IRBXSERIES

INTERCHANGE > **ISO 7241 B**

Stucchi®



TECHNICAL FEATURES AND OPTIONS

Interchange
ISO 7241 B

Sealing description
FKM (VITON®)

Connection system
Single acting sleeve

Available sizes
From 1/8" to 1"

Material
Stainless steel (AISI 316L)
Retainer in brass

Available threads
BSP - NPT

Operating pressure
Up to 250 bar

Locking mechanism
Locking Ball system

Flow rate
Up to 200 l/min

Temperature (°C)
Different seals with a range of -40°C / +180°C

Valving style
Poppet

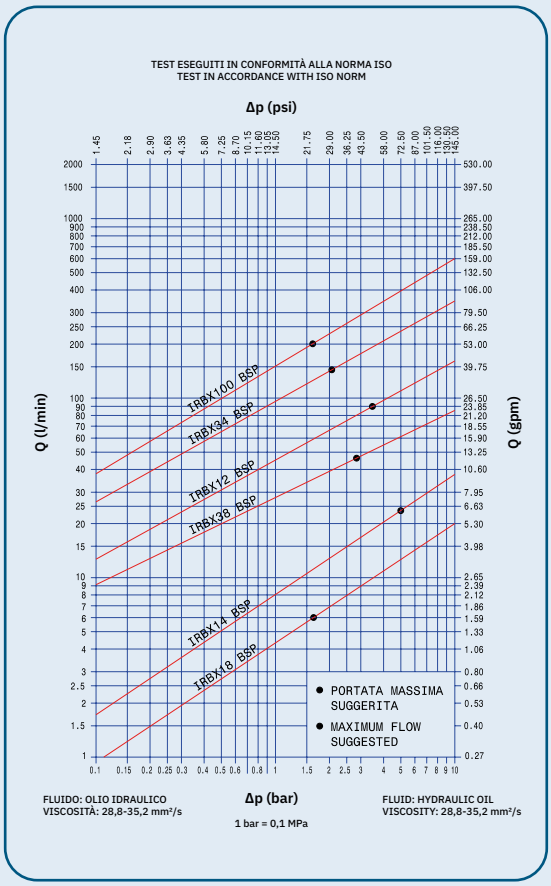
Connection under pressure
Connection: not allowed
Disconnection: not allowed

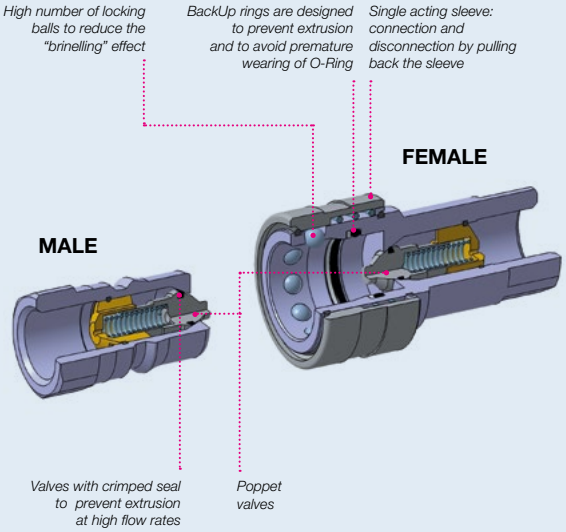
BENEFITS

- The poppet valve with elastomer seal provides maximum sealing of the couplings when disconnected.
- Shape of internal parts is designed to reduce turbulence and pressure drop.
- Good corrosion resistance.
- Compact slim 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 disconnect push back the sleeve of the female coupling, pull out the mating half.





MAIN APPLICATIONS



PERFORMANCES

Size		Series/Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
in	mm (ISO)		l/min	gpm	N	lbf	N	lbf	ml
1/8	5,0	IRBX18	6	1,59	75	16,88	35	7,88	0,18
1/4	6,3	IRBX14	24	6,36	60	13,50	30	6,75	0,33
3/8	10,0	IRBX38	46	12,19	90	20,25	35	7,88	2,20
1/2	12,5	IRBX12	90	23,85	125	28,13	45	10,13	3,00
3/4	19,0	IRBX34	148	39,22	135	30,38	55	12,38	9,40
1	25,0	IRBX100	200	53,00	140	31,50	40	9,00	14,00

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
in		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
1/8	IRBX18	25	3625	25	3625	25	3625	100	14500	100	14500	100	14500
1/4	IRBX14	25	3625	25	3625	25	3625	100	14500	100	14500	100	14500
3/8	IRBX38	20	2900	20	2900	20	2900	80	11600	80	11600	80	11600
1/2	IRBX12	20	2900	20	2900	20	2900	80	11600	80	11600	80	11600
3/4	IRBX34	16	2320	16	2320	16	2320	64	9280	48	6960	64	9280
1	IRBX100	12,5	1813	12,5	1813	12,5	1813	50	7250	50	7250	50	7250

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

Different possible configurations:
PL version (free flow without valve) available upon request.
IRBX-X internal retainer in stainless steel available upon request.
SAE thread available upon request.

Only when connected, suitable for vacuum applications, up to 0,15 bar.

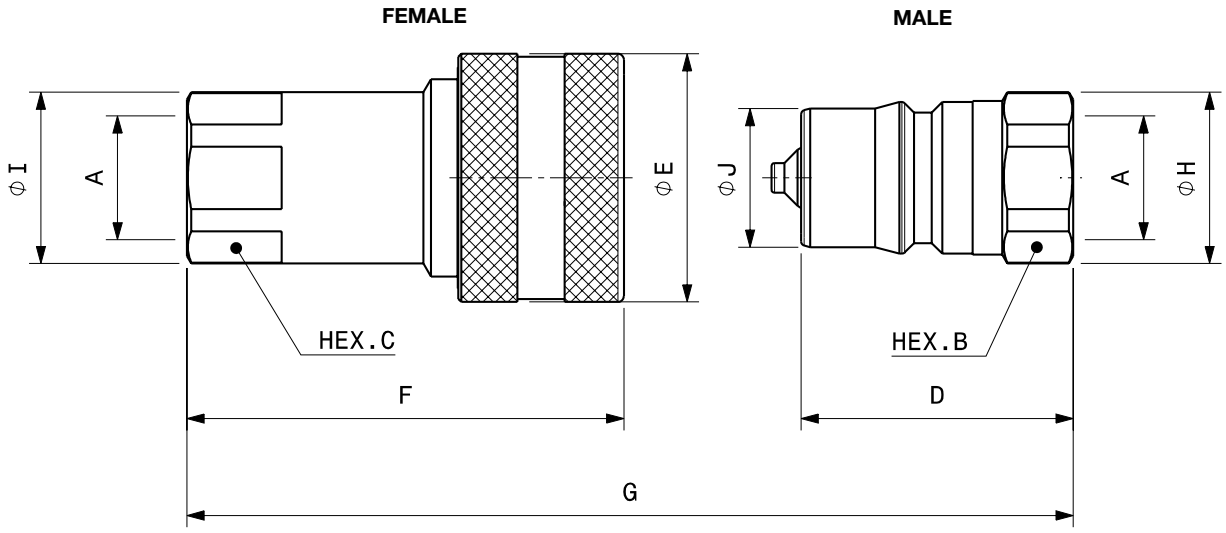
Temperature range:
Standard seals in FKM (VITON®): from -15°C to +180°C (from +5 °F to +356 °F).
Please read carefully Instructions and warnings for proper selection of the products.
Upon request seals in NBR (Nitrile): from -20 °C to +100 °C (from -4 °F to +212 °F).
Seals in NBR (Nitrile) with water from +5°C to +60°C (from +41°F to +140°F).
Upon request seals in EPDM (Ethylene Propylene): from -40 °C to +150 °C (from -40 °F to +302 °F).

Material:
- Construction: Stainless steel AISI 316L
- Springs: AISI 302
- Locking ball: AISI 316

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

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 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).
Do not use with fluids below the freezing point to avoid damages due to ice expansion and consequential extrusion of the valving.
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		ISO DN	PORT (A)	Overall Length			Length			Hex			Overall Diameter			Body Diameter			Weight	
							mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/8"	F IRBX18 BSP	Female	804600100	5,0	1/8"	G	60,5	2,38	F	48,8	1,92	C	14,0	0,55	I	15,8	0,62	E	23,0	0,91	0,07	0,15
	M IRBX18 BSP	Male	804600101						D	30,0	1,18	B	14,0	0,55	H	15,8	0,62	J	10,8	0,43	0,02	0,04
1/4"	F IRBX14 BSP	Female	804600102	6,3	1/4"	G	70,7	2,78	F	57,0	2,24	C	19,0	0,75	I	21,2	0,83	E	27,0	1,06	0,12	0,27
	M IRBX14 BSP	Male	804600103						D	35,0	1,38	B	19,0	0,75	H	20,8	0,82	J	14,2	0,56	0,04	0,08
3/8"	F IRBX38 BSP	Female	804600104	10,0	3/8"	G	82,7	3,26	F	66,0	2,60	C	24,0	0,94	I	27,0	1,06	E	34,0	1,34	0,23	0,50
	M IRBX38 BSP	Male	804600105						D	41,0	1,61	B	24,0	0,94	H	26,0	1,02	J	19,1	0,75	0,07	0,15
1/2"	F IRBX12 BSP	Female	804600106	12,5	1/2"	G	92,6	3,65	F	73,9	2,91	C	27,0	1,06	I	29,0	1,14	E	42,0	1,65	0,33	0,72
	M IRBX12 BSP	Male	804600107						D	46,0	1,81	B	27,0	1,06	H	29,0	1,14	J	23,5	0,93	0,10	0,23
3/4"	F IRBX34 BSP	Female	804600108	19,0	3/4"	G	111,1	4,37	F	90,1	3,55	C	36,0	1,42	I	38,5	1,52	E	50,0	1,97	0,58	1,27
	M IRBX34 BSP	Male	804600109						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	31,4	1,24	0,21	0,45
1"	F IRBX100 BSP	Female	804600110	25,0	1"	G	133,2	5,24	F	106,2	4,18	C	41,0	1,61	I	44,8	1,76	E	60,0	2,36	0,88	1,94
	M IRBX100 BSP	Male	804600111						D	66,0	2,60	B	41,0	1,61	H	44,8	1,76	J	37,7	1,48	0,34	0,74

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

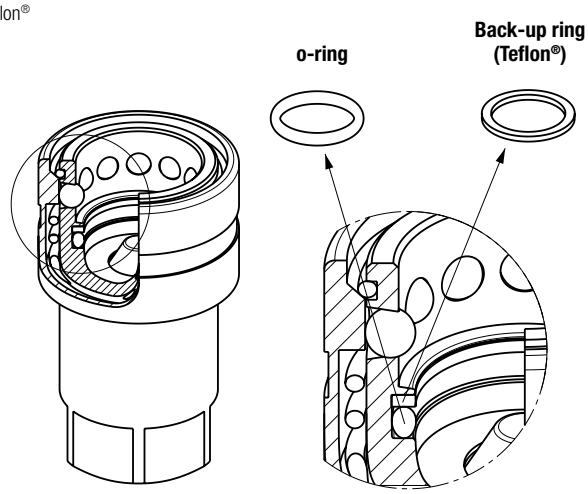
Body Size	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Overall Diameter			Body Diameter			Weight	
							mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/8"	F IRBX18 NPT	Female	804601100	5,0	1/8"	G	60,5	2,38	F	48,8	1,92	C	14,0	0,55	I	15,8	0,62	E	23,0	0,91	0,07	0,15
	M IRBX18 NPT	Male	804601101						D	30,0	1,18	B	14,0	0,55	H	15,8	0,62	J	10,8	0,43	0,02	0,04
1/4"	F IRBX14 NPT	Female	804601102	6,3	1/4"	G	70,7	2,78	F	57,0	2,24	C	19,0	0,75	I	21,2	0,83	E	27,0	1,06	0,12	0,27
	M IRBX14 NPT	Male	804601103						D	35,0	1,38	B	19,0	0,75	H	20,8	0,82	J	14,2	0,56	0,04	0,08
3/8"	F IRBX38 NPT	Female	804601104	10,0	3/8"	G	82,7	3,26	F	66,0	2,60	C	24,0	0,94	I	27,0	1,06	E	34,0	1,34	0,23	0,50
	M IRBX38 NPT	Male	804601105						D	41,0	1,61	B	24,0	0,94	H	26,0	1,02	J	19,1	0,75	0,07	0,15
1/2"	F IRBX12 NPT	Female	804601106	12,5	1/2"	G	92,6	3,65	F	73,9	2,91	C	27,0	1,06	I	29,0	1,14	E	42,0	1,65	0,33	0,72
	M IRBX12 NPT	Male	804601107						D	46,0	1,81	B	27,0	1,06	H	29,0	1,14	J	23,5	0,93	0,11	0,24
3/4"	F IRBX34 NPT	Female	804601108	19,0	3/4"	G	111,1	4,37	F	90,1	3,55	C	36,0	1,42	I	38,5	1,52	E	50,0	1,97	0,58	1,28
	M IRBX34 NPT	Male	804601109						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	31,4	1,24	0,21	0,46
1"	F IRBX100 NPT	Female	804601110	25,0	1"	G	133,2	5,24	F	106,2	4,18	C	41,0	1,61	I	44,8	1,76	E	60,0	2,36	0,89	1,96
	M IRBX100 NPT	Male	804601111						D	66,0	2,60	B	41,0	1,61	H	44,8	1,76	J	37,7	1,48	0,34	0,74



SPARE KIT SEAL FOR FEMALE

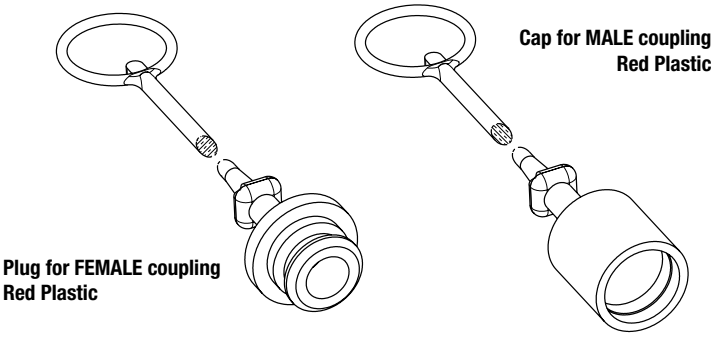
Repair kit / OR+BK		
Body Size	Description	Part Number
1/8”	F IRBX18	815700214
1/4”	F IRBX14	815700216
3/8”	F IRBX38	815700218
1/2”	F IRBX12	815700220
3/4”	F IRBX34	815700222
1”	F IRBX100	815700224

O-Ring in FKM (VITON®)
BackUp in Teflon®



PROTECTIVE CAPS FOR IRBX SERIES

Protective caps are always recommended to protect the couplings from damage, dirt inclusion, and will increase the product life. The protective caps for IRBX series are manufactured in plastic with connection lanyard (standard color red, other colors available upon request).



Protective Cap				
Body Size/Description		Part Number		Material/Color
		Plug for Female	Cap for Male	
1/4”	IRBX14	815000032	815000033	Plastic/Red
3/8”	IRBX38	815000034	815000035	Plastic/Red
1/2”	IRBX12	815000036	815000037	Plastic/Red
3/4”	IRBX34	815000038	815000039	Plastic/Red
1”	IRBX100	815000040	815000041	Plastic/Red

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