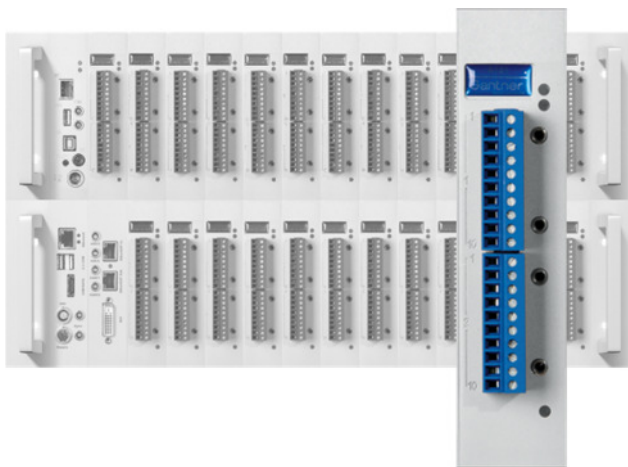# Q.raxx D104

Digital Input Plug-in Module

The Q.raxx product is based on the standardized 19" technology and is designed for measurements with a high level of flexibility, reliability and accuracy. The range of applications starts from small stand-alone solutions up to networked multi-channel applications in the field of stationary testing and assembly.

The wide range of available plug-in modules and the flexibility of the system configuration allows an optimized solution for each single task. Up to 13 plug-in modules in one system plus a Controller Unit provide a powerful package with PAC functionality, logging possibilities and an Ethernet TCP/IP interface.
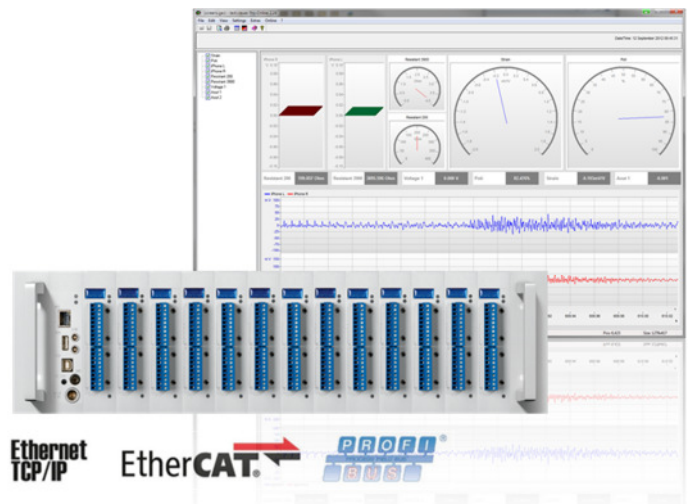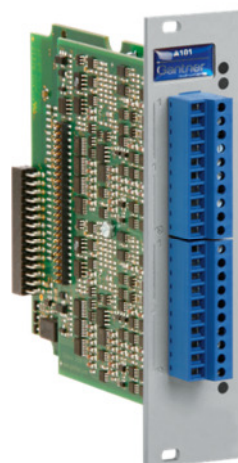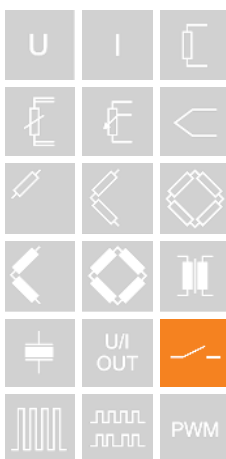
Conclusion:

Dynamic signal acquisition up to 100 kHz, inputs and outputs for all types of signals, galvanic isolation of inputs and outputs, multi-channel solutions, high density packaging and intelligent signal conditioning for all kind of test applications.

Most important features of the system:

- **High density and flexibility**
  up to 16 plug-in modules in one system in any constellation, flexible plug selection

- **Test Controller Q.station or Q.gate selectable**
  Ethernet TCP/IP for configuration and data transfer, EtherCAT, internal memory expandable by USB device, logging features, PAC functionality, IRIG synchronization for details please see separate Test Controller data sheets

- **Robust and reliable**
  stable and compact aluminum housing, easy to carry electromagnetic compatibility according EN 61000-4 and EN 55011
  Temperature range -20 up to +60°C
  power supply 10 up to 30 VDC

Most important features of the plug-in D104:

- **16 digital inputs**
  state, single or bit set, host controlled

- **Configurable threshold**
  TTL or high level (EN61131-2, Type1)

- **Short reaction time**
  10 µs per input

- **Galvanic isolation**
  I/O-signals (2 groups x 8 inputs), to power supply and to interface
  Isolation voltage 500 VDC

Digital Inputs

Number	16
Input voltage	max. 30 VDC
Input current	max. 2 mA
Threshold (programmable)	TTL or
Signal voltage „0"	-3… 5 VDC (EN61131-2, Type1)
Signal voltage „1"	11… 30 VDC (EN61131-2, Type1)
Galvanic isolation	500 VDC, terminal 1/terminal 2 and against power supply and interface[1]

Function

State	
Reaction time	10 µs
16-fold Bit-Set	specification such as simple state-input, but the binary coded information of 16 inputs can be transmitted as a single variable.

Power Supply

Power supply	10 up to 30 VDC, overvoltage and overload protection
Power consumption	approx. 2 W
Influence of the voltage	<0.001 %/V

Environmental

Operating temperature	-20°C up to +60°C
Storage temperature	-40°C up to +85°C
Relative humidity	5 % up to 95 % at 50°C, non condensing

Dimension

Front plate (W x H)	(30 x 128) mm
Depth	118 mm

[1] Noise pulses up to 1000 V, permanent up to 250 VDC