

# RCX Series

Hydraulic Remote Controls



## Hydraulic remote control 4 service ports on one control lever

The hydraulic remote control RCX is capable of working with a maximum input pressure of 100 bar at a maximum oil input capacity of 16 l/min.

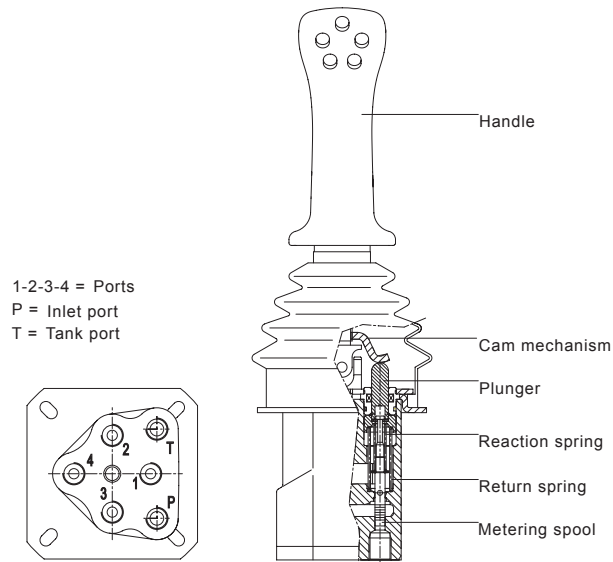
The lever anti-swaying system and the ergonomic handle provide great sensitivity while manoeuvring and make use very comfortable for the operator.

Low operating efforts, low energy consumption and low maintenance makes these hydraulic remote controls ideal for piloting remote control directional valves, variable displacement pumps and motors, auxiliary valves, frictions and hydraulic brakes.

## Operating principle

The hydraulic remote control RCX works according to the principle of direct-acting pressure reducing valves. In rest position, the joystick lever is held in neutral by the return spring; inlet port P is closed and ports are connected to tank port T. By selecting control lever, plunger compresses return spring and reaction spring through a cam mechanism; consequently it shifts the spool and opens the connection holes between inlet port P and service ports.

This causes a pressure increase on service ports that is proportional to the control lever stroke and the reaction spring.



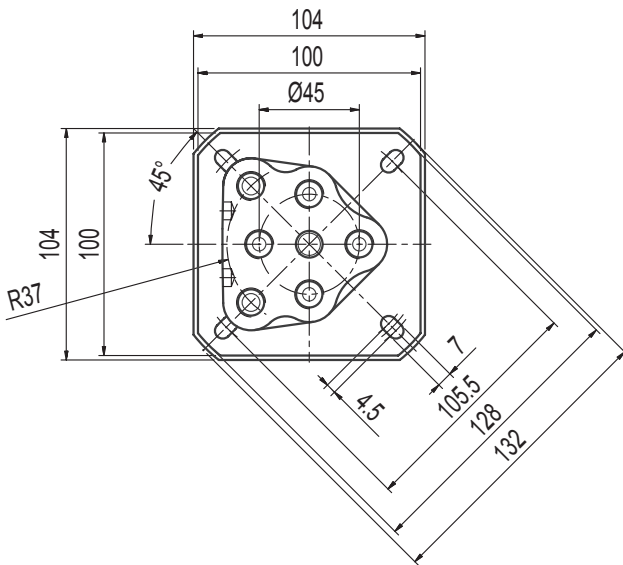
Standard Working Conditions	
Maximum input pressure	1450 psi
Maximum back pressure on tank line	44 psi
Oil input capacity	4.2 gpm
Hysteresis	7.25 psi
Hydraulic fluid	Mineral oil
Fluid temperature range	-20°C - +80°C
Fluid viscosity range	10÷300 Cst
Recommended filtration	25 µ Absolute
Recommended operating pipes	8mm rigid, 1/4" BSP flexible
Leakage	3 cc/min (50 bar)
Technical Specifications	
Body	Cast iron
Surface coating	Zinc plated
Plunger	Stainless steel
Plunger guide	Brass

# RCX Series

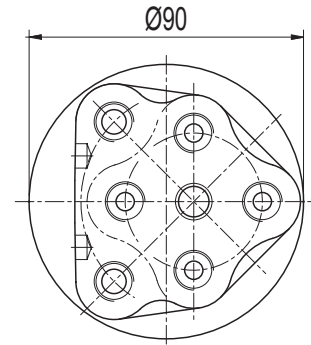
Hydraulic Remote Controls



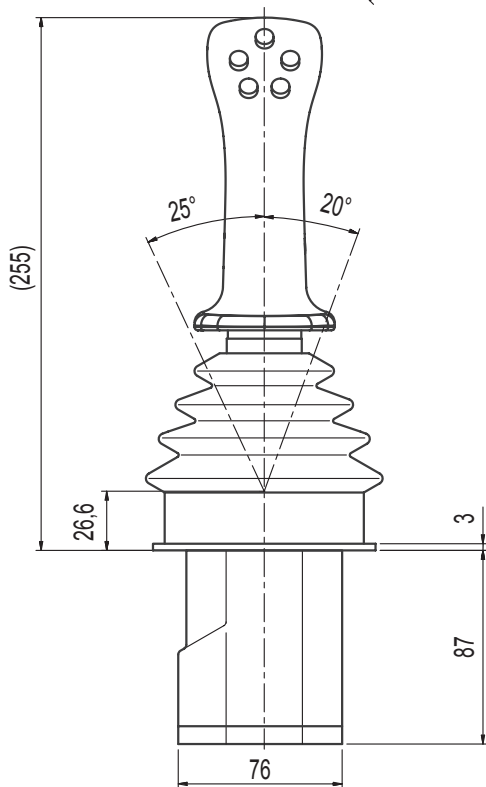
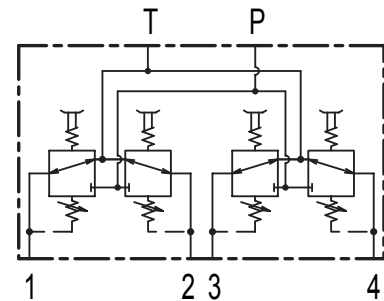
## Overall dimensions:



## Holder hole dimensions



## Hydraulic diagram



<b>Weight</b>	2,9 Kg
---------------	--------

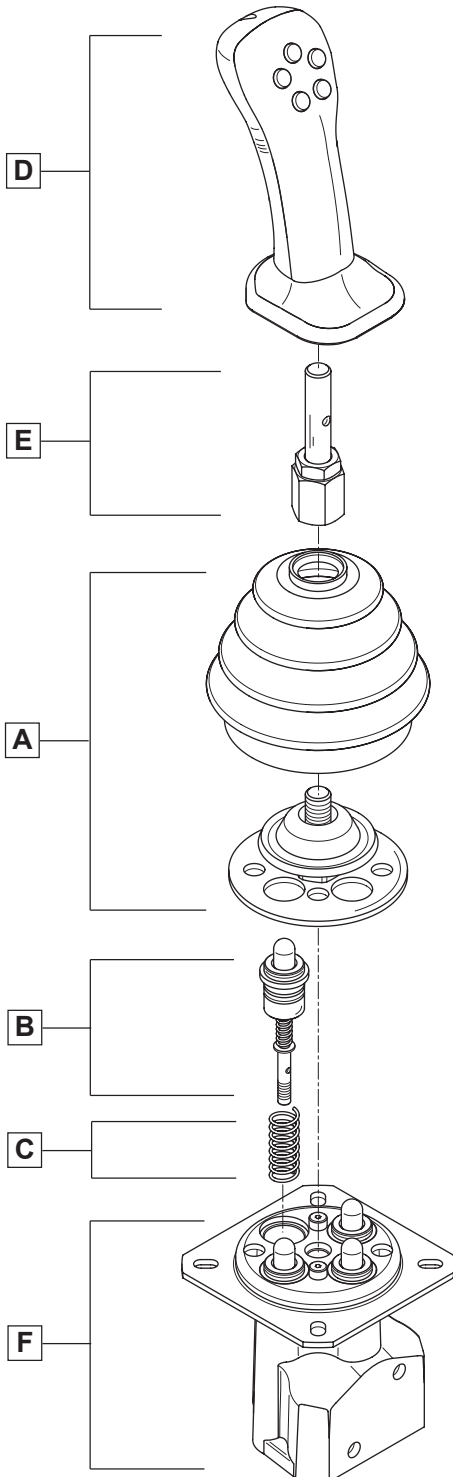
# RCX Series

Hydraulic Remote Controls



## How To Order

<b>HC-RCX</b>	<b>01</b>	<b>A01</b>	<b>MA</b>	<b>F-05F-00R-2</b>	<b>WF53</b>	<b>RA G02</b>
product	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>



### A CONTROL

01 = control type

### B METERING CURVE

A01 = curve type

### C RETURN SPRING

MA = return spring type

**NOTE:** ordering row B and C, must be repeated for each port

### D HANDLE

F = handle type  
 05F = front buttons  
 00R = rear buttons  
 2 = handle position

### E LEVER ROD

WF = lever rod type  
 53 = lever rod length

### F BODY ARRANGEMENT

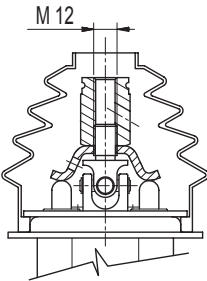
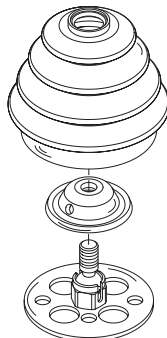
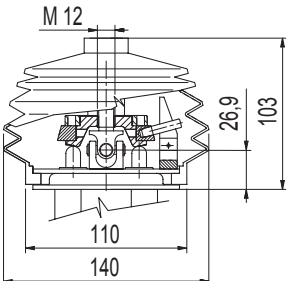
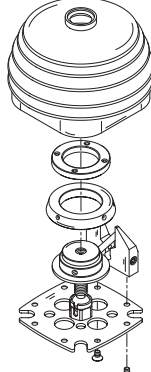
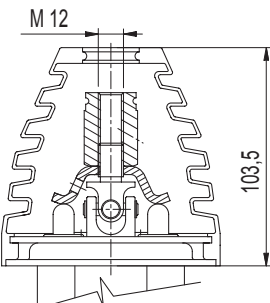
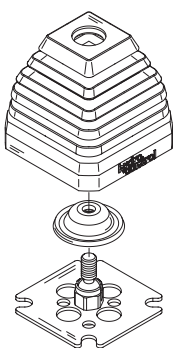
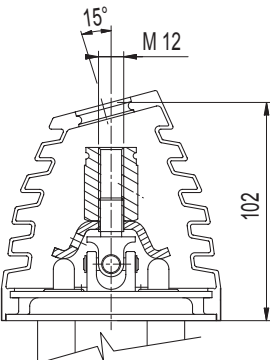
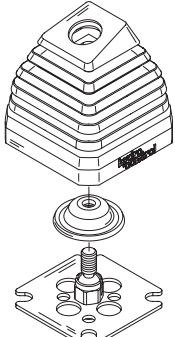
RA = body specification  
 G02 = threads

# RCX Series

Hydraulic Remote Controls



## Controls

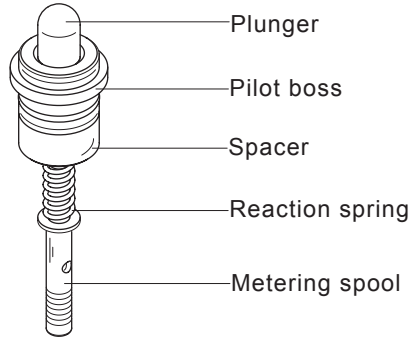
DIMENSIONS	LAYOUT	DESCRIPTION + CODE
		<p>Return spring in neutral</p> <p style="text-align: center;"><b>01</b></p>
		<p>Spring return in neutral with detent in only one service port</p> <p style="text-align: center;"><b>02</b></p>
		<p>Spring return in neutral with square bellows for straight lever rod</p> <p style="text-align: center;"><b>03</b></p>
		<p>Spring return in neutral with square bellows for bent lever rod</p> <p style="text-align: center;"><b>04</b></p>

# RCX Series

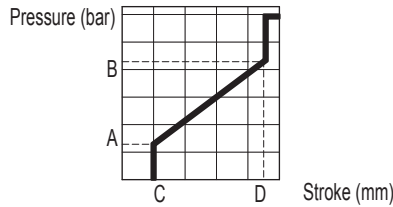
Hydraulic Remote Controls



## Metering curve

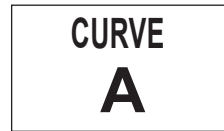


### DIAGRAM



### DESCRIPTION

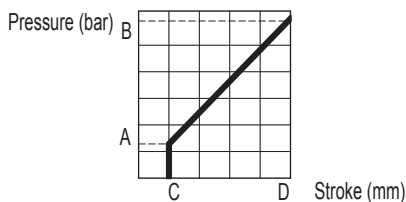
Linear metering curve with step



CODE		A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20
PRESSURE	A	5,8	5	2	6	0	4	5	2	5	2	4	11,5	10	7	7,5	6	0	4	6	8
	B	19,5	25	13	40	4	17	15	18	20	8	10	32	20	17	29	22	20	16	20,6	28
STROKE	C	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1	1,5	1,5	1,5
	D	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	6	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7	7	7,5

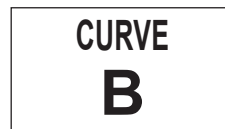
CODE		A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35	A36				
PRESSURE	A	5	5,8	6,8	5,8	4,5	2,8	8	3	8	5,8	5,7	7	10,8	0	5,8	7,4				
	B	20,5	18,3	23,5	19,2	14,5	20,8	34	16,2	27,6	15,5	25,7	15,5	27,5	28	24	21				
STROKE	C	1,5	1,5	1	1,5	1	1,5	1,5	1,5	1,5	1,5	1,5	1,2	1	1,5	1,5	1,5				
	D	8	8	7,5	9,5	5	10	7,5	7,5	10	7,5	7,5	7,5	7,5	7,5	9,5	7,5				

### DIAGRAM



### DESCRIPTION

Linear metering curve without step



CODE		B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15	B16				
PRESSURE	A	5	5	5	2	7,5	5	4	3	6	2	7,2	8,3	8	6	10,4	6,5				
	B	22	19	16	16,5	32,5	20	10,5	14,5	24,3	19,3	21,3	22,4	22,8	23	25,5	12				
STROKE	C	1,5	1,5	1,5	1,5	1	1	1,5	1,5	1	1,5	1	1	1	1,5	1	1				
	D	8	8	8	8	8	8	8	8	8	8	7,5	7,5	7,5	8	7,5	8				

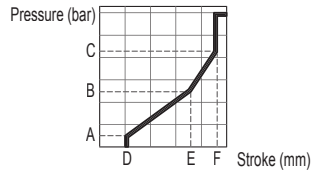
# RCX Series

Hydraulic Remote Controls



## Metering curve

### DIAGRAM



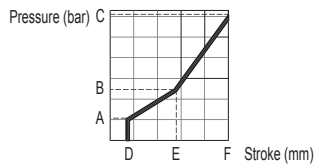
CODE	C01	C02	C03	C04		
PRESSURE	A	2	3	7	7	
	B	6	7	18	18	
	C	15	16	27	27	
STROKE	D	1,5	1,5	0,5	0,5	
	E	5	5	4,8	6,3	
	F	7,5	7,5	6,5	8	

### DESCRIPTION

Broke line metering curve with step

**CURVE**  
**C**

### DIAGRAM



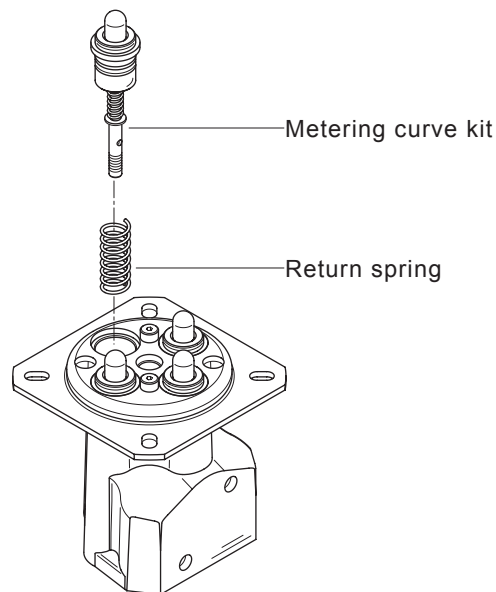
CODE	D01				
PRESSURE	A	2			
	B	6			
	C	15			
STROKE	D	1,5			
	E	5			
	F	8			

### DESCRIPTION

Broke line metering curve without step

**CURVE**  
**D**

## Return spring



CODE	MA	MB	MC	MD
Preload	29,5 N	14,6 N	73,5 N	98 N
	3 kgf	1,4 kgf	7,5 kgf	10 kgf
End stroke load	44 N	29,4 N	135,5 N	186 N
	4,5 kgf	2,8 kgf	13,8 kgf	19 kgf

# RCX Series

Hydraulic Remote Controls



## Handles

CODE	DIAGRAM	OVERALL DIMENSIONS	DESCRIPTION
<b>A</b>			Without micro-switch (standard)
<b>B</b>			With micro-switch to close
<b>C</b>			With micro-switch to close with detent
<b>D</b>			With dual micro-switch
<b>E</b>			With dual micro-switch to close with detent
<b>K</b>			Spherical handle

**HANDLES MISCROSWITCH  
BREAKING BCDE**

- DIRECT CURRENT . . . . . load resistive **4.8A/30 VDC**
- ALTERNATING CURRRENT. . . load resistive **1.5A/250 VAC**
- PROTECTION . . . . . **IP 40**

## Ergonomic handle

This handle has been designed to be used on our remote controls type RCX. Its ergonomics, the accurate buttons position and dimensions make its use comfortable and restful. It can be supplied with 7 microswitches in different combinations together with a push button for safety.

## Technical specifications

### BUTTONS COLOURS:

- A** ..... red
- B-C**..... yellow
- D-E** ..... green
- F-G** ..... grey
- H** (push button for safety) ..... black

HANDLE PROTECTION ..... IP 65

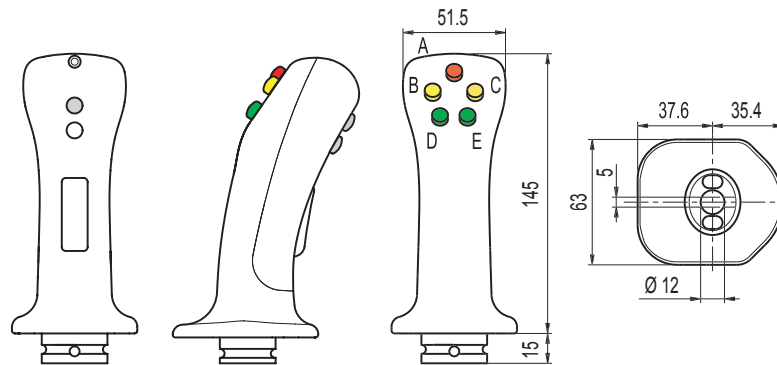
CABLE SECTION ..... 0.5 mm<sup>2</sup>

USEFUL CABLE LENGTH ..... 700 mm

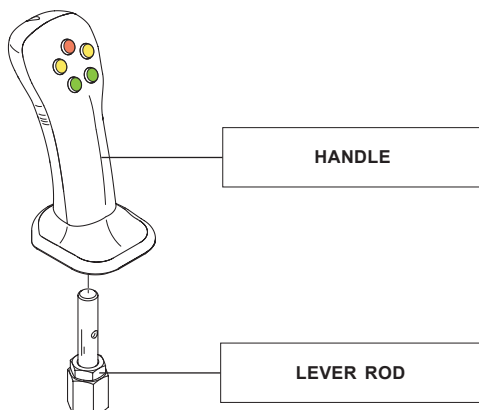
### MICRO-SWITCHES SPECIFICATIONS CURRENT:

- Direct current load resistive ..... 5 A 30 VDC
- Direct current load inductive ..... 3 A 250 VDC
- Alternating current load resistive ..... 5 A 30 VAC
- Alternating current load inductive ..... 2 A 250 VAC

## Overall dimensions:



## How To Order



- F** handle type
- 05F** front buttons
- 00R** rear buttons
- 2** handle position
- WF** lever type
- 53** lever rod length

# RCX Series

Hydraulic Remote Controls



## Ergonomic Handle



### Front buttons

### Rear buttons



CODE	DESIGN	DIAGRAM
------	--------	---------

CODE	DESIGN	DIAGRAM
------	--------	---------


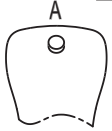
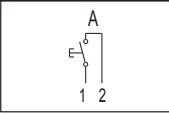
**00F**

**00R**

**01F**

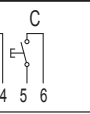
**01R**




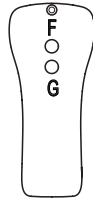
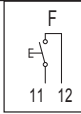
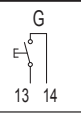


**02F**



**02R**


**03F**






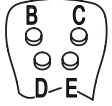
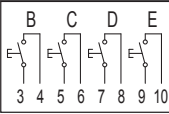
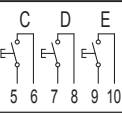
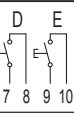
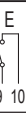


**03R**





**04F**


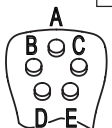
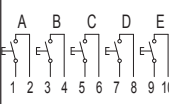
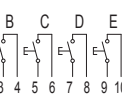

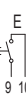







**04R**


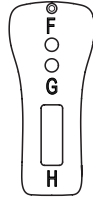
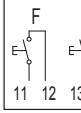
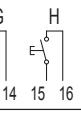
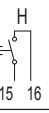





**05F**


**05R**

# RCX Series

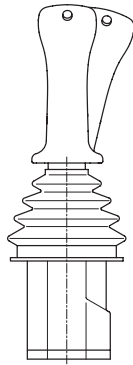
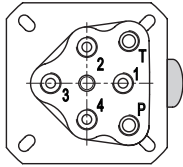
Hydraulic Remote Controls



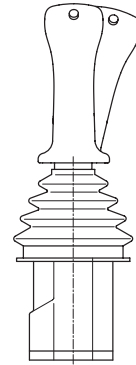
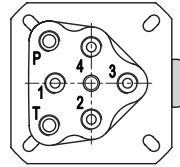
## Ergonomical handle

### Handle position compared to ports

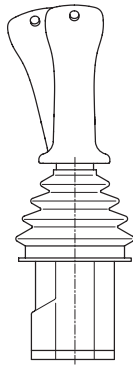
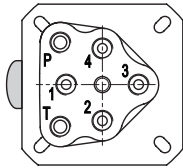
CODE 1



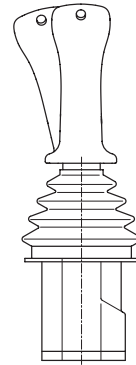
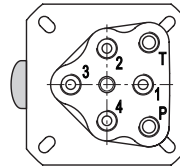
CODE 5



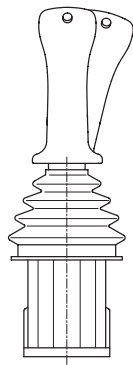
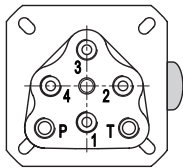
CODE 2



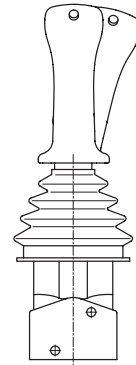
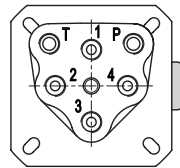
CODE 6



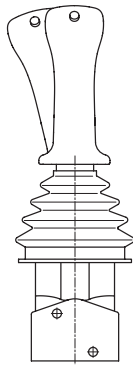
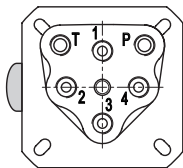
CODE 3



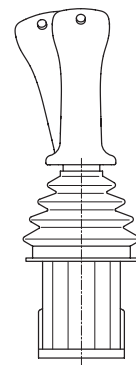
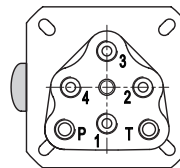
CODE 7



CODE 4



CODE 8



# RCX Series

Hydraulic Remote Controls



## Lever rods for handles type A-B-C-D-E

OVERALL DIMENSIONS	TO USE ONLY WITH FOLLOWING CONTROLS
--------------------	-------------------------------------

CODE <b>WA27</b>			<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">01</div> <div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">02</div>
---------------------	--	--	---

CODE <b>WB52</b>			<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">01</div> <div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">02</div>
---------------------	--	--	---

CODE <b>WD32</b>			<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">01</div> <div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">02</div>
---------------------	--	--	---

## Lever rods for handles type K

OVERALL DIMENSIONS	TO USE ONLY WITH FOLLOWING CONTROLS
--------------------	-------------------------------------

CODE <b>WE100</b>			<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">01</div> <div style="border: 1px solid black; padding: 5px; width: 40px; margin: 5px auto;">02</div>
----------------------	--	--	---

# RCX Series

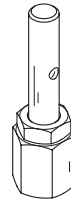
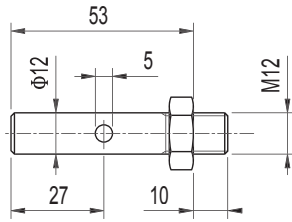
Hydraulic Remote Controls



## Lever rods for handle type F

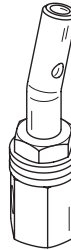
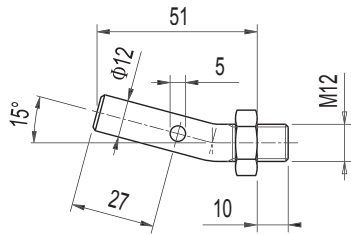
OVERALL DIMENSIONS	TO USE ONLY WITH FOLLOWING CONTROLS
--------------------	-------------------------------------

CODE  
**WF53**



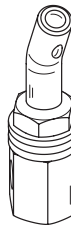
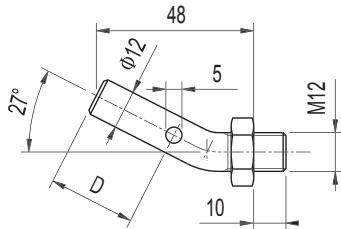
- 01**
- 02**
- 03**

CODE  
**WG51**



- 01**
- 02**
- 04**

CODE  
**WH48**



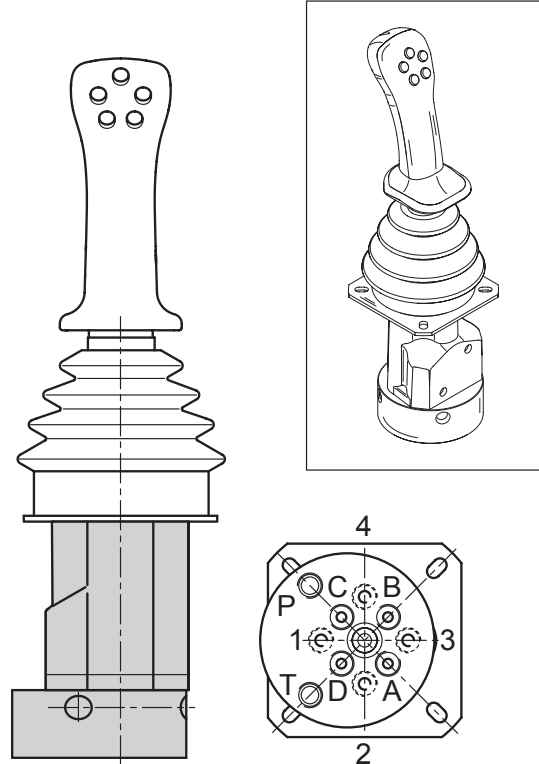
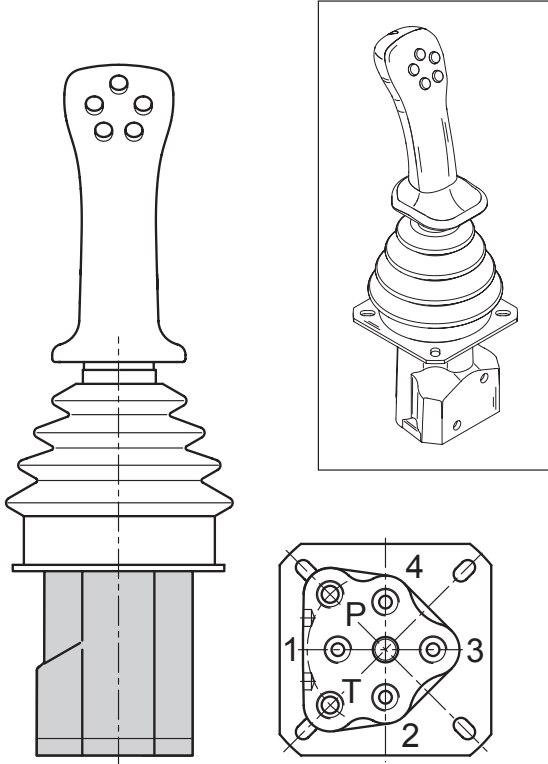
- 01**
- 02**
- 04**

# RCX Series

Hydraulic Remote Controls

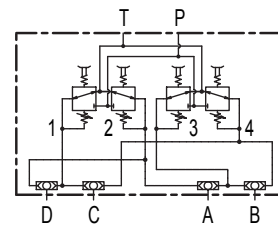
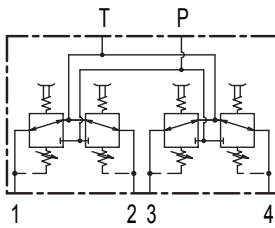


## Body arrangement



HYDRAULIC DIAGRAM

HYDRAULIC DIAGRAM

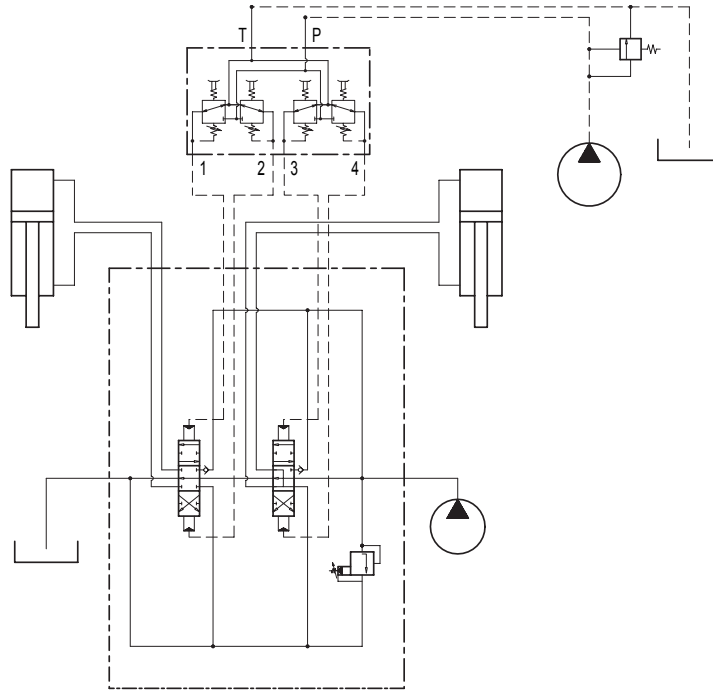


CODE	DESCRIPTION	SERVICE	CODE
<b>RA</b>	Standard body	1/4" BSP	<b>G02</b>
		9/16".18 UNF	<b>U02</b>

CODE	DESCRIPTION	SERVICE	CODE
<b>RB</b>	Body with shuttle valve for translation	1/4" BSP	<b>G02</b>
		9/16".18 UNF	<b>U02</b>

## Standard Layout Drawings

HYDRAULIC REMOTE CONTROL INPUT WITH AUXILIARY PUMP



HYDRAULIC REMOTE CONTROL INPUT WITH SUPPLY UNIT COMING FROM THE MAIN CIRCUIT

