

IRCSERIES

INTERCHANGE > with similar product (Nordic interface)



TECHNICAL FEATURES AND OPTIONS

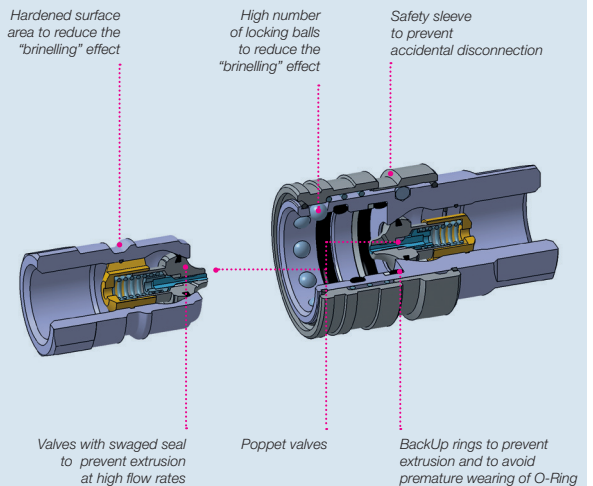
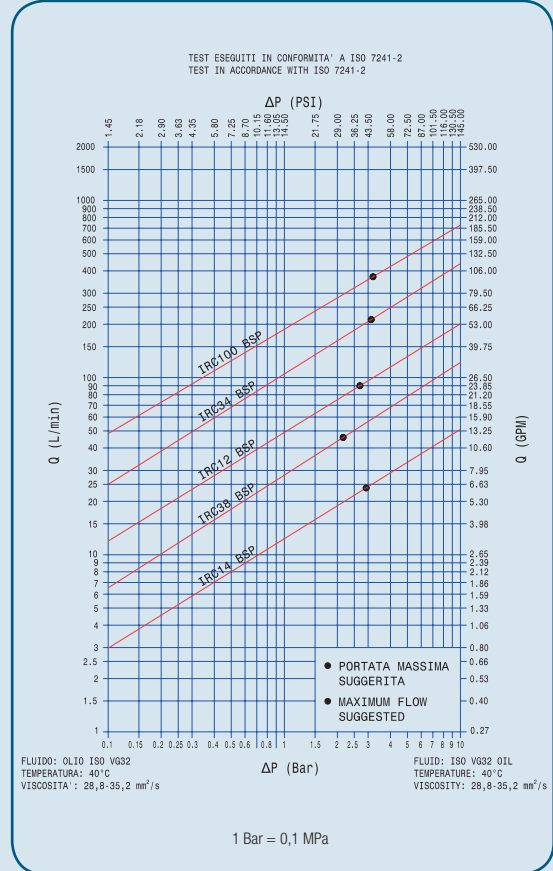
Interchange Similar product (Nordic interface)	Sealing description Nitrile NBR	Connection system Single acting sleeve
Available sizes From 1/4" to 1"	Material High strength carbon steel	Available threads BSP - NPTF
Operating pressure From 600 to 330 bar	Locking mechanism Ball locking + safety sleeve	Flow rate From 24 to 378 L/Min
Temperature (°C) -20° / +100°	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 the counterpart has to have a standard poppet and must be to drain.
- The poppet valve with elastomer seal provides maximum sealing of the couplings once disconnected.
- O-Ring + BackUp ring for optimum protection sealing.
- 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 with impulse pressures.
- Compact design.
- Simple to use.

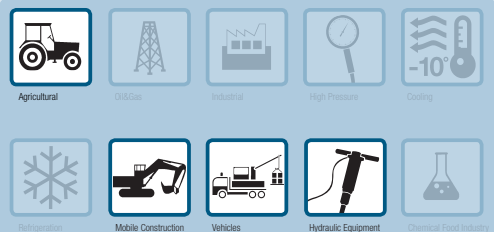
HOW TO USE

- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit.
- To couple: 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 uncouple: 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

Description	Size		Max. flow suggested		Connect force		Disconnect force		Spillage*
	Inch	mm	l/min	GPM	Nm	lbf ft	Nm	lbf ft	
IRC14	1/4	6,3	24	6,36	60	13,48	30	6,74	1,1
IRC38	3/8	10	46	12,19	90	20,23	35	7,86	2,5
IRC12	1/2	12,5	90	23,85	120	26,97	35	7,86	3,5
IRC34	3/4	20	212	56,18	170	38,21	45	10,11	15
IRC100	1	25	378	100,17	210	47,20	45	10,11	18

Description	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
Steel	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
IRC14	60	8700	40	5800	40	5800	180	26100	120	17400	120	17400
IRC38	46	6742,5	37	5365	37	5365	130	18850	110	15950	110	15950
IRC12	40	5800	33	4785	33	4785	110	15950	100	14500	100	14500
IRC34	33	5365	27	3915	27	3915	100	14500	80	11600	80	11600
IRC100	33	4785	33	4785	33	4785	100	14500	100	14500	100	14500

Description	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
Stainless steel	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
IRC14X	30	4350	30	4350	30	4350	120	17400	120	17400	120	17400
IRC38X	30	4350	25	3625	25	3625	120	17400	100	14500	100	14500
IRC12X	30	4350	25	3625	25	3625	120	17400	100	14500	100	14500
IRC34X	20	2900	20	2900	20	2900	80	11600	80	11600	80	11600
IRC100X	20	2900	15	2175	15	2175	80	11600	60	8700	60	8700

*Spillage is an indicative value of the fluid loss per couple-uncouple cycle (according to ISO 7241-2 test method)

Different possible configurations:

PC version, connectable under residual pressure.

X version, made in AISI 316 (with viton seal).

PL version, free flow.

Temperature range:

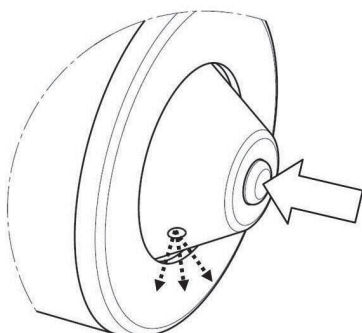
Seals in NBR (Nitrile) : from -20 °C to +100 °C (from -4 °F to +212 °F).

Seals in VITON® (for IRC -X) : from -15°C to +180°C (from +5 °F to +356 °F).

Tests performed:

The couplings have been tested at max. operating pressure for 200.000 impulses according to ISO 7241-2 test method.

Performance data IRC PC version are available upon request.



PC version

Special valve on the poppet release the residual pressure during the connection by rejecting the excess of fluid.

WARNING

Please read carefully General instructions and Warning for selection and use of the products. (see our website www.stucchi.it or our General Catalogue).

Do not couple-uncouple with flow and/or dynamic pressure in the circuit. Connection is allowed only with residual pressure trapped in the circuit (only PC version), do not push the valve with tools or other to release residual pressure.

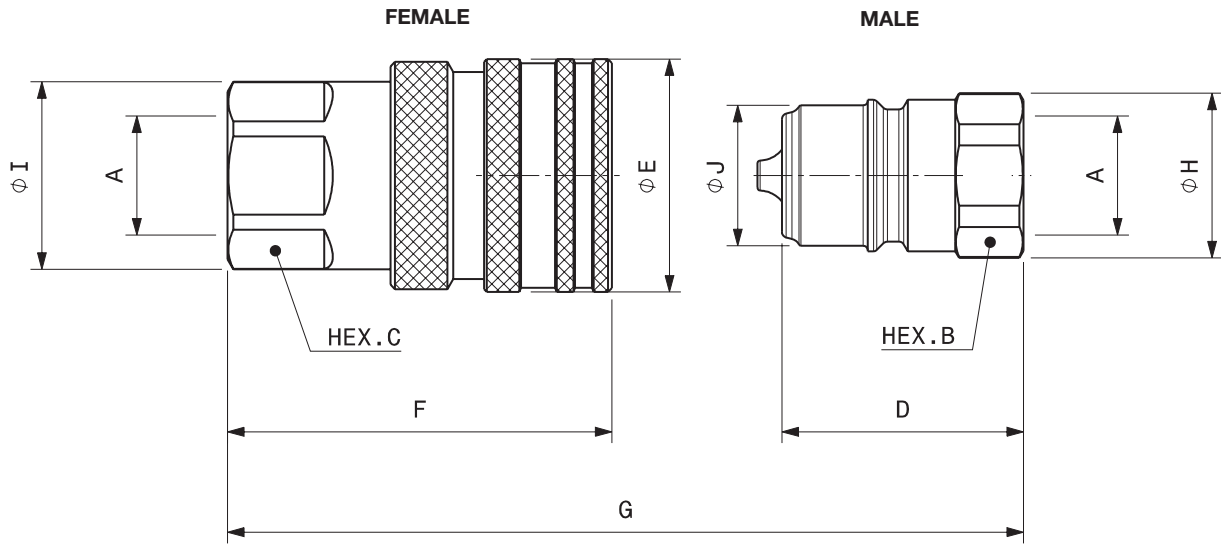
For safety reasons do not couple-uncouple when temperature inside of the circuit is higher than 80 °C (176 °).

When the couplings are disconnected, it is recommended to use the protection caps.

Check the maximum allowable working pressure of the port in use.



OVERALL DIMENSIONS



Port description: FEMALE THREAD BSPP (ISO 1179-1 & DIN 3852-2 form X)

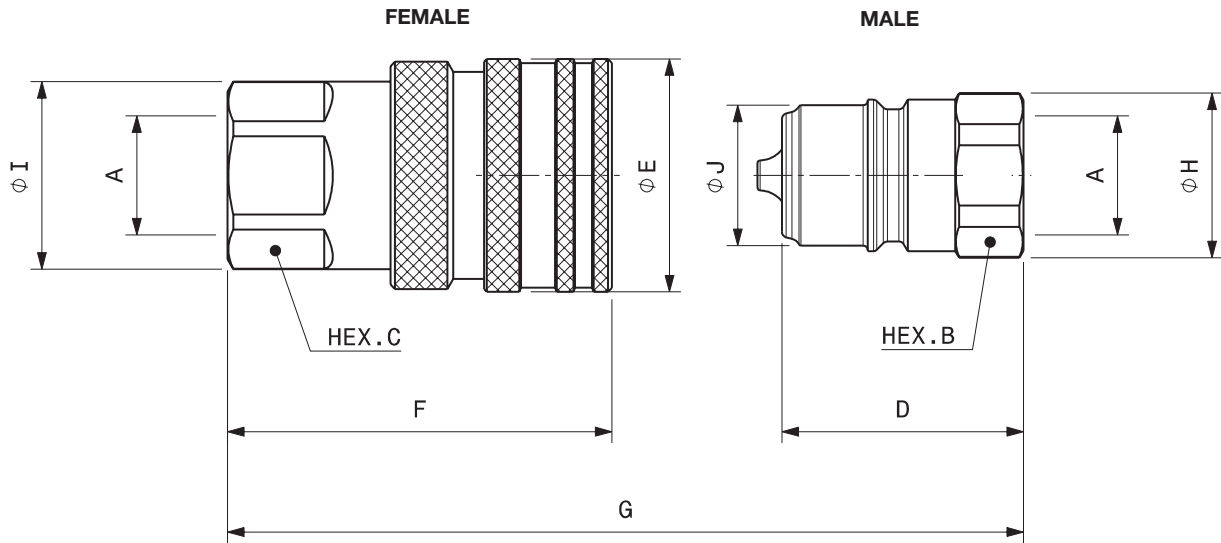
Description	Part Number	BODY SIZE	PORT (A)	Overall Length	Length		Wrench Flat		Diameter		Diameter		Weight							
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs				
F IRC14 BSP	Female 811500000	1/4"	1/4" BSP	G	81,7	3,22	F	60	2,36	C	21	0,83	I	21	0,83	E	26,00	1,02	0,15	0,32
M IRC14 BSP	Male 811500001						D	48,2	1,90	B	19	0,75	H	21	0,83	J	11,95	0,47	0,05	0,11
F IRC38 BSP	Female 811500002	3/8"	3/8" BSP	G	76,4	3,01	F	61,6	2,43	C	24	0,94	I	26	1,02	E	35	1,38	0,22	0,48
M IRC38 BSP	Male 811500003						D	38	1,50	B	22	0,87	H	24	0,94	J	19,90	0,78	0,06	0,12
F IRC12 BSP	Female 811500004	1/2"	1/2" BSP	G	85,2	3,35	F	67,6	2,66	C	30	1,18	I	33	1,30	E	41	1,61	0,33	0,72
M IRC12 BSP	Male 811500005						D	42,5	1,67	B	27	1,06	H	29	1,14	J	24,70	0,97	0,10	0,21
F IRC34 BSP	Female 811500006	3/4"	3/4" BSP	G	94,6	3,72	F	76,2	3,00	C	38	1,50	I	41,6	1,64	E	52	2,05	0,58	1,27
M IRC34 BSP	Male 811500007						D	47	1,85	B	36	1,42	H	39	1,54	J	32,70	1,29	0,19	0,41
F IRC100 BSP	Female 811500008	1"	1" BSP	G	113,4	4,46	F	92	3,62	C	45	1,77	I	48	1,89	E	62	2,44	0,97	2,14
M IRC100 BSP	Male 811500009						D	56,5	2,22	B	45	1,77	H	48	1,89	J	40,90	1,61	0,35	0,77

Port description: FEMALE THREAD BSPP (ISO 1179-1 & DIN 3852-2 form X)

Description	Part Number	BODY SIZE	PORT (A)	Overall Length	Length		Wrench Flat		Diameter		Diameter		Weight							
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs				
F IRC38PC BSP	Female 811500010	3/8"	3/8" BSP	G	76,4	3,01	F	61,6	2,43	C	24	0,94	I	26	1,02	E	35	1,38	0,22	0,48
M IRC38PC BSP	Male 811500011						D	38	1,50	B	22	0,87	H	24	0,94	J	19,90	0,78	0,06	0,12
F IRC12PC BSP	Female 811500012	1/2"	1/2" BSP	G	85,2	3,35	F	67,6	2,66	C	30	1,18	I	33	1,30	E	41	1,61	0,33	0,72
M IRC12PC BSP	Male 811500013						D	42,5	1,67	B	27	1,06	H	29	1,14	J	24,70	0,97	0,10	0,21
F IRC34PC BSP	Female 811500014	3/4"	3/4" BSP	G	94,6	3,72	F	76,2	3,00	C	38	1,50	I	41,6	1,64	E	52	2,05	0,58	1,27
M IRC34PC BSP	Male 811500015						D	47	1,85	B	36	1,42	H	39	1,54	J	32,70	1,29	0,19	0,41
F IRC100PC BSP	Female 811500016	1"	1" BSP	G	113,4	4,46	F	92	3,62	C	45	1,77	I	48	1,89	E	62	2,44	0,97	2,14
M IRC100PC BSP	Male 811500017						D	56,5	2,22	B	45	1,77	H	48	1,89	J	40,90	1,61	0,35	0,77

Port description: FEMALE THREAD BSPP (ISO 1179-1 & DIN 3852-2 form X)

Description	Part Number	BODY SIZE	PORT (A)	Overall Length	Length		Wrench Flat		Diameter		Diameter		Weight							
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs				
F IRC14X BSP	Female 808900100	1/4"	1/4" BSP	G	81,7	3,22	F	60	2,36	C	21	0,83	I	21	0,83	E	26,00	1,02	0,15	0,32
M IRC14X BSP	Male 808900101						D	48,2	1,90	B	19	0,75	H	21	0,83	J	11,95	0,47	0,05	0,11
F IRC38X BSP	Female 808900102	3/8"	3/8" BSP	G	76,4	3,01	F	61,6	2,43	C	24	0,94	I	26	1,02	E	35	1,38	0,22	0,48
M IRC38X BSP	Male 808900103						D	38	1,50	B	22	0,87	H	24	0,94	J	19,90	0,78	0,06	0,12
F IRC12X BSP	Female 808900104	1/2"	1/2" BSP	G	85,2	3,35	F	67,6	2,66	C	30	1,18	I	33	1,30	E	41	1,61	0,33	0,72
M IRC12X BSP	Male 808900105						D	42,5	1,67	B	27	1,06	H	29	1,14	J	24,70	0,97	0,10	0,21
F IRC34X BSP	Female 808900106	3/4"	3/4" BSP	G	94,6	3,72	F	76,2	3,00	C	38	1,50	I	41,6	1,64	E	52	2,05	0,58	1,27
M IRC34X BSP	Male 808900107						D	47	1,85	B	36	1,42	H	39	1,54	J	32,70	1,29	0,19	0,41
F IRC100X BSP	Female 808900108	1"	1" BSP	G	113,4	4,46	F	92	3,62	C	45	1,77	I	48	1,89	E	62	2,44	0,97	2,14
M IRC100X BSP	Male 808900109						D	56,5	2,22	B	45	1,77	H	48	1,89	J	40,90	1,61	0,35	0,77



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

Description	Part Number	BODY SIZE	PORT (A)	Overall Length	Length		Wrench Flat		Diameter		Diameter		Weight							
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs				
F IRC14 NPTF	Female 811502000	1/4"	1/4" NPTF	G	81,7	3,22	F	60	2,36	C	21	0,83	I	21	0,83	E	26,00	1,02	0,15	0,32
M IRC14 NPTF	Male 811502001						D	48,2	1,90	B	19	0,75	H	21	0,83	J	11,95	0,47	0,05	0,11
F IRC38 NPTF	Female 811502002	3/8"	3/8" NPTF	G	76,4	3,01	F	61,6	2,43	C	24	0,94	I	26	1,02	E	35	1,38	0,22	0,49
M IRC38 NPTF	Male 811502003						D	38	1,50	B	22	0,87	H	24	0,94	J	19,90	0,78	0,06	0,13
F IRC12 NPTF	Female 811502004	1/2"	1/2" NPTF	G	85,2	3,35	F	67,6	2,66	C	30	1,18	I	33	1,30	E	41	1,61	0,33	0,72
M IRC12 NPTF	Male 811502005						D	42,5	1,67	B	27	1,06	H	29	1,14	J	24,70	0,97	0,10	0,22
F IRC34 NPTF	Female 811502006	3/4"	3/4" NPTF	G	94,6	3,72	F	76,2	3,00	C	38	1,50	I	41,6	1,64	E	52	2,05	0,58	1,27
M IRC34 NPTF	Male 811502007						D	47	1,85	B	36	1,42	H	39	1,54	J	32,70	1,29	0,19	0,42
F IRC100 NPTF	Female 811502008	1"	1" NPTF	G	113,4	4,46	F	92	3,62	C	45	1,77	I	48	1,89	E	62	2,44	0,97	2,14
M IRC100 NPTF	Male 811502009						D	56,5	2,22	B	45	1,77	H	48	1,89	J	40,90	1,61	0,35	0,78

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

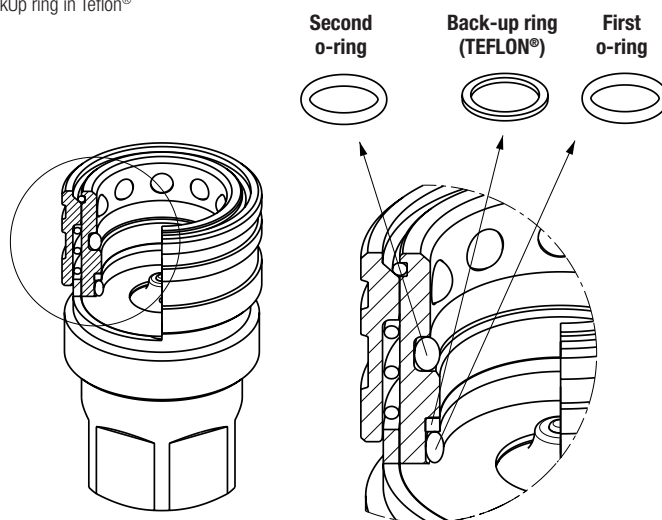
Description	Part Number	BODY SIZE	PORT (A)	Overall Length	Length		Wrench Flat		Diameter		Diameter		Weight							
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs				
F IRC38PC NPTF	Female 811502010	3/8"	3/8" NPTF	G	76,4	3,01	F	61,6	2,43	C	24	0,94	I	26	1,02	E	35	1,38	0,22	0,49
M IRC38PC NPTF	Male 811502011						D	38	1,50	B	22	0,87	H	24	0,94	J	19,90	0,78	0,06	0,13
F IRC12PC NPTF	Female 811502012	1/2"	1/2" NPTF	G	85,2	3,35	F	67,6	2,66	C	30	1,18	I	33	1,30	E	41	1,61	0,33	0,72
M IRC12PC NPTF	Male 811502013						D	42,5	1,67	B	27	1,06	H	29	1,14	J	24,70	0,97	0,10	0,22
F IRC34PC NPTF	Female 811502014	3/4"	3/4" NPTF	G	94,6	3,72	F	76,2	3,00	C	38	1,50	I	41,6	1,64	E	52	2,05	0,58	1,27
M IRC34PC NPTF	Male 811502015						D	47	1,85	B	36	1,42	H	39	1,54	J	32,70	1,29	0,19	0,42
F IRC100PC NPTF	Female 811502016	1"	1" NPTF	G	113,4	4,46	F	92	3,62	C	45	1,77	I	48	1,89	E	62	2,44	0,97	2,14
M IRC100PC NPTF	Male 811502017						D	56,5	2,22	B	45	1,77	H	48	1,89	J	40,90	1,61	0,35	0,78



SPARE PARTS: SEAL KIT FOR FEMALE

Repair kit / internal parts	
815700700	F IRC14 (2 OR+BK)
815700702	F IRC38 (2 OR+BK)
815700704	F IRC12 (2 OR+BK)
815700706	F IRC34 (2 OR+BK)
815700708	F IRC100 (2 OR+BK)

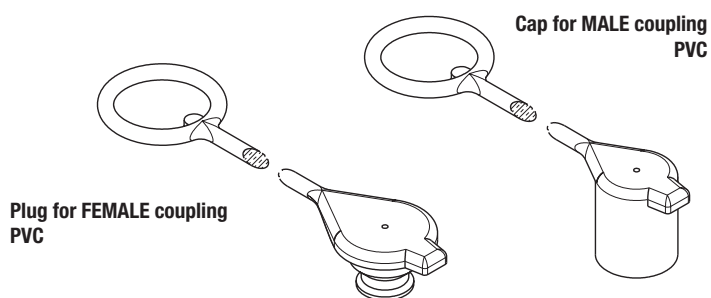
O-Ring in NBR
BackUp ring in Teflon®



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 protection caps for IRC couplings are manufactured in PVC with connection strip (standard color red).



SIZE	Part Number		Material/Color
	Plug for Female	Cap for Male	
IRC14	815000050	815000051	PVC/Red
IRC38	815000052	815000053	PVC/Red
IRC12	815000054	815000055	PVC/Red
IRC34	815000056	815000057	PVC/Red
IRC100	815000058	815000059	PVC/Red