Sommario

Quick Start Guide J1-P20-Fx

Informations

Document:	**QSGJ1P20Fx_EN01**
Description:	J1-P20-Fx Quick Start Guide
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Language:	English

Release	Description	Note	Data
01	New manual		07/16/2015

This QUICK START GUIDE provides all the information necessary to:

- Verify the characteristics of the purchased product
- Make a correct installation and fixing
- Verify the basic operation

For more information please read the Installation and Maintenance manual, that can be found online at
http://www.qem.eu/doku/doku.php/en/strumenti/qmoveplus/j1P20

The controller has been designed for industrial environments in conformity to EC directive 2004/108/CE.

- EN 61000-6-4: Electromagnetic compatibility - Generic standard on emission for industrial environments
  - EN55011 Class A: Limits and measurement methods
  - EN 61000-6-2: Electromagnetic compatibility - Generic standard on immunity for industrial environments
    - EN 61000-4-2: Electromagnetic compatibility - Electrostatic discharge immunity
    - EN 61000-4-3: Immunity to radiated, radio-frequency electromagnetic field
    - EN 61000-4-4: Electrical fast transients
    - EN 61000-4-5: Surge immunity
    - EN 61000-4-6: Conducted disturbance induced by radio-frequency
  - Moreover the product is conform to the following standards:
    - EN 60529: Housing protection rating IP64
    - EN 60068-2-1: Environmental testing: Cold
    - EN 60068-2-2: Environmental testing: Dry heat
    - EN 60068-2-14: Environmental testing: Change of temperature
    - EN 60068-2-30: Environmental testing: Cyclic damp heat
    - EN 60068-2-6: Environmental testing: Sinusoidal vibration
    - EN 60068-2-27: Environmental testing: Shock vibration
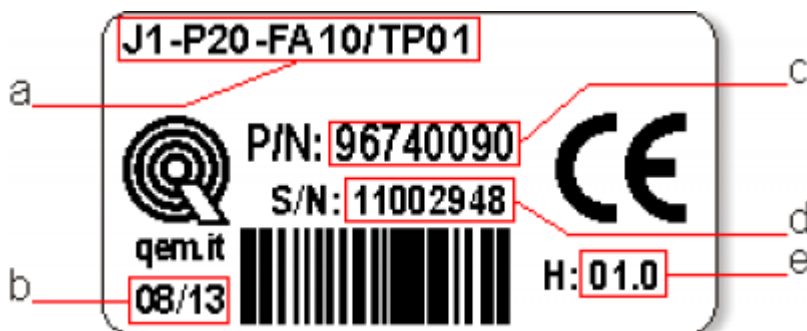   - EN 60068-2-64: Environmental testing: Random vibration

🔧 Fix Me!

1. Description

J1-P20-F is a combo HMI-PAC controller of the Qmove+ range.

1.1 Product Identificaiton

💡	**The Product Ordering Code provides its exact characteristics. Verify that the product characteristics comply with your requirements.**

1.1.1 Product Label

- **a - Ordering Code**
- **b - Week made**: indicates the week and year of manufacture
- **c - Part number**: unique code that identifies an ordering code
- **d - Serial number**: product serial number, different for individual product
- **e - Hardware release**: version of hardware release

1.1.2 Ordering Code

Model		Caratteristics				
J1	-	**P20**	-	**FA**	-	**10** / **TP01**
						TP00 = Keypad Code (TP00 = pannel with resistive touchscreen , custom logo and function keys); **TP01** = panel with resistive touchscreen, Qem standard logo and function keys
					10 = Firmware version (00 = not installed)	
				F = Technological level **A** = Hardware version		
		P = Only function keys **2** = 5" LCD graphic display, TFT display-256 COLOUR-800x480px; front panel size (168x144mm); keypad 7 keys + 11 led; housing to DIN 43700; **0** = Firmware-hardware correspondence				
J1 = "HMI+PLC" Qmove family						

1.1.3 Hardware Versions

These are the currently hardware versions available:

		Versioni hardware																	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	W	Y	Z
Base card	**USER PORT (RS232-422-485)**	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	1	1
	CAN PORT	-	-	-	1	1	1	1	1	1	1	1	1	-	1	-	1	1	1
	ETHERNET PORT	-	-	-	-	-	-	-	1	1	-	1	1	1	1	1	1	1	1
	Standard digital inputs	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	-	16	16
	Fast digital inputs (also designed for use as frequency meters)	-	2	2	-	2	2	2	2	-	-	2	2	-	-	2	-	2	2
	Two-way count inputs, 200KHz ABZ (24V-PP, 5V-LD)	-	2	2	-	2	2	2	2	-	-	2	2	-	-	2	-	2	2
	Protected digital outputs	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	-	16	16
	0-10V-12bit analog outputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	+/-10V-16bit analog outputs	-	-	2	-	-	2	-	2	-	-	-	2	-	-	2	-	2	2
Card software code declared as base card		1MD1F																	
Expansion card	**Standard digital inputs**	-	-	-	-	-	-	8	8	-	-	-	-	8	8	-	-	-	8
	12bit analog inputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16bit selectable analog inputs(0-10V, 0-20mA, potenz, thermocouples, PT100)	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2
	Protected digital outputs	-	-	-	-	-	-	8	8	-	-	-	-	8	8	-	-	-	8
	0-10V-12bit analog outputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	+/-10V-16bit analog outputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	AUX PORT (RS485)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansion card software code declared in SLOT 3		-	-	-	-	-	-	1AD2F	1AD2F	-	-	-	1AD2F	1AD2F	1AD2F	-	-	-	1AD2F

1.1.4 Expansion card manuals

MIM - Card 1AD2F rel.02

1.1.5 Firmware versions

Version	Description
10	Fully programmable with PLC functions
20	Fully programmable with PLC and Motion control functions
30	Fully programmable with PLC, Motion control, Camming and Interpolation functions

For more details about the firmware, consult Devices enabled in the controllers.

2. Technical Characteristics

2.1 General Characteristics

Weight (full hardware)	1Kg
Housing	Sheet metal
Front panel	Aluminium
Outer Frame	Self-extinguishing Noryl
Display	LCD 5'' TFT 256 colori - 800 x 480px
Touch screen	4-wire Resistive
Display dimensions	108 x 64,8mm / 5"
User led's	7
System led's	4
Function keys	7
System keys	3
Operating temperature	0 ÷ 50°C
Transport and storage temperature	-25 ÷ +70 °C
Relative humidity	90% condensate free
Altitude	0 - 2000m a.s.l.
Front protection rating	IP64

2.2 CPU (F technology)

RISC Miscroprocessor (32 bit)	
Work Frequency	200MHz
RAM	8MB
Flash	8MB

2.3 Dimensions

Dimensions in mm.

2.4 Hole template

128,0

152,0
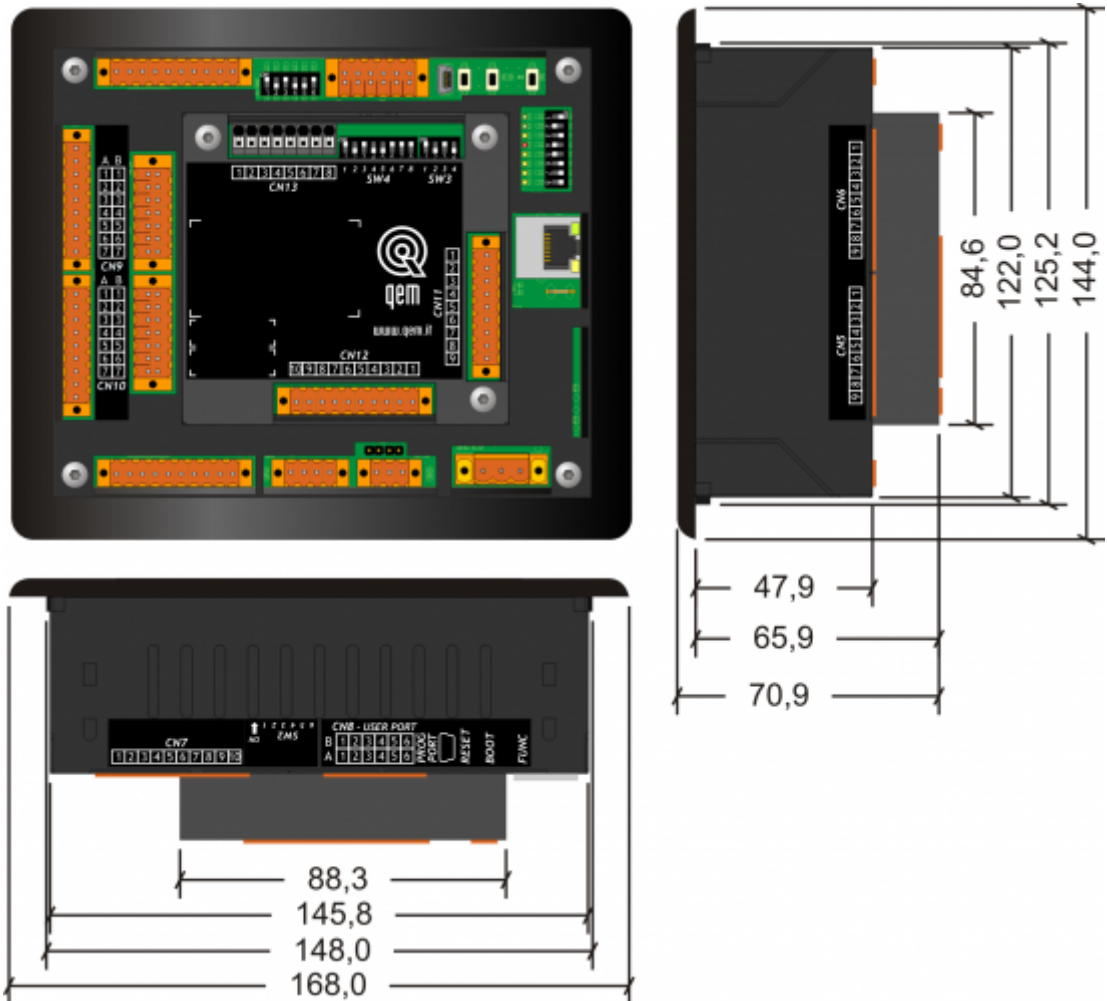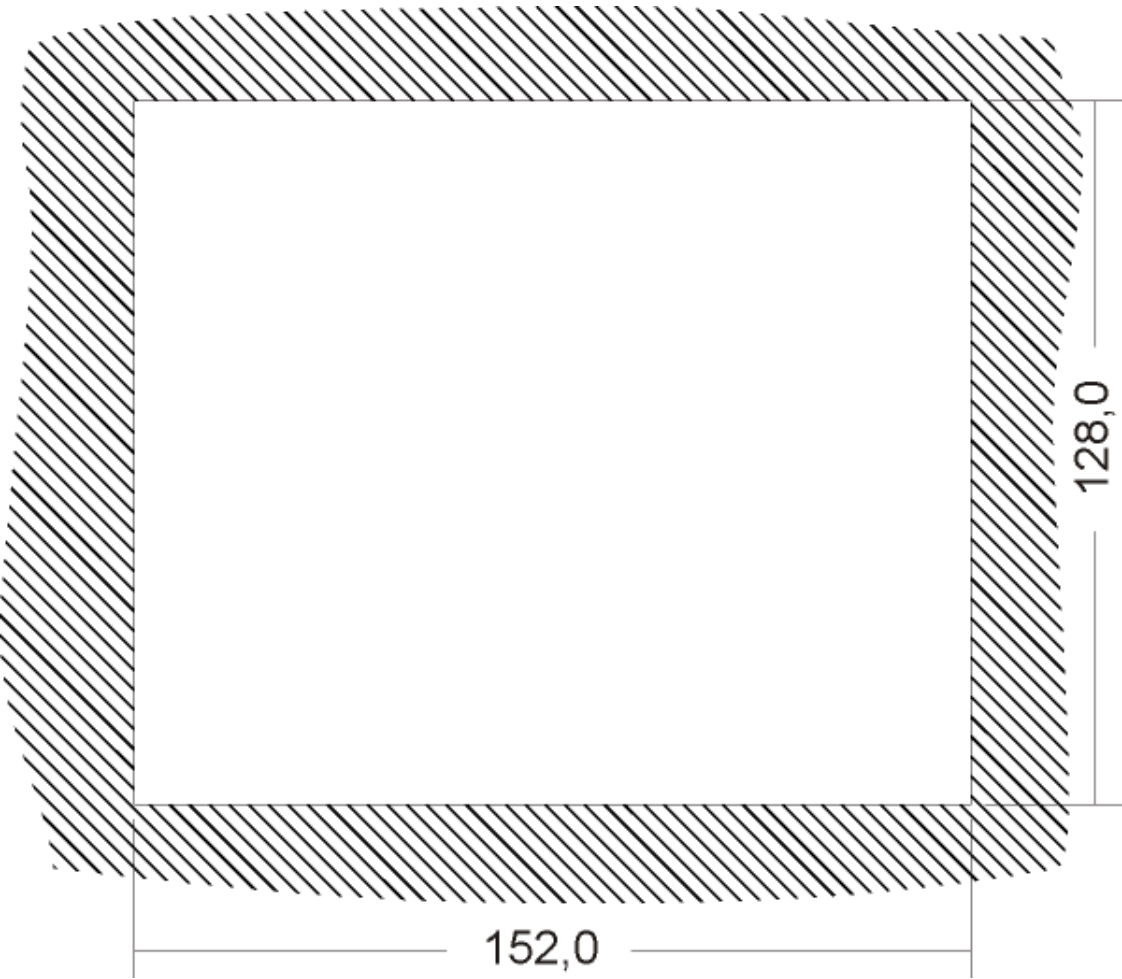
2.5 Installation

Fit the controller in the hole.
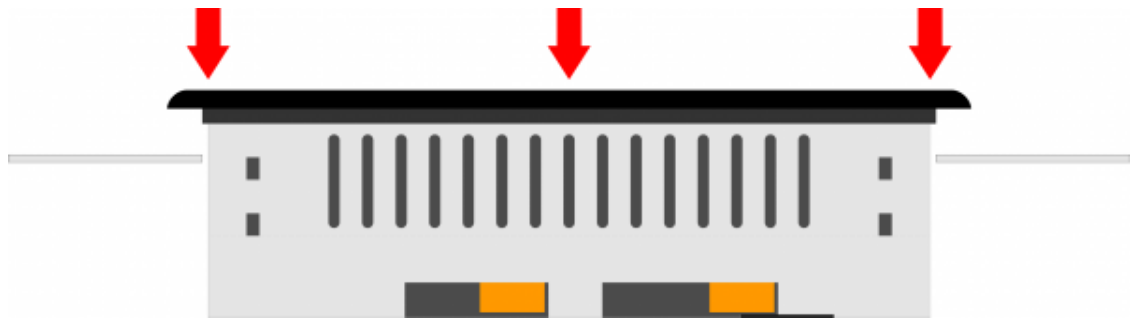
Apply the brackets.

> ⚠️ **Before fixing the controller, check it is mounted firmly in the hole and the gasket under the frame makes a good seal. No liquids must enter and the frame must not deform.**

Screw the controller in place.
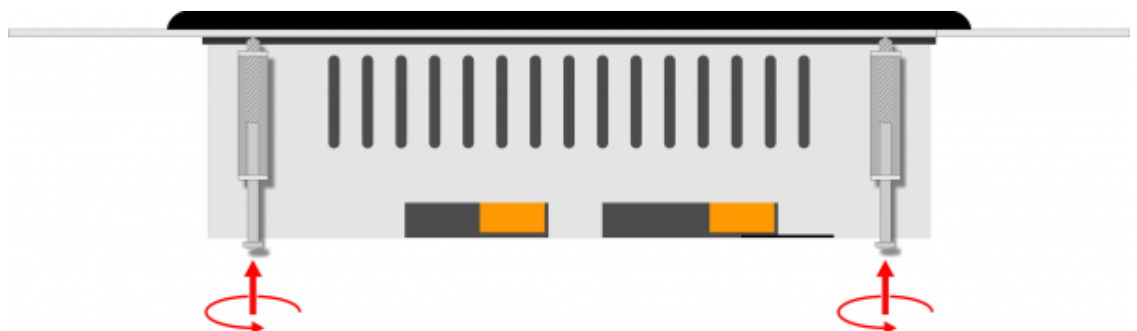
> ⚠️ **Warning: after putting the pin of fixing, do only half rotation to not tear the frame!**

3. Base card connections

💡	**Per informazioni riguardanti le sezioni dei cavi utilizabili ed i connettori usati, consultare l'application note AN021**

3.1 Power supply
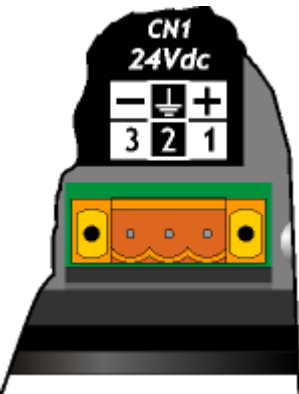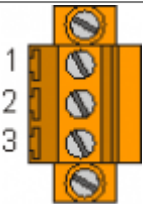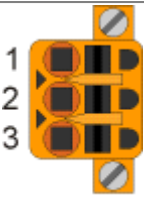
⚠️	**The cabling must be carried out by specialist personnel and fitted with suitable anti-static precautions.** **Before handling the controller, disconnect the power and all parts connected to it.** **To guarantee compliance with EC regulations, the power supply must have a galvanic isolation of at least 1500Vac.**

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Power supply	24 Vdc
Voltage range	22 - 27 Vdc
Max. absorption	10W

Connector

CN1	Terminal	Symbol	Description
	1	**+**	DC power positive
	2	**GROUND**	Gnd-PE (signals)
	3	**—**	DC power 0V

Connection examples

| ⚠️	**Use an isolated power unit with 24Vdc +/-5% output conform to EN60950-1.**

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	Use two separate power units: one for the control circuit and one for the power circuit
	For a single power unit, use two separate lines: one for the control and one for the power
	DO NOT use the same lines for the power circuit and the controller

4. Verify the basic operation

After you have correctly connected the instrument to the power line, as mentioned above, you can proceed with the power up.

In the powering up, the Leds are scanned:

the 8 LED light up sequentially on the rear of the instrument (pow, run, stop, err, L1, L2, L3 and L4).
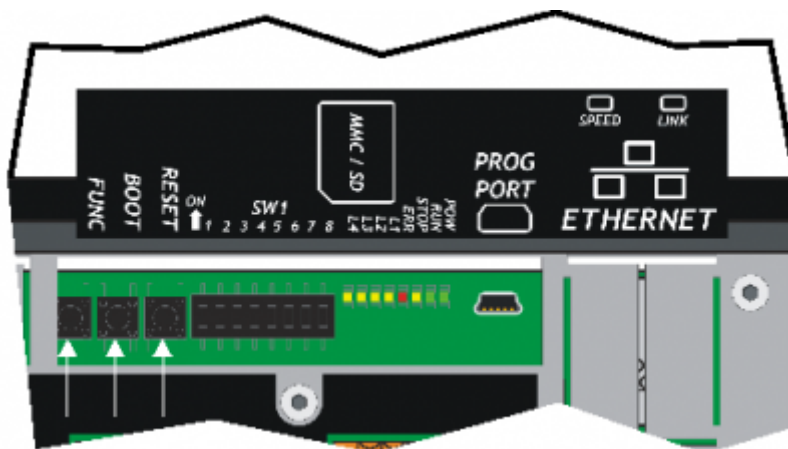
Self-diagnostics

After scanning of the leds, the device performs a series of diagnostic operations.

When the anomalies are detected or when is need to notify at the operator a particular situation, the autodiagnosis operation is momentarily interrupted, and the device pointing out the alarm.

Any malfunction is stand out from the **L1**, **L2** leds and a display message.

If the device is working properly, at the end of the stages of switching on self-diagnostics, you may encounter the following situations:

- led **pow** in ON (CPU in RESET state)
- led **pow** and **run** in ON (CPU in RUN state)
- led **pow** in ON and the **run** in flashing(CPU in READY state)

5. Assistance

For supplying you fast service, at the lowest cost, we need your support.

Follow all instructions provided in the MIMAT manual	If the problem remains, fill out the "Request Form for assistance" on the page Contacts at www.qem.it site. Our technicians will get elements essential for the understanding of your problem.

Repair

To provide you with an efficient service, please read and adhere to the instructions given here

Shipping

It is recommended to pack the instrument with materials that are able to cushion any falls.

Use the original package: it must protect the instrument during transport.	Attach: 1. A description of the anomaly; 2. A part of the electric scheme where the equipment is inserted 3. The planning of the equipment (set up, quotas of job, parameters…). 4. Request a quote for repair; if not required, the cost will be calculated in the final balance.	A full description of the problem, will help identify and resolve your problems fast. A careful packaging will avoid further inconveniences.

Printing only the pages you need will reduce paper consumption

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