PR5220 TCP/IP Ethernet Transmitter

The PR5220 Ethernet transmitter sets new standards in process instrumentation.
The standard Ethernet TCP/IP interface enables easy transmission of information to superordinate systems.

Load Cell Certifications

OIML

Standard Features

- Configuring via VNC
- OPC server
- Full digital signal processing with up to 4.8 Mio divisions internal resolution
- SmartCalibration feature for fast calibration even without weights
- Requires supply voltage of 24 VDC
- IP20 housing, DIN rail mount
- Verifiable with remote display up to 10,000 e, CL III (EN 45501, OIML R76)
- Precision analog output
- Serial RS-485/422 interface
- CD supplied with software suite
- 10,000 divisions at six samples per second

Specifications

Power Consumption:
6 W/8 W (Versions /01, /04, /06, /07)

Supply Voltage:
24 VDC, ±20 %

Analogue Output:
0 to 10 or 4 or 20 mA, internal resolution 16-bit, usable step-width: 0.5 µA max. load 500 O; user configurable

Serial Interfaces:
RS-422/485 via screw terminals
Protocol: Remote display, SMA and Minebea digital scales (XBPI–protocol)

Electrical Connections:
All electrical connections via modular screw terminals for 2.5 mm
2 max. System Phoenix/COMBICO

Input Range:
7.5 mV (appr. 4.8 Mio. div.)

Part Number/Price

Part #	Type	Minebea Part #	Description	Price
158856	PR5220/00	940515220003	PR5220 Ethernet TCP/IP Transmitter, 4 to 20 mA	Consult
158857	PR5220/01	940515220013	PR5220 Ethernet TCP/IP Transmitter, 4 to 20 mA with PROFIBUS DP	Consult
158858	PR5220/04	940515220043	PR5220 Ethernet TCP/IP Transmitter, 4 to 20 mA with DeviceNet	Consult
158859	PR5220/06	940515220063	PR5220 Ethernet TCP/IP Transmitter, 4 to 20 mA with PROFINET	Consult
158891	PR5220/07	940515220073	PR5220 Ethernet TCP/IP Transmitter, 4 to 20 mA with EtherNet/IP	Consult

Specifications (cont.)

Usable resolution:
0.2 µV/d

Input Signal:
Measuring signal: 0 to 36 mV
(for 100 % nominal load)

Control Outputs:
Quantity: 3 opto-isolated output, passive
Voltage: max. 30 VDC
Current: max. 30 mA
Functions: Limits, weight status

Control Inputs:
Quantity: 3, opto-isolated input, passive
Functions: zero setting, taring
Voltage: max. 30 VDC
Current: max. 10 mA

Ethernet Interface (functions):
Ethernet IP and Modbus/TCP
Definition of an IP address: – AutoIP; – DHCP Server classification; – manual entering of an IP address
Automatic detection of signal transmission and corresponding change over (cross-over or patch cable) Webservice via SOAP|UPnP (Simple Object Access Protocol) Synchronal Modbus UDP

In/Output:
All I/O circuits fully galvanically isolated from sensor input and supply

Load Cell Connection:
All strain gauge load cells;
four- or six-wire connection

Load Cell Supply:
12 V, short-circuit proof. External load cell supply possible

Digital Filter for Load Cell:
4th order (low pass), Bessel, aperiodic or Butterworth

Minimum Load Impedance:
Min. 75 ohm e.g. 6 load cells with 600 ohm or 4 load cells with 350 ohm

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

Linearity:
< 0.002 %

Status Indicator:
Status LEDs to signal operation and error conditions.

Temperature Effects:
Zero: TK0 m < 0.02 µV/K RTI
Span: TKspan < ± 2 ppm/K

Dimensions:
(L × W × H)
Version 00: 3.9 × 4.6 × 1.77 in
(99 × 116 × 45 mm)
Versions 01, 04, 06, 07: 3.9 × 4.6 × 2.68 i n
(99 × 116 × 68 mm)

Housing:
Housing IP20 according to DIN 40050
Mounting on DIN Rail 35 mm according to DIN 46277
Material: polyamide RoHS conform

Temperature:
WandM: 14 °F to 104 °F (–10 °C to 40 °C)
Operation: 14 °F to 122 °F (–10 °C to 50 °C)
Storage: -40 °F to 158 °F (–40 °C to 70 °C)

Weight:
Version 00:
Net: 0.29 kg
Versions 01, 04, 06, 07
Net: 0.35 kg

Approvals:
OIML R76 min. verification interval: 0.5 µV/e
10,000 e class III acc. to EN 45501