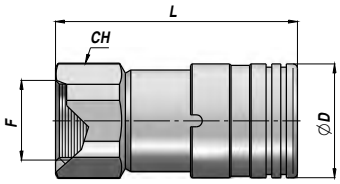
AIFIRF

COUPLEUR ANTIPOLLUTION
FLAT FACE QUICK COUPLING



Femelle - *Female*
ISO 16028 e NFPA T3.30.15 (HTMA)



"FIRG" TYPE

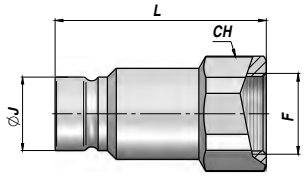
Code *Code*	Type *Type*	F BSP	P MAX bar**	L	ØD	CH	kg
AIFIRF0400	F-FIRG14	1/4"	300	48.1	28	22	0,14
AIFIRF0600	F-FIRG38	3/8"	300	64.2	32	27	0,24
AIFIRF0800	F-FIRG12	1/2"	300	69.2	32	27	0,24
AIFIRFA080	F-FIRG12A	1/2"	250	73.8	38	32	0,38
AIFIRF1200	F-FIRG34	3/4"	250	80.8	38	36	0,41
AIFIRFB120	F-FIRG34B	3/4"	250	78.5	42	36	0,48
AIFIRFA120	F-FIRG34A	3/4"	330	88.7	48	41	0,75
AIFIRF1600	F-FIRG100	1"	250	93.2	48	45	0,77
AIFIRF2000	F-FIRG114	1"1/4	250	106.0	55	55	1,22
AIFIRF2400	F-FIRG112	1"1/2	200	132.4	80	65	2,82

AIFIRM

COUPLEUR ANTIPOLLUTION
FLAT FACE QUICK COUPLING



Mâle - *Male*
ISO 16028 e NFPA T3.30.15 (HTMA)



"FIRG" TYPE

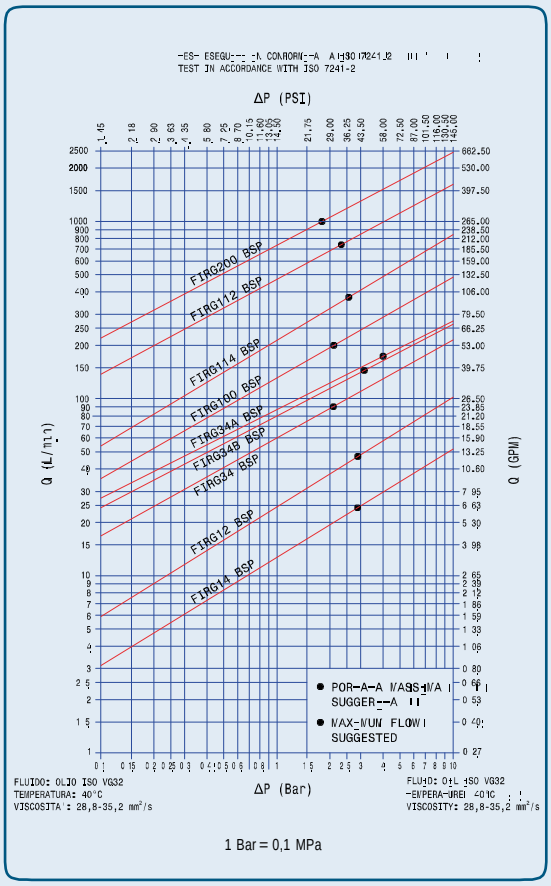
Code *Code*	Type *Type*	F BSP	P MAX bar**	ØJ	L	CH	kg
AIFIRM0400	M-FIRG14	1/4"	300	16.1	47.9	22	0,09
AIFIRM0600	M-FIRG38	3/8"	300	19.7	60.0	24	0,12
AIFIRM0800	M-FIRG12	1/2"	300	19.7	62.5	27	0,13
AIFIRMA080	M-FIRG12A	1/2"	250	24.5	68.0	32	0,23
AIFIRM1200	M-FIRG34	3/4"	250	24.5	70.5	36	0,23
AIFIRMB120	M-FIRG34B	3/4"	250	27.0	70.5	36	0,27
AIFIRMA120	M-FIRG34A	3/4"	330	30.0	82.3	41	0,45
AIFIRM1600	M-FIRG100	1"	250	30.0	82.3	45	0,39
AIFIRM2000	M-FIRG114	1"1/4	250	36.0	89.8	55	0,64
AIFIRM2400	M-FIRG112	1"1/2	200	57.0	111.1	65	1,67

La société peut apporter toute modification au produit sans avis préalable.
The company reserves the right to modify the product at any time without prior notice.

FIRG SERIES

INTERCHANGE > **ISO 16028 - NFPA T3.20.15 - HTMA (size 3/8")**





TECHNICAL FEATURES AND OPTIONS

Interchange
ISO 16028
NFPA T3.20.15
HTMA (size 3/8")

Sealing description
Nitrile NBR

Connection system
Push

Available sizes
from 1/4"
to 2"

Material /treatment
Carbon steel /Cr3

Available threads
BSP - NPT - SAE

Operating pressure
Up to 300 bar

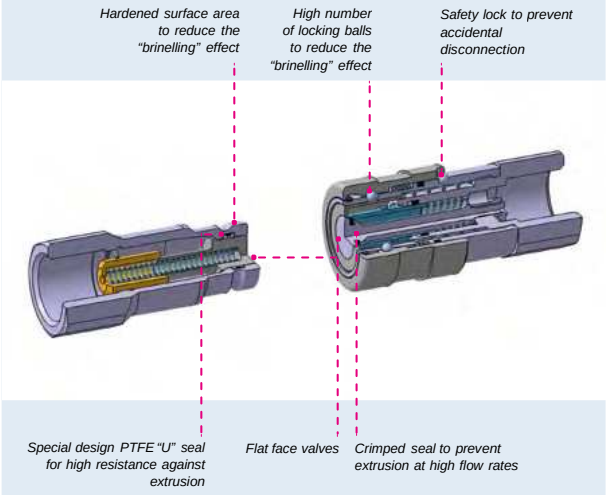
Locking mechanism
Locking ball + Safety Lock

Flow rate
Up to 1000 L/Min

Temperature (°C)
-20° / +100°

Valving style
Flat face

Connection under pressure
Connection: not allowed
Disconnection: not allowed



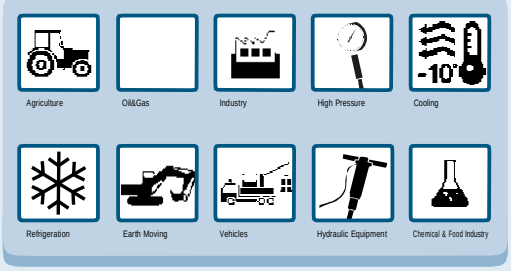
BENEFITS

- Flat face is easy to clean, reducing the inclusion of contamination inside the hydraulic circuit.
- Minimal fluid spillage during disconnection, reducing fluid spillage to the environment.
- Minimal air inclusion during connection, enhancing correct function of the circuit.
- Linear flow reduces internal turbulence and pressure drop maintaining circuit efficiency.
- Good resistance to pressure impulses when the couplings are connected.
- Compact slim design.
- Safe and simple to use.

HOW TO USE

- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit.
- To connect push the male half towards the female half or vice versa.
- After connection turn the external sleeve to engage safety lock function, to prevent accidental disconnection.
- To disconnect turn the external sleeve until the sleeve lock notch match the safety lock ball and push back the sleeve.

MAIN APPLICATIONS



PERFORMANCES

Size		Series/Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
Inch	mm (ISO)		l/min	GPM	N	lbf	N	lbf	ml
1/4	6,3	FIRG14	24	6,36	140	31,50	40	9,00	0,01
3/8	10,0	FIRG38-12	46	12,19	150	33,75	40	9,00	0,01
1/2	12,5	FIRG12A-34	90	23,85	160	36,00	60	13,50	0,02
5/8	16,0	FIRG34B	148	39,22	180	40,50	55	12,38	0,02
3/4	19,0	FIRG34A	170	45,05	270	60,75	90	20,25	0,03
3/4	19,0	FIRG100	200	53,00	240	54,00	65	14,63	0,03
1	25,0	FIRG114	378	100,17	310	69,75	100	22,50	0,03
1-1/2		FIRG112	750	198,75	390	87,75	90	20,25	0,05
2		FIRG200	1000	265,00	470	105,75	100	22,50	0,1

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
1/4	FIRG14	30	4350	42	6090	12	1740	120	17400	126	18270	48	6960
3/8	FIRG38-12	30	4350	30	4350	12	1740	120	17400	120	17400	48	6960
1/2	FIRG12A-34	25	3625	25	3625	10	1450	100	14500	100	14500	40	5800
5/8	FIRG34B	25	3625	22	3190	10	1450	100	14500	88	12760	40	5800
3/4	FIRG34A	33	4785	33	4785	33	4785	100	14500	100	14500	100	14500
3/4	FIRG100	25	3625	20	2900	10	1450	100	14500	80	11600	40	5800
1	FIRG114	25	3625	20	2900	10	1450	100	14500	80	11600	40	5800
1-1/2	FIRG112	20	2900	27	3915	8	1160	80	11600	80	11600	32	4640
2	FIRG200	20	2900	16	2320	8	1160	80	11600	64	9280	32	4640

*Spillage is an indicative value of the fluid loss during disconnection (according to ISO 7241-2 test method)

Temperature range:
- Standard seals NBR (Nitrile): from -20 °C to +100 °C (from -4 °F to +212 °F).
- VITON® seals: form -15°C to +180°C (from +5 °F to +356 °F).

Please read carefully “instruction and warning” for proper selection of the products.

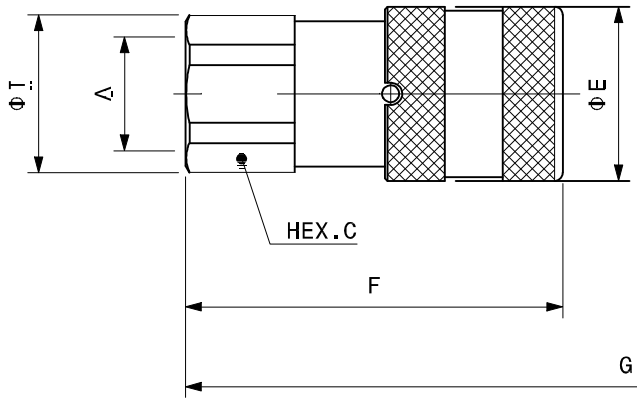
Tests:
The couplings have been tested at max. operating pressure for 100.000 impulses according to ISO 7241-2.

⚠ WARNING

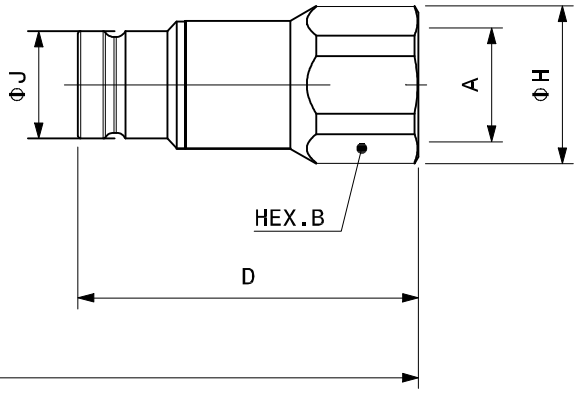
A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Do not use the female coupling disconnected with high impulse pressure.
Do not couple-uncouple with flow and/or pressure in the circuit.
Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
Check the maximum allowable working pressure of the port in use.
Make sure that the medium used is compatible with seal and material as indicated for each series.
In case of doubt please contact Technical Support.
The interchangeability is mentioned under the assumption that the manufacturer of the considered products has not changed any dimension.
It is MANDATORY to read and closely follow the instructions. Last updated version always apply at time of installation, see latest written Instructions on website before selecting or using products.

OVERALL DIMENSIONS

FEMALE



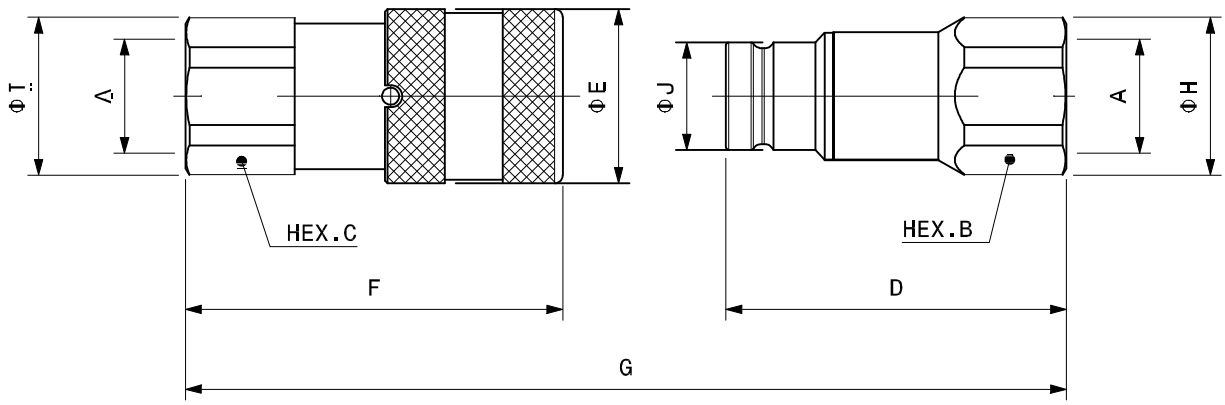
MALE



Port description: FEMALE THREAD BSPP (ISO1179-1)

BODY SIZE	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
							mm	inch		mm	inch		mm	inch		mm	inch		mm	inch	Kg	Lbs
1/4"	F FIRG 14 BSP	Female	800800000	6,3	1/4"	G	85,2	3,35	F	48,1	1,89	C	22,0	0,87	I	23,8	0,94	E	28,0	1,10	0,14	0,31
	M FIRG 14 BSP	Male	800800001						D	47,9	1,89	B	22,0	0,87	H	23,8	0,94	J	16,1	0,63	0,09	0,19
3/8"	F FIRG 38 BSP	Female	800800004	10	3/8"	G	108,7	4,28	F	64,2	2,53	C	27,0	1,06	I	29,0	1,14	E	32,0	1,26	0,24	0,52
	M FIRG 38 BSP	Male	800800005						D	60,0	2,36	B	24,0	0,94	H	26,0	1,02	J	19,7	0,78	0,12	0,27
3/8"	F FIRG 12 BSP	Female	800800002	10	1/2"	G	116,2	4,57	F	69,2	2,72	C	27,0	1,06	I	29,0	1,14	E	32,0	1,26	0,24	0,52
	M FIRG 12 BSP	Male	800800003						D	62,5	2,46	B	27,0	1,06	H	29,0	1,14	J	19,7	0,78	0,13	0,28
1/2"	F FIRG 12A BSP	Female	800800006	12,5	1/2"	G	124,5	4,90	F	73,8	2,91	C	32,0	1,26	I	33,8	1,33	E	38,0	1,50	0,38	0,83
	M FIRG 12A BSP	Male	800800007						D	68,0	2,68	B	32,0	1,26	H	33,8	1,33	J	24,5	0,96	0,23	0,51
1/2"	F FIRG 34 BSP	Female	800800008	12,5	3/4"	G	134,0	5,28	F	80,8	3,18	C	36,0	1,42	I	38,5	1,52	E	38,0	1,50	0,41	0,91
	M FIRG 34 BSP	Male	800800009						D	70,5	2,78	B	36,0	1,42	H	38,5	1,52	J	24,5	0,96	0,23	0,50
5/8"	F FIRG 34B BSP	Female	800800010	16	3/4"	G	131,4	5,17	F	78,5	3,09	C	36,0	1,42	I	38,5	1,52	E	42,0	1,65	0,48	1,06
	M FIRG 34B BSP	Male	800800011						D	70,5	2,78	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	0,27	0,59
3/4"	F FIRG 34A BSP	Female	800800020	19	3/4"	G	149,0	5,87	F	88,7	3,49	C	41,0	1,61	I	44,8	1,76	E	48,0	1,89	0,75	1,65
	M FIRG 34A BSP	Male	800800021						D	82,3	3,24	B	41,0	1,61	H	44,8	1,76	J	30,0	1,18	0,45	0,98
3/4"	F FIRG 100 BSP	Female	800800012	19	1"	G	153,5	6,04	F	93,2	3,67	C	45,0	1,77	I	47,8	1,88	E	48,0	1,89	0,77	1,69
	M FIRG 100 BSP	Male	800800013						D	82,3	3,24	B	45,0	1,77	H	47,8	1,88	J	30,0	1,18	0,39	0,87
1"	F FIRG 114 BSP	Female	800800014	25	1-1/4"	G	172,8	6,80	F	106,0	4,17	C	55,0	2,17	I	59,8	2,35	E	55,0	2,17	1,22	2,68
	M FIRG 114 BSP	Male	800800015						D	89,8	3,54	B	55,0	2,17	H	59,8	2,35	J	36,0	1,42	0,64	1,41
1-1/2"	F FIRG 112 BSP	Female	800800016	-	1-1/2"	G	214,9	8,46	F	132,4	5,21	C	65,0	2,56	I	72,0	2,83	E	80,0	3,15	2,82	6,22
	M FIRG 112 BSP	Male	800800017						D	111,1	4,37	B	65,0	2,56	H	69,8	2,75	J	57,0	2,24	1,67	3,67
2"	F FIRG 200 BSP	Female	800800018	-	2"	G	241,5	9,51	F	156,6	6,17	C	80,0	3,15	I	88,5	3,48	E	100,0	3,94	5,10	11,24
	M FIRG 200 BSP	Male	800800019						D	123,8	4,87	B	75,0	2,95	H	83,5	3,29	J	73,0	2,87	2,26	4,98

FEMALE **MALE**

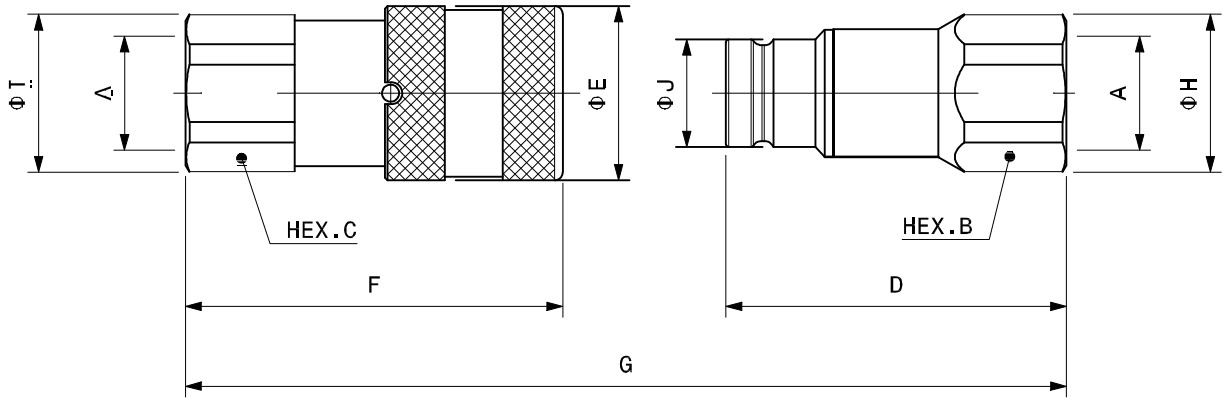


Port description: FEMALE THREAD NPT (ANSI B.1.20.1)

BODY SIZE	Descriptive Code	Item Code	ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
						mm	inch		mm	inch		mm	inch		mm	inch		mm	inch	Kg	Lbs
1/4"	F FIRG 14 NPT	Female 800801000	6,3	1/4"	G	85,2	3,35	F	48,1	1,89	C	22,0	0,87	I	23,8	0,94	E	28,0	1,10	0,14	0,31
	M FIRG 14 NPT	Male 800801001						D	47,9	1,89	B	22,0	0,87	H	23,8	0,94	J	16,1	0,63	0,09	0,19
3/8"	F FIRG 38 NPT	Female 800801004	10	3/8"	G	108,7	4,28	F	64,2	2,53	C	27,0	1,06	I	29,0	1,14	E	32,0	1,26	0,24	0,52
	M FIRG 38 NPT	Male 800801005						D	60,0	2,36	B	24,0	0,94	H	26,0	1,02	J	19,7	0,78	0,12	0,27
3/8"	F FIRG 12 NPT	Female 800801002	10	1/2"	G	116,2	4,57	F	69,2	2,72	C	27,0	1,06	I	29,0	1,14	E	32,0	1,26	0,24	0,53
	M FIRG 12 NPT	Male 800801003						D	62,5	2,46	B	27,0	1,06	H	29,0	1,14	J	19,7	0,78	0,13	0,29
1/2"	F FIRG 12A NPT	Female 800801006	12,5	1/2"	G	124,5	4,90	F	73,8	2,91	C	32,0	1,26	I	33,8	1,33	E	38,0	1,50	0,38	0,83
	M FIRG 12A NPT	Male 800801007						D	68,0	2,68	B	32,0	1,26	H	33,8	1,33	J	24,5	0,96	0,24	0,52
1/2"	F FIRG 34 NPT	Female 800801008	12,5	3/4"	G	134,0	5,28	F	80,8	3,18	C	36,0	1,42	I	38,5	1,52	E	38,0	1,50	0,42	0,93
	M FIRG 34 NPT	Male 800801009						D	70,5	2,78	B	36,0	1,42	H	38,5	1,52	J	24,5	0,96	0,23	0,52
5/8"	F FIRG 34B NPT	Female 800801010	16	3/4"	G	131,4	5,17	F	78,5	3,09	C	36,0	1,42	I	38,5	1,52	E	42,0	1,65	0,49	1,08
	M FIRG 34B NPT	Male 800801011						D	70,5	2,78	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	0,27	0,60
3/4"	F FIRG 34A NPT	Female 800801020	19	3/4"	G	149,0	5,87	F	88,7	3,49	C	41,0	1,61	I	44,8	1,76	E	48,0	1,89	0,76	1,66
	M FIRG 34A NPT	Male 800801021						D	82,3	3,24	B	41,0	1,61	H	44,8	1,76	J	30,0	1,18	0,45	0,99
3/4"	F FIRG 100 NPT	Female 800801012	19	1"	G	153,5	6,04	F	93,2	3,67	C	45,0	1,77	I	47,8	1,88	E	48,0	1,89	0,78	1,72
	M FIRG 100 NPT	Male 800801013						D	82,3	3,24	B	45,0	1,77	H	47,8	1,88	J	30,0	1,18	0,41	0,89
1"	F FIRG 114 NPT	Female 800801014	25	1 1/4"	G	172,8	6,80	F	106,0	4,17	C	55,0	2,17	I	59,8	2,35	E	55,0	2,17	1,22	2,68
	M FIRG 114 NPT	Male 800801015						D	89,8	3,54	B	55,0	2,17	H	59,8	2,35	J	36,0	1,42	0,66	1,46
1-1/2"	F FIRG 112 NPT	Female 800801016	-	1 1/2"	G	214,9	8,46	F	132,4	5,21	C	65,0	2,56	I	72,0	2,83	E	80,0	3,15	2,85	6,28
	M FIRG 112 NPT	Male 800801017						D	111,1	4,37	B	65,0	2,56	H	69,8	2,75	J	57,0	2,24	1,67	3,68
2"	F FIRG 200 NPT	Female 800801018	-	2"	G	241,5	9,51	F	156,6	6,17	C	80,0	3,15	I	88,5	3,48	E	100,0	3,94	5,10	11,24
	M FIRG 200 NPT	Male 800801019						D	123,8	4,87	B	75,0	2,95	H	83,5	3,29	J	73,0	2.87	2,26	4,98

FEMALE

MALE



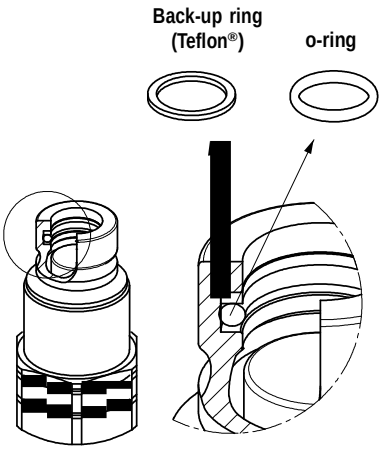
Port description: FEMALE THREAD SAE (ISO 11926-1 & SAE J1926-1)

BODY SIZE	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
							mm	inch		mm	inch		mm	inch		mm	inch		mm	inch	Kg	Lbs
1/4"	F FIRG 14 3/8 SAE	Female	800804000	6,3	9/16-18UNF	G	93,2	3,67	F	53,1	2,09	C	22,0	0,87	I	23,8	0,94	E	28,0	1,10	0,15	0,33
	M FIRG 14 3/8 SAE	Male	800804001						D	50,9	2,00	B	22,0	0,87	H	23,8	0,94	J	16,1	0,63	0,09	0,20
3/8"	F FIRG 38 1/2 SAE	Female	800804002	10	3/4-16UNF	G	116,2	4,57	F	69,2	2,72	C	27,0	1,06	I	29,0	1,14	E	32,0	1,26	0,24	0,54
	M FIRG 38 1/2 SAE	Male	800804003						D	62,5	2,46	B	27,0	1,06	H	29,0	1,14	J	19,7	0,78	0,14	0,31
3/8"	F FIRG 12 5/8 SAE	Female	800804004	10	7/8-14UNF	G	119,7	4,71	F	71,2	2,80	C	30,0	1,18	I	32,0	1,26	E	32,0	1,26	0,26	0,57
	M FIRG 12 5/8 SAE	Male	800804005						D	64,0	2,52	B	30,0	1,18	H	32,0	1,26	J	19,7	0,78	0,15	0,32
1/2"	F FIRG 12A 5/8 SAE	Female	800804006	12,5	7/8-14UNF	G	129,0	5,08	F	76,3	3,00	C	32,0	1,26	I	33,8	1,33	E	38,0	1,50	0,38	0,83
	M FIRG 12A 5/8 SAE	Male	800804007						D	70,0	2,76	B	32,0	1,26	H	33,8	1,33	J	24,5	0,96	0,23	0,51
1/2"	F FIRG 34 SAE	Female	800804008	12,5	1-1/16-12UN	G	138,0	5,43	F	83,3	3,28	C	36,0	1,42	I	38,5	1,52	E	38,0	1,50	0,42	0,93
	M FIRG 34 SAE	Male	800804009						D	72,0	2,83	B	36,0	1,42	H	38,5	1,52	J	24,5	0,96	0,23	0,51
5/8"	F FIRG 34B SAE	Female	800804010	16	1-1/16-12UN	G	137,9	5,43	F	83,5	3,29	C	36,0	1,42	I	38,5	1,52	E	42,0	1,65	0,50	1,10
	M FIRG 34B SAE	Male	800804011						D	72,0	2,83	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	0,27	0,59
3/4"	F FIRG 34A SAE	Female	800804020	19	1-1/16-12UN	G	149,0	5,87	F	88,7	3,49	C	41,0	1,61	I	44,8	1,76	E	48,0	1,89	0,75	1,64
	M FIRG 34A SAE	Male	800804021						D	82,3	3,24	B	41,0	1,61	H	44,8	1,76	J	30,0	1,18	0,44	0,97
3/4"	F FIRG 100 SAE	Female	800804012	19	1-5/16-12UN	G	153,5	6,04	F	93,2	3,67	C	45,0	1,77	I	47,8	1,88	E	48,0	1,89	0,77	1,69
	M FIRG 100 SAE	Male	800804013						D	82,3	3,24	B	45,0	1,77	H	47,8	1,88	J	30,0	1,18	0,39	0,87
1"	F FIRG 114 SAE	Female	800804014	25	1-5/8-12UN	G	172,8	6,80	F	106,0	4,17	C	55,0	2,17	I	59,8	2,35	E	55,0	2,17	1,22	2,68
	M FIRG 114 SAE	Male	800804015						D	89,8	3,54	B	55,0	2,17	H	59,8	2,35	J	36,0	1,42	0,64	1,41
1-1/2"	F FIRG 112 SAE	Female	800804016	-	1-7/8-12UN	G	214,9	8,46	F	132,4	5,21	C	65,0	2,56	I	72,0	2,83	E	80,0	3,15	2,82	6,22
	M FIRG 112 SAE	Male	800804017						D	111,1	4,37	B	65,0	2,56	H	69,8	2,75	J	57,0	2,24	1,66	3,65
2"	F FIRG 200 SAE	Female	800804018	-	2-1/2-12UN	G	241,5	9,51	F	156,6	6,17	C	80,0	3,15	I	88,5	3,48	E	100,0	3,94	5,10	11,24
	M FIRG 200 SAE	Male	800804019						D	123,8	4,87	B	75,0	2,95	H	83,5	3,29	J	73,0	2.87	2,26	4,98

SPARE KIT SEAL FOR MALE

Repair kit / OR+BK		
Body Size	Description	Part Number
1/4”	M FIRG14	815700519
3/8”	M FIRG38-12	815700337
1/2”	M FIRG12A-34	815700339
5/8”	M FIRG34B	815700341
3/4”	M FIRG100-34A	815700343
1”	M FIRG114	815700345
1-1/2”	M FIRG112	815700521
2”	M FIRG200	815700796

O-Ring in Nitrile
BackUp in Teflon®

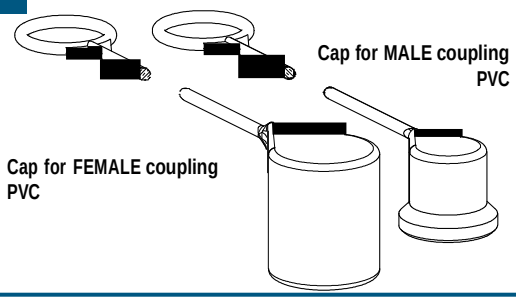


PROTECTIVE CAPS FOR FIRG SERIES

Protective caps are always recommended to protect the couplings from damage, dirt inclusion, and will increase the product life. This is particularly important in mobile applications where exposure to weather and aggregate materials are common.
For the FIRG series are available three kind of materials:

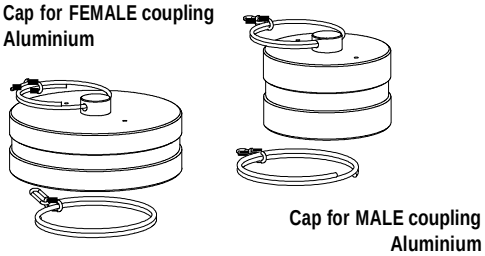
- plastic caps with lanyard (standard color: red, other colors available upon request)
- aluminum caps with lanyard (standard colors: natural aluminum, other colors available upon request)
- nylon caps, clip system (standard color: red, other colors available upon request)

Plastic



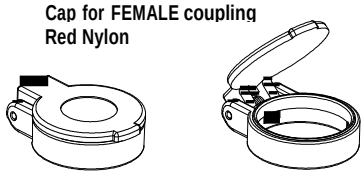
Protective Cap				
Body Size/Description		Part Number		Material/Color
		Cap for Female	Cap for Male	
1/4”	FIRG14	815100000	815100023	PVC/Red
3/8”	FIRG38-12	815100002	815100025/027	PVC/Red
1/2”	FIRG12A-34	815100004/006	815100029/031	PVC/Red
5/8”	FIRG34B	815100008	815100011	PVC/Red
3/4”	FIRG100-34A	815100010	815100013	PVC/Red
1”	FIRG114	815100012	815100015	PVC/Red

Aluminum



Protective Cap				
Body Size/Description		Part Number		Material/Color
		Cap for Female	Cap for Male	
1/4”	FIRG14	816005002	816005003	Aluminum/Natural
3/8”	FIRG38-12	816005004	816005005	Aluminum/Natural
1/2”	FIRG12A-34	816005006	816005007	Aluminum/Natural
3/4”	FIRG100-34A	816005010	816005011	Aluminum/Natural
1”	FIRG114	816005012	816005013	Aluminum/Natural
1-1/2”	FIRG112	815105014	815105017	Auminum/Natural
2”	FIRG200	815105016	815105019	Aluminum/Natural

Nylon



Protective Cap			
Body Size/Description		Part Number	Material/Color
		Cap for Female	
3/8”	FIRG38-12	815200002	Nylon/Red
1/2”	FIRG12A-34	815200004	Nylon/Red
5/8”	FIRG34B	815200006	Nylon/Red
3/4”	FIRG100-34A	815200008	Nyon/Red