

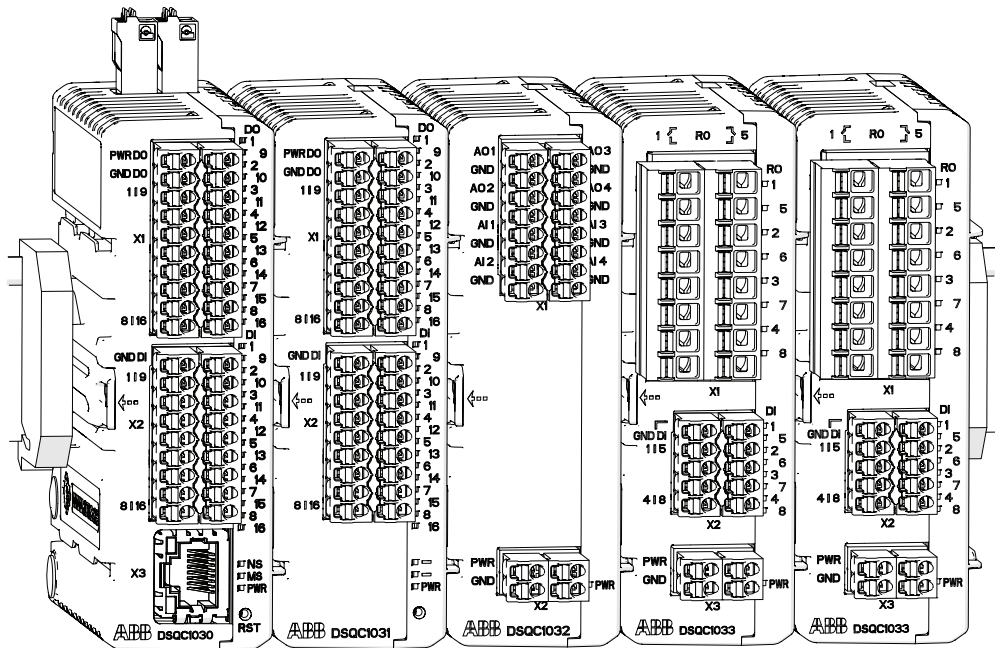
2 Hardware overview

2.1 Installing the I/O devices

2.1.1 Introduction

Scalable I/O devices

The illustration below shows the base device and connected add-on devices.



xx1600002032

Spare part no.	Description	Type
3HAC058663-001	Digital base, 16 digital inputs, 16 di-gital outputs	DSQC1030
3HAC058664-001	Digital add-on, 16 digital inputs, 16 digital outputs	DSQC1031
3HAC058665-001	Analog add-on, 4 analog inputs, 4 analog outputs	DSQC1032
3HAC058666-001	Relay add-on, 8 digital inputs, 8 re-lay outputs	DSQC1033

The main dimensions for the I/O devices are 75x36x101 (Length x Width x Height).

Additional parts

Spare part no.	Description
3HAC060919-001	Connectors digital base/add-on
3HAC060925-001	Connectors analog add-on
3HAC060926-001	Connectors relay add-on
3HAC062073-001	DIN bracket

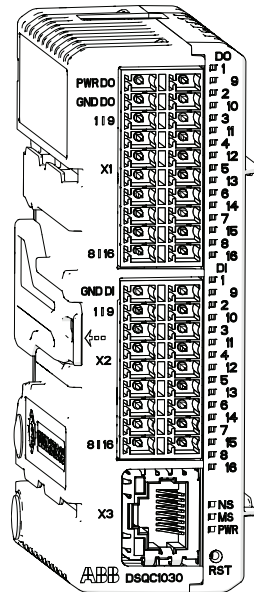
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2.3 I/O device descriptions

2.3.1 DSQC1030 Digital base

Description

The DSQC1030 base device has 16 digital inputs and 16 digital outputs and can be combined with up to four additional add-on devices.



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Connector	Description
X1 ⁱ	Digital outputs, process power
X2 ⁱ	Digital inputs
X3	EtherNet
X4	Logic power
X5	EtherNet

ⁱ The numbers (printings) on the module only show the I/O numbers (digital input/output). It is not the pin position number for connector X1 or X2 (only I/O number).

Status LEDs

The DSQC1030 base device has the following status LEDs. For more information about the status LEDs, see [Status LED descriptions on page 36](#).

LED label	Description
DO 1-16	Digital outputs
DI 1-16	Digital inputs
PWR	Power
NS	Network status
MS	Module status
	Ethernet

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2 Hardware overview

2.3.1 DSQC1030 Digital base

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Connectors

Location	Connector	Left side/description	Right side/description
Top	X4 Logic power	2 - PWR	4 - PWR
		1 - GND	3 - GND
Front	X1 Digital outputs, process power ⁱ	10 - PWR DO	20 - PWR DO
		9 - GND DO	19 - GND DO
		8 - DO01	18 - DO09
		7 - DO02	17 - DO10
		6 - DO03	16 - DO11
		5 - DO04	15 - DO12
		4 - DO05	14 - DO13
		3 - DO06	13 - DO14
		2 - DO07	12 - DO15
		1 - DO08	11 - DO16
	X2 Digital inputs ⁱ	9 - GND DI	18 - GND DI
		8 - DI01	17 - DI09
		7 - DI02	16 - DI10
		6 - DI03	15 - DI11
		5 - DI04	14 - DI12
		4 - DI05	13 - DI13
		3 - DI06	12 - DI14
		2 - DI07	11 - DI15
		1 - DI08	10 - DI16
	X3 EtherNet		
Down	X5 EtherNet		

ⁱ The numbers (printings) on the module only show the I/O numbers (digital input/output). It is not the pin position number for connector X1 or X2 (only I/O number).

Reset button

The DSQC1030 base device has a reset button located under the status LEDs. The reset button can be used in different ways to reset the device.

Function	Description	Indication
Pressed once (<3 sec)	Regular reset, same as toggling the power.	
Short press and hold (>3 sec)	Assigns volatile IP-settings of 192.168.125.254.	The Power LED flashes red once.
Long press and hold (>10 sec)	Factory reset.	The Power LED flashes red two times.

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CAUTION

Use a straightened out paper clip or a similar blunt object to carefully press the reset button. Using sharp objects or pressing with force may damage the reset button.



Note

Factory reset can also be made remotely via RobotStudio, see [Removing and resetting an I/O device configuration on page 54](#).

2 Hardware overview

2.5 Technical data

2.5 Technical data

Technical data

Supply voltage

Description	Data	Note
Voltage range	20.4 – 28.8 VDC	
Input current, Digital base, 24V SYS	100 mA (TBC)	DSQC1030
Input current, Digital base, 24V Process	8 A	DSQC1030
Input current, Digital add-on, 24V Process	8 A	DSQC1031
Input current, Analog add-on, 24V Process	100 mA (TBC)	DSQC1032
Input current, Relay add-on, 24V Process	100 mA (TBC)	DSQC1033
Plug-in current	<2 A @ 1ms	
Surge protected	Yes	
Reverse polarity protected	Yes	

Digital outputs

Description	Data	Note
Rated current	500 mA	
Max current	600 mA	
Typical short circuit current	1200 mA	
Leakage current	< 100 uA	
Rated voltage	24 VDC	
Max voltage	30 VDC	
Max voltage drop	0.5V at 500 mA	
Max inductive load	1000 mH	(max switching repetition rate: 10 sec)
Max capacitive load	10 mF	
Recommended cable area	1 mm ²	
Surge protected	Yes	
Thermal protection	Yes	
Max delay time	0.5 ms	

Digital inputs

Description	Data	Note
Input voltage level Lo	-30 - 5 V	
Input voltage level Hi	15 - 30 V	
Type switch voltage	10 V	

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