IRCSERIES

INTERCHANGE > **with similar product (Nordic interface)**



TECHNICAL FEATURES AND OPTIONS

Interchange
With similar product (Nordic interface)

Sealing description
Nitrile NBR

Connection system
Single acting sleeve

Available sizes
From 1/4" to 1"

Material /treatment
Carbon steel ZnNi

Available threads
BSP - NPT - SAE

Operating pressure
Up to 450 bar

Locking mechanism
Ball locking + safety sleeve

Flow rate
Up to 378 l/min

Temperature (°C)
-20°C / +100°C

Valving style
Poppet

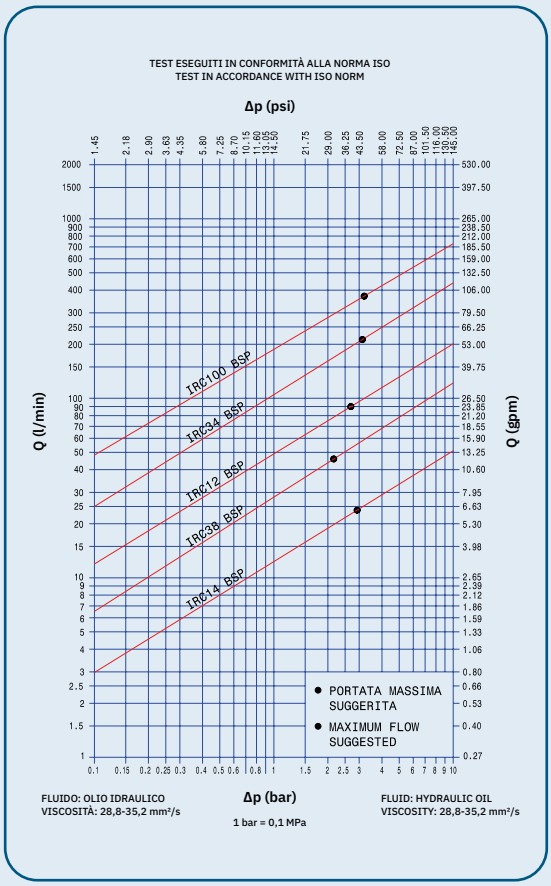
Connection under pressure
Only PC version
Connection: one side
Disconnection: not allowed

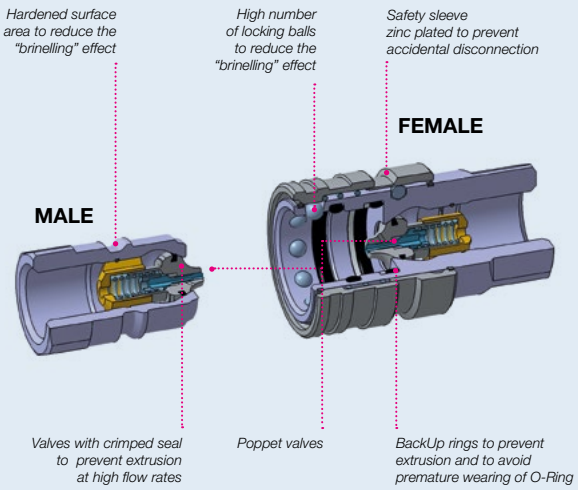
BENEFITS

- Connection under residual pressure is allowed in the male or in the female (PC version). Please notice that the counterpart side should be drained and should use a standard poppet half.
- The poppet valve with elastomer seal provides maximum sealing of the couplings once disconnected.
- O-Ring + BackUp ring for optimum protection sealing.
- The Zinc Nickel plating ensures high resistance to corrosion and it is ideal for hydraulic equipment applications where an improved corrosion resistance is necessary.
- Additional O-Ring for extra sealing capacity and to contain spray effect to avoid soil contamination.
- High durability.
- Reference products for tough applications, typically used in Nordic countries.
- Safety sleeve to prevent accidental disconnection.
- Shape of internal parts is optimized to reduce turbulence and pressure drop.
- High resistance to pressure impulses.
- Compact design.
- 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: pull back the sleeve of the female coupling, align the female with the male coupling and push one into the other until both halves are fully connected and release the sleeve.
- To avoid accidental disconnection rotate safety sleeve.
- To disconnect: unlock the safety sleeve and pull back the sleeve of the female coupling, pull out the mating half.





This image represents PC version (release pressure device system)

MAIN APPLICATIONS



PERFORMANCES

Size		Series/Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
in	mm		l/min	gpm	N	lbf	N	lbf	ml
1/4	6.3	IRC14	24	6,36	60	13,49	30	6,74	1,1
3/8	10	IRC38	46	12,19	90	20,23	35	7,87	2,5
1/2	12,5	IRC12	90	23,85	120	26,98	35	7,87	3,5
3/4	20	IRC34	212	56,18	170	38,22	45	10,12	15
1	25	IRC100**	378	100,17	210	47,21	45	10,12	18

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
in	Steel	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
1/4	IRC14	45	6525	30	4350	30	4350	180	26100	120	17400	120	17400
3/8	IRC38	35	5075	28	4060	28	4060	130	18850	110	15950	110	15950
1/2	IRC12	33	4785	25	3625	25	3625	110	15950	100	14500	100	14500
3/4	IRC34	33	4785	25	3625	25	3625	100	14500	80	11600	80	11600
1	IRC100**	33	4785	25	3625	25	3625	100	14500	100	14500	100	14500

* Spillage is an indicative value of the fluid loss during disconnection (according to ISO norm test method).

** Specific dimensions of Stucchi IRC series are certified with Lloyd Type Approval in accordance with API 16D at specific rating pressure of 207 bar/3000 PSI. For complete technical information please contact Stucchi Technical Support.

Different possible configurations:
PC version, connectable under residual pressure.
PL version, free flow.
SAE thread available upon request.

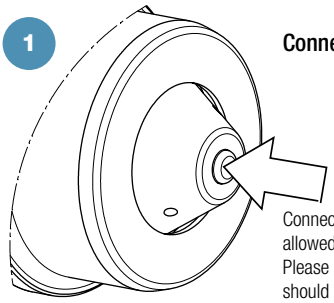
For complete technical information please contact Stucchi Technical Support.

Temperature range:
Seals in NBR (Nitrile): from -20 °C to +100 °C (from -4 °F to +212 °F).
Upon request seals in FKM (VITON®): from -15°C to +180°C (from +5 °F to +356 °F).
Please read carefully Instructions and warnings for proper selection of the products.

Tests performed:
Qualification tests have been performed with hydraulic oil using couplings with FKM (VITON®) seals.
The max. operating pressure have been verified for 200.000 impulses in coupled position and 100.000 impulses in uncoupled position according to ISO norm test method.

PC version

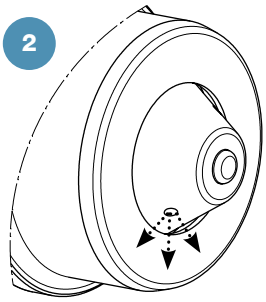
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Connect the counter part

Connection under residual pressure is allowed in the male or in the female. Please notice that the counterpart side should be drained and should use a standard poppet half.

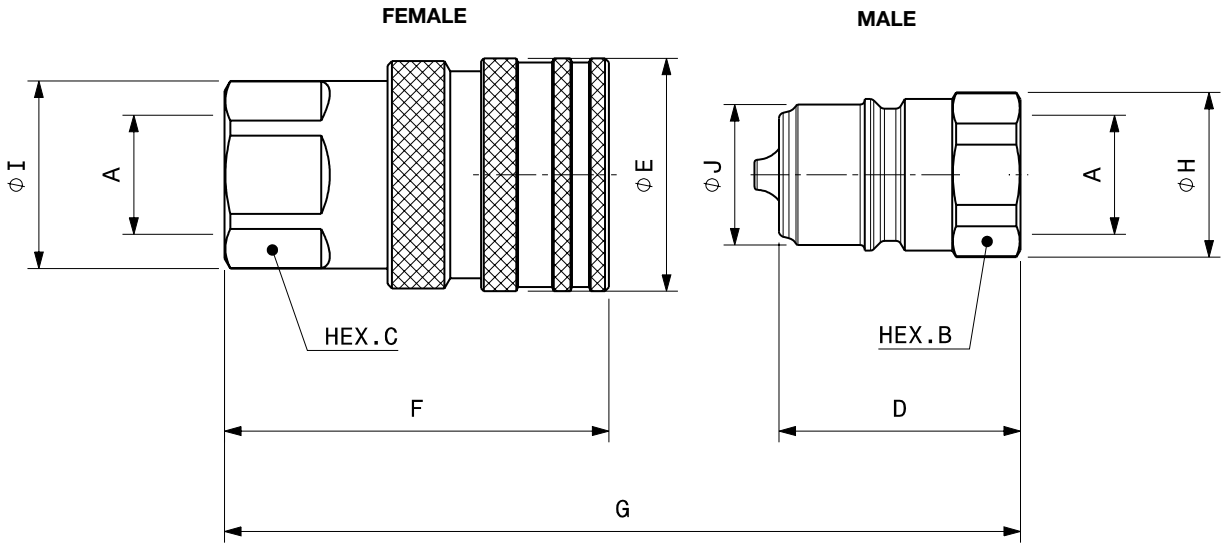
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The residual pressure released by the small holes during connection

⚠ WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Connect under pressure products (PC version) are suitable to be connected under residual (static) pressure.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Do not couple-uncouple with flow and pressure in the circuit (except PC version).
Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
Do not use the coupling disconnected with high impulse pressure.
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 Stucchi 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 carefully read and closely follow the instructions before selecting or using any Stucchi products.
Always refer to the version uploaded in the Instructions and warning section of stucchigroup.com website for the latest release.
For specific, product-related, instructions, please contact Stucchi technical service.



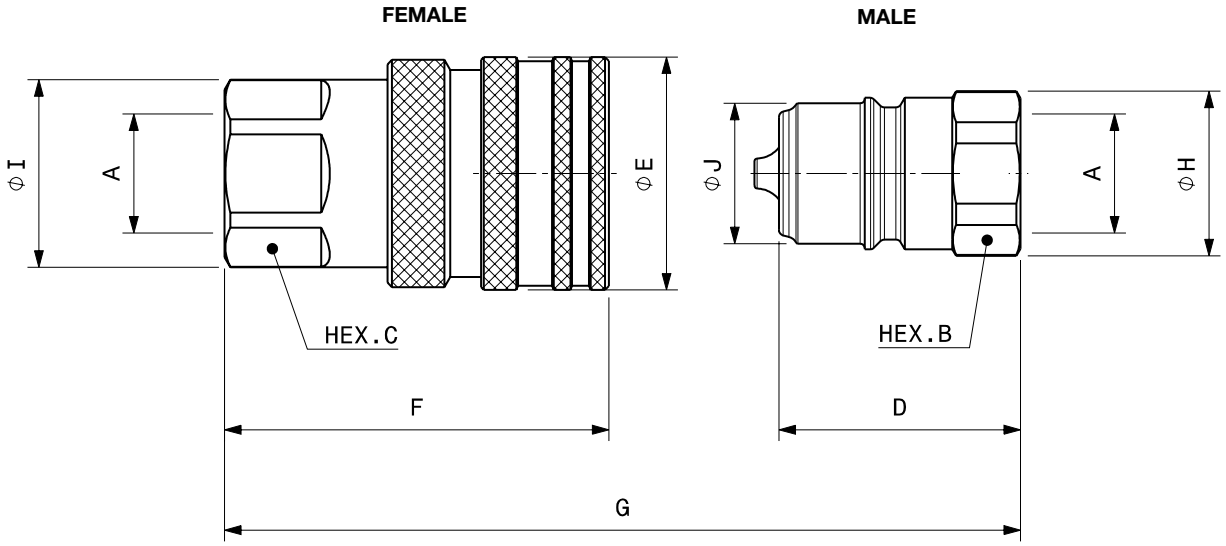
Port description: FEMALE THREAD BSPP (ISO 1179-1)

Body Size	Descriptive Code	Item Code		PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
						mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/4"	F IRC14 BSP	Female	812100000	1/4"	G	81,7	3,22	F	60,0	2,36	C	21,0	0,83	I	21,0	0,83	E	26,0	1,02	0,15	0,32
	M IRC14 BSP	Male	812100001					D	48,2	1,90	B	19,0	0,75	H	21,0	0,83	J	12,0	0,47	0,05	0,11
3/8"	F IRC38 BSP	Female	812100002	3/8"	G	76,4	3,01	F	61,6	2,43	C	24,0	0,94	I	26,0	1,02	E	35,0	1,38	0,22	0,48
	M IRC38 BSP	Male	812100003					D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	19,9	0,78	0,06	0,12
1/2"	F IRC12 BSP	Female	812100004	1/2"	G	85,2	3,35	F	67,6	2,66	C	30,0	1,18	I	33,0	1,30	E	41,0	1,61	0,33	0,72
	M IRC12 BSP	Male	812100005					D	42,5	1,67	B	27,0	1,06	H	29,0	1,14	J	24,7	0,97	0,10	0,21
3/4"	F IRC34 BSP	Female	812100006	3/4"	G	94,6	3,72	F	76,2	3,00	C	38,0	1,50	I	41,6	1,64	E	52,0	2,05	0,58	1,27
	M IRC34 BSP	Male	812100007					D	47,0	1,85	B	36,0	1,42	H	39,0	1,54	J	32,7	1,29	0,19	0,41
1"	F IRC100 BSP	Female	812100008	1"	G	113,4	4,46	F	92,0	3,62	C	45,0	1,77	I	48,0	1,89	E	62,0	2,44	0,97	2,14
	M IRC100 BSP	Male	812100009					D	56,5	2,22	B	45,0	1,77	H	48,0	1,89	J	40,9	1,61	0,35	0,77

Port description: FEMALE THREAD BSPP (ISO 1179-1)

PC version poppet sealing system connectable under pressure

Body Size	Descriptive Code	Item Code		PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
						mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
3/8"	F IRC38PC BSP	Female	812100010	3/8"	G	76,4	3,01	F	61,6	2,43	C	24,0	0,94	I	26,0	1,02	E	35,0	1,38	0,22	0,48
	M IRC38PC BSP	Male	812100011					D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	19,9	0,78	0,06	0,12
1/2"	F IRC12PC BSP	Female	812100012	1/2"	G	85,2	3,35	F	67,6	2,66	C	30,0	1,18	I	33,0	1,30	E	41,0	1,61	0,33	0,72
	M IRC12PC BSP	Male	812100013					D	42,5	1,67	B	27,0	1,06	H	29,0	1,14	J	24,7	0,97	0,10	0,21
3/4"	F IRC34PC BSP	Female	812100014	3/4"	G	94,6	3,72	F	76,2	3,00	C	38,0	1,50	I	41,6	1,64	E	52,0	2,05	0,58	1,27
	M IRC34PC BSP	Male	812100015					D	47,0	1,85	B	36,0	1,42	H	39,0	1,54	J	32,7	1,29	0,19	0,41
1"	F IRC100PC BSP	Female	812100016	1"	G	113,4	4,46	F	92,0	3,62	C	45,0	1,77	I	48,0	1,89	E	62,0	2,44	0,97	2,14
	M IRC100PC BSP	Male	812100017					D	56,5	2,22	B	45,0	1,77	H	48,0	1,89	J	40,9	1,61	0,35	0,77



Port description: FEMALE THREAD NPTF (ANSI B.1.20.3)

Body Size	Descriptive Code	Item Code		PORT (A)	Overall Length mm		Overall Length in		Length mm		Length in		Hex mm		Hex in		Diameter mm		Diameter in		Diameter mm		Diameter in		Weight kg		Weight lb	
1/4"	F IRC14 NPTF	Female	812102000	1/4"	G	81,7	3,22	F	60,0	2,36	C	21,0	0,83	I	21,0	0,83	E	26,0	1,02	0,15	0,32
	M IRC14 NPTF	Male	812102001					D	48,2	1,90	B	19,0	0,75	H	21,0	0,83	J	12,0	0,47	0,05	0,11
3/8"	F IRC38 NPTF	Female	812102002	3/8"	G	76,4	3,01	F	61,6	2,43	C	24,0	0,94	I	26,0	1,02	E	35,0	1,38	0,22	0,49
	M IRC38 NPTF	Male	812102003					D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	19,9	0,78	0,06	0,13
1/2"	F IRC12 NPTF	Female	812102004	1/2"	G	85,2	3,35	F	67,6	2,66	C	30,0	1,18	I	33,0	1,30	E	41,0	1,61	0,33	0,72
	M IRC12 NPTF	Male	812102005					D	42,5	1,67	B	27,0	1,06	H	29,0	1,14	J	24,7	0,97	0,10	0,22
3/4"	F IRC34 NPTF	Female	812102006	3/4"	G	94,6	3,72	F	76,2	3,00	C	38,0	1,50	I	41,6	1,64	E	52,0	2,05	0,58	1,27
	M IRC34 NPTF	Male	812102007					D	47,0	1,85	B	36,0	1,42	H	39,0	1,54	J	32,7	1,29	0,19	0,42
1"	F IRC100 NPTF	Female	812102008	1"	G	113,4	4,46	F	92,0	3,62	C	45,0	1,77	I	48,0	1,89	E	62,0	2,44	0,97	2,14
	M IRC100 NPTF	Male	812102009					D	56,5	2,22	B	45,0	1,77	H	48,0	1,89	J	40,9	1,61	0,35	0,78

Port description: FEMALE THREAD NPTF (ANSI B.1.20.3)

PC version poppet sealing system connectable under pressure

Body Size	Descriptive Code	Item Code		PORT (A)	Overall Length mm		Overall Length in		Length mm		Length in		Hex mm		Hex in		Diameter mm		Diameter in		Diameter mm		Diameter in		Weight kg		Weight lb	
3/8"	F IRC38PC NPTF	Female	812102010*	3/8"	G	76,4	3,01	F	61,6	2,43	C	24,0	0,94	I	26,0	1,02	E	35,0	1,38	0,22	0,49
	M IRC38PC NPTF	Male	812102011*					D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	19,9	0,78	0,06	0,13
1/2"	F IRC12PC NPTF	Female	812102012	1/2"	G	85,2	3,35	F	67,6	2,66	C	30,0	1,18	I	33,0	1,30	E	41,0	1,61	0,33	0,72
	M IRC12PC NPTF	Male	812102013					D	42,5	1,67	B	27,0	1,06	H	29,0	1,14	J	24,7	0,97	0,10	0,22
3/4"	F IRC34PC NPTF	Female	812102014	3/4"	G	94,6	3,72	F	76,2	3,00	C	38,0	1,50	I	41,6	1,64	E	52,0	2,05	0,58	1,27
	M IRC34PC NPTF	Male	812102015					D	47,0	1,85	B	36,0	1,42	H	39,0	1,54	J	32,7	1,29	0,19	0,42
1"	F IRC100PC NPTF	Female	812102016	1"	G	113,4	4,46	F	92,0	3,62	C	45,0	1,77	I	48,0	1,89	E	62,0	2,44	0,97	2,14
	M IRC100PC NPTF	Male	812102017					D	56,5	2,22	B	45,0	1,77	H	48,0	1,89	J	40,9	1,61	0,35	0,78

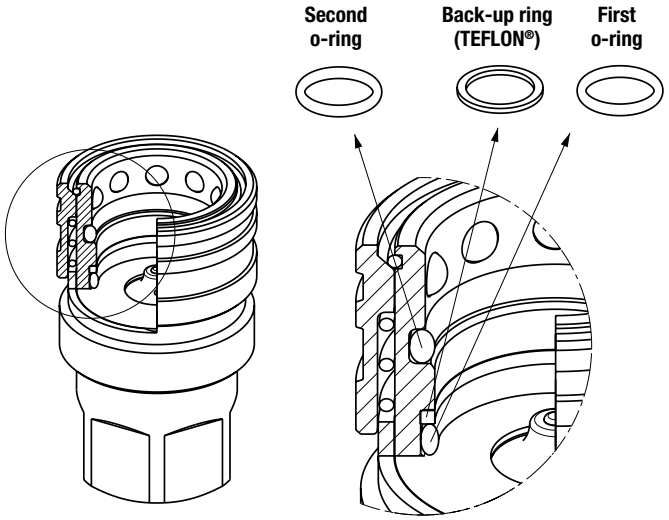
* Available upon request.



SPARE PARTS: SEAL KIT FOR FEMALE

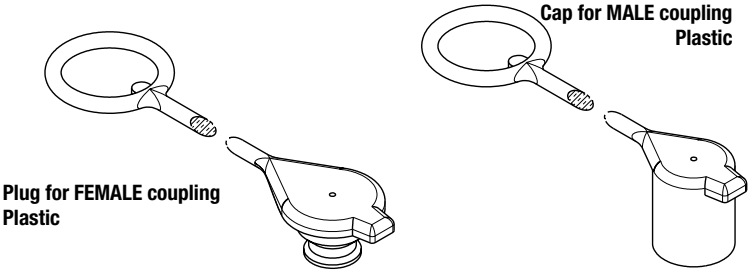
Repair kit / OR+BK		
Body Size	NBR Version Description	Part Number
1/4”	F IRC14	815700700
3/8”	F IRC38	815700702
1/2”	F IRC12	815700704
3/4”	F IRC34	815700706
1”	F IRC100	815700708

BackUp ring in Teflon®



PROTECTIVE CAPS FOR IRC 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.
The protective caps for IRC couplings are manufactured in plastic with connection lanyard.



Protective Cap				
Body Size/Description		Part Number		Material/Color
		Plug for Female	Cap for Male	
1/4”	IRC14	815000042	815000043	Plastic/Red
3/8”	IRC38	815000044	815000045	Plastic/Red
1/2”	IRC12	815000046	815000047	Plastic/Red
3/4”	IRC34	815000048	815000049	Plastic/Red
1”	IRC100	815000050	815000051	Plastic/Red

Other colours available upon request.

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