

VR SERIES

THREADED POPPET COUPLERS German Screw Coupler



The VR Series German Screw Coupler

uses a low leakage-style valve for the sealing mechanism and threads as the mechanical connection, to ensure connection with some residual pressure. The rugged design makes the VR particularly well-suited for heavy-duty service conditions and a variety of hydraulic applications, including the mobile construction and industrial fields.



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FEATURES

Size range: 3/8" thru 1 1/4"

Port options: BSP, DIN

Interchangeable with German market couplings

- Internal components purposely designed to reduce turbulence
- Friction ring prevents accidental disconnection
- Various seals and wide range of ports on request

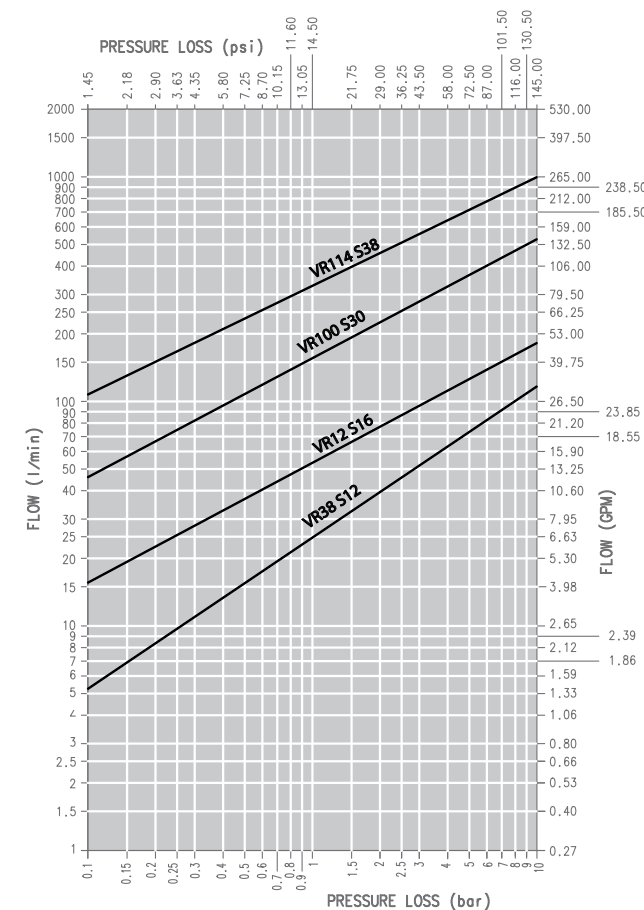
APPLICATIONS

Particularly well-suited for heavy-duty service conditions

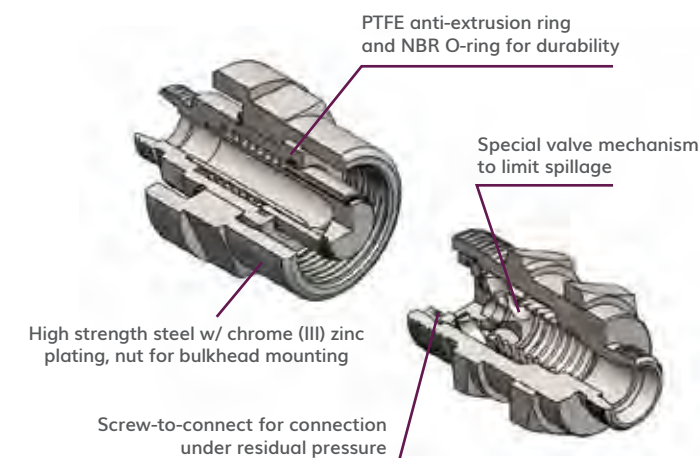
- Cover various fields of hydraulic applications
- Used in mobile cranes, trucks and industrial plant applications



PRESSURE DROP



OIL = ISO VG32, TEMP = 40C, VISCOSITY = 28.8-35.2 MM²/S



PERFORMANCE

DESCRIPTION	MAX. OPERATING PRESSURE						BURST PRESSURE					
	COUPLED		MALE		FEMALE		COUPLED		MALE		FEMALE	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
VR38	40	5800	20	2900	40	5800	200	29000	70	10150	100	14500
VR12	30	4350	17	2465	30	4350	200	29000	70	10150	100	14500
VR34	35	5075	20	2900	35	5075	150	21750	80	11600	100	14500
VR100	30	4350	20	2900	30	4350	120	17400	80	11600	120	17400
VR114	42	6090	42	6090	42	6090	120	17400	90	13050	100	14500

DESCRIPTION	SIZE	RATED FLOW		MAX. FLOW SUGGESTED		CONNECT TORQUE*		DISCONNECT TORQUE*		SPILLAGE**
		L/min	GPM	L/min	GPM	NM	LBF FT	NM	LBF FT	
VR38	3/8	23	6.10	46	12.19	2	1.47	1.8	1.33	0.012
VR12	1/2	45	11.93	90	23.85	1.3	0.96	0.7	0.52	0.02
VR34	3/4	106	28.10	212	56.20	2.2	1.62	1.7	1.25	0.4
VR100	1	189	50.11	378	100.21	4.3	3.17	2.5	1.84	1
VR114	1 1/4	288	76.35	576	152.7	6.0	4.42	4.0	2.95	1

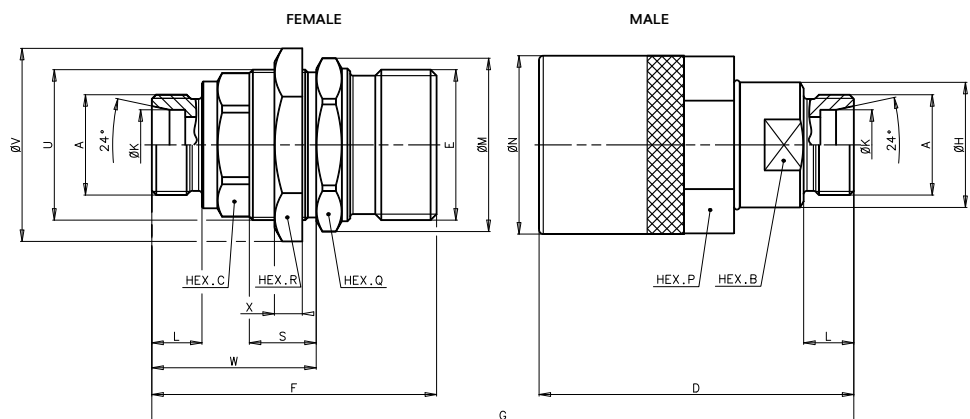
* Connect and disconnect torque without residual pressure. Torque will increase with residual pressure.

** Spillage is an indicative value of the fluid loss per couple-uncouple cycle without residual pressure.

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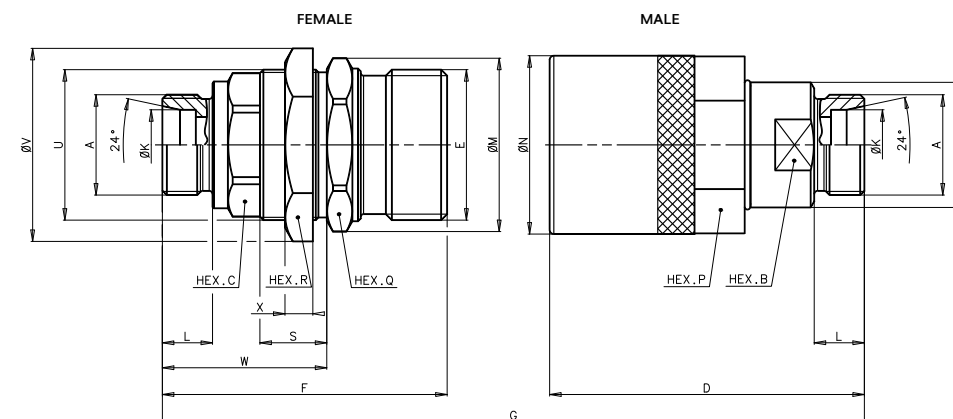
SIZE DIAGRAM DIN THREAD (LIGHT)



DESCRIPTION	BODY SIZE	BG	A	E	U	UNIT	HEX B	HEX C	D	F	G	H	K
VR38 L10	3/8	2	M16X1.5	32X3 SP	M30X1	mm	22	-	61.6	60	107.5	25	10.2
						inch	0.87	-	2.43	2.36	4.23	0.98	0.40
VR38 L12	3/8	2	M18X1.5	32X3 SP	M30X1	mm	22	-	61.6	60	107.5	25	12.2
						inch	0.87	-	2.43	2.36	4.23	0.98	0.48
VR38 L15	3/8	2	M22X1.5	32X3 SP	M30X1	mm	22	-	62.6	61	109.5	25	15.2
						inch	0.87	-	2.46	2.40	4.31	0.98	0.60
VR12 L15	1/2	3	M22X1.5	36X3 SP	M36X1	mm	24	-	71.6	69.7	123.8	28	15.2
						inch	0.94	-	2.82	2.74	4.87	1.10	0.60
VR100 L18	1	6	M26X1.5	54X4 SP	M54X1.5	mm	41	46	107	96.2	174.5	44.9	18.2
						inch	1.61	1.81	4.21	3.79	6.87	1.77	0.72
VR100 L22	1	6	M30X2	54X4 SP	M54X1.5	mm	41	46	109	98.2	178.5	44.9	22.2
						inch	1.61	1.81	4.29	3.87	7.03	1.77	0.87
VR100 L28	1	6	M36X2	54X4 SP	M54X1.5	mm	41	46	109	98.2	178.5	44.9	28.2
						inch	1.61	1.81	4.29	3.87	7.03	1.77	1.11

DESCRIPTION	BODY SIZE	BG	L	M	N	HEX P	HEX Q	HEX R	S	V	W	X
VR38 L10	3/8	2	11	41.4	38.7	32	36	36	19	41.4	36	7
			0.43	1.63	1.52	1.26	1.42	1.52	1.26	1.42	1.42	1.42
VR38 L12	3/8	2	11	41.4	38.7	32	36	36	19	41.4	36	7
			0.43	1.63	1.52	1.26	1.42	1.52	1.26	1.42	1.42	1.42
VR38 L15	3/8	2	12	41.4	38.7	32	36	36	19	41.4	37	7
			0.47	1.63	1.52	1.26	1.42	1.52	1.26	1.42	1.42	1.42
VR12 L15	1/2	3	12	47.2	54	46	41	41	22.4	47.15	40.1	8
			0.47	1.86	2.13	1.81	1.61	2.13	1.81	1.61	1.61	0.88
VR100 L18	1	6	12	62.2	64	55	55	60	22.75	69	53	10
			0.47	2.45	2.52	2.17	2.17	2.52	2.17	2.17	2.36	0.90
VR100 L22	1	6	14	62.2	64	55	55	60	22.75	69	55	10
			0.55	2.45	2.52	2.17	2.17	2.52	2.17	2.17	2.36	0.90
VR100 L28	1	6	14	62.2	64	55	55	60	22.75	69	55	10
			0.55	2.45	2.52	2.17	2.17	2.52	2.17	2.17	2.36	0.90

SIZE DIAGRAM DIN THREAD (HEAVY)



DESCRIPTION	BODY SIZE	BG	A	E	U	UNIT	HEX B	HEX C	D	F	G	H	K
VR38 S10	3/8	2	M18X1.5	32X3 SP	M30X1	mm	-	-	-	61	-	-	12
						inch	-	-	-	2.40	-	-	0.47
VR38 S12	3/8	2	M20X1.5	32X3 SP	M30X1	mm	22	-	62.6	61	109.5	25	12
						inch	0.87	-	2.46	2.40	4.31	0.98	0.47
VR38 S14	3/8	2	M22X1.5	32X3 SP	M30X1	mm	22	-	64.6	63	113.5	25	14
						inch	0.87	-	2.54	2.48	4.47	0.98	0.55
VR12 S16	1/2	3	M24X1.5	36X3 SP	M36X1	mm	24	-	73.6	71.7	127.8	28	14
						inch	0.94	-	2.90	2.82	5.03	1.10	0.55
VR100 S20	1	6	M30X2	54X4 SP	M54X1.5	mm	41	46	111	100.2	182.5	44.9	16
						inch	1.61	1.81	4.37	3.94	7.19	1.77	0.63
VR100 S25	1	6	M36X2	54X4 SP	M54X1.5	mm	41	46	113	102.2	186.5	44.9	18
						inch	1.61	1.81	4.45	4.02	7.34	1.77	0.71
VR100 S30	1	6	M42X2	54X4 SP	M54X1.5	mm	41	46	115	104.2	190.5	44.9	20
						inch	1.61	1.81	4.53	4.10	7.50	1.77	0.79
VR114 S38	1 1/4	8	M52X2	79X4 SP	M80X2	mm	55	55	136.4	129	-	60.8	22
						inch	2.17	2.17	5.37	5.08	8.86	2.39	0.87

DESCRIPTION	BODY SIZE	BG	L	M	N	HEX P	HEX Q	HEX R	S	V	W	X
VR38 S10	3/8	2	41.4	41.4	-	-	36	36	19	41.4	37	7
			1.63	1.63	-	-	1.42	1.42	0.75	1.63	1.46	0.28
VR38 S12	3/8	2	41.4	41.4	38.7	32	36	36	19	41.4	37	7
			1.63	1.63	1.52	1.26	1.42	1.42	0.75	1.63	1.46	0.28
VR38 S14	3/8	2	41.4	41.4	38.7	32	36	36	19	41.4	39	7
			1.63	1.63	1.52	1.26	1.42	1.42	0.75	1.63	1.54	0.28
VR12 S16	1/2	3	47.2	47.2	54	46	41	41	22.4	47.15	42.1	8
			1.86	1.86	2.13	1.81	1.61	1.61	0.88	1.86	1.66	0.31
VR100 S20	1	6	62.2	62.2	64	55	55	60	22.75	69	57	10
			2.45	2.45	2.52	2.17	2.17	2.36	0.90	2.72	2.24	0.39
VR100 S25	1	6	62.2	62.2	64	55	55	60	22.75	69	59	10
			2.45	2.45	2.52	2.17	2.17	2.36	0.90	2.72	2.32	0.39
VR100 S30	1	6	62.2	62.2	64	55	55	60	22.75	69	61	10
			2.45	2.45	2.52	2.17	2.17	2.36	0.90	2.72	2.40	0.39
VR114 S38	1 1/4	8	90	90	89.7	-	85	90,5*	35	100	71	14
			3.54	3.54	3.53	-	3.35	3,56*	1.38	3.94	2.80	0.55

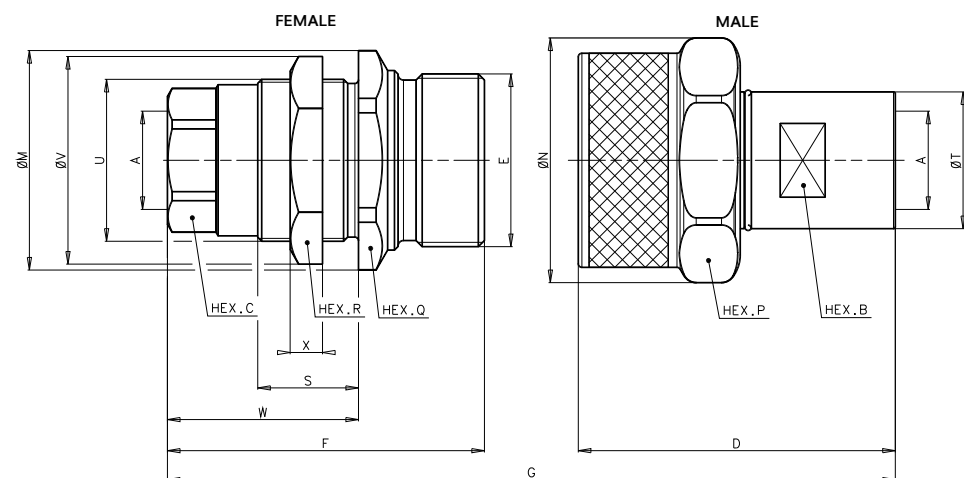
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SIZE DIAGRAM DIN THREAD (LIGHT)



DESCRIPTION	BODY SIZE	BG	A	E	U	UNIT	HEX B	HEX C	D	F	G	M
VR34 BSP	3/8	4	G 3/4"	M48X3 SP	M45X1.5	mm	32	36	88,1	88,1	152,1	61
						inch	1.26	1.42	3.47	3.47	5.99	2.40

DESCRIPTION	BODY SIZE	BG	A	N	HEX P	HEX Q	HEX R	S	T	V	W	X
VR34 BSP	3/8	4	G 3/4"	68	60	55	50	26.9	38	57.5	53.1	9
				2.68	2.36	2.17	1.97	1.06	1.50	2.26	2.09	0.35

VR DIN Thread SCHOTT (DIN Bulkhead) | Screw Poppet Interchange

PART	BODY SIZE	THREAD TYPE	PORT SERIES	PORT THREAD	ORDER CODE	DESCRIPTION
COUPLER	3/8	DIN	L	M 16X1.5	809608002	F. VR38 L10
NIPPLE	3/8	DIN	L	M 16X1.5	809608003	M. VR38 L10
COUPLER	3/8	DIN	L	M 18X1.5	809608004	F. VR38 L12
NIPPLE	3/8	DIN	L	M 18X1.5	809608005	M. VR38 L12
COUPLER	3/8	DIN	L	M 22X1.5	809608006	F. VR38 L15
NIPPLE	3/8	DIN	L	M 22X1.5	809608007	M. VR38 L15
COUPLER	3/8	DIN	S	M 18X1.5	809609002	F. VR38 S10
COUPLER	3/8	DIN	S	M 20X1.5	809609004	F. VR38 S12
NIPPLE	3/8	DIN	S	M 20X1.5	809609005	M. VR38 S12
COUPLER	3/8	DIN	S	M 22X1.5	809609006	F. VR38 S14
NIPPLE	3/8	DIN	S	M 22X1.5	809609007	M. VR38 S14
COUPLER	3/8	DIN	S	M 24X1.5	809609016	F. VR38 S16
NIPPLE	3/8	DIN	S	M 24X1.5	809609017	M. VR38 S16
COUPLER	1/2	DIN	L	M 22X1.5	809608000	F. VR12 L15
NIPPLE	1/2	DIN	L	M 22X1.5	809608001	M. VR12 L15
COUPLER	1/2	DIN	S	M 24X1.5	809609000	F. VR12 S16
NIPPLE	1/2	DIN	S	M 24X1.5	809609001	M. VR12 S16
COUPLER	3/4	DIN	S	M 30X2	809609018	F. VR34 S20
NIPPLE	3/4	DIN	S	M 30X2	809609019	M. VR34 S20
COUPLER	1	DIN	L	M 26X1.5	809608008	F. VR100 L18
NIPPLE	1	DIN	L	M 26X1.5	809608009	M. VR100 L18
COUPLER	1	DIN	L	M 30X2	809608010	F. VR100 L22
NIPPLE	1	DIN	L	M 30X2	809608011	M. VR100 L22
COUPLER	1	DIN	L	M 36X2	809608012	F. VR100 L28
NIPPLE	1	DIN	L	M 36X2	809608013	M. VR100 L28
COUPLER	1	DIN	S	M 30X2	809609008	F. VR100 S20
NIPPLE	1	DIN	S	M 30X2	809609009	M. VR100 S20
COUPLER	1	DIN	S	M 36X2	809609010	F. VR100 S25
NIPPLE	1	DIN	S	M 36X2	809609011	M. VR100 S25
COUPLER	1	DIN	S	M 42X2	809609012	F. VR100 S30
NIPPLE	1	DIN	S	M 42X2	809609013	M. VR100 S30
COUPLER	1 1/4	DIN	S	M 52X2	809609014	F. VR114 S38
NIPPLE	1 1/4	DIN	S	M 52X2	809609015	M. VR114 S38



Coupler



Nipple

THREADED POPPET COUPLERS

VR BSP Thread

PART	BODY SIZE	THREAD TYPE	PORT SERIES	PORT THREAD	ORDER CODE	DESCRIPTION
COUPLER	3/4	BSP	3/4	FEMALE	809600000	F. VR34 BSP
NIPPLE	3/4	BSP	3/4	FEMALE	809600001	M. VR34 BSP

VR Series Accessories Protective Caps and Plugs

PART	BODY SIZE	ORDER CODE		MATERIAL
		PLUG FOR FEMALE	CAP FOR MALE	
VR38	3/8	814900012	814900013	PLASTIC - RED
VR12	1/2	814900014	814900015	ALUMINUM
VR34	3/4	814906016	814906017	ALUMINUM
VR100	1	814906018	814906019	ALUMINUM
VR114	1 1/4	814906020	814906021	ALUMINUM