

Swivel Joints

DG-Series



Technical Description

Can be used in hydraulic systems where rotating connections are essential, for example on accessories with rotating movements. Depending on design, the body is made of brass (DG) or steel (KR) and the rotating axis of surface-purified/stainless steel. Maximum rotation speed: 60 r.p.m.

Advantages

- Rotating joints minimise the high wear to the hose, which occurs in hydraulic systems.
- Solid construction with two plain bearings (DG) or ball/roller bearings (KR).
- Suitable for combining with norm hydraulic components.

Working Temperature

-40°C up to +90°C (NBR) depending on the medium. Special seals are available on request (see page 6).

Material	Type DG	Type KR
Body	Brass	Steel, zinc plated, passivated, sealed
Counterpart		Steel, zinc plated, passivated, sealed
Swivel Axis	Steel, nitrated or Stainless Steel	Steel hardened, zinc plated, passiv., sealed
Nut/Adapter	Steel, zinc plated, passivated, sealed	Steel, zinc plated, passivated, sealed
Seals	NBR	NBR

Applications Area



Type DG 250 DN 6 = 28 mm

DG-Series

	Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal	Type	Working Pressure in bar	Part Number
<p>Female Thread</p>	G 1/4	G 3/8	22	53	23	6	NBR	1	250	250
	G 1/4	G 3/8	22	53	23	6	NBR	1	250	250 RF *

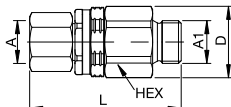
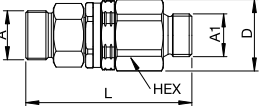
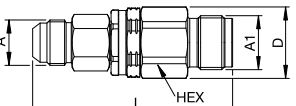
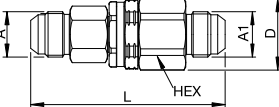
Type DG 500 DN 11 = 95 mm

DG-Series

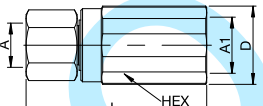
	Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal	Type	Working Pressure in bar	Part Number
<p>Female Thread</p>	G 1/2	G 3/4	32	71	35	11	NBR	1	250	500
	G 1/2	G 3/4	32	71	35	11	NBR	1	250	500 RF *

* Swivelling axis made of stainless steel.

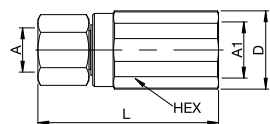
Type DG 500 DN 11 = 95 mm**DG-Series**

	Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal	Type	Working Pressure in bar	Part Number
 <p>Male / Female Thread</p>	G 1/2	G 1/2	32	73	35	11	NBR	1A	250	500 B
 <p>Male Thread</p>	M 18 x 1,5	G 1/2	32	73	35	11	NBR	2	250	500 W
	M 22 x 1,5	G 1/2	32	81	35	11	NBR	2	250	500 W5
	M 24 x 1,5	G 1/2	32	81	35	11	NBR	2	250	500 W6
 <p>Male Thread</p>	7/8"-14 UNF	G 3/4	32	98	35	11	NBR	3	250	500-30
	7/8"-14 UNF	G 1/2	32	90,5	35	11	NBR	3	250	500-32 *
 <p>Male Thread</p>	7/8"-14 UNF	7/8"-14 UNF	32	92	35	11	NBR	3A	250	500-31
	11/16"-12 UNF	11/16"-12 UNF	32	101	35	11	NBR	3A	250	500-33

Type DG 750 DN 17 = 225 mm**DG-Series**

	Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal	Type	Working Pressure in bar	Part Number
 <p>Female Thread</p>	G 3/4	G 1	40	80	35	17	NBR	1	250	750-QC
	G 3/4	G 1	40	80	35	17	NBR	1	250	750 RF *

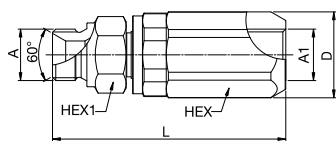
* Swivelling axis made of stainless steel.

Type DG 1000 DN 22 = 380 mm**DG-Series**

Female Thread

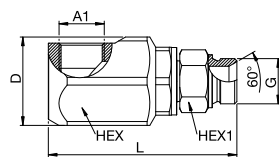
Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal	Type	Working Pressure in bar	Part Number
G 1	G 1 1/4	50	94	43	22	NBR	1	200	1000-QC
G 1	G 1 1/4	50	94	43	22	NBR	1	200	1000 RF *

* Swivelling axis made of stainless steel.

Type KR DN 6 = 28 mm up to DN 22 = 380 mm**KR-Series**

Male / Female Thread

Connection A	Connection A1	Hex mm	Hex 1 mm	L mm	D mm	DN	Seal	Working Pressure in bar	Part Number
G 1/4	G 1/4	27	19	88	29	6	NBR	350	2KR AW13 IW13
G 3/8	G 3/8	30	22	87	33	9	NBR	350	3KR AW17 IW17
G 1/2	G 1/2	32	27	95	35	11	NBR	350	5KR AW21 IW21
G 3/4	G 3/4	45	32	109	50	17	NBR	350	7KR AW26 IW26
G 1	G 1	50	40	117	55	22	NBR	250	10KR AW33 IW33

Type KR 90° DN 6 = 28 mm up to DN 22 = 380 mm**KR-Series**

Male / Female Thread

Connection A	Connection A1	Hex mm	Hex 1 mm	L mm	D mm	DN	Seal	Working Pressure in bar	Part Number
G 1/4	G 1/4	32	19	93	35	6	NBR	350	2KRAW13IW1390
G 3/8	G 3/8	38	22	95	41	9	NBR	350	3KRAW17IW1790
G 1/2	G 1/2	41	27	108	45	11	NBR	350	5KRAW21IW2190
G 3/4	G 3/4	55	32	125	60	17	NBR	350	7KRAW26IW2690
G 1	G 1	65	40	139	72	22	NBR	250	10KRAW33IW3390

All KR swivel joints are only suitable for oil.

Kovan S.r.l.

Accessories

Pressure Relief Valve

**Technical Description**

Produced for hydraulic systems where in line quick connect couplings are used. The system pressure built up between the hydraulic unit and the coupling would not allow mechanical coupling.

Advantages

The Pressure Relief Valve can be mounted directly in the main inflow line so that all downstream pipe or hose lines where quick connect couplings or plugs are installed at the ends can be depressurised.

Working Pressure

max. 250 bar

Working Temperature

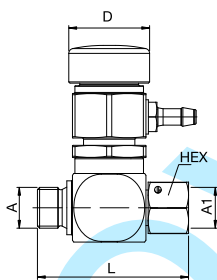
up to max. +90°C depending on the medium. Special seals are available on request (see page 6).

Material	Standard
T-Connection	Steel, zinc plated, passivated, sealed
Pressure Relief Valve	Brass
Seal	NBR

Applications Area

Pressure Relief Valve

Accessories

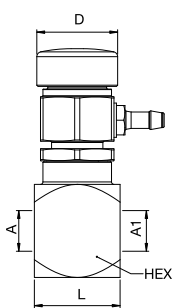
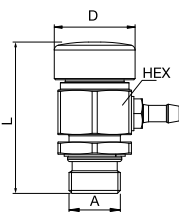


Female / Male Thread

Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal Type	Max. Working Pressure in bar	Part Number
G 3/8	G 3/8	21	62	33	10	NBR	250	TA38
G 1/2	G 1/2	25	70	33	13	NBR	250	TA50
G 3/4	G 3/4	32	73	33	20	NBR	250	TA75
G 1	G 1	38	77	33	25	NBR	250	TA100

Pressure Relief Valve

Accessories

	Connection A	Connection A1	Hex mm	L mm	D mm	DN	Seal Type	Max. Working Pressure in bar	Part Number
 <p>Female Thread</p>	G 3/8	G 3/8	28	60	33	10	NBR	250	TA38 IW
	G 1/2	G 1/2	28	60	33	13	NBR	250	TA50 IW
 <p>Pressure Relief Valve complete</p>	G 1/2		30	62	33	6	NBR	250	515
	G 1/2		30	62	33	6	NBR/FKM	250	515 RV ¹

¹ Pressure Relief Valve made of stainless steel with FKM Seals.

Accessories

DT-Series

Body Size

3/8" and 1 1/4"

**Technical Description**

Compact design, easy to plumb into tight circuits. Robust steel construction with various end fittings. The maximum operating pressure is 350 bar. Large range of end configurations. Zinc chromate exterior finish.

Advantages

- No internal gaskets or seals to wear out.
- The check valve body is shaped like an arrow to indicate flow direction.
- Heat treated poppet valve to resist damage from shocks and surges.
- One-piece body eliminates threads and seals that may be potential leak points.
- Compact design.
- Smooth flow stream: poppet spring is isolated from flow stream thus minimising turbulence.

Working Pressure

max. 350 bar

Working Temperature

-40°C up to +110°C (NBR) depending on the medium. Special seals are available on request (see page 6).

Material	Standard
Body	Steel
Valve	Steel
Spring	Steel
Seal	NBR
Retainer	Steel

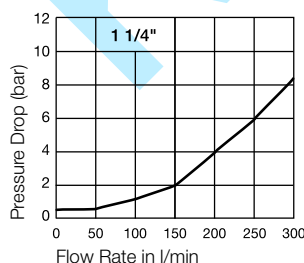
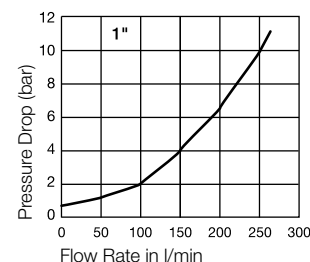
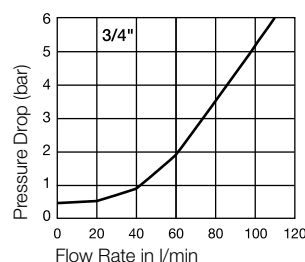
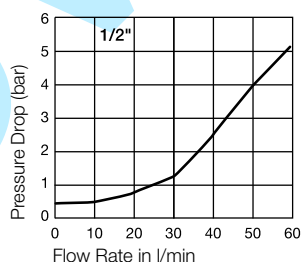
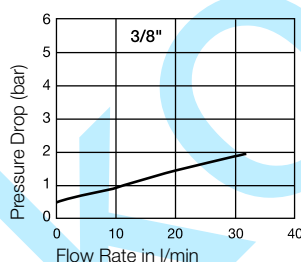
Standard Cracking Pressure:

0,35 bar

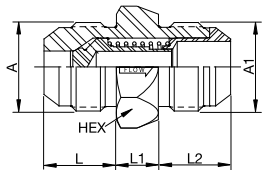
Other Options:

Cracking Pressure up to 14 bar in 0,35 bar increments are available on request. Please consult your Parker sales engineer.

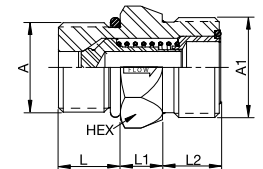
For other threads, other sizes or other end configurations, please contact your Parker sales team.

Flow Capacity with Oil with Viscosity of 43cSt at 38°C as per ISO 7241/2-2000

DT-MFMF: Male JIC 37° Flare Inlet to Male JIC 37° Flare Outlet**Accessories**

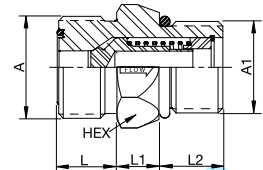
	Body Size	Connection A SAE J514 Triple-Lok	Connection A1 SAE J514 Triple-Lok	Hex	L mm	L1 mm	L2 mm	Part Number
	3/8"	9/16"-18 UNF	9/16"-18 UNF	3/4"	14,2	11,2	14,2	DT-370-MFMF-5
	1/2"	3/4"-16 UNF	3/4"-16 UNF	7/8"	16,8	12,7	16,8	DT-500-MFMF-5
	3/4"	1 1/16"-12 UN	1 1/16"-12 UNF	1 1/4"	21,8	12,7	21,8	DT-750-MFMF-5
	1"	1 5/16"-12 UN	1 5/16"-12 UNF	1 1/2"	23,1	15,8	23,1	DT-1000-MFMF-5
	1 1/4"	1 5/8"-12 UN	1 5/8"-12 UNF	1 7/8"	24,4	26,9	24,4	DT-1250-MFMF-5

DT-MOMS: Male ORB Inlet to Male O-Lok Outlet**Accessories**

	Body Size	Con. A – ISO 11926 – 2/3 Male O-Ring Boss	Connection A1 SAE J1453 O-Lok	Hex	L mm	L1 mm	L2 mm	Part Number
	1/4"	7/16"-20 UNF	9/16"-18 UNF	5/8"	10,9	11,4	9,9	DT-250-MOMS-5
	3/8"	9/16"-18 UNF	11/16"-16 UNF	3/4"	11,9	11,2	11,2	DT-370-MOMS-5
	1/2"	3/4"-16 UNF	13/16"-16 UNF	7/8"	14,0	12,7	12,7	DT-500-MOMS-5
	3/4"	1 1/16"-12 UNF	1 3/16"-12 UNF	1 1/4"	18,5	12,7	17,0	DT-750-MOMS-5
	1"	1 5/16"-12 UNF	1 7/16"-12 UNF	1 1/2"	18,5	15,8	17,5	DT-1000-MOMS-5
	1 1/4"	1 5/8"-12 UNF	1 11/16"-12 UNF	1 7/8"	18,5	26,9	17,5	DT-1250-MOMS-5

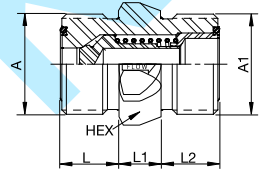
NBR O-Ring included on MO and MS fittings.

DT-MSMO: Male O-Lok Inlet to Male ORB Outlet**Accessories**

	Body Size	Connection A SAE J1453 O-Lok	Con. A1 – ISO 11926 – 2/3 Male O-Ring Boss	Hex	L mm	L1 mm	L2 mm	Part Number
	3/8"	11/16"-16 UNF	9/16"-18 UNF	3/4"	11,9	11,2	11,2	DT-370-MSMO-5
	1/2"	13/16"-16 UNF	3/4"-16 UNF	7/8"	14,0	12,7	12,7	DT-500-MSMO-5
	3/4"	1 3/16"-12 UNF	1 1/16"-12 UNF	1 1/4"	18,5	12,7	17,0	DT-750-MSMO-5
	1"	1 7/16"-12 UNF	1 5/16"-12 UNF	1 1/2"	18,5	15,8	17,5	DT-1000-MSMO-5
	1 1/4"	1 11/16"-12 UNF	1 5/8"-12 UNF	1 7/8"	18,5	26,9	17,5	DT-1250-MSMO-5

NBR O-Ring included on MO and MS fittings.

DT-MSMS: Male O-Lok Inlet to Male O-Lok Outlet**Accessories**

	Body Size	Connection A SAE J1453 O-Lok	Connection A1 SAE J1453 O-Lok	Hex	L mm	L1 mm	L2 mm	Part Number
	3/8"	11/16"-16 UNF	11/16"-16 UNF	3/4"	11,2	11,2	11,2	DT-370-MSMS-5
	1/2"	13/16"-16 UNF	13/16"-16 UNF	7/8"	12,7	12,7	12,7	DT-500-MSMS-5
	3/4"	1 3/16"-12 UNF	1 3/16"-12 UNF	1 1/4"	17,0	12,7	17,0	DT-750-MSMS-5
	1"	1 7/16"-12 UNF	1 7/16"-12 UNF	1 1/2"	17,5	15,8	17,5	DT-1000-MSMS-5
	1 1/4"	1 11/16"-12 UNF	1 11/16"-12 UNF	1 7/8"	17,5	26,9	17,5	DT-1250-MSMS-5

NBR O-Ring included on MO and MS fittings.

Accessories

Body Size

1"

Thermal Valves



Technical Description

Temperature responsive by-pass valve to modulate return line oil between tank and oil cooler. Available in 5 shift temperatures, 38°C to 82°C. Integral relief valve to dump excessive inlet pressures to the reservoir. Relief pressure settings available from 0.34 to 6,0 bar. 17 bar maximum operating pressure. Up to 227 l/m flow rates.

Advantages

Modulates fluid temperature either by shifting return line flow through the cooler, or by passing directly to the reservoir. Compact construction. 2 mounting holes, each of Ø 10,6 mm. Aluminium die-cast housing. 3 threaded ports for easy tubing. A built-in pressure relief function automatically relieves excess pressure to the reservoir, should the cooler become restricted and the resultant pressure drop become too high for the cooler circuit.

Applications

Ideally suited to hydrostatic drive circuits that require fast warm-up, controlled fluid temperatures and low return line-back pressure.

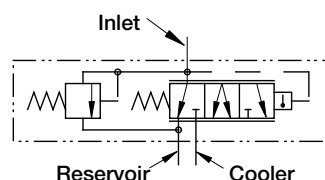
Working Pressure

max. 17 bar

Working Temperature

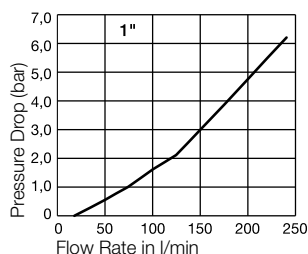
-30°C up to +110°C

Technical Performance

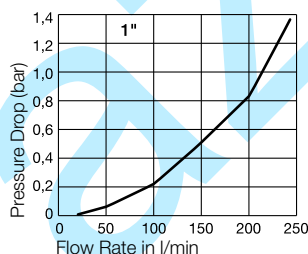


Material	Standard
Body	Aluminium
Valve	Different Materials
Spring	Steel
Seal	NBR, FKM

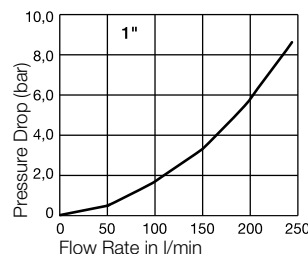
Inlet port through tank port® 38°C
Test with oil viscosity 64 cst



Inlet port through cooler port® 63°C
Test with oil viscosity 23 cst



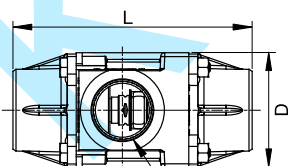
Inlet port over integral relief valve® 77°C
Test with oil viscosity 16 cst



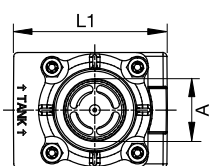
Note: Pressure drop shown is added to relief valve cracking pressure for total pressure drop.

Thermal Valves

Accessories



1,312 - 12UN-2B
SAEJ1926-1-16 SIZE
3 PLACES



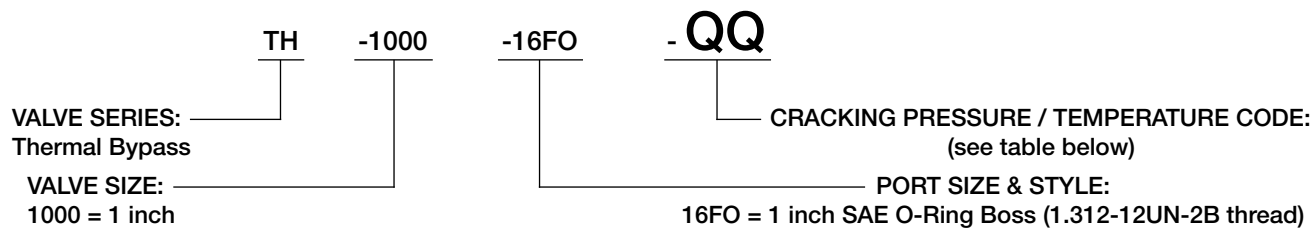
Ø 0,42 (10,7)
MOUNTING HOLES
2 PLACES

Body Size	Connection A	L mm	L1 mm	D mm	Weight gr.	Part Number
1"	1 5/16-12 UN	138,2	89,2	66,5	907,0	TH-1000-16FO-*

* = QQ. Please find the Dash Code for your application in the table on the next page.

CRACKING PRESSURE/TEMPERATURE CODE FOR PRODUCT CONFIGURATION

STRUCTURE OF PART-NUMBER



Cracking Pressure	Shift 38°C	Shift 49°C	Shift 60°C	Shift 71°C	Shift 82°C
0,35 bar	-01	-21	-41	-61	-81
0,70 bar	-02	-22	-42	-62	-82
1,05 bar	-03	-23	-43	-63	-83
1,40 bar	-04	-24	-44	-64	-84
1,70 bar	-05	-25	-45	-65	-85
2,10 bar	-06	-26	-46	-66	-86
2,40 bar	-07	-27	-47	-67	-87
2,75 bar	-08	-28	-48	-68	-88
3,10 bar	-09	-29	-49	-69	-89
3,45 bar	-10	-30	-50	-70	-90
3,80 bar	-11	-31	-51	-71	-91
4,15 bar	-12	-32	-52	-72	-92
4,50 bar	-13	-33	-53	-73	-93
4,85 bar	-14	-34	-54	-74	-94
5,20 bar	-15	-35	-55	-75	-95
5,50 bar	-16	-36	-56	-76	-96
5,85 bar	-17	-37	-57	-77	-97

Note: For 2" thermal bypass valve or other thread options, please contact your Parker sales team.