

Weight indicator X3

With clearly readable display and integrated dosing function



! Advantages

- High precision, reliable and fast processing of weight values
- Reliable display of the weight values
- Convenient and efficient calibration of the scale in under a minute
- Global remote servicing with the Remote Service functionality
- Dosing function EasyFill® reduces programming time



The verifiable weight indicator X3 ensures fast and reliable display of the weight values. With the integrated EasyFill® application, filling with liquids, powders or granules can be controlled.

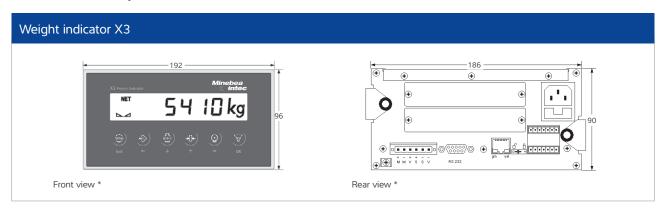
Ideal for weighing and dosing processes

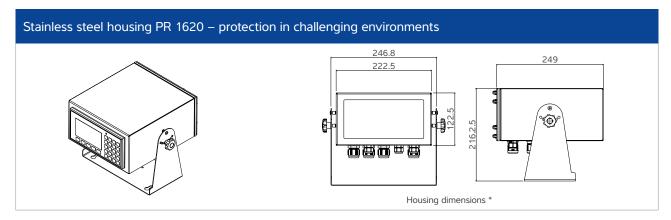
- ① Reliable and fast processing of weight values with up to 120,000 increments. The efficient weight indicator with large, transflective display offers excellent readability even in direct sunlight.
- (1) 'Smart Calibration' allows PC-based calibration without any weights. This efficiently reduces installation times to an absolute minimum.
- ① EasyFill® for one-component dosing of liquids, powders and granules reduces programming time in the PLC, enabling fast and flexible process changes.
- ① The global **Remote Service** avoids downtime in your production.

Flexible and diverse for individual configurations

The weight indicator X3 is fitted with three freely configurable digital inputs and outputs as standard. These can be used with an application-specific limit function and associated values to avoid over and under filling. The weight indicator also has option slots for interfaces and input/output cards. Various interfaces allow integration into existing networks. The serial interface RS 232 allows direct connection of a printer or an additional remote display for documentation and to print weight values.

Product description





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

Including EasyFill® application

EasyFill® is a basic software application for one-component dosing of fluids, powders and granules with user-specific configurable target value, tolerance and overshoot value. Processes can be directly controlled using the integrated digital inputs/outputs. Control for implementing simple dosing processes efficiently and easily is guaranteed thanks to numerous options/interfaces for integration into your production network.

Assignment via IP address

There are flexible solutions for IP address allocation: it is either set manually by the operator, defined as an auto IP directly by the weight indicator X3 or taken from the assigned DHCP server. If the IP address is not known when allocating automatically, the Minebea Intec Indicator Browser included with the product enables you to search for the right transmitters in the network.

Simple online operation

Using an integrated website, users have access to a wide range of weighing process functions using the weight indicator X3:

- Display the website integrated with the device using the IP address in your browser
- Display and change device configuration
- Calibration of a device using a range of methods
 - with load cell data ('smart calibration')
 - with weights
 - with mv/V
- View and print the overall configuration
- Display weight on the PC screen
- View and readout of Alibi memory and readout of fault memory
- Store/download a device configuration as PC file



Versatile interfaces

To guarantee integration into existing control systems:

- Standard: Ethernet TCP/IP interface with integrated Modbus TCP protocol
- Optional: Field bus interfaces Profibus DP, Profinet, DeviceNet or Ethernet/IP OPC server included – for connection to higher-level systems.

Calibration via PC in under a minute

The integrated functionality 'Smart Calibration' allows efficient calibration of the silo and hopper scale via PC. Weights are not required for this.

Weight indicator X3 – weight recording with display for silos and vessels

Technical data

Optionally available for use in ATEX Zone 2/22

Housing	Dimensions	192 × 96 × 150 mm	
		192 ^ 90 ^ 130 11111	
	Front panel cut-out	187 ^{+0.5} × 91 ^{+0.5} mm	
1	Material	Aluminium	
	Protection class	IP30	
F	Front panel	IP65	
		RoHS compliant	
Supply voltage	110 V/240 VAC, -15%/+10%, 50/60 Hz or: 24 VDC		
Power consumption	13 VA/11 W		
Display	LCD, transflective, back-lit		
E	Elements	6 digit (7 segments)	
1	Digit size	18 mm	
	Colour	black/white	
\	Weight and status symbols		
Key	6 double-function keys (short lift keys)		
Status display	-> 0 <- zero readout between		
=	± 1/4 d standstill		
E	Gross weight displayed		
N	NET Net weight displayed		
1	Tare weight displayed		
]	Dimensions can be set: g, kg, t, l	lb	
1	Decimal point can be set		
Control outputs	Quantity	3, optocoupler isolated, max. 30 VDC, max. 30 mA	
Control inputs	Quantity	3, optocoupler isolated, max. 30 VDC, max. 10 mA	
F	Functions	Zero setting, taring, EasyFill® application	
	All strain gauge load cells; 6 or 4 wire connection possible		
Load cell supply	12 V, short-circuit proof		
E	External load cell supply possible	e	

Weight indicator X3 te	chnical data continued		
Load impedance	Min. 75 Ω e.g. 6 load cells each with 600 Ω or 4 load cells each with 350 Ω		
Measuring principle	Measuring amplifier	Delta-Sigma converter	
	Measuring time	min. 5 ms – max. 1920 ms	
Accuracy	10,000 e, Class III in accordance according to OIML R 76,	e with EN 45501;	
	Smallest signal	0.5 μV/e	
Sensitivity (internal)	7.5 nV (appr. 4.8 million div.)		
	Usable resolution	0.2 μV/d	
Input signal	Measuring signal	0 to 36 mV (for 100% nominal load)	
Linearity	< 0.002%		
ATEX approval	Only weight indicator type PR 5	5410/03	
Zone 2/22	II 3G Ex nA II T4 X II 3D Ex tD A22 IP5x T80°C X As an indicator for installation by	y the customer, instructions supplied with the device	
Temperature effect	Zero point	$TK_0m < 0.05 \mu V/K RTI$	
	Measuring range	TK _{span} < +/- 2.5 ppm/K	
Digital filter for load cell connection	4th order (low pass), Bessel, aperiodic or Butterworth		
Alibi memory	Internal 50,000 inputs		
Ethernet interface	Ethernet TCP/IP and Modbus TCP		
	Assignment of an IP address:	AutoIPDHCP server assignmentfixed input of the IP address	
	Automatic detection of signal tra	ansmission with corresponding change-over (cross-over or patch cable)	
Ambient conditions	Verifiable	-10°C to +40°C	
temperature	Industrial	-10°C to +50°C	
	Storage	-20°C to +70°C	
Protection class	Front plate IP65, housing IP30		
Packaging dimensions	W 291 × H 331 × D 160 mm		
Weight	Net	1.45 kg	
	Delivery	2.3 kg	

Ordering information			
Туре	Description	Order number	
PR 5410/00	Weight indicator X3, 110–230 V	9405 154 10003	
PR 5410/01	Weight indicator X3, 24 V _{DC}	9405 154 10013	
PR 5410/03	Weight indicator X3, 24 V _{DC} , ATEX Zone 2/22	9405 154 10033	

Options	Description	Order number
PR 5510/02	Serial interface 2 × RS 232	9405 355 10023
PR 5510/04	Serial interface 1 × RS 232 and 1 × RS 485	9405 355 10043
PR 5510/05	Interface card CANOpen for Connexx module	9405 355 10051
PR 5510/07	Analogue 4 inputs/1 output	9405 355 10073
PR 5510/08	BCD open emitter	9405 355 10083
PR 5510/09	BCD open collector	9405 355 10093
PR 5510/12	Expansion 6 digital inputs and 12 digital outputs	9405 355 10123
PR 1721/31	Profibus DP	9405 317 21313
PR 1721/34	Device NET	9405 317 21343
PR 1721/35	CC-Link	9405 317 21353
PR 1721/36	Profinet	9405 317 21363
PR 1721/37	Ethernet/IP	9405 317 21373
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
PR 1620/04	Mounting frame for installation in switch cabinets with a wall thickness of less than 1.5 mm	9405 316 20041

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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