

ENGINEERING TOMORROW

Technical Information

# **DHRCD** Hydraulic Pilot Sectional valve



#### DHRCD is part of D-HRC series. D-HRC means Danfoss Hydraulic Remote Control valves which include: DHRCJ — Hydraulic Joystick

DHRCD — — Hydraulic Soystick DHRCD — — Hydraulic Pilot Sectional Valve DHRCP — — Hydraulic Foot Pedals

Excavator Forklift Crane Drilling machine Loader Special vehicles AWP

#### Contents

General Description	3
General Specification	4
Configuration	5
Options	6
Dimensions	9
Revision history	12

#### **DHRCD General Description**



#### Description

Hydraulic Remote Controls (HRCs) are used to activate and control directional valves or pumps from a remote and single operating station. HRCs come in hand, foot and mechanically operated versions, like the DHRCD series, sectional hydraulic pilot valve. Each section can achieve single axis direction pilot control. There are options for single and multi section type. Suitable for various applications such as excavators, cranes, forklifts, and backhoe loader. Flexible configuration with multiple valve bodies, handles, and function options. It has excellent handling performance, sturdy and durable design, and reliable quality.

#### Operation

HRCs are fed a constant input pressure, from which they create reduced output pressures that vary proportionally with lever or pedal stroke. When the HRC is operated, output pilot pressure flows to the main directional control valves, precisely controlling main spool position and direction.

#### **D-HRC Features**

- Market leader with over 30 years of industry experience.
- **Precision control** with less leakage, close to flat hysteresis and excellent linearity.
- Reliability and Quality.
- **Ergonomic efficiency and customization capabilities** provide unparalleled flexibility.



\*Schematic exemplification can be either one of the DHRC products.



# **DHRCD General specification**



#### Hydraulic specification:

Max. inlet pressure (bar)	50
Max. back pressure (bar)	3
Rated flow (LPM/Section)	10 each
Output pressure (bar)	0~30
Fluid type	Mineral oil
Fluid temperature	-20°C to 90°C
Ambient temperature	-40°C to 60°C
Viscosity	12~400 mm^2/s
Max level of fluid contamination	18/16/13 –ISO 4406

#### Mechanical specification:

	Grip	0.2~0.3	
Weight for refer (Kg/Section)	Body Assy	0.8~1	
	Total	0.8~1.3	
Operation angle range (°)	13 ~ 26.5		
Operation torque range (Nm)	0.35 ~ 1.3		
Lifecycle	>1,000,000 cycles		

Note: Detailed operating angle and torque are provided on the drawings.

#### Electric specification:

A type lever push button	NO IP	3A 125VAC
G type lever push button	NO IP	5A 125VAC

### **DHRCD Configuration**



See electric connector table

Note:

Above is simple version of model code, only focus on main requirement information. If have more requirement or need more information, please find details in catalogue.

"\*" means most recommend option.

# **DHRCD** Options

### Body type – Model code position 6

Model code position 6	Description	3D diagram	2D diagram	Schematic
1	Single standard		$ \begin{array}{c} 126\\ \hline 1$	
2	Single with extra inlet block		78 80tom view 95 96 95 97 96 97 97 97 97 97 97 97 97 97 97	Additional Iniet Block required
3	Single detent		Bottom view 118 118 118 118 118 118 19, 32 19, 32 19, 32 10 10 10 10 10 10 10 10 10 10	
4	Sectional type bandwidth 35[1.378]		Bock view Bock view GR GR GR GR GR GR GR GR GR GR	Two sections schematic P T
5	Sectional type bandwidth 35 with harness hole		R8 R8 R8 R8 R8 R8 R8 R8 R8 R8	

# **DHRCD Options**

### Lever and bar - - Model code position 10

Model code position 10	Description	Diagram		Model code position 10	Description	Diagram
0	Without lever and bar			7	D type har only	HEX. 13 M5xTHRU
				,		Body side
1	A type lever with A type bar			8	G type lever with G type bar 6degree	
2	A to see to see to see to	<u>ø12</u>				
2	A type bar only	Body side				
3	B type lever with B type bar			9	B type lever with E type bar 10dgree to the left side from P,T port	
4	B type bar only	M8 Ø10 Body side		A	G type bar only 6degree	Ø12.5xDP82
5	C type bar only 30 degree to the left side from P,T port	M10x1.25 M10x1.25 Ø10 Body side		В	F type bar only 30degree	Body side
6	C type bar only 30 degree to the right side fromP,T port	M10x1.25 40 40 40 40 40 40 40 40 40 40				M12X1.25P H = N

# **DHRCD** Options

### Switch- – Model code position 12

Model code position 12	Description	Diagram
1	Front one button for A type lever	
2	Front one button for G type lever	

### Electric connector – Model code position 13,14

Model code position 23~26	Description	Diagram		Model code position 23~26	Description	Diagram
x	No connector			1	Deuchi DT04-2P Receptacle Assembly	
А	JIS D5403 CA104 & CB104 terminal end		_	J	Deuchi DT04-3P Receptacle Assembly	Ð
В	JIS D5403 CA104 2EA terminal end male		_	к	Deuchi DT04-4P Receptacle Assembly	
с	JIS D5403 CB104 2EA terminal end female		-	L	Deuchi DT04-6P Receptacle Assembly	
D	Korea Electric Terminal KET 2Pin		-	М	Deuchi DT04-08PA Receptacle Assembly	
E	Korea Electric Terminal KET 3Pin		-	Ν	Deuchi DT04-6P-E004 Receptacle Assembly	
F	Korea Electric Terminal KET 4Pin		-	0	Deuchi DT06-2S Plug Assembly	
G	Korea Electric Terminal KET 6Pin		-	Ρ	Female crimp terminal	C.S.
н	Korea Electric Terminal KET 8Pin		-		·	

### Single standard



### Single detent



# **DHRCD Dimensions**

#### Sectional



# **Revision history**

Date	Changed	Rev
March 2024	New created	A

#### ENGINEERING TOMORROW



#### **Products we offer:**

- Cartridge valves
- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
- Fluid Conveyance
- Gear motors
- Gear pumps
- Hydraulic integrated circuits (HICs)
- Hydrostatic motors
- Hydrostatic pumps
- Industrial hydraulics
- Orbital motorsPLUS+1° controllers
- PLUS+1<sup>®</sup> displays
- PLUS+1\* joysticks and
- pedals
- PLUS+1<sup>®</sup> operator interfaces
- PLUS+1<sup>®</sup> sensors
- PLUS+1<sup>®</sup> software
- PLUS+1<sup>®</sup> software services, support and training
- Position controls and sensors
- PVG proportional valves
- Steering components and systems
- Telematics

Hydro-Gear www.hydro-gear.com

Daikin-Sauer-Danfoss www.daikin-sauer-danfoss.com

#### Danfoss

**Power Solutions (US) Company** 2800 East 13th Street Ames, IA 50010, USA Phone: +1 515 239 6000 Danfoss Power Solutions GmbH & Co. OHG Krokamp 35 D-24539 Neumünster, Germany Phone: +49 4321 871 0

Local address:

Danfoss Power Solutions ApS Nordborgvej 81 DK-6430 Nordborg, Denmark Phone: +45 7488 2222

#### Danfoss Power Solutions Trading (Shanghai) Co., Ltd. Building #22, No. 1000 Jin Hai R Jin Qiao, Pudong New District Shanghai, China 201206 Phone: +86 21 2080 6201

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

**Danfoss Power Solutions** is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway and industrial markets as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster.

Danfoss Power Solutions – your strongest partner in hydraulics and mobile electrification.

#### Go to www.danfoss.com for further product information.

We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.