



Maxxis 4 Process Controller with BASIC Application



- Process Controller for the automated control of weighing processes with one scale
- Wide range of opportunities for flexible integration such as option cards
- DAT, multilingual easy-operation interface, backup function, service reports, simulation
- BASIC Application with weighing, check and remote terminal function
- With an additional license: OPC server, tilt correction
- Supplied with Ethernet TCP | IP, Modbus TCP, RS232, USB, SD Card



The Maxxis 4 from Sartorius Intec combines accuracy, connectivity and functionality to provide a process controller unlike any other. Specifically designed to fulfill many of the tasks manufacturers face today, the Maxxis 4 easily takes control of all modern automation processes.

As a multiple use device, the Maxxis 4 is pre-programmed to control a diverse range of complex applications. In conjunction with customers and partners Sartorius' expert team of software engineers, have created software solutions that allow the unit to seamlessly integrate into any process. However, users who require it can utilise the easy to use IEC61131 programming language to implement their own unique functionalities.

Equipped with an internal web server, the Maxxis 4 can be controlled via any standard web browser or a remote display with VNC capabilities. Additionally a wide range of interface options, USB connections and an Ethernet Port ensure the Maxxis 4 is able to connect with any existing infrastructure. The compact design in a panel enclosure allows space-saving installation in a cabinets.

The Maxxis 4 is equipped with all the features users have come to expect from process technology, and numerous innovative ones that further simplify and increase the accuracy of industrial processes. Automatic back-ups save data to SD cards providing full transparency and traceability, whilst specifically tailored reports and service reports track overload and user changes and deliver this data direct to users.

To make sure that even novice users can control complicated applications with ease, an integrated help function is installed on the Maxxis 4.

With a redesigned menu structure and a 4.3" large color display the Maxxis 4 has a comfortable and intuitive operation.

The Maxxis 4 with BASIC application is equipped with many interchange and weighing functions. Independent communication and predefined dialogs can be utilised through the connection of a host PC or PLC, combining both the job of weighing and terminal control into a single unit. Users can also choose to combine simple check-weighing functions and tilt corrections to suit their specific weighing procedures.

Function of the BASIC Application

The BASIC Application is the entry level of the Maxxis family yet it contains a wide variety of functions such as weighing, simple check weighing and use as remote terminal. Additionally, functions like tilt correction can be activated with a license.

One scale can be connected to the Maxxis 4 process controller:

- Via the analog input one analog scale can be connected. Alternatively one digital scale respectively digital Pendeo type load cells can be connected via a serial RS485 interface.
- Equipped with an Internal Alibi Memory, the Maxxis 4 can display stored values either on the device or via print outs
- Thanks to a broad selection of communication options, values and signals can be read from, and written to the Maxxis 4 BASIC controller. A PC can communicate with the unit via OPC, over Ethernet, or via Modbus TCP. Additionally, a PLC can integrate with the controller via a fieldbus, analogue or serial communication.

Additional functions:

- Configurable limit function with 3 limits per scale combined with conditions and actions
- Configurable digital inputs and outputs for using weighing information for actions like refilling the scale

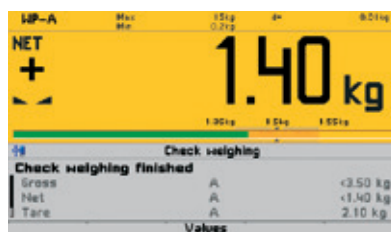
Tilt Correction (enabled by license)

The tilt correction in combination with the weighing function allows for the minute adjustment of weighing information in line with other values. This could include factors such as the accurate adjustment of analogue inputs. In W&M approved applications the tilt correction function is disabled.



Weighing Function

- The TFT color graphic display shows weight values of up to 7 digits with decimal points and plus or minus signs. Available mass units are t, kg, g, mg, lb and oz. The currently displayed weight is shown as a bar graph in relation to the maximum capacity, for easy recognition of the content
- Weight values can be printed via a configurable report
- Preset tare values can be saved and used for selected weighing procedures
- A database can be used to store a wide selection of information e.g. Customer addresses
- The dialog function can be used to guide the operator
- User managements can be activated for 3 different levels of rights, so that critical information is saved and protected e.g. calibration, setup or other values.



Check Weighing

- Alongside the weighing functions Check Weighing can be used for easy +|0|- control. The integrated bar graph will show a product's weight in relation to pre-defined limits in yellow, green and red colours for easy readability.
- Setpoints, as well as min and max values can be saved and indicated
- Preset tare values can be saved and used
- A database can be used to store product names and other variables
- A dialog function can be used to effortlessly guide the operator



Remote Terminal

The Maxxis 4 can be used as either an efficient remote terminal or as a remote-controlled operation-dialog via a color display and a keypad. This means that messages can be displayed from a higher-level system, operation dialogs can be conducted, and texts or values can be edited.

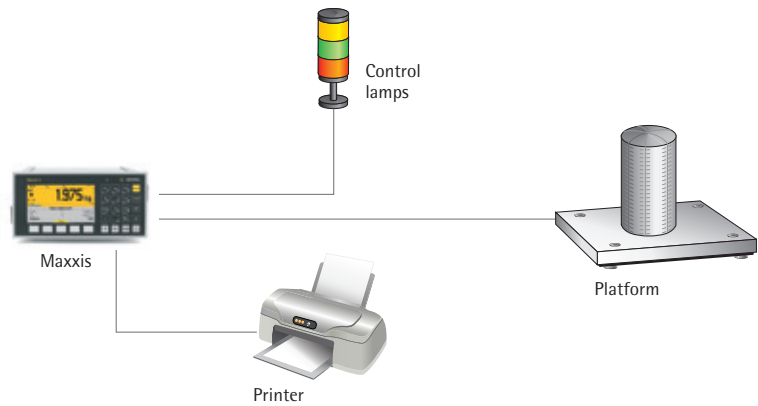
- The Controller provides the perfect combination between a high precision instrument and a SCADA system
- A graphical display, supported by application specific function keys and an alphanumeric keypad allow transmitted commands to be clearly indicated. On the controller messages can be shown and all values can be edited and retransmitted to the host
- A database for defined texts relating to the terminal function is also included

A complete range of potential applications

Standalone Checkweighing

With a Maxxis 4 connected to a weighing platform (digital or analogue).

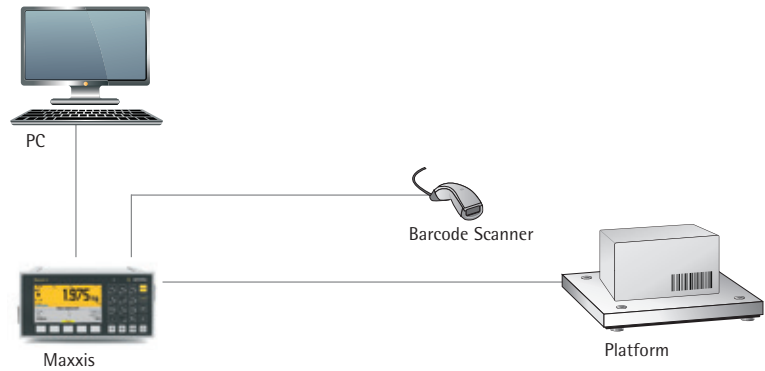
A ticket will be generated and control lamps will show if the product weight is within pre-defined tolerances.



Weighing with a PC interface

With a Maxxis 4 connected to a weighing platform (digital or analogue).

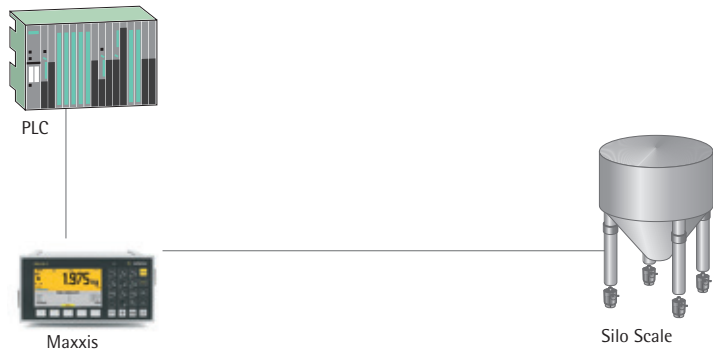
A barcode scanner is connected to allow the quick input of additional information. A PC System will then take over the Data control by using the remote Terminal Function of PC the Maxxis 4 BASIC software. The PC system can send user tasks to the display instantaneously.



Weighing at single Weigh Point

With a Maxxis 4 connected to 1 Silo Scale.

The weighing Information is directly transferred to a PLC System, e.g. via Profibus. The limit function will then refill the Scales if needed by using the integrated I/Os. These Outputs can also be set directly from the PLC.



Technical Data

Housing

For Panel Mounting
IP protection class: IP20
Front panel: IP65
Material: Aluminium
RoHS conform

Dimensions

See drawing on next page

Display and Status

TFT graphical color display
4.3" (16:9) with 480 × 272 pixels, graphic
Weight display: 7-digits,
Available weight units are t, kg, g, mg,
lb and oz.
1 Status LED to signal shut-down procedure

Keys

25 keys, key pad foil

Languages | Character sets

ASCII, Latin 1
Latin Ext A
cyrillic
hiragana
katakana
CJK (simplified Chinese only)

Standard Interfaces

RS232
Ethernet TCP | IP, Modbus TCP
USB 1.1 (max. 300 mA)
SD Card Slot

Options

1 Analog | Digital Weighing Points
2 Option Slots
1 Fieldbus Slot
For more detailed information please
consult the order list

Digital Scales

Connection of digital SBI | XBPI Platforms
are possible. (Power supply of one platform)
Connection to digital Pendeo Load cells
is possible (power supply needed)
For other connectable scales please
check manual

Load cell connection

All strain gauge load cells;
6- or 4-wire connection

Load cell supply

12 V, short-circuit proof.
External load cell supply possible.

Minimum load impedance

min. 75 Ohm
e.g. 6 load cells with 650 Ohm
or 4 load cells with 350 Ohm

Measuring principle

Measuring amplifier:
Delta-Sigma converter
Measuring time:
min 5 ms – max. 1600 ms

Digital filter for load cell

4th order (low pass), Bessel, Aperiodic
or Butterworth

A | D Converter Input range

4,8 nV (appr. 7.5 Mio. div.)
Usable resolution: 0.2 µV/d
Measuring signal: 0 to 36 mV
(for 100% nominal load)

Linearity

< 0.002%

Power Supply

100 – 240 VAC, (+10/-10%),
50 – 60 Hz max. 14 W/32 VA
Optional:
24 VDC, (+20/-10 %), max. 14 W

Temperature effects

Zero: TK0 m < 0,02 µV/K RTI
Span: TKspan < +/- 2 ppm/K

Environmental conditions

Temperature

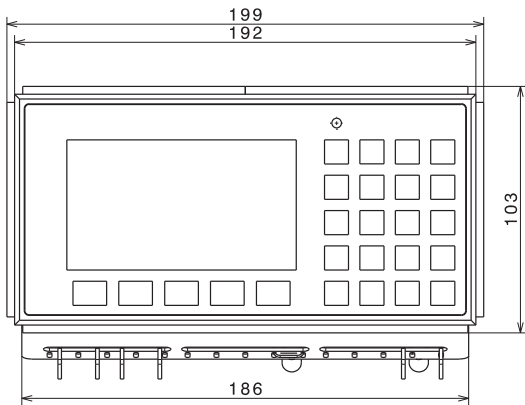
Operation: -10°C to +50°C
Storage: -20°C to +70°C

Weight

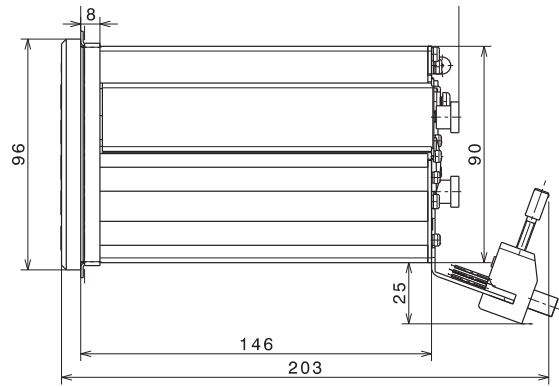
Net: 2 kg
Shipping weight: approx. 3 kg

Technical Drawings

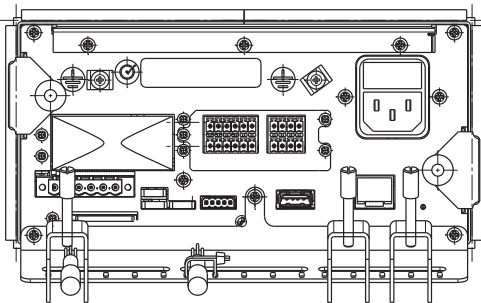
Front view



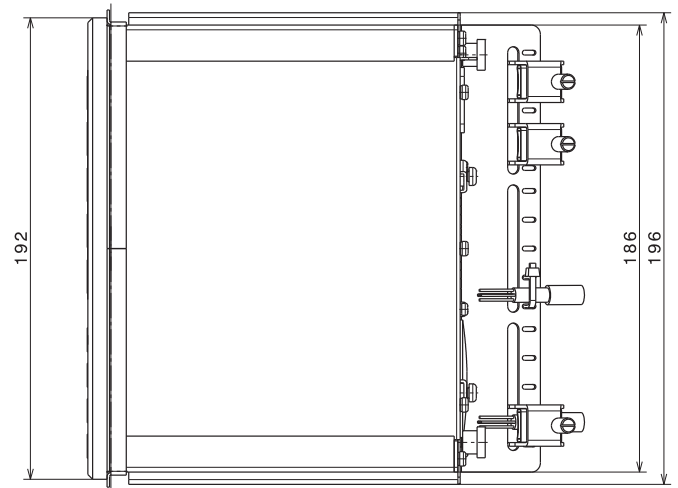
Side view



Back view



Drill plan | Panel cut out



Maxxis 4 Process Controller

Type	Description	Order Number
Maxxis 4	Process Controller, incl. Ethernet TCP IP and Modbus TCP 1 × RS232, 1 × USB, 1 × SD Card	9405 155 00000

Options for Maxxis 4

Weighing Point	Slot A
W1	A D Converter 0

Housing

L14	Cable anchorage
L15	Mounting frame for the safe installation of the Maxxis 4 in cabinets with a wall thickness of less than 1.5 mm

Power Supply

L0	110 240 V AC power supply	Standard
L8	24 V DC power supply	

Applications and Licenses

H0	BASIC Application	Standard
I4	PHASE Application (OPC included)	
I6	BATCHING Application	
I11	IBC – One Component Filling	
I12	Tilt Correction License (Software BASIC needed)	
E5	Alibi Memory License	
E6	OPC Server License (AccessIt 2.0 included)	
E9	Special License "Batch Modes" for using in individual programming	

Interface Cards

	Slot 1 2
B15 B25	Interface Card Serial 2 × RS485 (incl. supply for one IS Platform) 0 0
B16 B26	Interface Card Analog 1 Input 1 Output with 0/4 – 20 mA 0 0
B17 B27	Interface Card Digital 4 Outputs Relay 4 Inputs – active 0 0
B18 B28	Interface Card Digital 4 Outputs Relay 4 Inputs – passive 0 0
B19 B29	Interface Card Digital 8 Outputs Optocoupler 4 Inputs – passive 0 0
C21	Fieldbus Card Profibus DP - 0
C24	Fieldbus Card DeviceNet - 0
C25	Fieldbus Card CC-Link (Available 2015) - 0
C26	Fieldbus Card Profinet - 0
C27	Fieldbus Card Ethernet IP - 0

Maxxis 4 – order numbers with fixed defined configuration, cannot be changed with additional options

Type	Description	Order number
PR 5500/00	Maxxis 4 process controller with Option: A D-converter (W1), 110 230 V (L0), BASIC-Application (H0), Cable anchorage (L14)	9405 155 00001
PR 5500/01	Maxxis 4 process controller with Option: A D-converter (W1), 24 V (L8), BASIC-Application (H0), Cable anchorage (L14)	9405 155 00011
PR 5500/20	Maxxis 4 process controller with Option: A D-converter (W1), 110 230 V (L0), 6/8 digital I/O (B19), Batch-Applikation (I6), Cable anchorage (L14)	9405 155 00201
PR 5500/21	Maxxis 4 process controller with Option: A D-Wandler (W1), 24 V (L8), 6/8 digitale E/A (B19), Batch-Applikation (I6), Zugentlastung (L14)	9405 155 00211
PR 5500/30	Maxxis 4 process controller with Option: A D-converter (W1), 110 230 V (L0), 6/8 digital I/O (B19), IBC-Application (I11), Cable anchorage (L14)	9405 155 00301
PR 5500/31	Maxxis 4 process controller with Option: A D-converter (W1), 24 V (L8), 6/8 digital I/O (B19), IBC-Applikation (I11), Cable anchorage (L14)	9405 155 00311
PR 5500/90	Maxxis 4 process controller with Option: A D-converter (W1), 110 230 V (L0), Phase-Application (I4), Cable anchorage (L14)	9405 155 00901
PR 5500/94	Maxxis 4 process controller with Option: A D-converter (W1), 24 V (L8), Phase-Application (I4), Cable anchorage (L14)	9405 155 00941

Accessories for Maxxis 4

Type	Description	Order Number
PR5500/10	A D Converter	9405 355 00101
PR5500/04	Interface Card Serial 2 × RS485 (incl. supply for IS platform)	9405 355 00041
PR5500/12	Interface Card Digital 4 × Input 4 × Output (active)	9405 355 00121
PR5500/13	Interface Card Digital 4 × Input 4 × Output (passive)	9405 355 00131
PR5500/17	Interface Card Digital 8 Outputs Optocoupler 4 Inputs (passive)	9405 355 00171
PR5500/07	Interface Card Analog 1 × Input 1 × Output 0 4–20 mA	9405 355 00071
PR1721/61	Interface Card Profibus DP	9405 317 21611
PR1721/64	Interface Card DeviceNet	9405 317 21641
PR1721/65	Interface Card CC-Link (Available 2015)	9405 317 21651
PR1721/66	Interface Card Profinet	9405 317 21661
PR1721/67	Interface Card Ethernet IP	9405 317 21671
PR5500/81	PHASE Application License	9405 355 00811
PR5500/83	BATCHING Application License	9405 355 00831
PR5500/86	IBC – One Component Filling License	9405 355 00861
PR5500/87	Tilt Correction License (Software BASIC)	9405 355 00871
PR5500/91	Alibi Memory License	9405 355 00911
PR5500/92	OPC Server License (AccessIt 2.0 included)	9405 355 00921
PR5500/93	Special License "Batch Modes" for Programming	9405 355 00931

The technical data listed are intended to give a product description only and should not be interpreted as guaranteed properties in the legal sense.

Sartorius Mechatronics T&H GmbH
Meiendorfer Strasse 205
22145 Hamburg, Germany
Phone +49.40.67960.303
Fax +49.40.67960.383
sales.hh@sartorius-intec.com
www.sartorius-intec.com

