IA Series
ISO 7241-1 A Interchange

The IA Series meets ISO 7241-1 A Standard requirements and has a push-pull design, which allows the socket to be bulk-head-mounted. This configuration provides automatic connection or disconnection via a simple push or pull of the plug. Our IA Series is available in ½", with female or male end connections such as tube fittings, NPT, metric or SAE threads. It is widely used in agriculture and forestry applications.

Product Features

- ISO size: 12.5 mm (½")
- Standard body material: Zinc trivalent plated steel
- Wide offering of end connections, among which metric threads designed in accordance with ISO Standard 8434/1
- Standard seal material: NBR
- Optional PVC dust caps and plugs
- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive (PED) 97/23 EC
- Meets dimensional requirements of ISO Standard 7241/1 Series A
- Push-to-connect: the push-pull sleeve on the bulkhead-mounted socket provides automatic connection or disconnection via a simple push or pull of the plug. In the event of pull on the hose, the double-action sleeve gives immediate and automatic disconnection

Physical Characteristics

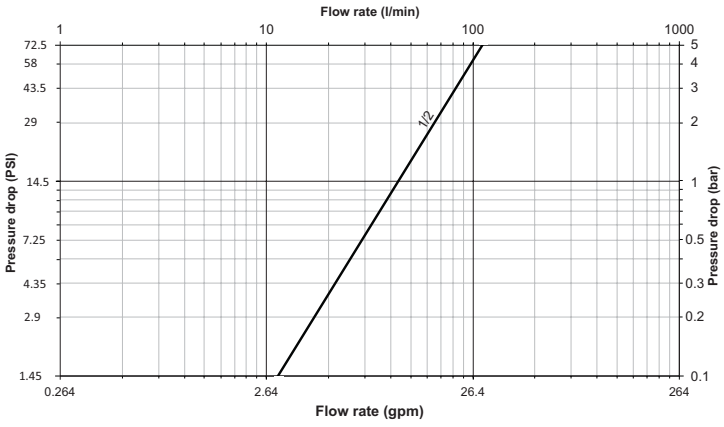
Body Size	ISO Size*	Nominal Flow Diameter	Max. Operating Pressure		Rated Flow**		Fluid Loss
(in)	(mm)	(mm)	bar	(psi)	L/min	(gpm)	ml-cc.
½	12.5	6 8 10 10.3	250	3,625	45	11.9	2.6

* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).
** Indicated values refer to a 1 bar/14.5 psi pressure drop.

Applications & Markets

- Agriculture
- Forestry Machinery

Flow Data



Test Fluid: Oil viscosity 30 cSt at 40°C / 104°F

Seal Elastomer Data*

Seal Elastomer	Max. Operation Temperature Range
NBR (Nitrile)	-20°C +100°C/-4°F +212°F

*For reference only, based on Eaton recommended temperatures.
Contact Eaton technical support for further information on fluid compatibility.

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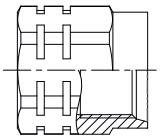
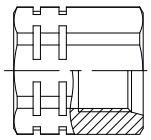
End Connections

ISO 6149-1



SAE J 1926-1



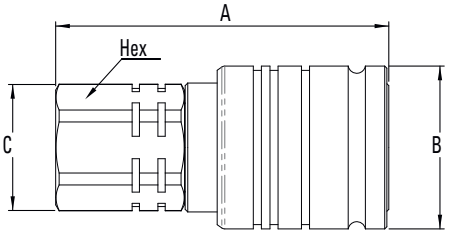


Figure 1

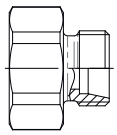
Sockets (Female) with Internal Thread

Part Number	Body Size	ISO Size	Nominal Flow Diameter	Thread Size (Female)					Dimensions								Weight	
NBR	(in)	(mm)	(mm)	NPT	BSPP	ISO 6149-1	SAE J 1926-1	Fig.	A (in)	B (in)	C (in)	Hex (in)	A (mm)	B (mm)	C (mm)	Hex (mm)	lbs	grams
12IAS37BS	½	12.5	10.3	-	3/8-19	-	-	1	2.95	1.50	1.20	1.06	75	38	29.5	27	0.67	305
12IAS37				3/8-18	-	-	-	1	2.95	1.50	1.20	1.06	75	38	29.5	27	0.67	305
12IAS50BS				-	½-14	-	-	1	3.07	1.50	1.20	1.06	78	38	29.5	27	0.66	300
12IAS50				½-14	-	-	-	1	3.07	1.50	1.20	1.06	78	38	29.5	27	0.67	305
12IAS16FMET				-	-	M16x1.5	-	1	2.95	1.50	1.20	1.06	75	38	29.5	27	0.66	300
12IAS56UN				-	-	-	9/16 18f UNF	1	3.07	1.50	1.20	1.06	78	38	29.5	27	0.71	320
12IAS75UN				-	-	-	¾ 16f UNF	1	3.07	1.50	1.20	1.06	78	38	29.5	27	0.67	305
12IAS87UN				-	-	-	⅞ 14f UNF	1	3.19	1.50	1.30	1.18	81	38	33	30	0.74	335

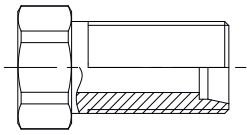
To obtain connected length of coupling add dimensions A (Fig. 1) and K (Fig. 3) or P (Fig. 4) together.

End Connections

ISO 8434-1 (standard version)



ISO 8434-1 (bulkhead version)



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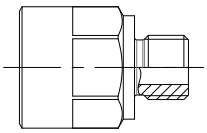

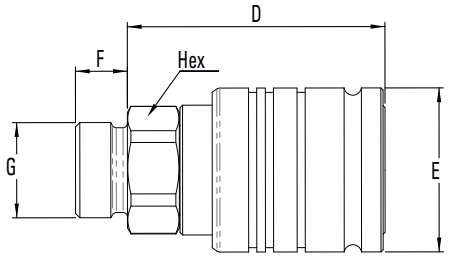

Figure 2

Sockets (Female) with External Thread

Part Number	Body Size	ISO Size	Nominal Flow Diameter	Thread Size (Male)			Dimensions										Weight	
NBR	(in)	(mm)	(mm)	ISO 8434-1	SAE J 1926-2	Fig.	D (in)	E (in)	F (in)	G (in)	Hex (in)	D (mm)	E (mm)	F (mm)	G (mm)	Hex (mm)	lbs	grams
12IAS56ORM	½	12.5	10.3	-	9/16 18f UNF	2	2.87	1.50	0.47	0.56	0.94	73	38	12	14.2	23.8	0.67	305
12IAS75ORM			10.3	-	¾ 16f UNF	2	2.87	1.50	0.55	0.75	0.94	73	38	14	19	23.8	0.68	310
12IAS8L			6	8L - M14x1.5	-	2	2.44	1.50	0.39	0.55	1.06	62	38	10	14	27	0.61	275
12IAS10L			8	10L - M16x1.5	-	2	2.40	1.50	0.43	0.63	1.06	61	38	11	16	27	0.60	270
12IAS10LBH			8	10L - M16x1.5 Bulkhead	-	2	2.44	1.50	1.38	0.63	1.06	62	38	35	16	27	0.68	310
12IAS12L			10	12L - M18x1.5	-	2	2.40	1.50	0.43	0.71	1.06	61	38	11	18	27	0.61	275
12IAS12LBH			10	12L - M18x1.5 Bulkhead	-	2	2.40	1.50	1.42	0.71	1.06	61	38	36	18	27	0.70	316
12IAS12S			8	12S - M20x1.5	-	2	2.40	1.50	0.47	0.79	1.06	61	38	12	20	27	0.62	282
12IAS15L			10.3	15L - M22x1.5	-	2	2.36	1.50	0.47	0.87	1.06	60	38	12	22	27	0.61	275
12IAS15LBH			10.3	15L - M22x1.5 Bulkhead	-	2	2.40	1.50	1.50	0.87	1.06	61	38	38	22	27	0.75	340
12IAS16S			10.3	16S - M24x1.5	-	2	2.36	1.50	0.55	0.94	1.06	60	38	14	24	27	0.62	280

To obtain connected length of coupling add dimensions D (Fig. 2) and K (Fig. 3) or P (Fig. 4) together.

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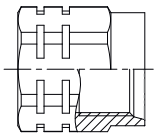
End Connections

ISO 6149-1



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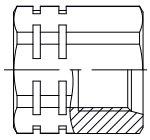


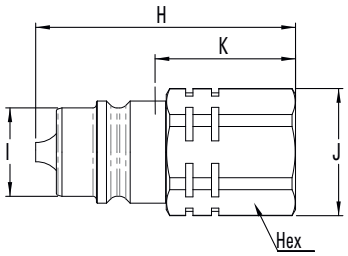


Fig. 3

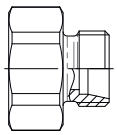
Plugs (Male) with Internal Thread

Part Number	Body Size	ISO Size	Nominal Flow Diameter	Thread Size (Female)					Dimensions											Weight	
NBR	(in)	(mm)	(mm)	NPT	BSPP	ISO 6149-1	SAE J 1926-1	Fig.	H (in)	I (in)	J (in)	K (in)	Hex (in)	H (mm)	I (mm)	J (mm)	K (mm)	Hex (mm)	lbs	grams
12IAP37BS	½	12.5	10.3	-	⅜-19	-	-	3	2.24	0.84	1.20	1.22	1.06	57	20.5	29.5	31	27	0.28	125
12IAP37				⅜-18	-	-	-	3	2.24	0.84	1.20	1.22	1.06	57	20.5	29.5	31	27	0.29	130
12IAP50BS				-	½-14	-	-	3	2.36	0.84	1.20	1.34	1.06	60	20.5	29.5	34	27	0.28	125
12IAP50				½-14	-	-	-	3	2.36	0.84	1.20	1.34	1.06	60	20.5	29.5	34	27	0.28	125
12IAP16FMET				-	-	M16x1.5	-	3	2.24	0.84	1.20	1.22	1.06	57	20.5	29.5	31	27	0.26	120
12IAP56UN				-	-	-	9/16 18f UNF	3	2.36	0.84	1.20	1.34	1.06	60	20.5	29.5	34	27	0.31	140
12IAP75UN				-	-	-	¾ 16f UNF	3	2.36	0.84	1.20	1.34	1.06	60	20.5	29.5	34	27	0.28	125
12IAP87UN				-	-	-	⅞ 14f UNF	3	2.48	0.84	1.30	1.46	1.18	63	20.5	33	37	30	0.34	155

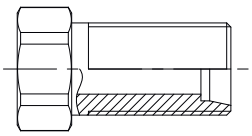
To obtain connected length of coupling add dimensions K (Fig. 3) and A (Fig. 1) or D (Fig. 2) together.

End Connections

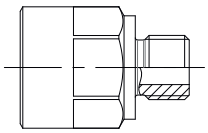
ISO 8434-1
(standard version)



ISO 8434-1
(bulkhead version)



SAE J 1926-2



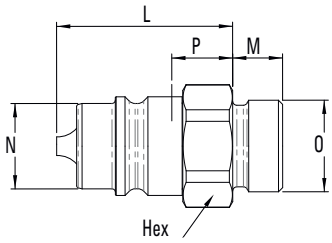


Fig. 4

Plugs (Male) with External Thread

Part Number	Body Size	ISO Size	Nominal Flow Diameter	Thread Size (Male)			Dimensions												Weight	
NBR	(in)	(mm)	(mm)	ISO 8434-1	SAE J 1926-2	Fig.	L (in)	M (in)	N (in)	O (in)	P (in)	Hex (in)	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Hex (mm)	lbs	grams
12IAP56ORM	½	12.5	10.3	-	9/16 18f UNF	4	2.20	0.47	0.84	0.56	1.18	0.94	56	12	20.5	14.2	30	23.8	0.28	125
12IAP75ORM			10.3	-	¾ 16f UNF	4	2.20	0.55	0.84	0.75	1.18	0.94	56	14	20.5	19	30	23.8	0.29	130
12IAP8L			6	8L - M14x1.5	-	4	1.75	0.39	0.84	0.55	0.71	1.06	44.5	10	20.5	14	18	27	0.21	95
12IAP10L			8	10L - M16x1.5	-	4	1.71	0.43	0.84	0.63	0.67	1.06	43.5	11	20.5	16	17	27	0.21	95
12IAP10LBH			8	10L - M16x1.5 Bulkhead	-	4	1.75	1.38	0.84	0.63	0.71	1.06	44.5	35	20.5	16	18	27	0.30	135
12IAP12L			10	12L - M18x1.5	-	4	1.71	0.43	0.84	0.71	0.67	1.06	43.5	11	20.5	18	17	27	0.21	95
12IAP12LBH			10	12L - M18x1.5 Bulkhead	-	4	1.71	1.42	0.84	0.71	0.67	1.06	43.5	36	20.5	18	17	27	0.30	136
12IAP12S			8	12S - M20x1.5	-	4	1.71	0.47	0.84	0.79	0.67	1.06	43.5	12	20.5	20	17	27	0.22	102
12IAP15L			10.3	15L - M22x1.5	-	4	1.67	0.47	0.84	0.87	0.63	1.06	42.5	12	20.5	22	16	27	0.21	95
12IAP15LBH			10.3	15L - M22x1.5 Bulkhead	-	4	1.71	1.50	0.84	0.87	0.67	1.06	43.5	38	20.5	22	17	27	0.35	160
12IAP16S			10.3	16S - M24x1.5	-	4	1.67	0.55	0.84	0.94	0.63	1.06	42.5	14	20.5	24	16	27	0.22	100

To obtain connected length of coupling add dimensions P (Fig. 4) and A (Fig. 1) or D (Fig. 2) together.

Dust Plugs and Dust Caps

Body Size	Socket Dust Plug Part Number	Plug Dust Cap Part Number
(in)	Plastic	Plastic
½	HP1513100	HP1513200

Socket Dust Plug

Plug Dust Cap