

# Weight transmitter PR 5220

Space-saving with dosing function EasyFill®



German Quality



## ⓘ Advantages

- High precision, reliable and fast processing of 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
- Space-saving installation on DIN top hat rails



The 'German Quality' weight transmitter PR 5220 processes weight values from silo and vessel scales quickly and reliably with analogue and digital load cells.

## Ideal for fast and high-precision weighing processes

- ⓘ **Reliable and fast processing** of weight values with up to 120,000 increments.
- ⓘ **'Smart Calibration'** enables PC-based calibration without weights. This efficiently reduces installation times to an absolute minimum.
- ⓘ The **Remote Service functionality** avoids downtime in your production
- ⓘ The simple software application, EasyFill®, for one-component dosing of fluids, powders and granules **reduces programming time** in the PLC and enables fast and flexible process changes.
- ⓘ **Space-saving, cost-effective installation** in the switch cabinet on DIN top hat rails.

## Fast, simple, space-saving installation and connectivity

Designed for space-saving installation in switch cabinets, the compact housing can be mounted directly onto DIN top hat rails and connected together. The space-saving device is easy to install and replace thanks to the plug-in COMBICOM screw terminals.

The weight transmitters of the PR 5220 series have three 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. Tailored interfaces guarantee optimal integration into leading control systems.

## Product description

### Structure



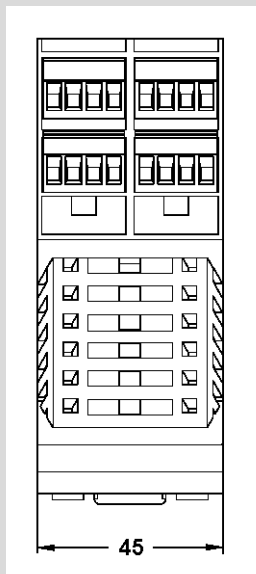
PR 5220/00  
Ethernet transmitter

PR 5220/01  
with Profibus DP

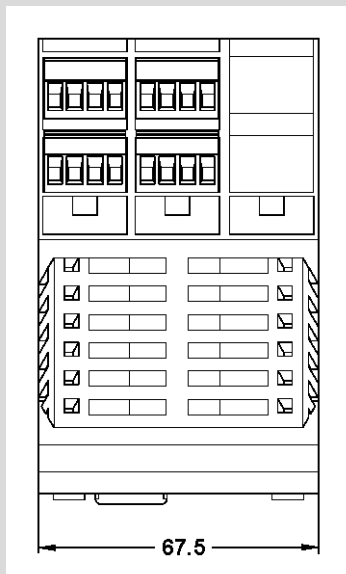
PR 5220/04  
with DeviceNet

PR 5220/06  
with Profinet

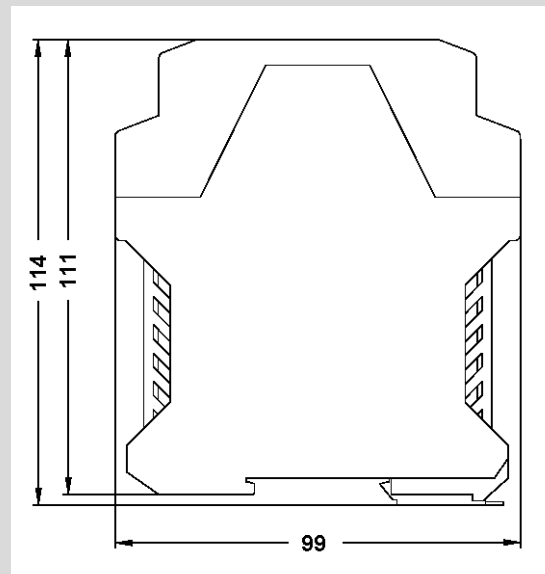
PR 5220/07  
with Ethernet/IP



45



67.5



99

Dimensions in mm

## Ordering information

Type	Description	Order number
PR 5220/00	Weight transmitter, 24 V <sub>DC</sub>	9405 152 20001
PR 5220/01	Weight transmitter with Profibus DP, 24 V <sub>DC</sub>	9405 152 20011
PR 5220/04	Weight transmitter with DeviceNet, 24 V <sub>DC</sub>	9405 152 20041
PR 5220/06	Weight transmitter with Profinet, 24 V <sub>DC</sub>	9405 152 20061
PR 5220/07	Weight transmitter with Ethernet/IP, 24 V <sub>DC</sub>	9405 152 20071

Scope of delivery: Weight transmitter, manual, PC tools and OPC server

### 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 transmitter PR 5220, 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 with the weight transmitter PR 5220:

- 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
- Readout of fault memory
- Store/download a device configuration as PC file



### All Minebea Intec devices at a glance

The 'Indicator Browser' enables all Minebea Intec transmitters, indicators and process controllers in your network to be displayed on your PC. The software tool is included with the product.

### Versatile interfaces

For simple integration into a variety of 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/client 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.

## Technical data

Weight transmitter PR 5220 – safe recording of precise weight values for silo and vessel scales	
Housing	Housing, pluggable COMBICOM screw terminals, IP30 in accordance with DIN 40050
	Installation on 35 mm top hat rails, in accordance with DIN 46277
	RoHS compliant
Dimensions	Version/00 99 × 116 × 45 mm
	Versions /01/04/06/07 99 × 116 × 68 mm
Power supply	24 V <sub>DC</sub> , +/-20%
Power consumption	6 W/8 W (versions /01/04/06/07)
Status display	Status LEDs for operational readiness, communication activity, etc.
Control outputs	Quantity 3, optocoupler isolated, passive, max. 30 V <sub>DC</sub> , max. 30 mA
	Functions Limits, status, weight, etc.
Control inputs	Quantity 3, optocoupler isolated, max. 30 VDC, max. 10 mA
	Functions Zero, tare, etc.
Inputs and outputs	Galvanically isolated from auxiliary power and sensor circuit
Load cell connection	All strain gauge load cells; 6 or 4 wire connection possible
Load cell supply	12 V, short-circuit proof, external load cell supply possible
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. 1160 ms
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%
Temperature effect	Zero point TK <sub>0m</sub> < 0.02 μV/K RTI
	Measuring range TK <sub>span</sub> < +/- 2 ppm/K
Digital filter for load cell connection	4th order (low pass), Bessel, aperiodic or Butterworth
Ethernet interface (Functions)	Ethernet TCP/IP and Modbus TCP
	Assignment of an IP address: <ul style="list-style-type: none"> <li>- AutoIP</li> <li>- DHCP server assignment</li> <li>- fixed input of the IP address</li> </ul>
	Automatic detection of signal transmission with corresponding change-over (cross-over or patch cable)
	Web service via SOAP UPnP (Simple Object Access Protocol)
	Synchronous Modbus UDP
Analogue output	0/4 ... 20 mA, Internal resolution 16 bit, Usable step width 0.5 μA Load impedance 500 Ω max. Function freely configurable
Serial interface	Screw terminals for up to 2.5 mm <sup>2</sup> , plug-in, Phoenix/COMBICON system
Ambient conditions temperature	Industrial -10°C to +50°C
	Storage -40°C to +70°C
Packaging dimensions	W 291 × H 331 × D 160 mm
Weight	Version/00 Net: 0.29 kg
	Versions /01/04/06/07 Net: 0.35 kg
Certificates	CE, UL

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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