Minebea intec
The true measure

Weight controller Maxxis 4

The compact weighing process controller

GERMAN QUALITY
German Quality

The Maxxis 4 combines accuracy, connectivity and functionality in a freely programmable weight controller for a wide range of applications. From simple weighing tasks to single-component filling through to complex dosing, Maxxis 4 effortlessly and reliably controls all modern automation processes.

The right solution for all of these applications:

- Weighing
- Filling and dosing
- Formulation
- Fill quantity control

Technical specifications

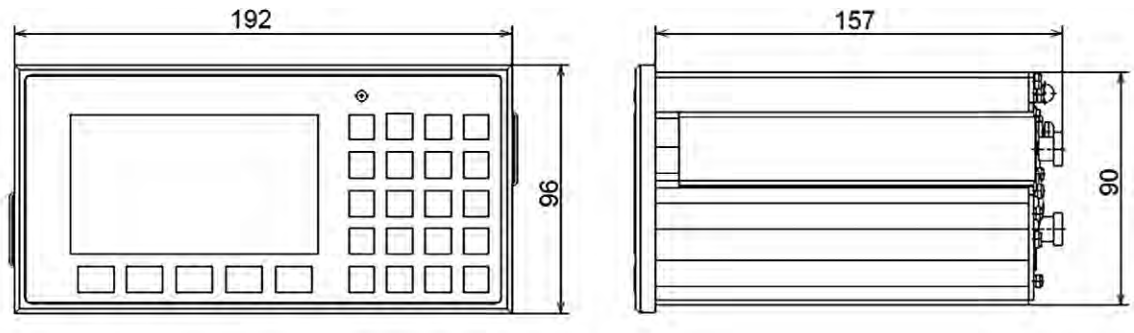
Weight controller Maxxis 4

Parameter	Description
Housing	**Type** Plug-in housing for switch cabinet assembly **IP protection class** IP20, front of device: IP65 **Material** Aluminium
Dimensions	192×96×146 mm
Front panel cut-out	$187^{+0.5}$×$91^{+0.5}$ mm
Power supply	100–240 V_{AC}, ±10%, 50–60 Hz 24 V_{DC}, +20/-10%
Power consumption	Max. 14 W
Display	– TFT colour graphic display – 4.3" (16:9) at 480×272 pixels – 7-digit weight display – The possible units of weight are t, kg, g, mg, lb and oz – 1 status LED shows the 'shutdown' status
Keys	Membrane keypad, 25 keys
Languages	**Integrated languages** German, English, French **Character sets** ASCII, Latin 1, Latin-ext A, Cyrillic, Hiragana, Katakana, CJK (simplified Chinese only)
Standard interfaces	
USB interface	Version: USB 1.1, type B, max. 300 mA Function: printer, bar code reader (HID), key, storage medium
SD card	Function: operating data, backup
RS-232	Version: terminal, 5-pin Protocol: printer, SBI, xBPI, remote display, MT-SICS level 0
Ethernet TCP/IP	Version: RJ-45 connector Protocol: TCP/IP and Modbus TCP Function: web server, network printer, network drive
Optional interfaces – A/D converter (PR 5500/10)	
Load cell connection	All strain gauge load cells; 6 or 4-wire connection is possible
Load cell supply	12 V_{DC} (±6 V_{DC}), short-circuit proof, external load cell supply possible
Load impedance	– min. 75 Ω – e.g. six load cells with 600 Ω each or four load cells with 350 Ω each
Measuring principle	Measuring amplifier: Delta-Sigma converter Measurement time: min. 5 ms – max. 1600 ms
Sensitivity	Internal: 7.5 nV (~4.8 million parts) Usable resolution: 0.2 µV/d
Input signal	0 to 36 mV (for 100% maximum capacity)
Linearity	< 0.002%
Temperature effect	Zero point: $TK_0m < 0.02$ µV/K R_{TI} Measuring range $TK_{span} < \pm 2$ ppm/K
Digital filter for load cell connection	4th order (low pass), Bessel, aperiodic or Butterworth

Parameter	Description
Other optional interfaces	
2× RS-485 (PR 5500/04)	Version: 2× terminal, 7-pin, incl. power supply for an IS platform scale Protocol: EW-COM, Modbus RTU, remote display, xBPI, SBI, Pendeo®
2× RS-232 (PR 5500/32)	Version: 2× terminal, 7-pin Protocol: printer, SBI, xBPI, remote display, MT-SICS level 0
1× analogue I/O (PR 5500/07)	Version: 2× terminal, 6-pin Function: gross weight, net weight, process value
Digital I/O passive (PR 5500/12)	**Control inputs** Quantity: 4, optocoupler isolated, passive, max. 28 V_{DC} Version: 2× terminal, 4-pin Function: zero, tare, etc. **Control outputs** Quantity: 4, relay isolated, max. 30 V_{DC}/24 V_{AC}, max. 1 A Version: 2× terminal, 6-pin Function: limits, status, weight, rough/fine, etc.
Digital I/O active (PR 5500/13)	**Control inputs** Quantity: 4, optocoupler separated, active, switchable via isolated contact Version: 2× terminal, 4-pin Function: zero, tare, etc. **Control outputs** Quantity: 4, relay isolated, max. 30 V_{DC}/24 V_{AC}, max. 1 A Version: 2× terminal, 6-pin Function: limits, status, weight, rough/fine, etc.
Digital I/O passive (PR 5500/17)	**Control inputs** Quantity: 6, optocoupler isolated, passive, max. 28 V_{DC} Version: 2× terminal, 4-pin Function: zero, tare, etc. **Control outputs** Quantity: 8, optocoupler isolated, passive, max. 24 V_{DC}, 25 mA Version: 2× terminal, 6-pin Function: limits, status, weight, rough/fine, etc.
Profibus-DP (PR 1721/61)	Profibus-DP in accordance with EC 61158, 12 MBit/s, 9-pin Sub D connector
DeviceNet (PR 1721/64)	DeviceNet-Slave, max. 500 kBit/s, 5-pin terminal
Profinet I/O (PR 1721/66, .../76)	ProfiNet I/O, 10 and 100 MBit/s, 2× RJ-45 connection
Ethernet IP (PR 1721/67, .../77)	EtherNet-IP, 10 and 100 MBit/s, 2× RJ-45 connection
Ambient temperature range	Operation: -10...+50°C Storage: -20...+70°C
Packaging dimensions	291× 331× 160 mm
Weight	Net: 2.2 kg Gross: 3.1 kg
Certificates	CE, OIML R76

Technical diagrams

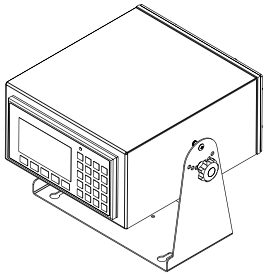
Weight controller Maxxis 4

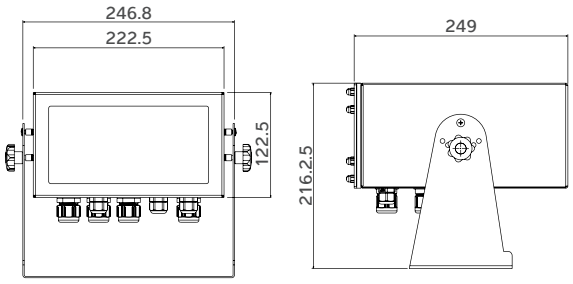


All dimensions in mm

Stainless steel housing PR 1620

Stainless steel housing PR 1620 – protection in challenging environments





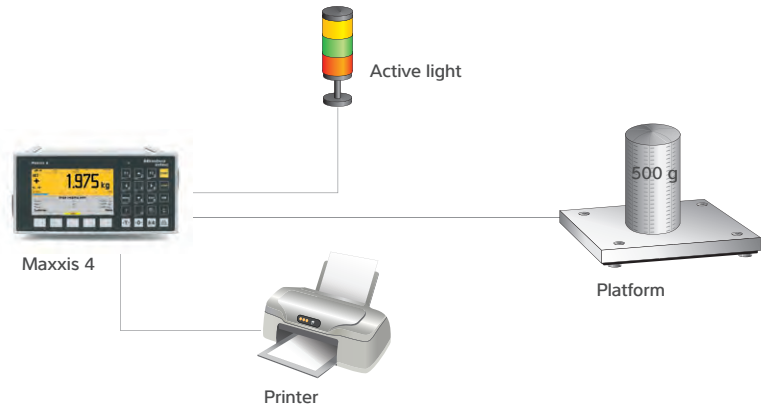
Housing dimensions *

Product description: the stainless steel housing PR 1620 was developed as a protective sleeve for Minebea Intec weighing electronics (X3, Maxxis 4, CSD 912). These are installed in the housing to protect against harmful environmental influences thus significantly prolonging the service life, depending on external influences.

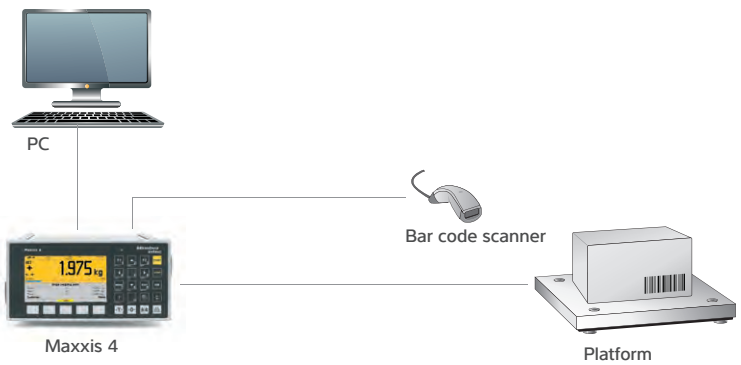
Stainless steel housing PR 1620	
Features	– Reliable protection – Flexible use of the housing in different locations – Stable, compact design

Application software

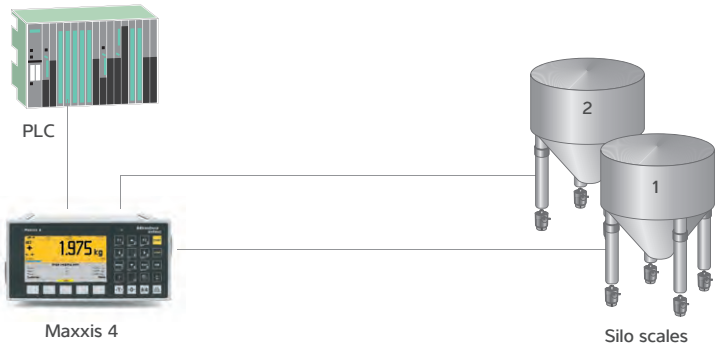
BASIC



Easy checkweighing



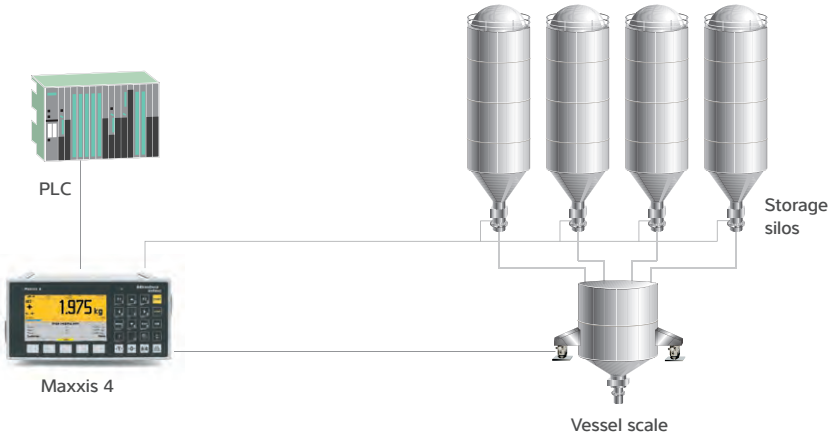
Weighing with PC interface



Easy vessel weighing

Standard application BASIC – functions	
Weighing	– Gross, net, tare – Printing, Alibi memory, dialogue
Checkweighing	– Easy +/0/- functions – Easy product databases – Check with preset tare/tare or gross mode
Terminal function	– Connection to superordinate systems (PLC, PC etc.) – Display of texts and dialogues – Operation of PC or PLC application via weight controller

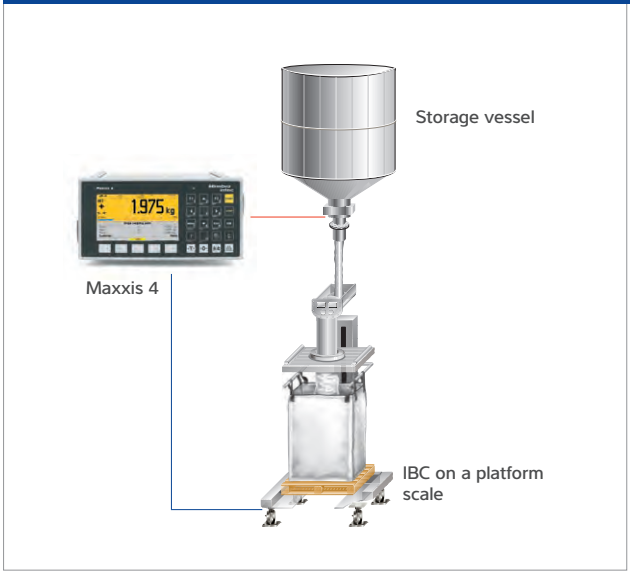
BATCH



Dosing with field bus

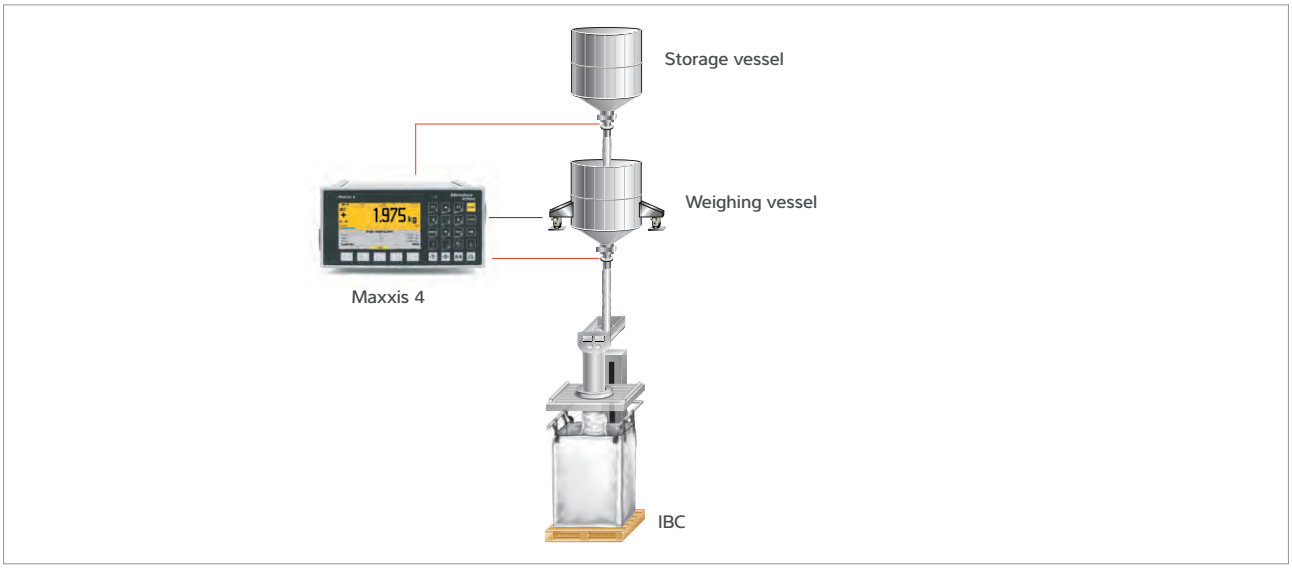
Standard application BATCH – functions	
Independent dosing device	– Formulation-based multi-component dosing control – Control max. 1 scale (analogue or digital) – Manual and/or automatic multi-component dosing according to setpoint setting – Integrated PLC for the control of analogue and digital inputs and outputs – Comprehensive reporting for seamless documentation of the dosing results and traceability – Remote control via field bus, OPC or Modbus TCP (incl. selection of formulation, setpoint setting, start, stop, etc.) – Configuration of the process flow with formulation components, formulations and orders – Different types of material for control of additional stages in the process such as stirring and heating using digital inputs and outputs – Adjustable dosing tolerance and overrun, and values for rough and fine signals – Incl. automatic readjustment of overrun and setpoint recalculation

IBC



One-component filling

One-component discharge dosing



One-component filling with storage vessel

Standard application IBC – functions	
Independent dosing device	– Control of one scale – Manual and/or automatic one dosing according to setpoint setting – Integrated PLC for the control of analogue and digital inputs and outputs – Comprehensive reporting for seamless documentation of the dosing results and traceability – Up to three parallel processes that can be defined for automatic sampling, for example – Configuration of the process flow with process components – Adjustable dosing tolerance and overrun, and values for rough and fine signals – Incl. automatic readjustment of overrun and setpoint recalculation

Ordering information

Weight controller Maxxis 4

Type	Description	Order number
Maxxis 4	Weight controller for switch cabinet assembly, incl. Ethernet TCP/IP, RS232, USB, SD card	9405 155 00000

Options for weight controller Maxxis 4

Type	Description	
W1	A/D converter for WP slot A	
L0	110/230 V_{AC} supply voltage	Standard
L8	24 V_{DC} supply voltage	
L14	Cable relief for connection cables	
L15	Mounting frame for safe installation of the Maxxis 4 in switching cabinets with a wall thickness smaller than 1.5 mm	

Interface card		Slot A/B
B14	Interface card serial 2× RS232	A
B24	Interface card serial 2× RS232	B
B15	Interface card serial 2× RS485 (incl. supply for IS platform) for Maxxis 4	A
B25	Interface card serial 2× RS485 (incl. supply for IS platform) for Maxxis 4	B
B16	Interface card analogue 1× input/1× output 0/4–20 mA for Maxxis 4	A
B26	Interface card analogue 1× input/1× output 0/4–20 mA for Maxxis 4	B
B17	Interface card digital 4× input (active)/4× output (relay) for Maxxis 4	A
B27	Interface card digital 4× input (active)/4× output (relay) for Maxxis 4	B
B18	Interface card digital 4× input (passive)/4× output (relay) for Maxxis 4	A
B28	Interface card digital 4× input (passive)/4× output (relay) for Maxxis 4	B
B19	Interface card digital 6× input (passive)/8× output (optodecoupled)	A
B29	Interface card digital 6× input (passive)/8× output (optodecoupled)	B
C21	Interface card Profibus DP for Maxxis 4	A
C24	Interface card DeviceNet for Maxxis 4	A
C26	Interface card Profinet for Maxxis 4	A
C27	Interface card Ethernet/IP for Maxxis 4	A

Applications		
H0	Basic application (verifiable)	Standard
I4	PHASE application (incl. OPC licence)	
I6	BATCHING application	
I11	IBC – one-component dosing (verifiable)	
I12	Abbe error adjustment licence (for software Basic)	
E5	Alibi memory licence (for BASIC, IBC, COUNT only)	
E6	OPC server licence (incl. AccessIt 2.0 licence)	
E9	Special licence for using the dosing modules in programming	

Options for weight controller Maxxis 4 – fixed configurations which cannot be modified by additional options

Type	Description	Order number
PR 5500/00	Weight controller Maxxis 4, A/D converter (W1), 110/230 V (L0), Basic application (H0), cable relief (L14), mounting frame (L15)	9405 155 00001
PR 5500/01	Weight controller Maxxis 4, A/D converter (W1), 24 V (L8), Basic application (H0), cable relief (L14), mounting frame (L15)	9405 155 00011
PR 5500/20	Weight controller Maxxis 4, A/D converter (W1), 110/230 V (L0), 6/8 digital I/O (B19), Batching application (I6), cable relief (L14), mounting frame (L15)	9405 155 00201
PR 5500/21	Weight controller Maxxis 4, A/D converter (W1), 24 V (L8), 6/8 digital I/O (B19), Batching application (I6), cable relief (L14), mounting frame (L15)	9405 155 00211
PR 5500/30	Weight controller Maxxis 4, A/D converter (W1), 110/230 V (L0), 6/8 digital I/O (B19), IBC application (I11), cable relief (L14), mounting frame (L15)	9405 155 00301
PR 5500/31	Weight controller Maxxis 4, A/D converter (W1), 24 V (L8), 6/8 digital I/O (B19), IBC application (I11), cable relief (L14), mounting frame (L15)	9405 155 00311
PR 5500/90	Weight controller Maxxis 4, A/D converter (W1), 110/230 V (L0), Phase application (I4), cable relief (L14), mounting frame (L15)	9405 155 00901
PR 5500/94	Weight controller Maxxis 4, A/D converter (W1), 24 V (L8), Phase application (I4), cable relief (L14), mounting frame (L15)	9405 155 00941

Accessories for weight controller Maxxis 4 – for subsequent installation

Type	Description	Order number
PR 5500/10	A/D converter	9405 355 00101
PR 5500/04	Interface card serial 2× RS485 (incl. supply for IS platform)	9405 355 00041
PR 5500/07	Interface card analogue 1× input/1× output 0/4–20 mA	9405 355 00071
PR 5500/12	Interface card digital 4× input (passive)/4× output (relay) for Maxxis 4	9405 355 00121
PR 5500/13	Interface card digital 4× input (active)/4× output (relay) for Maxxis 4	9405 355 00131
PR 5500/17	Interface card digital 6× input (passive)/8× output (optodecoupled)	9405 355 00171
PR 5500/32	Interface card serial 2× RS232	9405 355 00321
PR 1721/61	Interface card with Profibus DP	9405 317 21611
PR 1721/64	Interface card with Profibus DP	9405 317 21641
PR 1721/66	Interface card with Profibus DP	9405 317 21661
PR 1721/67	Interface card with Ethernet/IP	9405 317 21671
PR 1721/76	Interface card with dual-port ProfiNet (from serial number ≥30363xxxxx)	9405 317 21761
PR 1721/77	Interface card with dual-port Ethernet/IP (from serial number ≥30363xxxxx)	9405 317 21771
PR 5500/18	Cable relief for connection cables	9405 355 00181
PR 1620/04	Mounting frame for safe installation of the Maxxis 4 in switching cabinets with a wall thickness smaller than 1.5 mm	9405 316 20041
PR 1899/99	SARTOCOMB/MINECOMB calibration sticker set for PR5230, PR5410, PR5500, PR5900	9405 318 99991
PR 1620/10	Stainless steel housing for X3 and Maxxis 4 (incl. mounting bracket)	9405 316 20101

Accessories for weight controller Maxxis 4 – software application / licences

Type	Description	Order number
PR 5500/81	PHASE application (incl. OPC licence)	9405 355 00811
PR 5500/83	BATCHING application	9405 355 00831
PR 5500/86	IBC – one-component dosing	9405 355 00861
PR 5500/87	Abbe error adjustment licence (software Basic only)	9405 355 00871
PR 5500/91	Alibi memory licence (for BASIC, IBC, COUNT and TRUCK only)	9405 355 00911
PR 5500/92	OPC server licence (incl. AccessIt 2.0 licence)	9405 355 00921
PR 5500/93	Special licence for using the dosing modules in programming	9405 355 00931
PR 5500/18	Cable relief for connection cables	9405 355 00181
PR 1620/04	Mounting frame for safe installation of the Maxxis 4 in switching cabinets with a wall thickness smaller than 1.5 mm	9405 316 20041

The products and solutions presented in this data sheet make major contributions in the following sectors:

The technical data given serves as a product description only and should not be understood as guaranteed properties in the legal sense.

Specifications subject to change without notice.

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Minebea Intec GmbH
Meiendorfer Straße 205 A
22145 Hamburg, Germany

Phone +49.40.67960.303

sales.hh@minebea-intec.com
www.minebea-intec.com