thread to connect feature allows for use in high vibration and impulse applications
- Standard body material: Zinc trivalent plated carbon steel
Stainless steel construction available upon request
- Connect under residual pressure capability
- Standard seal material: Buna-N. FKM seals are available upon request
- Wing nut design allows for easy connection and disconnection
- Size 3/4" is offered in a hex nut design
- Available sizes include: 3/4", 1", 1 1/2"
- Female NPTF thread ends are standard and BSPP ends are available upon request

Applications & Markets

- Oilfields
- Offshore drilling
- Construction
- Oil and gas



Physical Characteristics

Body Size	Max. Operating Pressure		Min. Burst Pressure		Air Inclusion*	Fluid Loss*
	Connected					
	bar	psi	bar	psi	cc. max	cc. max
3/4"	345	5,000	1,379	20,000	10	10
1"	345	5,000	1,379	20,000	23	15
1 1/2"	345	5,000	1,035	15,000	100	60

* These values are Indicative

Lloyd's Register Certification

The FD85 Series carries a Lloyd's Registry Certificate for fire conditions outlined in API 16D and EUB Directive 36 for sizes 3/4" and 1". These parts meet the requirements that couplings shall be capable of maintaining pressure when exposed to a 700°C (1,300°F) temperature for a five-minute period in connected state.

Certification only applies to those assemblies where both mating parts socket/female and plug/male are Eaton FD85 Series thread to connect couplings.



Powering Business Worldwide

Female End Connections

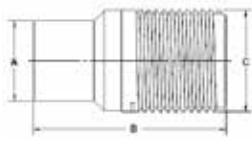


Figure 1

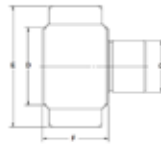


Figure 2

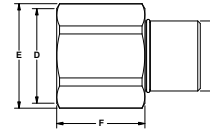


Figure 3

Plugs/Males

Part Number	Coupling Type	Body Size	Thread	Dimensions						
				Fig.	A (in)	B (in)	C (in)	A (mm)	B (mm)	C (mm)
FD85-1001-12-12	Plug/Male	3/4"	3/4-14 NPTF	1	1.38	3.27	1.75	35.1	83.1	44.5
FD85-1017-12-12	Plug/Male	3/4"	3/4-14 BSPP	1	1.38	3.27	1.75	35.1	83.1	44.5
FD85-1001-16-16	Plug/Male	1"	1-11 1/2 NPTF	1	1.77	4.17	2.25	45.0	105.9	57.2
FD85-1017-16-16	Plug/Male	1"	1-11 1/2 BSPP	1	1.77	4.17	2.25	45.0	105.9	57.2
FD85-1001-24-24	Plug/Male	1 1/2"	1 1/2- 11 1/2 NPTF	1	2.50	5.99	2.62	63.5	152.1	66.5
FD85-1017-24-24	Plug/Male	1 1/2"	1 1/2- 11 1/2 BSPP	1	2.50	5.99	2.62	63.5	152.1	66.5

Sockets/Females

Part Number	Coupling Type	Body Size	Thread	Dimensions								
				Fig.	D (in)	E (in)	F (in)	G (in)	D (mm)	E (mm)	F (mm)	G (mm)
FD85-1003-16-16	Socket/Female	1"	1-11 1/2 NPTF	2	2.67	4.18	2.21	1.77	67.8	106.2	56.1	45.0
FD85-1019-16-16	Socket/Female	1"	1-11 1/2 BSPP	2	2.67	4.18	2.21	1.77	67.8	106.2	56.1	45.0
FD85-1003-24-24	Socket/Female	1 1/2"	1 1/2- 11 1/2 NPTF	2	3.67	5.67	3.31	2.50	93.2	144.0	84.1	63.5
FD85-1019-24-24	Socket/Female	1 1/2"	1 1/2- 11 1/2 BSPP	2	3.67	5.67	3.31	2.50	93.2	144.0	84.1	63.5

Part Number	Coupling Type	Body Size	Thread	Dimensions								
				Fig.	D (in)	E (in)	F (in)	G (in)	D (mm)	E (mm)	F (mm)	G (mm)
FD85-1003-12-12	Socket/Female	3/4"	3/4-14 NPTF	3	2.23	3.21	1.76	1.38	56.6	81.5	44.7	35.1
FD85-1019-12-12	Socket/Female	3/4"	3/4-14 BSPP	3	2.23	3.21	1.76	1.38	56.6	81.5	44.7	35.1

Complete Sets*

Part Number	Coupling Type	Body Size	Thread	Figure
FD85-1000-12-12	Complete	3/4"	3/4-14 NPTF	1 & 3
FD85-1016-12-12	Complete	3/4"	3/4-14 BSPP	1 & 3
FD85-1000-16-16	Complete	1"	1-11 1/2 NPTF	1 & 2
FD85-1016-16-16	Complete	1"	1-11 1/2 BSPP	1 & 2
FD85-1000-24-24	Complete	1 1/2"	1 1/2- 11 1/2 NPTF	1 & 2
FD85-1016-24-24	Complete	1 1/2"	1 1/2- 11 1/2 BSPP	1 & 2

*Includes one each of Socket/Female and one Plug/Male half in the outlined size