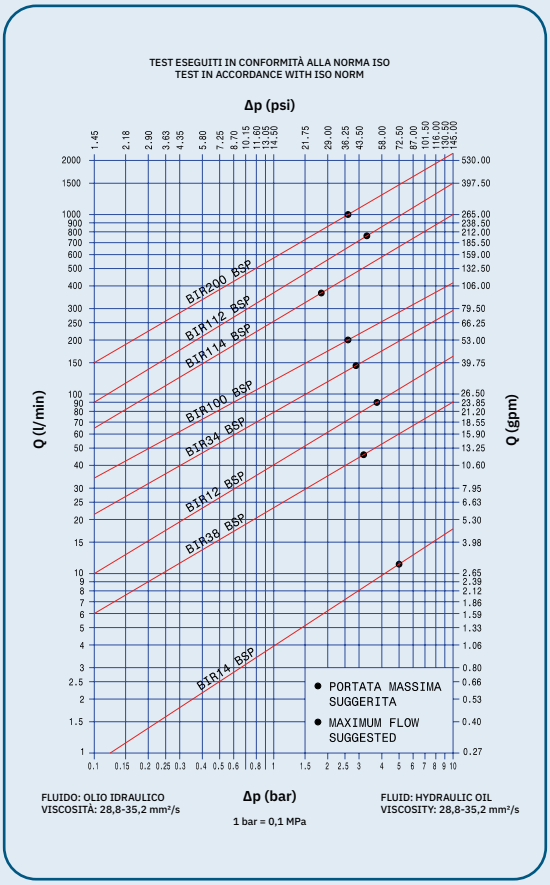
BIRSERIES

INTERCHANGE > **ISO7241-1 "A"**

Stucchi®





TECHNICAL FEATURES AND OPTIONS

Interchange
ISO 7241 A

Sealing description
Nitrile NBR

Connection system
Single acting sleeve

Available sizes
From 1/4" to 2"

Material /treatment
Carbon steel /Cr3

Available threads
BSP - NPT - BSPT - SAE

Operating pressure
Up to 350 bar

Locking mechanism
Locking ball system

Flow rate
Up to 1000 l/min

Temperature (°C)
-20°C / +100°C

Valving style
Poppet

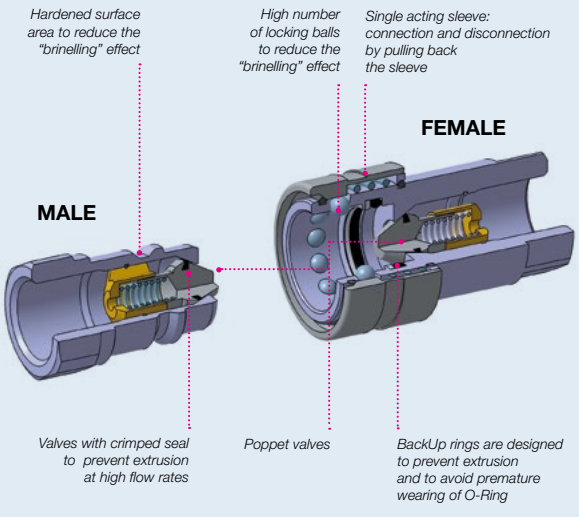
Connection under pressure
Only PC version
Connection: one side
Disconnection: not allowed

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 ISO A poppet half.
- The poppet valve with elastomer seal provides maximum sealing of the couplings once disconnected.
- Shape of internal parts is designed to reduce turbulence and pressure drop.
- 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 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
1/4	6,3	BIR14	12	3,18	60	13,50	25	5,63	0,70
3/8	10,0	BIR38	46	12,19	90	20,25	30	6,75	1,20
1/2	12,5	BIR12	90	23,85	70	15,75	55	12,38	2,10
3/4	19,0	BIR34	148	39,22	140	31,50	55	12,38	5,20
1	25,0	BIR100	200	53,00	190	42,75	55	12,38	9,00
1-1/4	31,5	BIR114	378	100,17	230	51,75	55	12,38	27,00
1-1/2	38,0	BIR112	750	198,75	250	56,25	70	13,75	49,00
2	51,0	BIR200	1000	265,00	270	60.75	60	13,50	75,00

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
1/4	BIR14	35	5075	35	5075	35	5075	126	18270	126	18270	126	18270
3/8	BIR38	30	4350	30	4350	30	4350	100	14500	100	14500	100	14500
1/2	BIR12	25	3625	25	3625	25	3625	100	14500	100	14500	100	14500
3/4	BIR34	25	3625	25	3625	25	3625	100	14500	100	14500	100	14500
1	BIR100	23	3335	23	3335	23	3335	80	11600	80	11600	80	11600
1-1/4	BIR114	23	3335	23	3335	23	3335	80	11600	80	11600	80	11600
1-1/2	BIR112	18	2610	18	2610	18	2610	64	9280	64	9280	64	9280
2	BIR200	13	1885	13	1885	13	1885	40	5800	40	5800	40	5800

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

Different possible configurations:
Thread BSPT and SAE available upon request.
For size 12, different female and male threads configurations available upon request.
PC version, special valve to connect under residual pressure possible either on male or on female side.
PL version, free flow (without valve) on both sides.
TIC version, shielded poppet to avoid flow-checking when used with other connect-under-pressure type couplers.

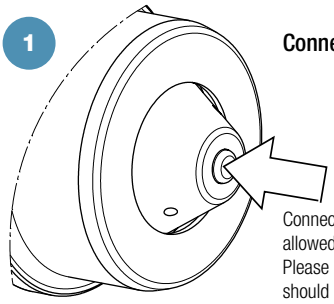
For complete technical information please contact Stucchi Technical Support.

Temperature range:
Standard 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 NBR (Nitrile) seals.
The max. operating pressure have been verified for 100.000 impulses according to ISO norm test method.

PC version

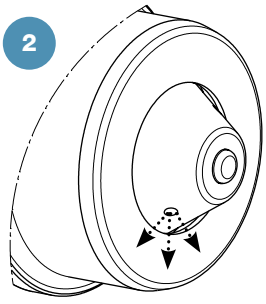
1



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 ISO A poppet half.

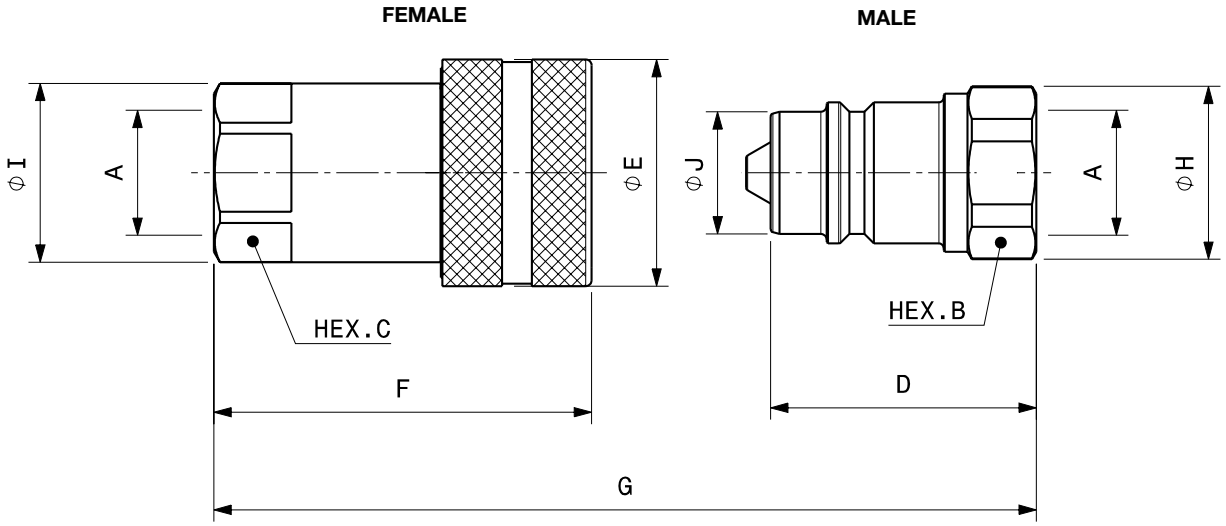
2



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).
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.

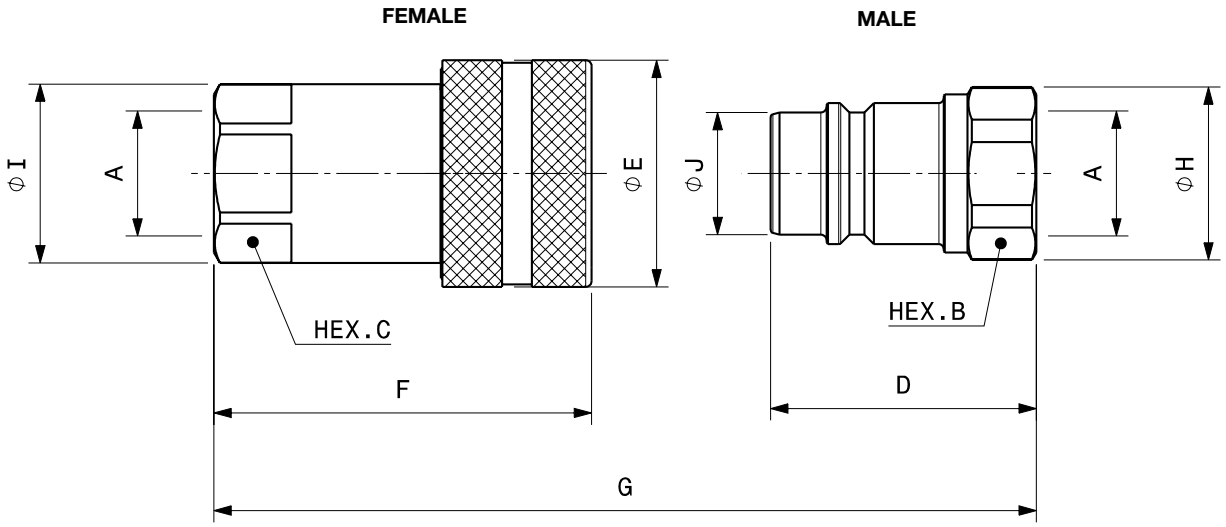


Port description: FEMALE THREAD BSPP (ISO 1179-1)

Body Size	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
							mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/4"	F BIR14 BSP	Female	800500000	6,3	1/4"	G	64,8	2,55	F	47,1	1,85	C	19,0	0,75	I	22,0	0,87	E	26,0	1,02	0,10	0,21
	M BIR14 BSP	Male	800500001						D	32,0	1,26	B	19,0	0,75	H	20,8	0,82	J	11,8	0,46	0,03	0,07
3/8"	F BIR38 BSP	Female	800500002	10	3/8"	G	76,8	3,02	F	56,1	2,21	C	22,0	0,87	I	24,0	0,94	E	31,0	1,22	0,14	0,32
	M BIR38 BSP	Male	800500003						D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	17,3	0,68	0,05	0,11
1/2"	F BIR12 BSP	Female	800500004	12,5	1/2"	G	86,3	3,40	F	63,3	2,49	C	27,0	1,06	I	30,0	1,18	E	38,0	1,50	0,25	0,54
	M BIR12 BSP	Male	800500005						D	44,5	1,75	B	27,0	1,06	H	29,0	1,14	J	20,5	0,81	0,08	0,19
3/4"	F BIR34 BSP	Female	800500006	19	3/4"	G	111,1	4,37	F	82,2	3,24	C	38,0	1,50	I	44,0	1,73	E	48,0	1,89	0,49	1,09
	M BIR34 BSP	Male	800500007						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	29,1	1,15	0,21	0,45
1"	F BIR100 BSP	Female	800500008	25	1"	G	127,3	5,01	F	97,1	3,82	C	45,0	1,77	I	52,0	2,05	E	54,0	2,13	0,76	1,68
	M BIR100 BSP	Male	800500009						D	63,1	2,48	B	41,0	1,61	H	44,8	1,76	J	34,3	1,35	0,28	0,61
1-1/4"	F BIR114 BSP	Female	800500010	31,5	1-1/4"	G	151,2	5,95	F	117,2	4,61	C	50,0	1,97	I	55,5	2,19	E	65,0	2,56	1,25	2,76
	M BIR114 BSP	Male	800500011						D	75,0	2,95	B	55,0	2,17	H	60,0	2,36	J	45,0	1,77	0,59	1,31
1-1/2"	F BIR112 BSP	Female	800500012	38	1-1/2"	G	171,3	6,74	F	135,3	5,33	C	60,0	2,36	I	65,5	2,58	E	80,0	3,15	2,13	4,70
	M BIR112 BSP	Male	800500013						D	85,0	3,35	B	60,0	2,36	H	65,5	2,58	J	55,0	2,17	0,88	1,94
2"	F BIR200 BSP	Female	800500014	51	2"	G	201,2	7,92	F	160,2	6,31	C	75,0	2,95	I	83,7	3,30	E	100,0	3,94	4,13	9,10
	M BIR200 BSP	Male	800500015						D	100,0	3,94	B	75,0	2,95	H	82,5	3,25	J	65,0	2,56	1,44	3,17

PC version poppet sealing system connectable under pressure

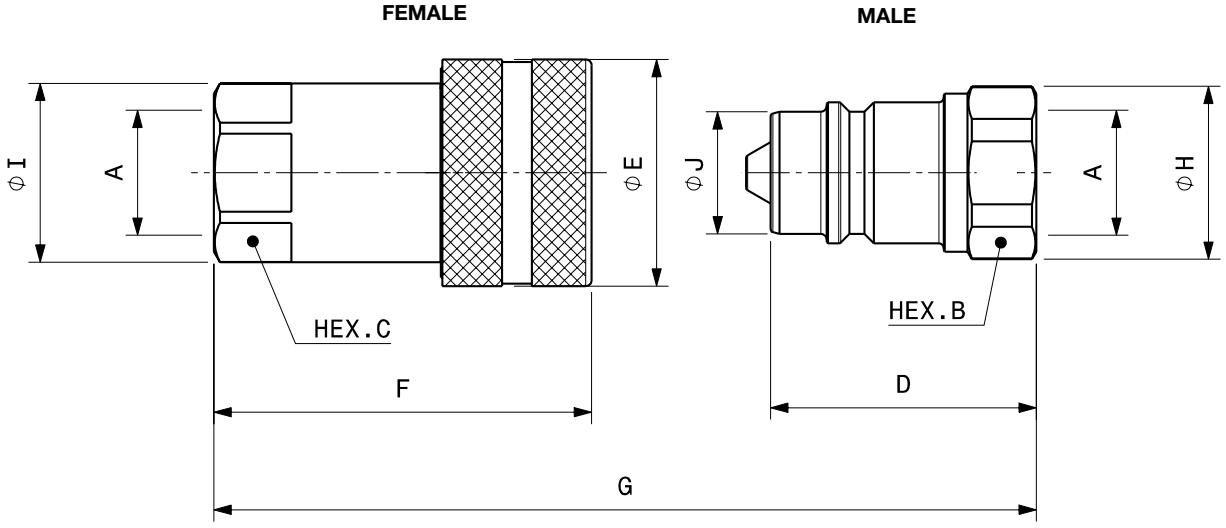
BODY SIZE	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter		Weight	
							mm	in		mm	in		mm	in		mm	in		mm	inc	kg	lb
1/2"	F BIR12PC BSP	Female	805600002	12,5	1/2"	G	86,3	3,40	F	63,3	2,49	C	27,0	1,06	I	30,0	1,18	E	38,0	1,50	0,25	0,54
	M BIR12PC BSP	Male	805600003						D	44,5	1,75	B	27,0	1,06	H	29,0	1,14	J	20,5	0,81	0,08	0,19



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

PL version full flow (without valve)

Body Size	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
							mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/4"	F BIR14PL BSP	Female	800500018	6,3	1/4"	G	64,8	2,55	F	47,1	1,85	C	19,0	0,75	I	22,0	0,87	E	26,0	1,02	0,10	0,21
	M BIR14PL BSP	Male	800500019						D	32,0	1,26	B	19,0	0,75	H	20,8	0,82	J	11,8	0,46	0,03	0,07
3/8"	F BIR38PL BSP	Female	800500022	10	3/8"	G	76,8	3,02	F	56,1	2,21	C	22,0	0,87	I	24,0	0,94	E	31,0	1,22	0,14	0,32
	M BIR38PL BSP	Male	800500023						D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	17,3	0,68	0,05	0,11
1/2"	F BIR12PL BSP	Female	800500020	12,5	1/2"	G	86,3	3,40	F	63,3	2,49	C	27,0	1,06	I	30,0	1,18	E	38,0	1,50	0,25	0,54
	M BIR12PL BSP	Male	800500021						D	44,5	1,75	B	27,0	1,06	H	29,0	1,14	J	20,5	0,81	0,08	0,19
3/4"	F BIR34PL BSP	Female	800500016	19	3/4"	G	111,1	4,37	F	82,2	3,24	C	38,0	1,50	I	44,0	1,73	E	48,0	1,89	0,49	1,09
	M BIR34 PL BSP	Male	800500017						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	29,1	1,15	0,21	0,45
1"	F BIR100PL BSP	Female	800500024	25	1"	G	127,3	5,01	F	97,1	3,82	C	45,0	1,77	I	52,0	2,05	E	54,0	2,13	0,76	1,68
	M BIR100PL BSP	Male	800500025						D	63,1	2,48	B	41,0	1,61	H	44,8	1,76	J	34,3	1,35	0,28	0,61



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	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/4"	F BIR14 NPT	Female	800501000	6,3	1/4"	G	64,8	2,55	F	47,1	1,85	C	19,0	0,75	I	22,0	0,87	E	26,0	1,02	0,09	0,21
	M BIR14 NPT	Male	800501001						D	32,0	1,26	B	19,0	0,75	H	20,8	0,82	J	11,8	0,46	0,03	0,07
3/8"	F BIR38 NPT	Female	800501002	10	3/8"	G	76,8	3,02	F	56,1	2,21	C	22,0	0,87	I	24,0	0,94	E	31,0	1,22	0,15	0,32
	M BIR38 NPT	Male	800501003						D	38,0	1,50	B	22,0	0,87	H	24,0	0,94	J	17,3	0,68	0,05	0,12
1/2"	F BIR12 NPT	Female	800501004	12,5	1/2"	G	86,3	3,40	F	63,3	2,49	C	27,0	1,06	I	30,0	1,18	E	38,0	1,50	0,25	0,54
	M BIR12 NPT	Male	800501005						D	44,5	1,75	B	27,0	1,06	H	29,0	1,14	J	20,5	0,81	0,08	0,19
3/4"	F BIR34 NPT	Female	800501006	19	3/4"	G	111,1	4,37	F	82,2	3,24	C	38,0	1,50	I	44,0	1,73	E	48,0	1,89	0,50	1,11
	M BIR34 NPT	Male	800501007						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	29,1	1,15	0,21	0,46
1"	F BIR100 NPT	Female	800501008	25	1"	G	127,3	5,01	F	97,1	3,82	C	45,0	1,77	I	52,0	2,05	E	54,0	2,13	0,77	1,70
	M BIR100 NPT	Male	800501009						D	63,1	2,48	B	41,0	1,61	H	44,8	1,76	J	34,3	1,35	0,28	0,63
1-1/4"	F BIR114 NPT	Female	800501010	31,5	1-1/4"	G	151,2	5,95	F	117,2	4,61	C	50,0	1,97	I	55,5	2,19	E	65,0	2,56	1,24	2,74
	M BIR114 NPT	Male	800501011						D	75,0	2,95	B	55,0	2,17	H	60,0	2,36	J	45,0	1,77	0,62	1,36
1-1/2"	F BIR112 NPT	Female	800501012	38	1-1/2"	G	171,3	6,74	F	135,3	5,33	C	60,0	2,36	I	65,5	2,58	E	80,0	3,15	2,13	4,70
	M BIR112 NPT	Male	800501013						D	85,0	3,35	B	60,0	2,36	H	65,5	2,58	J	55,0	2,17	0,88	1,94
2"	F BIR200 NPT	Female	800501014	51	2"	G	201,2	7,92	F	160,2	6,31	C	75,0	2,95	I	83,7	3,30	E	100,0	3,94	4,13	9,10
	M BIR200 NPT	Male	800501015						D	100,0	3,94	B	75,0	2,95	H	82,5	3,25	J	65,0	2,56	1,44	3,17

PC version poppet sealing system connectable under pressure

Body Size	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
							mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/2"	F BIR12PC NPT	Female	805601000	12,5	1/2"	G	86,3	3,40	F	63,3	2,49	C	27,0	1,06	I	30,0	1,18	E	38,0	1,50	0,25	0,54
	M BIR12PC NPT	Male	805601001						D	44,5	1,75	B	27,0	1,06	H	29,0	1,14	J	20,5	0,81	0,08	0,19
1"	F BIR100PC NPT	Female	805601004	25	1"	G	127,3	5,01	F	97,1	3,82	C	45,0	1,77	I	52,0	2,05	E	54,0	2,13	0,81	1,79
	M BIR100PC NPT	Male	805601005						D	63,1	2,48	B	41,0	1,61	H	44,8	1,76	J	34,3	1,35	0,30	0,66

TIC version Shielded poppet to eliminate flow-checking when used with connect-under-pressure competitor couplers

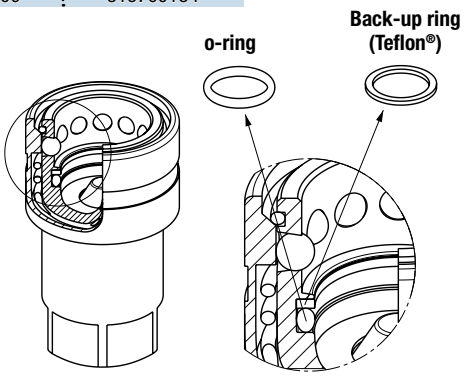
Body Size	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Diameter			Diameter			Weight	
							mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
1/2"	M BIR12TIC NPT	Male	800501017	12,5	1/2"	G	83,3	3,30	D	44,5	1,75	B	27,0	1,06	H	29,0	1,14	J	20,5	0,81	0,08	0,19



SPARE KIT SEAL FOR FEMALE

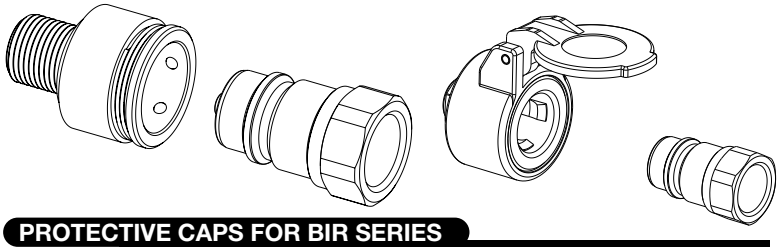
Repair kit / OR (+BK)		
Body Size	Description	Part Number
1/4”	F BIR14	815701381
3/8”	F BIR38	815701378
1/2”	F BIR12	815700174
3/4”	F BIR34	815701383
1”	F BIR100	815700178
1-1/4”	F BIR114	815700180
1-1/2”	F BIR112	815700182
2”	F BIR200	815700184

O-Ring in Nitrile
BackUp in Teflon®



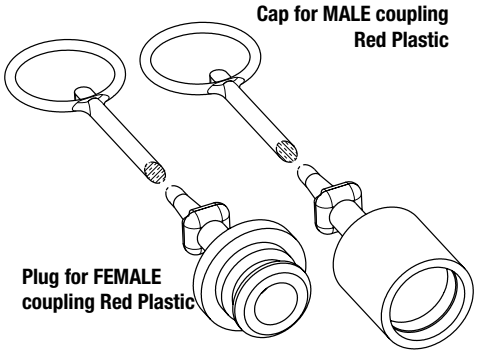
PARKING STATION FOR MALE

Parking station only (male coupling not included)		
Body Size	Description	Part Number
1/2”	PARK STATION FOR MALE BIR12	815515003
1/2”	PARK STATION PLASTIC FOR MALE BIR12	815515005



PROTECTIVE CAPS FOR BIR 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 agriculture applications where exposure to weather and aggregate materials are common.
The protective caps for BIR series are manufactured in 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”	BIR14	815000012	815000013	Plastic/Red
3/8”	BIR38	815000014	815000015	Plastic/Red
1/2”	BIR12	815000004	815000005	Plastic/Red
3/4”	BIR34	815000016	815000017	Plastic/Red
1”	BIR100	815000018	815000019	Plastic/Red

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