

# 如何在示教器上配置ABB机器人的输入输出信号？（多图）

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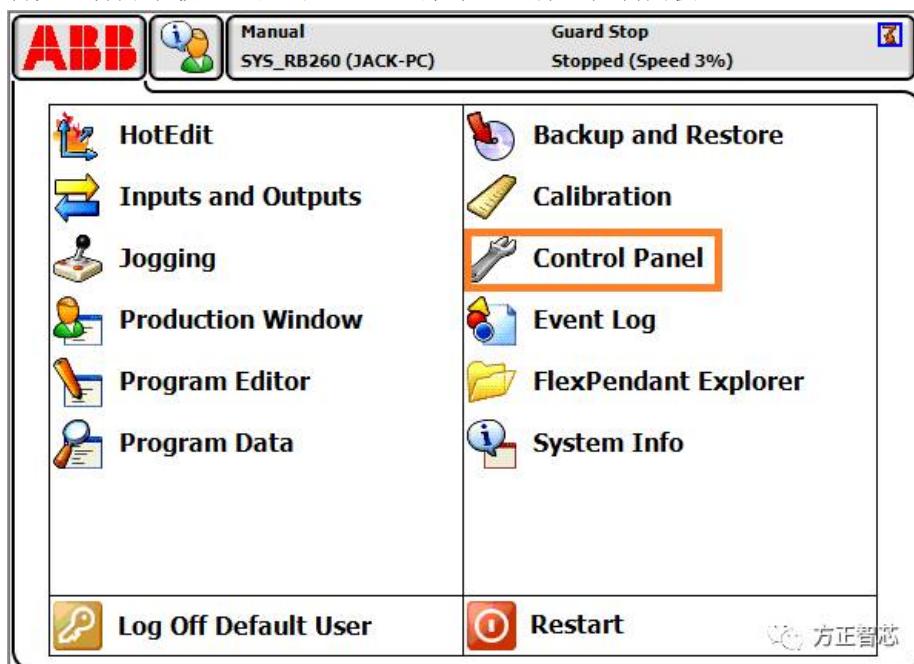
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要完成机器人系统与外界的输入/输出（IO）信号交换，除了要在硬件上正确的连接IO信号板（总线地址的配置及电气接线）外，还需要在软件上对连接的IO板的类型及信号进行配置。前面的文章介绍过了ABB机器人的标准IO信号板（DSQC652），今天这篇文章，我们来谈谈如何在示教器上对机器人的IO信号进行配置。



首先，打开示教器，点击【ABB】菜单，选择【控制面板（Control Panel）】，如下图：

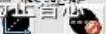


在控制面板（Control Panel）中，选择【配置（Configuration）】，如下图：

**ABB**  Manual SYS\_RB260 (JACK-PC) Guard Stop Stopped (Speed 3%)  

**Control Panel**

Name	Comment
 Appearance	Customizes the display
 Supervision	Motion Supervision and Execution Settings
 FlexPendant	Configures the FlexPendant system
 I/O	Configures Most Common I/O signals
 Language	Sets current language
 ProgKeys	Configures programmable keys
 Date and Time	Sets date and time for the robot controller
 Diagnostics	System Diagnostics
 Configuration	Configures system parameters
 Touch Screen	Calibrates the touch screen

 Control Panel  

在【配置（Configuration）】面板中，双击【单元（Unit）】：

**ABB**  Manual SYS\_RB260 (JACK-PC) Guard Stop Stopped (Speed 3%)  

\* Control Panel - Configuration - I/O

Each topic has different types used to configure the system.  
Current topic: I/O

Select a topic and then one of its types.

1 to 11 of 11	
<b>Access Level</b>	Bus
<b>Cross Connection</b>	Fieldbus Command
<b>Fieldbus Command Type</b>	Route
<b>Signal</b>	System Input
<b>System Output</b>	<b>Unit</b>
<b>Unit Type</b>	

File  Topics  Show All Close

在【单元（Unit）】面板中，选择【添加（Add）】：

The screenshot shows the ABB Control Panel interface for configuration. At the top, there are icons for ABB, manual mode, and guard stop status (Stopped, Speed 3%). The title bar reads "Control Panel - Configuration - I/O - Unit". Below the title, it says "Current type: Unit" and "Add new or select one from the list to edit or delete." A list of units is shown with icons: "PANEL" (green), "DRV\_1" (orange), "DRV\_2" (green), "DRV\_3" (orange), and "DRV\_4" (green). A note at the top right says "1 to 5 of 5". Below the list are buttons for "Edit", "Add" (which is highlighted with an orange border), "Delete", and "Back". At the bottom left is a "Control Panel" button, and at the bottom right is a small icon for "PCB 1".

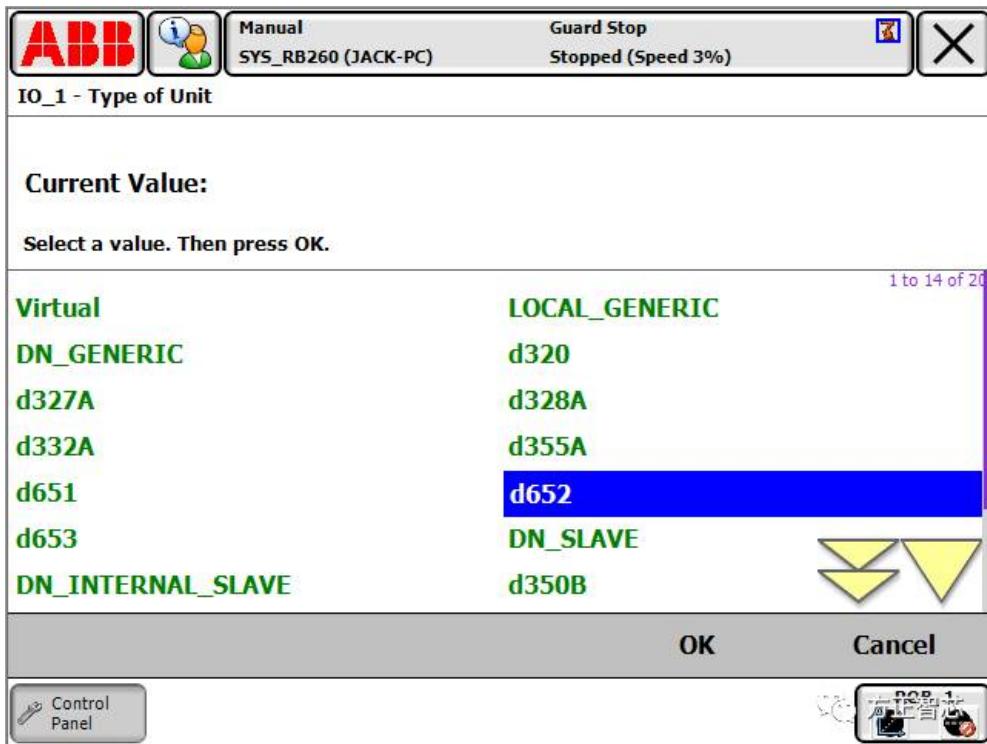
在新的【添加（Add）】面板中，【名称（Name）】栏中有个默认值：tmp0。建议取个有实际意义的名称，比如“IO\_1”，如下图：

The screenshot shows the "Add" panel for a new unit. The title bar reads "Control Panel - Configuration - I/O - Unit - Add". It displays the message "In order to add new all required inputs must be set to a value." Below this, it says "Tap a parameter twice in order to modify it." A table lists parameters and their values:

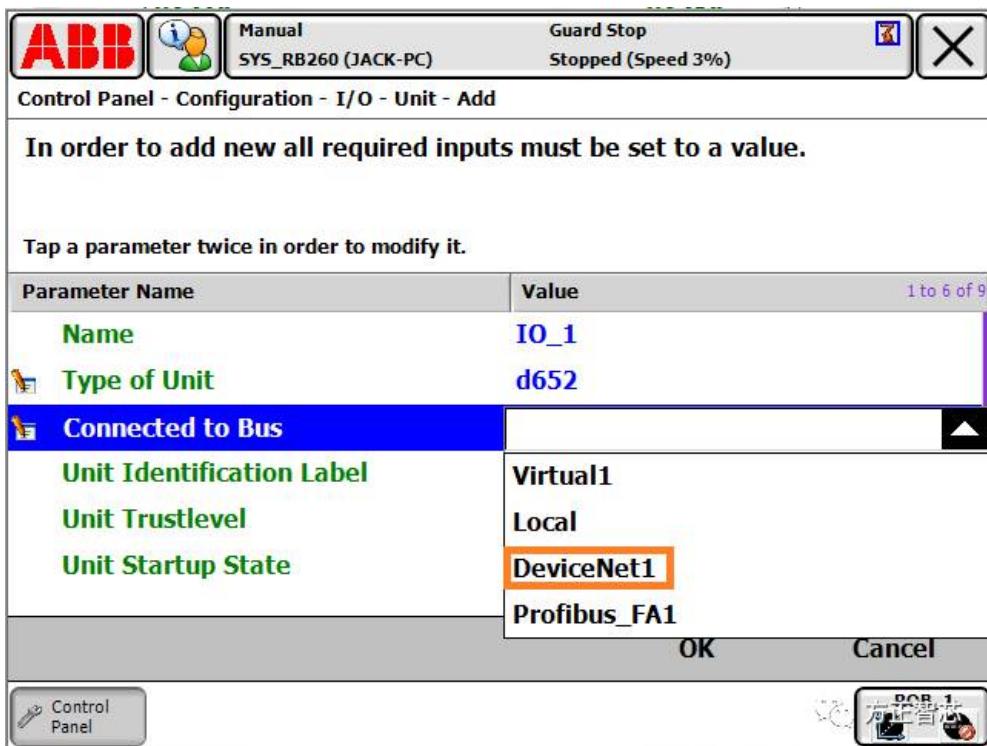
Parameter Name	Value
Name	tmp0
Type of Unit	
Connected to Bus	
Unit Identification Label	
Unit Trustlevel	Error when lost (1)
Unit Startup State	Activated

At the bottom are "OK" and "Cancel" buttons, and a "Control Panel" button at the bottom left. A small icon for "PCB 1" is at the bottom right.

【名称（Name）】的下一行用来设置IO板的类型。假设我们要配置的IO板的型号为DSQC652，那么在选项【单元类型（Type of Unit）】中选择“d652”，如下图：

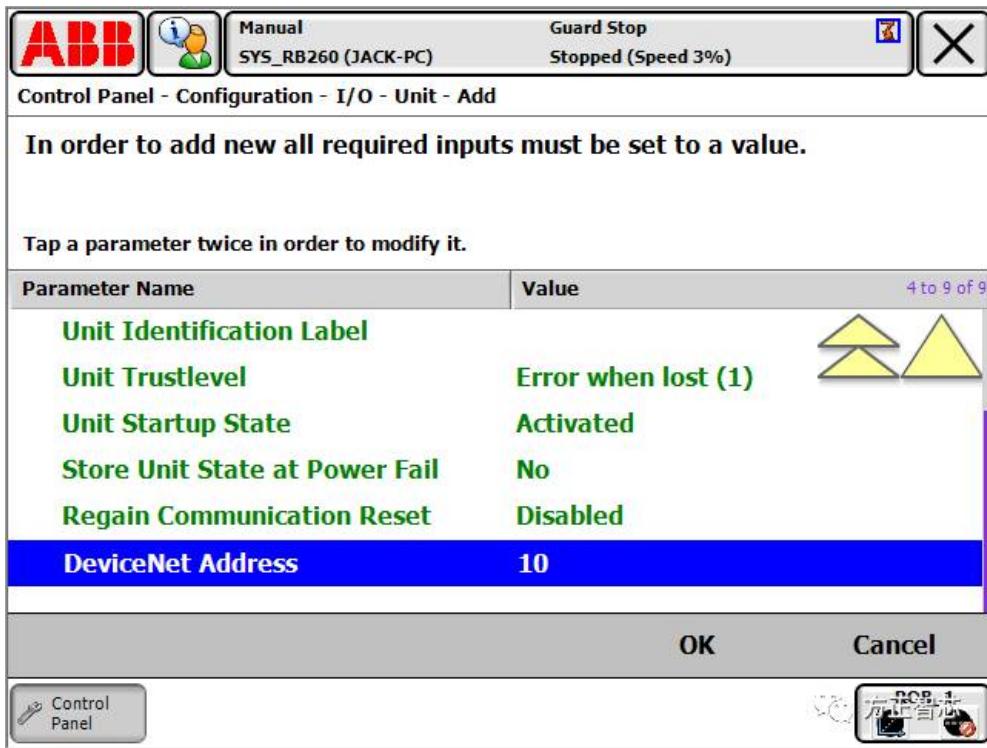


第三行【连接到总线（Connected to Bus）】用来设置IO板连接的总线，这里我们选择【DeviceNet1】，如下图：



设置好总线后，接下来要设置IO板在总线上的地址。

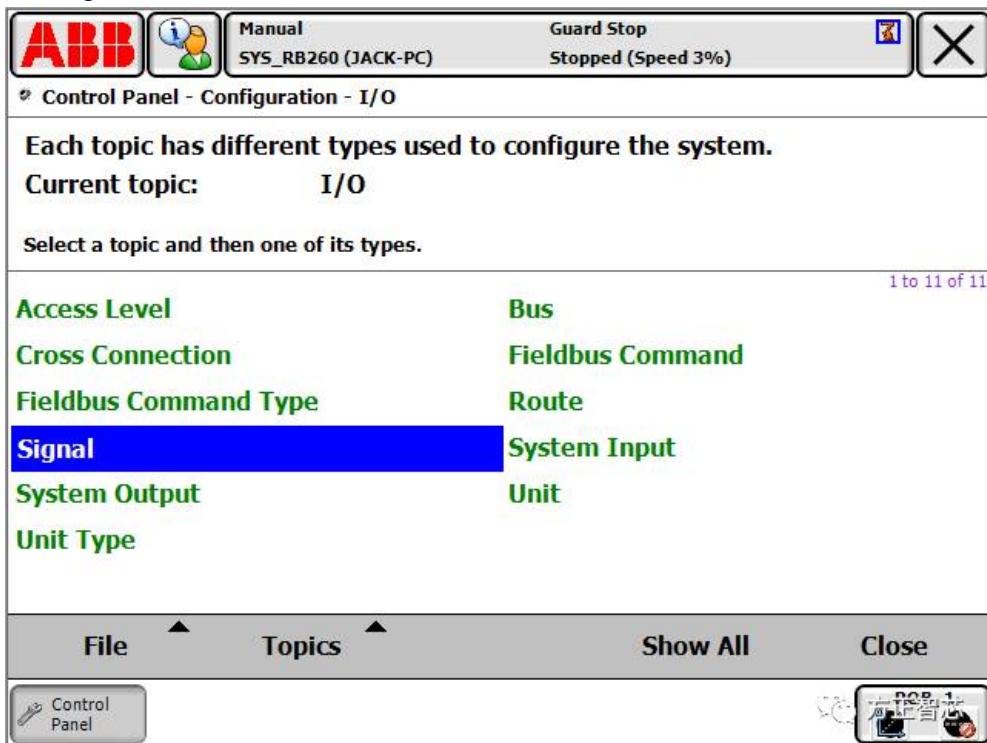
点击向下翻页，找到【DeviceNet总线地址（DeviceNet Address）】，将其修改成硬件设置的地址，比如10：（如果你不清楚怎么设置硬件地址，请看这篇文章：[怎样设置ABB机器人标准IO板的DeviceNet总线地址？](#)）



点击【确定（OK）】后，就完成了对IO板的配置。但任务还没完成，还需要对IO板中每个IO信号进行配置；

前面我们配置的单元为DSQC652型。在DSQC652中，X1、X2为数字量输出端子，X3、X4为数字量输入端子；X1的一号端子分配的地址为0，依次增加。（关于地址分配，可以看这篇文章：[认识ABB机器人的标准IO信号板-DSQC652](#)）

我们现在要配置X1（数字量输出）的1号端子（地址为0）。首先在【配置（Configuration）】中，找到【信号（Signal）】：



双击打开【信号（Signal）】面板，点击【添加（Add）】：

**ABB** **Manual**  
SYS\_RB260 (JACK-PC) **Guard Stop**  
Stopped (Speed 3%)

Control Panel - Configuration - I/O - Signal

Current type: **Signal**

Add new or select one from the list to edit or delete.

<b>MONPB</b>	<b>AS1</b>	13 to 26 of 62
<b>AS2</b>	<b>SOFTASI</b>	
<b>GS1</b>	<b>GS2</b>	
<b>SOFTGSI</b>	<b>SS1</b>	
<b>SS2</b>	<b>SOFTSSI</b>	
<b>CH1</b>	<b>CH2</b>	
<b>ENABLE1</b>	<b>ENABLE2_1</b>	

**Edit** **Add** **Delete** **Back**

给新添加的信号起个名字，比如“IO1\_Q0”：

**ABB** **Manual**  
SYS\_RB260 (JACK-PC) **Guard Stop**  
Stopped (Speed 3%)

Control Panel - Configuration - I/O - Signal - Add

In order to add new all required inputs must be set to a value.

Tap a parameter twice in order to modify it.

Parameter Name	Value	1 to 6 of 6
<b>Name</b>	<b>IO1_Q0</b>	
<b>Type of Signal</b>		
<b>Assigned to Unit</b>		
<b>Signal Identification Label</b>		
<b>Category</b>		
<b>Access Level</b>	<b>Default</b>	

**OK** **Cancel**

然后设置【信号类型（Type of Signal）】。

X1为数字量输出，这里选择【Digital Output】，如下图：

**ABB** **Manual** **SYS\_RB260 (JACK-PC)** **Guard Stop** **Stopped (Speed 3%)**

Control Panel - Configuration - I/O - Signal - Add

In order to add new all required inputs must be set to a value.

Tap a parameter twice in order to modify it.

Parameter Name	Value	1 to 6 of 10
Name	IO1_Q0	
Type of Signal	Digital Output	
Assigned to Unit		
Signal Identification Label		
Category		
Access Level	Default	
OK Cancel		

将该信号分配给单元【Assigned to Unit】IO\_1:

**ABB** **Manual** **SYS\_RB260 (JACK-PC)** **Guard Stop** **Stopped (Speed 3%)**

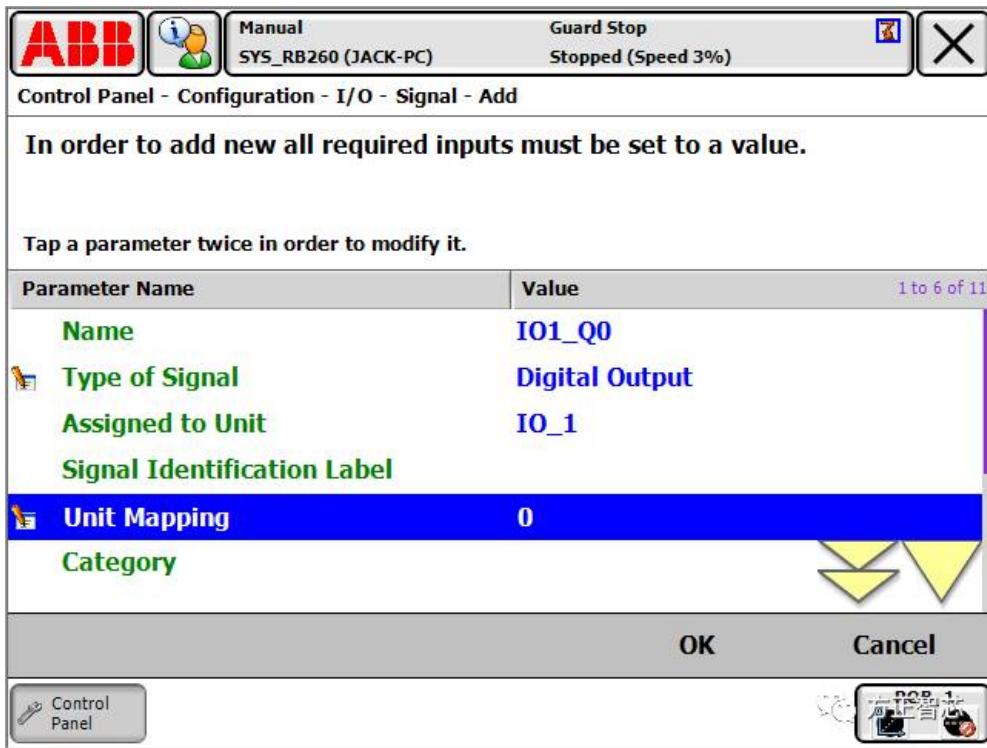
Control Panel - Configuration - I/O - Signal - Add

In order to add new all required inputs must be set to a value.

Tap a parameter twice in order to modify it.

Parameter Name	Value	1 to 6 of 11
Name	IO1_Q0	
Type of Signal	Digital Output	
Assigned to Unit	IO_1	
Signal Identification Label		
Unit Mapping		
Category		
OK Cancel		

设置该信号对应的单元地址【Unit Mapping】。因为当前设置的是X1的1号端子，分配给它的地址为0，所以【Unit Mapping】设置为0，如下图：



好了，到这里我们就完成了DSQC652标准IO板的配置及IO板上X1的1号端子的信号配置。同样的道理可以完成其它信号端子的配置。

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