



Maximux

Gauging probes multiplexer with 16 inputs - extensible to 256



The Maximux is an inductive gauging probes conditioner that has been especially designed to connect inductive probes to a PC or any other similar equipments. The Maximux is easy to use and adapted to several applications.

The housing is made in aluminium without external setting that is adapted to be used in an industrial environment.



The conditioner Maximux is equipped with 16 inductive probes inputs. A M-bus network port allows to increase the inputs number up to 256 with optionnal extension boxes. It is compatible with all the M-bus network probes and extensions boxes. It is therefore very easy to mix different probe's technologies depending on the measurements to do. A range of extension boxes it thus available (8 and 16 inputs inductive probes, Heidenhain etc...)

Main characteristics

- 16 inputs for Metro inductive gauging probes
- Linearization and control of the probe's presence, automatic selection of the measuring scales:
- Extensible to 256 inputs with extension boxes
- 3 Interfaces (Ethernet, RS 232, USB)
- Read rate : 450 probes by second
- Probe mode and measurement characteristic mode
- 16 bits resolution and high precision
- M-Bus network compatible
- Modbus TCP compatible
- Robust and reliable

Functions

The multiplexer-conditioner MAXIMUX ensures the following functions:

- Probes power supply
- Signal process
- Analogue/digital conversion
- PC connection management (RS232, USB and Ethernet)

Communication

2 communication protocols available :

- ASCII protocol: it is mainly used to establish a communication between the Maximux and the PC
- Modbus TCP protocol. Used to connect with a PLC and HMI.

Measurement modes

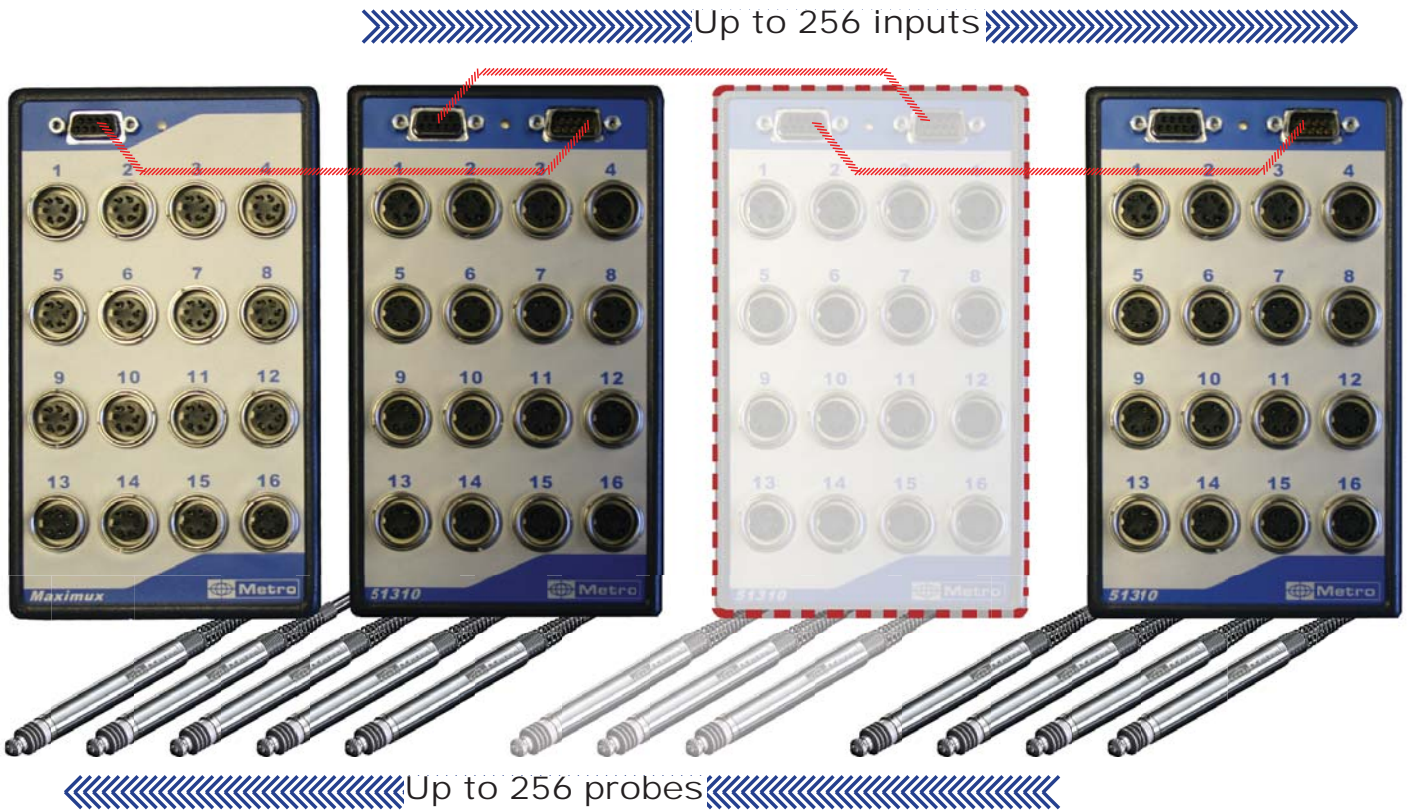
Choice between 2 measurement modes:

- Probe mode : The Maximux returns the individual position of the probes.
- Measurement characteristics mode : The Maximux returns directly the measurement characteristics results coming from the probes combination. This mode allows trigonometrical functions, calculation between measurement's characteristics as well as calibration functions. The maximux simplifies the operator's tasks that are linked to the measurements based on probes (calibration, calculation of measurement's characteristics...)

For each probe, the Maximux ensures the linearisation of the selected probe and chooses between 2 measurement scales in function of the measurement range of each probe:

- $\pm 20.000\text{mm}$ scale with a $1\mu\text{m}$ resolution
- $\pm 2.0000\text{mm}$ scale with a $0.1\mu\text{m}$ resolution

Maximux and extension modules



Extension modules

The maximux is fitted with a M-bus connection that allows to increase the number of inputs as shown on the above drawing. It is also possible to mix different probe's technologies. With the following modules it is possible to connect inductive and digital probes, and incremental linear encoders.



4 Heidenhain inputs
(1Vpp and 11 μ A)



8 inductive inputs



4 Heidenhain inputs
(TTL)

Connection with a PLC and/or HMI

Human Machine Interfaces based on touch screen displays are widely used in the industry and replaces more and more the traditional mechanical buttons and indicating lights. Thanks to its Ethernet port and its compatibility with Modbus TCP protocol, it is very easy to connect the Maximux to a PLC and/or HMI.



Free examples of Pro-face interfaces can be downloaded on our website. This offers the possibility to the users to have a system ready to operate.

References

Item	Reference
Maximux with 16 inductive's probes inputs	51300
Extension box for 16 additionnal probes	51310
M-Bus cable to connect the Maximux and an extension box	81210
2m RS232 cable between Maximux and PC (9 PINs)	45160
DIN RAIL Mounting accessory	51021



Metro
Rue de la Jonchère
74420 Boège
France
Phone. +33(0)4-50-39-08-49
Fax. +33(0)4-50-39-08-33
E-mail : info@metro-fr.com
Web : http://www.metro-fr.com

Your distributor

MAEN1000212

This document is not contractual and contains information corresponding to the level of technology at the date of printing. Metro reserves the right to modify and/or improve the product, whose characteristics are described in these documents, as required by new technology at any time. It is the purchaser's responsibility to inform himself, no matter what the circumstances, of the product's maintenance conditions and requirements. Metro reserves all rights, especially those arising from our "General Delivery Conditions".