VALVE

HYDROLIC CONTROL

选 型 样 本

Hons RCX 双轴十字先导手柄

Hydraulic Remote Control Joystick



HYDROLIC CONTROL

产品概览与目录

Product overview and contents

RCX 双轴十字先导手柄通过一根操作杆控制四个先导输出油口，适用于液控多路阀、变量泵与马达、辅助阀及液压制动与离合控制。

A single dual-axis lever controls four pilot outputs for directional valves, variable-displacement pumps and motors, auxiliary valves, hydraulic brakes and clutches.

本样册以恒石 UV-RX 资料为基础，结合 HC-RCX 专册编排；RCX 为本样册系列标题。恒石 UV-RX 与 HC-RCX 的参数及代码分别标注，选型时按所选产品体系使用。

This RCX catalogue combines Hons UV-RX data and the HC-RCX reference. Parameters and codes retain their source systems; use the system applicable to the selected product.

典型应用

Typical applications

小型挖掘机、滑移装载机、装载机、拖拉机与灌木修剪设备。

Compact excavators, skid-steer loaders, wheel loaders, tractors and brush-trimming equipment.

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尺寸单位为 mm，压力单位为 bar，另有说明除外。

Dimensions are in mm and pressures in bar unless otherwise stated.

技术规格

Technical specifications

项目 / Parameter	恒石 UV-RX / Hons	HC-RCX 参考 / Reference
先导工作油口数量 Pilot outputs	4	4
最大进油压力 Maximum inlet pressure	100 bar	100 bar
最大回油背压 Maximum T backpressure	3 bar	3 bar
资料标注流量 Catalogue flow	12 L/min	16 L/min
重量 Weight	2.5 kg	2.90 kg
工作温度 Fluid temperature	-20°C to +80°C	-20°C to +80°C
运动黏度 Kinematic viscosity	10-300 cSt	10-300 cSt
工作介质 Hydraulic fluid	矿物油 Mineral oil	矿物油 Mineral oil
内泄漏 Internal leakage	P to T: 5-18 cm³/min	3 cm³/min at 50 bar
压损 / 滞环 Pressure loss / hysteresis	压损 / Loss < 1 bar	滞环 / Hysteresis 0.5 bar

材料与清洁度

Materials and cleanliness

项目 / Parameter	恒石资料 / Hons data
阀体 / 表面处理 Body / coating	铸铁 / 环保镀锌 Cast iron / environmentally compliant zinc plating
柱塞 / 导向套 Plunger / guide	不锈钢 / 黄铜 Stainless steel / brass
清洁度 / 过滤 Cleanliness / filtration	NAS 1638: 9; ISO 4406:1999: 20/18/15 β10 > 75 (ISO 16889:2008)

HC 另建议 25 µm 绝对过滤及 Ø8 mm 硬管或 G 1/4 软管；不可将不同试验条件的数据直接等同。

HC recommends 25 µm absolute filtration and Ø8 mm rigid or G 1/4 flexible lines. Values with different test conditions are not equivalent.

工作原理与油口

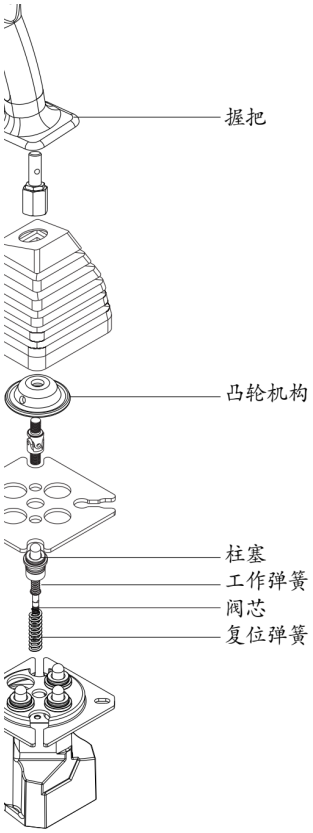
Operating principle and ports

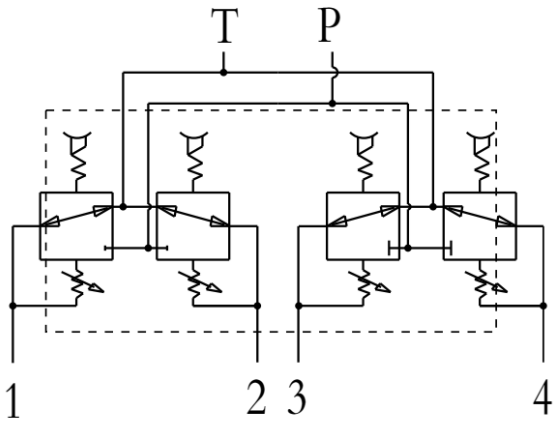
先导手柄按直动式减压阀原理工作。中位时，复位弹簧保持手柄居中，P 口关闭，四个先导工作油口与 T 口连通。

The joystick uses direct-acting pressure reduction. In neutral, return springs centre the lever, P is closed, and the four service ports connect to T.

操纵手柄后，凸轮机构压动柱塞及弹簧，使调压阀芯移动并接通 P 与相应工作油口。先导输出压力由行程及工作弹簧特性共同决定。

Lever movement drives the cam and plunger, compresses the springs and shifts the metering spool to connect P to the selected service port. Stroke and spring characteristics determine pilot pressure.





标记 / Mark	用途 / Function
P	先导进油 Pilot supply
T	先导回油 Pilot return
1 / 2 / 3 / 4	先导工作输出 Pilot service outputs

中位回油和管路背压会影响先导控制。按所选阀体的油口标识接管，并核对被控阀的起动压力、全行程压力和响应要求。

Neutral return and line backpressure affect pilot operation. Follow the selected body markings and match the controlled valve's starting pressure, full-stroke pressure and response.

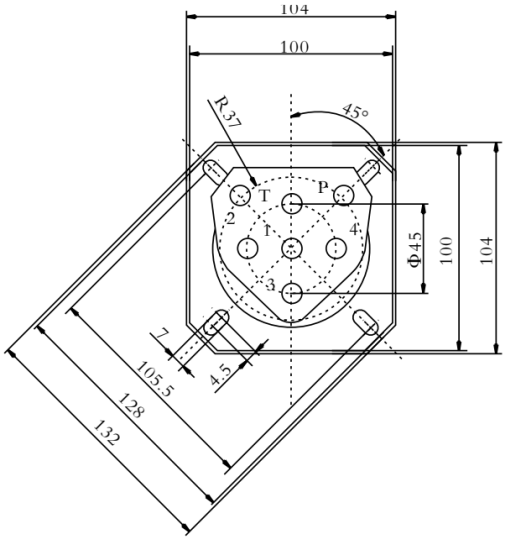
结构图与油口原理图取自恒石资料；图中文字对应握把、凸轮、柱塞、工作弹簧、阀芯和复位弹簧。

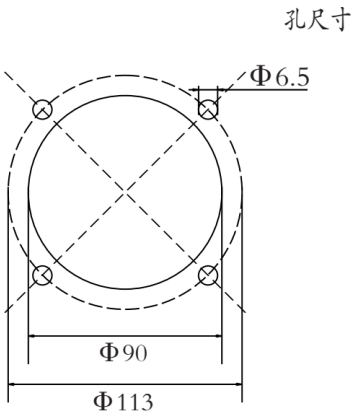
Hons illustrations identify the handle, cam, plunger, reaction spring, metering spool and return spring.

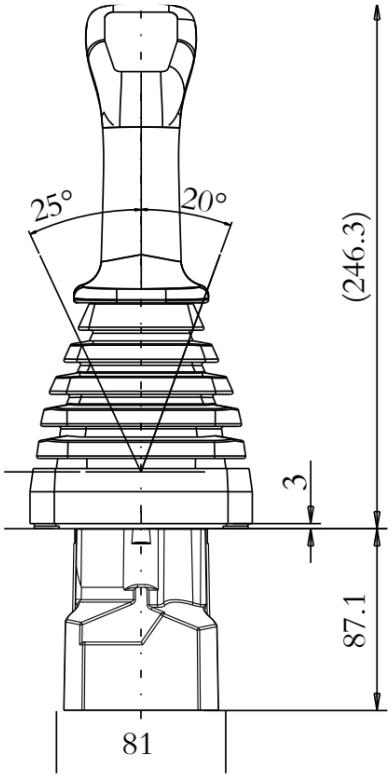
外形尺寸

Overall and mounting dimensions

恒石 UV-RX / Hons reference







尺寸 / Dimension	恒石 / Hons	HC 参考
安装法兰 / Flange	104 × 104	104 × 104
主体宽度 / Body width	81	76
下部高度 / Lower height	87.1	87
图示总高 / Overall height	(246.3)	(255)
开孔 / Holder opening	Ø90	Ø90
安装孔 / Fixing holes	Ø6.5; PCD Ø113	按 HC 原图确认 See HC drawing

尺寸随控制组件、握把及连接杆变化。括号值对应原图配置，不作为全部配置的安装尺寸。

Dimensions depend on controls, handle and rod. Parenthesized values apply to the illustrated arrangement only.

订货示例

Ordering examples and code structure

恒石 UV-RX 订货体系

Hons UV-RX ordering system

UV-RX C K01 MA K01 MA K01 MA K01 MA
W 05F 00R B F53 A G04

项目 / Item	示例 / Example	说明 / Meaning
控制组件 Control	C	方形护套，直连接杆 Square bellows, straight rod
各油口曲线及复位弹簧 Curve and spring per port	K01 MA × 4	油口 1-4 分别指定 Specify separately for ports 1-4
握把 / 正面 / 背面 / 方向 Handle / front / rear / position	W / 05F / 00R / B	W握把，正面5按钮，背面无按钮，方向B W handle, 5 front buttons, no rear button, position B
连接杆 Lever rod	F53	标准直连接杆，见第19页 Straight rod; see page 19
阀体与螺纹 Body and thread	A G04	标准阀体，G 1/4 Standard body, G 1/4

HC-RCX 订货参考

HC-RCX reference ordering

HC-RCX 01 [A01 MA] × 4 F-05F-00R-2 WF53 RA G02

方括号为本样册的分组写法：每个工作油口分别重复曲线与弹簧代码。HC 采用控制 01-04、曲线 A/B/C/D、握把 F、阀体 RA/RB 及 G02 螺纹代码。

Brackets group each port's curve and spring. Repeat this group for all four ports. HC uses controls 01-04, curves A/B/C/D, handle F, bodies RA/RB and thread code G02.

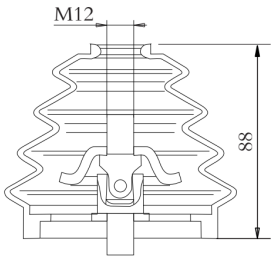
保持完整原体系代码。恒石 G04 与 HC G02 都指 G 1/4，订单中不可只替换品牌或混合字段。

Retain the complete source code system. Hons G04 and HC G02 both mean G 1/4; do not combine fields from the two systems.

控制组件与防尘罩

Control assemblies and bellows

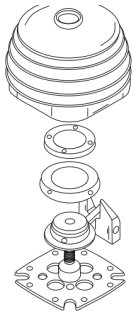


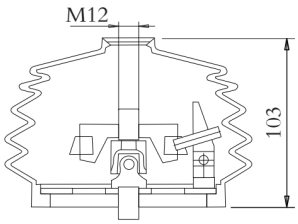


恒石 A / HC 01

弹簧复位，圆形护套

Spring return, round bellows



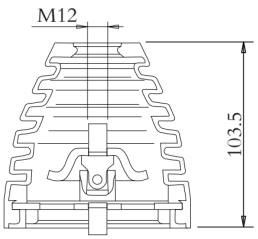


恒石 B / HC 02

弹簧复位，其中一个油口带机械定位

Spring return with detent on one service

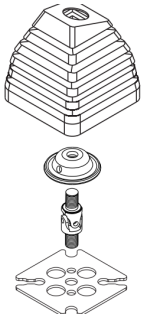


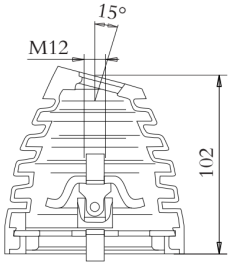


恒石 C / HC 03

弹簧复位，方形护套，直连接杆

Spring return, square bellows, straight rod





恒石 D / HC 04

弹簧复位，方形护套，弯连接杆

Spring return, square bellows, bent rod

表内按功能并列展示。控制组件尺寸和连接杆适配须分别核对，功能相近不等于零件互换。

Codes are grouped by function. Check component dimensions and rod fit separately; similar functions do not establish interchangeability.

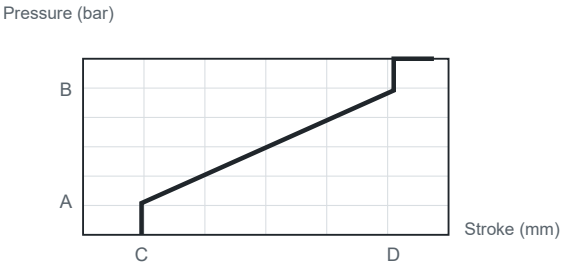
先导压力曲线说明

Pilot pressure metering guide

每个先导工作油口独立选定一条压力曲线及一种复位弹簧。压力曲线描述柱塞行程与输出压力关系；复位弹簧决定回中力，弹簧载荷不能直接当作握把操作力。

Choose a metering curve and return spring for each pilot output. Curves relate plunger stroke to output pressure; return springs set centring loads, not the force at the handle.

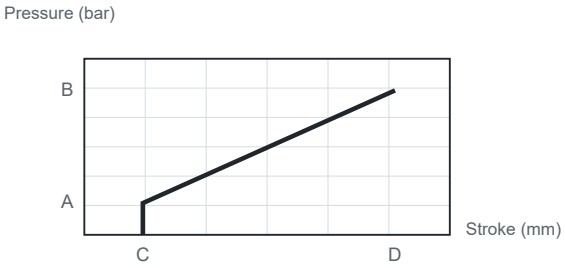
恒石 K / HC A



带阶跃的线性曲线

Linear curve with step

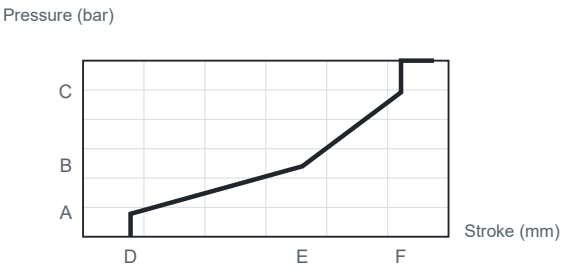
恒石 L / HC B



不带阶跃的线性曲线

Linear curve without step

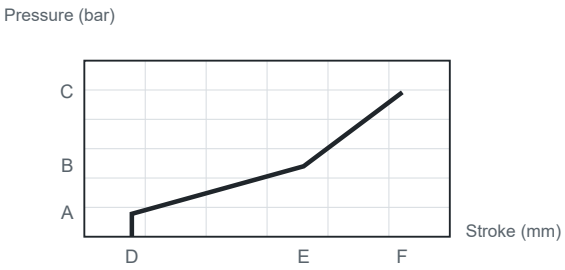
恒石 M / HC C



带阶跃的双段曲线

Two-slope curve with step

恒石 N / HC D



不带阶跃的双段曲线

Two-slope curve without step

K/L 表中的 A、B 为压力节点，C、D 为行程节点；M/N 表中的 A、B、C 为压力，D、E、F 为行程。表格单位按列标注。

For K/L curves, A/B are pressure points and C/D are stroke points. For M/N, A/B/C are pressures and D/E/F are strokes. Units are shown in each column.

图形仅说明曲线类型。恒石 K/L/M/N 与 HC A/B/C/D 的同序号代码不自动构成一一对应。

Diagrams illustrate curve shapes. Equal suffixes in Hons K/L/M/N and HC A/B/C/D do not establish code equivalence.

恒石 K 型压力曲线（一）

Hons K-type metering curves 1

带阶跃的线性工作曲线。A、B 为压力节点；C、D 为柱塞行程。

Linear metering with a step. A/B are pressure points; C/D are plunger strokes.

曲线 / Code	A (bar)	B (bar)	C (mm)	D (mm)
K01	5.8	19.5	1.5	7.5
K02	5	25	1.5	7.5
K03	2	13	1.5	7.5
K04	6	40	1.5	7.5
K05	0	64	1.5	7.5
K06	4	17	1.5	7.5
K07	5	15	1.5	7.5
K08	2	18	1.5	7.5
K09	5	20	1.5	6
K10	2	8	1.5	7.5
K11	4	10	1.5	7.5
K12	11.5	32	1.5	7.5
K13	10	20	1.5	7.5
K14	7	17	1.5	7.5
K15	7.5	29	1.5	7.5
K16	6	22	1.5	7.5
K17	0	20	1	7.5
K18	4	16	1.5	7
K19	6	20.6	1.5	7
K20	8	28	1.5	7.5
K21	5	20.5	1.5	7.5
K22	5.8	18.3	1.5	7
K23	6.8	23.5	1	7.5
K24	5.8	19.2	1	9.5
K25	4.4	17.9	1	6.5
K26	2.8	20.8	1.5	10
K27	5.7	19.1	1.5	7.5

恒石原表代码按原序列保留；未列出的代码不补填。数据来源：手册 PDF 第102-103页。

Source code gaps are retained. No values are inserted for unlisted codes. Source: Hons PDF pages 102-103.

恒石 K 型压力曲线（二）

Hons K-type metering curves 2

带阶跃的线性工作曲线。A、B 为压力节点；C、D 为柱塞行程。

Linear metering with a step. A/B are pressure points; C/D are plunger strokes.

曲线 / Code	A (bar)	B (bar)	C (mm)	D (mm)
K28	3	16.2	1.5	7.5
K29	8	27.6	1.5	9.5
K30	5.8	15.5	1.5	7.5
K31	5.6	25.2	1.5	7.5
K32	7	15.5	1.2	7.5
K33	10.7	27.5	1	7.5
K34	0	28	1.5	7.5
K35	5.8	24	1.5	9.5
K36	7.4	21	1.5	7.5
K38	7.5	17.7	1.5	7.5
K39	6.6	16.4	1.5	7.5
K40	6.5	11.6	1.5	7.5
K41	5.9	17.4	1.5	7.5
K42	6.6	16.3	1.5	9.5
K43	3	22.2	1.5	7.5
K44	14.5	26.9	1	7.5
K45	8.7	39.2	1.5	7.5
K46	4	22	1.5	7.5
K47	14.7	28.4	1.5	7.5
K48	5	74	1	7.5
K49	0	34	1.5	7.5
K51	7.3	21.7	1.5	7
K52	10	79	1	7.5
K55	3	20	4.5	7.5
K56	5	20	1.5	4.5
K61	5	19	1.5	7
K99	6	19	1	3.5

恒石原表代码按原序列保留；未列出的代码不补填。数据来源：手册 PDF 第102-103页。

Source code gaps are retained. No values are inserted for unlisted codes. Source: Hons PDF pages 102-103.

恒石 L 型压力曲线

Hons L-type metering curves

不带阶跃的线性工作曲线。A、B 为压力节点；C、D 为柱塞行程。

Linear metering without a step. A/B are pressure points; C/D are plunger strokes.

曲线 / Code	A (bar)	B (bar)	C (mm)	D (mm)
L01	5	22	1.5	8
L02	5	19	1.5	8
L03	5	16	1.5	8
L04	2	16.5	1.5	8
L05	7.5	32.5	1	8
L06	5	20	1	8
L07	4	10.5	1.5	8
L08	3	14.5	1.5	8
L09	6	24.3	1	8
L10	2	19.3	1.5	8
L11	7.1	21.9	1	8
L12	8.3	23.2	1	8
L13	7.9	23.6	1	8
L14	6	23	1.5	8
L15	10.2	25.8	1	8
L16	6.9	12.4	1.5	8
L17	2.1	20.3	1	8
L18	5.8	27	1.5	8
L19	3.2	24.4	1.5	8
L20	2	8.5	1.5	8
L21	2	13.7	1.5	8
L22	5.8	16.4	1.2	7.7
L23	4	18	1.5	8
L24	10.2	25.1	1	8
L25	4.5	23.9	1.5	8
L27	7.5	18.9	1	8
L29	3	23.8	1.5	8
L30	6	42	1.5	8
L31	4	29	1	8
L98	6	14.5	1.2	8
L99	4.5	14.5	1.5	8

本页保留恒石 L01-L25、L27、L29-L31、L98、L99 的原表列项。

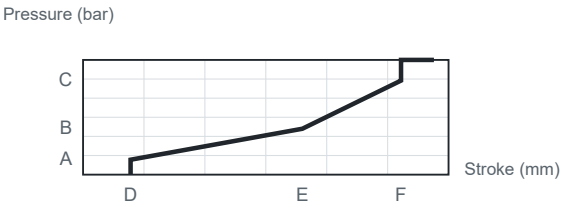
The source entries L01-L25, L27, L29-L31, L98 and L99 are retained.

恒石 M/N 型压力曲线

Hons M/N two-slope metering curves

M 型：带阶跃双段曲线

M type: two slopes with step



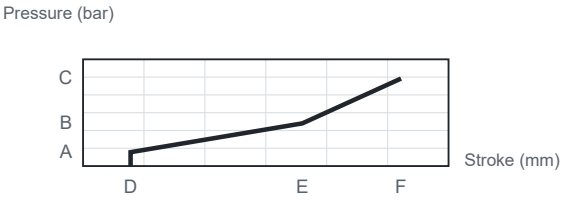
A、B、C：压力节点（bar） D、E、F：行程节点（mm）

A/B/C: pressure points (bar) D/E/F: stroke points (mm)

Code	A bar	B bar	C bar	D mm	E mm	F mm
M01	2	6	15	1.5	5	7.5
M02	3	7	16	1.5	5	7.5
M03	7	18	27	0.5	4.8	6.5
M04	7	18	27	0.5	6.3	8
M05	5	11	18	1	5	7.5
M07	4.2	9	20	1.5	5	7.5
M08	6.5	11	18.5	1	5	7.5
M98	1	2.5	9	1	4.2	8.5
M99	1	2.5	9	1	4.2	9

N 型：不带阶跃双段曲线

N type: two slopes without step



Code	A bar	B bar	C bar	D mm	E mm	F mm
N01	2	6	15	1.5	5	8
N02	4.2	9	22	1	5	8

恒石双段曲线按手册 PDF 第105页整理，保留 M98/M99 等不同末端行程。

Compiled from Hons PDF page 105, including the different end strokes of M98/M99.

HC A 型压力曲线参考

HC A-type metering curve reference

HC-RCX 带阶跃线性曲线。本页仅用于 HC 代码体系；A、B 为压力，C、D 为行程。

HC-RCX linear curves with step. Values apply to the HC code system. A/B are pressures and C/D are strokes.

代码 Code	A bar	B bar	C mm	D mm
A01	5.8	19.5	1.5	7.5
A02	5	25	1.5	7.5
A03	2	13	1.5	7.5
A04	6	40	1.5	7.5
A05	0	4	1.5	7.5
A06	4	17	1.5	7.5
A07	5	15	1.5	7.5
A08	2	18	1.5	7.5
A09	5	20	1.5	6
A10	2	8	1.5	7.5
A11	4	10	1.5	7.5
A12	11.5	32	1.5	7.5
A13	10	20	1.5	7.5
A14	7	17	1.5	7.5
A15	7.5	29	1.5	7.5
A16	6	22	1.5	7.5
A17	0	20	1	7.5
A18	4	16	1.5	7
A19	6	20.6	1.5	7
A20	8	28	1.5	7.5
A21	5	20.5	1.5	8
A22	5.8	18.3	1.5	8
A23	6.8	23.5	1	7.5
A24	5.8	19.2	1.5	9.5

代码 Code	A bar	B bar	C mm	D mm
A25	4.5	14.5	1	5
A26	2.8	20.8	1.5	10
A27	8	34	1.5	7.5
A28	3	16.2	1.5	7.5
A29	8	27.6	1.5	10
A30	5.8	15.5	1.5	7.5
A31	5.7	25.7	1.5	7.5
A32	7	15.5	1.2	7.5
A33	10.8	27.5	1	7.5
A34	0	28	1.5	7.5
A35	5.8	24	1.5	9.5
A36	7.4	21	1.5	7.5
A37	7.1	18.8	1.5	7
A38	7.5	17.7	1.5	7.5
A39	6.6	16.4	1.5	7.5
A40	6.5	11.6	1.5	7.5
A41	5.9	17.4	1.5	7.5
A42	6.6	16.3	1.5	9.5
A43	3	22.2	1.5	7.5
A44	14.5	26.9	1	7.5
A45	8.7	39.2	1.5	7.5
A46	4	22	1.5	7.5
A47	14.7	28.4	1.5	7.5
A48	5	74	1	7.5

HC A05 的 B=4 bar 按所提供原表保留；不得按恒石 K05 的 64 bar 自动替换。

HC A05 B=4 bar is retained from the supplied table; do not substitute Hons K05 B=64 bar.

HC B/C/D 型曲线参考

HC B/C/D metering curve reference

B 型为不带阶跃线性曲线；C 型为带阶跃双段曲线；D 型为不带阶跃双段曲线。

B: linear without step. C: two slopes with step. D: two slopes without step.

代码 Code	A bar	B bar	C mm	D mm
B01	5	22	1.5	8
B02	5	19	1.5	8
B03	5	16	1.5	8
B04	2	16.5	1.5	8
B05	7.5	32.5	1	8
B06	5	20	1	8
B07	4	10.5	1.5	8
B08	3	14.5	1.5	8
B09	6	24.3	1	8
B10	2	19.3	1.5	8
B11	7.2	21.3	1	7.5
B12	8.3	22.4	1	7.5
B13	8	22.8	1	7.5

代码 Code	A bar	B bar	C mm	D mm
B14	6	23	1.5	8
B15	10.4	25.5	1	7.5
B16	6.5	12	1	8
B17	2.1	20.3	1	8
B18	5.8	27	1.5	8
B19	6.5	12	1.5	8
B20	2	8.5	1.5	8
B21	2	13.7	1.5	8
B22	5.8	16.4	1.2	7.7
B23	4	18	1.5	8
B24	10.2	25.1	1	8
B25	4.5	23.9	1.5	8
B26	7.3	40.5	1.5	8

C/D 双段曲线

C/D two-slope curves

Code	A bar	B bar	C bar	D mm	E mm	F mm
C01	2	6	15	1.5	5	7.5
C02	3	7	16	1.5	5	7.5
C03	7	18	27	.5	4.8	6.5
C04	7	18	27	.5	6.3	8
C05	5	11	18	1	5	7.5
D01	2	6	15	1.5	5	8
D02	4.2	9	22	1	5	8

本页数据来自 HC 专册 PDF 第10-11页；代码及数值均保留其原体系。

Source: HC dedicated catalogue PDF pages 10-11. Codes and values retain the HC system.

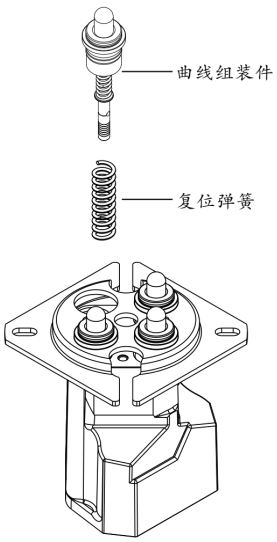
复位弹簧选型

Return spring selection

每个工作油口的压力曲线之后都需注明复位弹簧代码。恒石与 HC 使用相同字母代码，但弹簧载荷不同，应按完整产品体系选择。

Specify a spring code after the curve code for each service port. Hons and HC share code letters but specify different loads; use the complete product system.

代码 / Code	恒石预载 Hons preload	恒石末端 Hons end load
MA	25 N	48 N
MB	14 N	27 N
MC	73 N	135 N
MD	89 N	169 N



HC-RCX 弹簧载荷参考

HC-RCX spring-load reference

代码 / Code	预载 / Preload	行程末端 / End load
MA	29.5 N	44 N
MB	14.6 N	29.4 N
MC	73.5 N	135.5 N
MD	98 N	186 N

载荷值为弹簧载荷。握把操作力还与杠杆长度、凸轮几何、曲线弹簧和摩擦有关，不能直接将 N 值视为操作员手部受力。

The tabulated values are spring loads. Handle effort also depends on rod length, cam geometry, metering springs and friction.

恒石数据：PDF 第107页；HC 数据：PDF 第12页。两套 MA/MB/MC/MD 载荷分别保留。

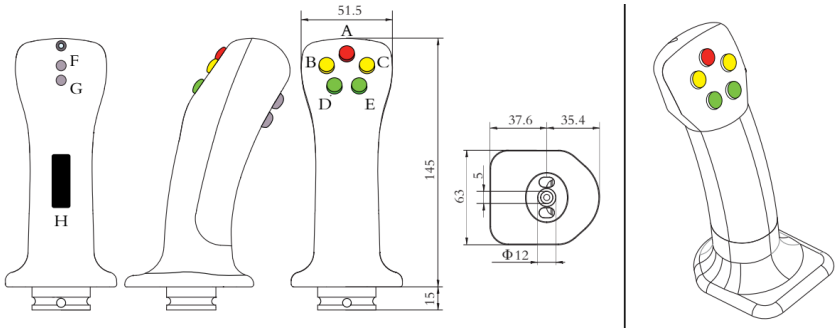
Sources: Hons PDF page 107 and HC PDF page 12. The two MA/MB/MC/MD load sets are kept separate.

握把与按钮参数

Handles and electrical ratings

恒石 UV-RX 可配置 W 人机工程学握把、T 人机工程学握把及 K 球形握把。M 锥形握把在恒石适配表中列用于 RM 系列。HC 的人机工程学握把代码为 F。

Hons UV-RX lists W and T ergonomic handles and a K spherical handle. The M conical handle is listed for RM. HC uses F for its ergonomic handle.



W 握把 / W handle	恒石资料 / Hons data
按钮与安全键 Buttons and safety switch	最多 7 个电按钮及 1 个在位安全键 Up to 7 buttons plus one operator-presence switch
直流电阻 / 电感性负载 DC resistive / inductive load	5 A / 30 VDC; 3 A / 30 VDC
防护 / 导线 / 长度 Protection / conductor / cable	IP65 / 0.5 mm² / 700 mm
按钮颜色 Button colours	A红；B/C黄；D/E绿；F/G灰；H黑 A red; B/C yellow; D/E green; F/G grey; H black

HC 基本握把补充

HC basic-handle options

HC代码 / Code	说明 / Description
A	无微动开关 No microswitch
B / C / D	单触点 / 单触点带锁定 / 双触点 Single switch / latching single switch / dual switch
K	球形握把 Spherical handle

HC B/C/D 握把额定值：4.8 A/30 VDC、1.5 A/250 VAC（电阻性），IP40。HC F 电气疑点见第23页。

HC B/C/D: 4.8 A/30 VDC and 1.5 A/250 VAC resistive, IP40. See page 23 for HC F electrical inconsistencies.

按钮配置与接线

Button configurations and wiring

按钮代码按正面 F 和背面 R 分组。端子号按恒石接线图整理，动作类型及实际线色按所选组件确认。

Button codes use F for front and R for rear. Terminal numbers follow Hons diagrams; confirm switching action and wire colours for the selected assembly.

正面按钮配置

Front-button arrangements

代码 / Code	按钮 / Buttons	端子 / Terminals
00F	无 / None	-
01F	A	A: 1-2
02F	B, C	B: 3-4; C: 5-6
03F	A, B, C	A: 1-2; B: 3-4; C: 5-6
04F	B, C, D, E	B: 3-4; C: 5-6; D: 7-8; E: 9-10
05F	A, B, C, D, E	A: 1-2; B: 3-4; C: 5-6; D: 7-8; E: 9-10

背面按钮配置

Rear-button arrangements

代码 / Code	按钮 / Buttons	端子 / Terminals
00R	无 / None	-
01R	F	F: 11-12
02R	F, G	F: 11-12; G: 13-14
03R	H（在位安全键）	H: 15-16
04R	F, H	F: 11-12; H: 15-16
05R	F, G, H	F: 11-12; G: 13-14; H: 15-16

示例 W 05F 01R B F53：正面5按钮、背面1按钮、安装方向B、F53连接杆。

Example W 05F 01R B F53: five front buttons, one rear button, position B and rod F53.

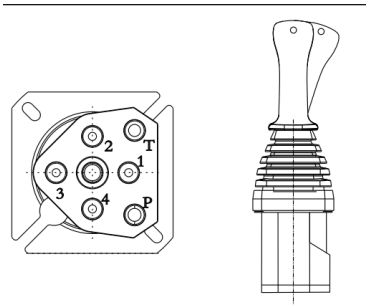
握把安装方向

Handle orientation relative to ports

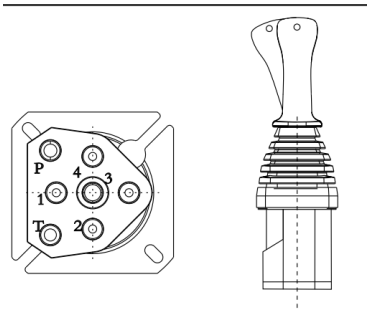
按安装姿态同时确认握把朝向及底部 P、T、1-4 油口位置。下图取自恒石 W/T 握把的八种安装方向。

Confirm the handle direction together with the bottom P/T/1-4 port positions. The Hons illustrations show eight W/T orientations.

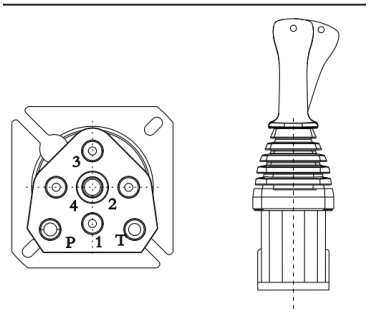
A



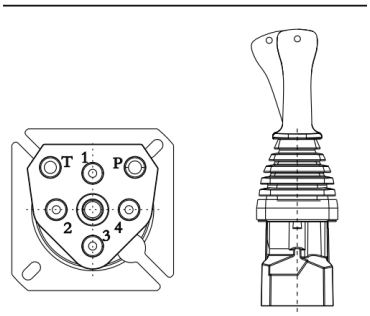
B



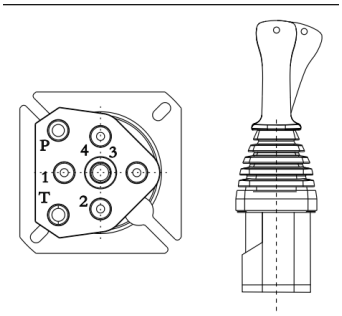
C



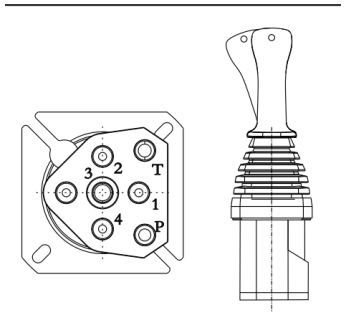
D



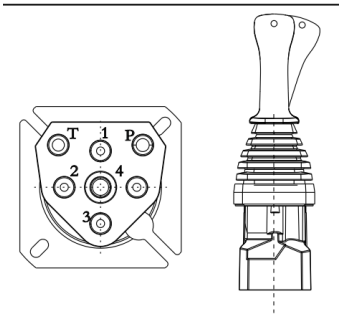
E



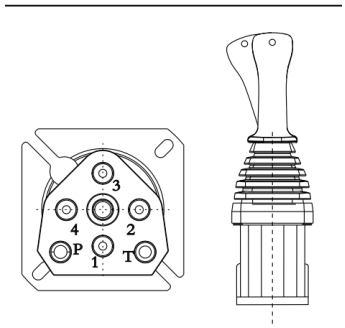
F



G



H



恒石用 A-H 表示方向；HC 用 1-8 表示方向。应核对原图，不能直接凭顺序转换代码。

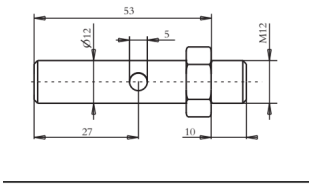
Hons uses A-H and HC uses 1-8. Check the drawings rather than converting codes by sequence alone.

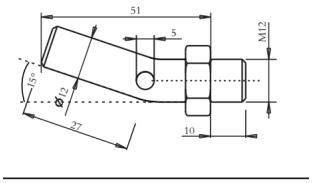
连接杆选型

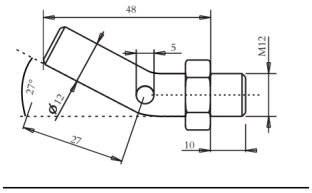
Lever rod selection and compatibility

连接杆应同时适配握把和控制组件。恒石 W 握把连接杆表列 F53、F51、H48，孔位与 M12 螺纹见原图。

Select the rod for both the handle and control assembly. The Hons W-handle table lists F53, F51 and H48; see the supplied dimensions and M12 threads.







恒石代码 Hons code	A	B	C	D
F53	●	●	●	-
F51	●	●	-	●
H48	●	●	-	●

HC 连接杆适配参考

HC lever-rod compatibility

HC代码 / Code	握把 / Handle	控制组件 / Controls
WA27 / WB52 / WD32	A / B / C / D	01 / 02
WE100	K	01 / 02
WF53	F	01 / 02 / 03
WG51 / WH48	F	01 / 02 / 04

恒石连接杆表写 F51，示例说明另写 G51；本样册保留表格 F51 标记，并在订货前核对该弯杆的确认料号。

Hons labels the bent rod F51 in the table and G51 in example text. F51 is retained here; verify the confirmed part code before ordering.

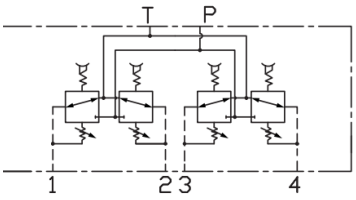
● 表示原表列为可配，- 表示未列为可配；不代表不同品牌的连接杆可直接替换。

A dot means listed compatibility; a dash means not listed. This does not establish cross-brand interchangeability.

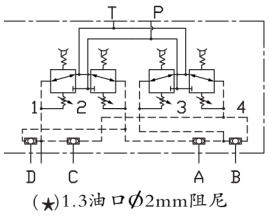
阀体配置与油口螺纹

Body arrangements and port threads

恒石代码 / Hons code	阀体功能 / Body function
A G04 / A U02	标准阀体 Standard body
B G04 / B U02	静压行走控制，带梭阀块 Hydrostatic travel body with shuttle block
B01 G04 / B01 U02	带梭阀及 X 倒车信号油口 Shuttle body with X reverse-signal port



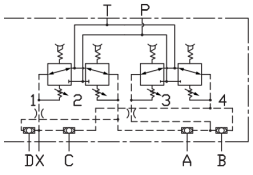
体系 / System	BSP	UNF
恒石 / Hons	G04: G 1/4	U02: 9/16-18
HC-RCX	G02: G 1/4	U02: 9/16-18



(★)1.3油口Ø2mm阻尼

HC 标准阀体代码 RA；带梭阀行走阀体代码 RB。

HC uses RA for the standard body and RB for the shuttle/travel body.



(★)1.3油口Ø2mm阻尼

恒石静压行走阀体原图在 1、3 油口标示 Ø2 mm 阻尼；不同孔径按所选配置确认。额外 A-D 及 X 油口按对应阀体原理图接管。

Hons travel-body diagrams mark Ø2 mm restrictions at ports 1 and 3. Confirm other diameters for the chosen assembly. Connect additional A-D and X ports to its specific diagram.

油口螺纹代码必须与型号体系一并使用。阀体和梭阀结构不同会改变油口位置及外形。

Use thread codes with their model system. Body and shuttle arrangements alter port positions and dimensions.

典型先导供油回路

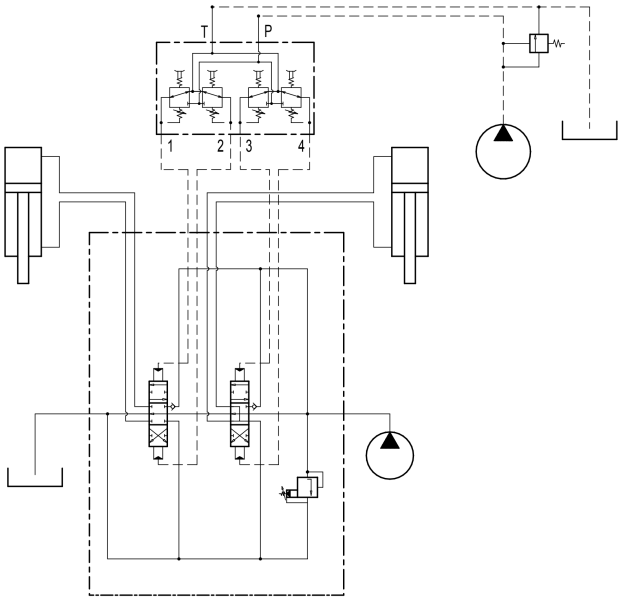
Typical pilot supply circuits

以下为 HC-RCX 两种供油拓扑参考：独立辅助泵供油，或从主回路经供油单元引出。图示不构成完整整机设计。

HC-RCX illustrates two supply topologies: an auxiliary pilot pump, or a supply unit fed from the main circuit. These are reference layouts.

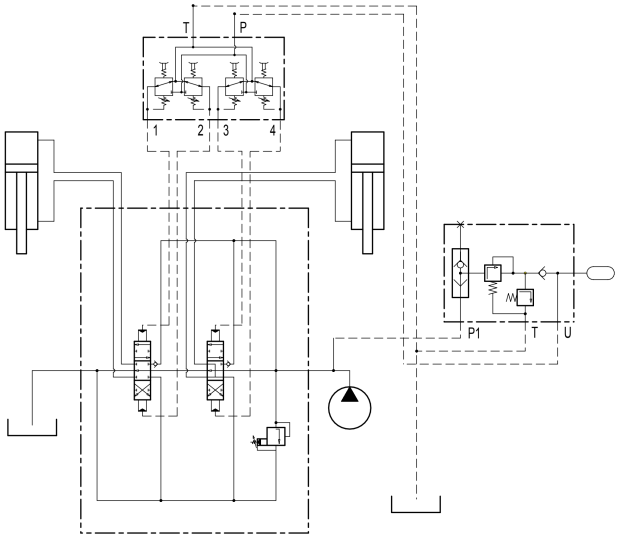
独立辅助泵供油

Auxiliary pump supply



主回路供油单元

Supply unit from main circuit



连接 / Connection	核对项 / Check
P	先导供油压力及供油能力 Pilot supply pressure and capacity
T	回油路径与最大 3 bar 背压 Return path and 3 bar maximum backpressure
1-4	与被控多路阀或变量机构的先导油口对应 Pilot inputs of the controlled valve or displacement unit

高压主回路须经适配的先导供油单元接入；按选定先导压力曲线匹配被控元件。

Feed high-pressure main circuits through a suitable pilot supply unit and match the selected curves to the controlled components.

选型信息表

Selection information sheet

按整机控制需求填入以下信息，并分别列出四个先导油口的压力曲线和弹簧类型。

Record the machine requirements and specify the metering curve and spring for each of the four outputs.

客户 / 设备

Customer / machine

产品与订货体系

Product and code system

供油压力 / 流量

Supply pressure / flow

回油背压 / 介质 / 温度

Return pressure / fluid / temperature

控制组件 / 定位需求

Controls / detent requirement

握把 / 正背按钮 / 安全键

Handle / front and rear buttons / presence switch

安装方向 / 连接杆

Handle orientation / lever rod

阀体 / 螺纹 / 梭阀

Body / threads / shuttle arrangement

逐油口配置记录

Per-port configuration record

油口 / Port	对应动作 / Function	曲线 / Curve	复位弹簧 / Spring
1			
2			
3			
4			

定型资料应包含完整订货代码、端子定义、安装图及液压原理图。

Final selection documents should include the full order code, terminal definitions, mounting drawing and hydraulic diagram.

技术注释与资料依据

Technical notes and source references

恒石 UV-RX 与 HC-RCX 在本样册中分别作为产品资料体系。相近外形、功能或同字母代码不能证明互换。

Hons UV-RX and HC-RCX retain separate data systems. Similar appearance, function or code letters do not establish interchangeability.

核对项 / Item	资料差异及处理 / Difference and treatment
流量与重量 Flow and weight	恒石 12 L/min、2.5 kg；HC 16 L/min、2.90 kg，分别列示 Hons 12 L/min and 2.5 kg; HC 16 L/min and 2.90 kg, listed separately
弹簧载荷 Spring loads	MA-MD 同代码不同载荷，第15页保留两套数据 MA-MD loads differ; both sets appear on page 15
曲线代码与数值 Curve codes and values	恒石 K/L/M/N 与 HC A/B/C/D 分表，不按序号自动转换 Hons K/L/M/N and HC A/B/C/D use separate tables, without automatic suffix conversion
连接杆标记 Rod designation	恒石表格 F51，说明文字 G51；订货核对确认料号 Hons table F51 versus text G51; verify the confirmed part code
HC 人机握把电气数据 HC ergonomic-handle ratings	原文中直流电感性与交流电阻性负载的电压数值可疑，不采用为恒石额定值；按组件确认 Source voltages for DC inductive and AC resistive loads are questionable; do not adopt as Hons ratings

资料来源及页码

Source documents and pages

恒石《产品技术手册》：PDF 第87-93页（印刷页42、44-49），第102-105、107-108、110-111页（印刷页58-61、63-64、66-67）。产品图、尺寸、选型及主要参数来自上述资料。

Hons Product Technical Manual: PDF pp. 87-93, 102-105, 107-108 and 110-111; printed pp. 42, 44-49, 58-61, 63-64 and 66-67. These supply the photo, dimensions, ordering system and primary data.

HC《HCRCX-04》：hcrcx_04.pdf，PDF 第3-21页（印刷页1-19）。D4 金色 LOGO 版样册作为封面与内页版式基准。

HC HCRCX-04: hcrcx_04.pdf, PDF pp. 3-21 (printed pp. 1-19). The D4 gold-logo catalogue supplies the cover and interior layout reference.

RCX 为本样册标题；正式型号、可供配置及安装参数，以所选产品的确认技术文件为准。

RCX is the catalogue title. Use the selected product's confirmed documents for its official model, available options and installation data.

恒石液压

Hons Hydraulics

RCX

双轴十字先导手柄

Hydraulic Remote Control Joystick

湖南恒石液压技术有限公司

Hunan Hons Hydraulic Technology Co., Ltd.

4 pilot outputs | 100 bar

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本样册以恒石 UV-RX 资料为基础，HC-RCX 作为补充参考。特殊应用及安装参数以确认文件为准。

This catalogue uses Hons UV-RX data with HC-RCX supplements. Confirm special applications and final installation data in approved documents.