Transmitter AST 3P

- **Analogue output ± 10 VDC, 0–20 or 4–20 mA**
- **Serial communications: RS-485, MODBUS RTU protocol**
- **Internal resolution >8 000 000 counts**
- **Relay outputs**
- **Compact DIN rail mounting**
- **CE compliant – EMC and Low Voltage**

The unit AST 3P is a DIN rail mounted, high performance transmitter designed for applications with strain gauge transducers. It converts the output from connected loadcells into a very stable signal suitable for PC or PLC based control systems.

AST 3P is typically used where a local display is essential either for displaying data or for front panel set-up. The set-up and calibration procedure is easily performed either from the front panel or by using the deltaCOM programme via a standard PC running under Windows 95/98/2000/NT4. All set-up data can be stored in the host computer and downloaded in case of replacement of the transmitter. This requires deltaCOM full version (option).

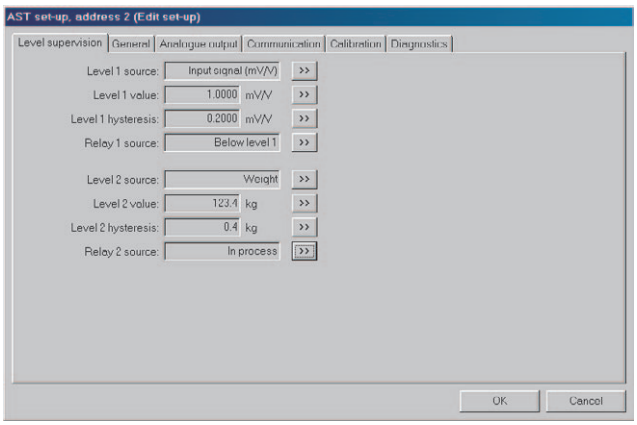
The transmitter is fitted with two relay outputs having a response time of less than 20 msec. for use in high precision level control applications.

The transmitter has at its heart a unique Nobel patented completely digital A/D converter. This advanced technology provides both analogue and serial outputs which can be conditioned to give the user accurate, stable and rapid response measurement information.

The AST 3P is compatible with other instruments in the Vishay Nobel programme and can communicate via standard RS-485/MODBUS RTU protocol with a common process control host – PC/PLC.

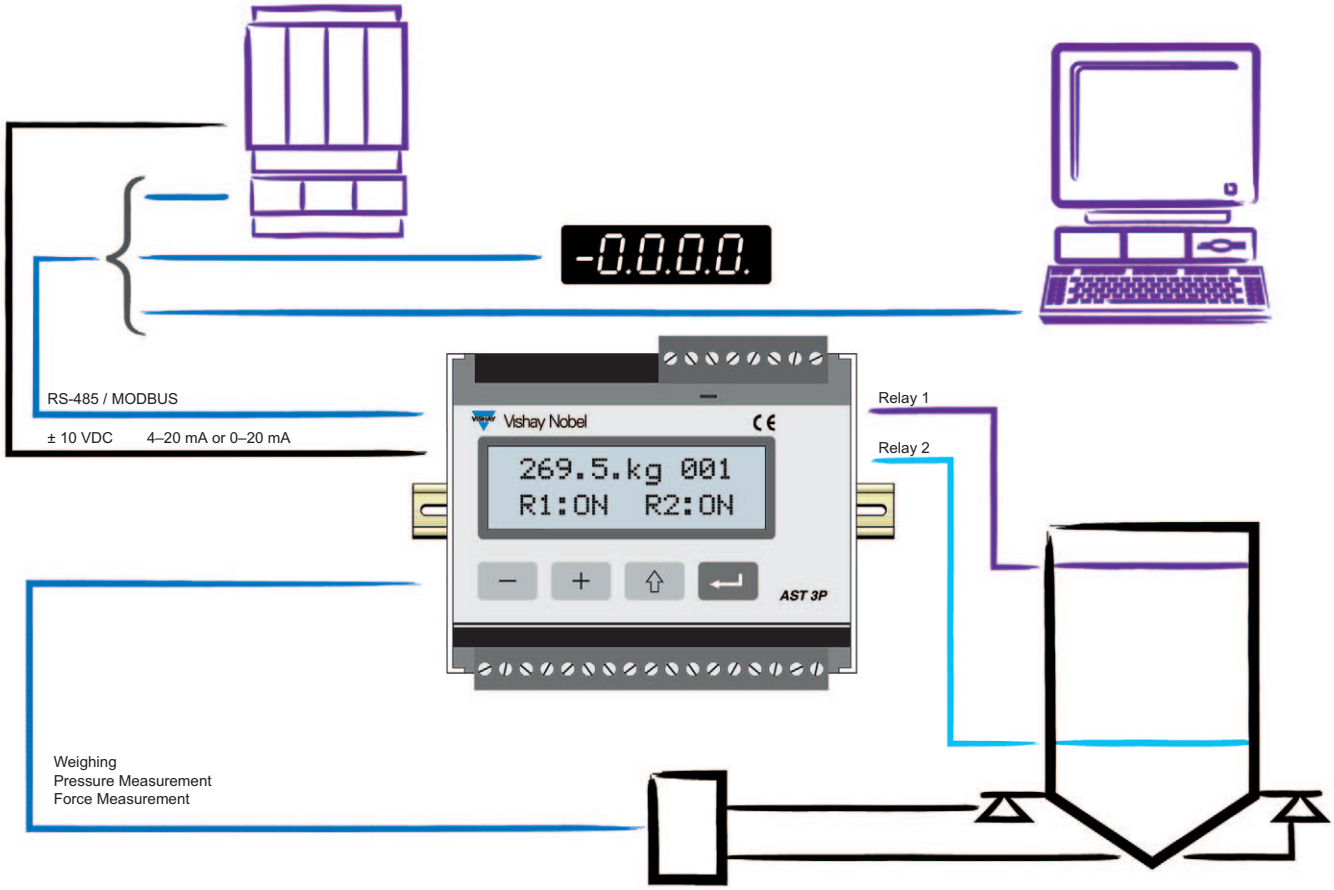
Fieldbus communication is possible via the GATE 3 module from Vishay Nobel.

The transmitter is CE marked, and fully compliant with the EMC and Low Voltage directives.



Set up example

Possibilities



Technical data

Transducer input

Transducers	Up to 8 transducers each 350 ohm. Total load >45 ohms.
Signal input	±3.3 mV/V
A/D-conversion	23 bits (8 300 000 counts) Patented design.

Analogue output

Bipolar current or voltage

Voltage	0–10 or ±10 VDC over >500 ohms
Current	0–20 mA, ±20 mA, 4–20 mA, –12–20 mA in <500 ohms
Filter	0.05 to 75 Hz, selectable bandwidth
Resolution	16 bits (65000 counts)
Non-Linearity	<0.01 % of range
Zero drift	<0.005 % of range/°C
Gain drift	<0.003 % of actual value/°C

Serial output

Can be used for control communication (MODBUS) or external display

Interface	RS-485, two-wires or four-wires
Baud rate	Up to 115.2 kbaud
Protocol	MODBUS RTU for control unit communication.
Filter	0.05 to 75 Hz, selectable bandwidth
Non-Linearity	<0.005% of range
Zero drift	<0.0002% of 3,3 mV/V/°C
Gain drift	<0.0015% of actual value/°C

Front panel

Display	2 x 16 character LCD display
Keys	4 keys for menu control and data entry

Relay output

Number of relays	2 (each with 1 switching group)
Relay load	Max 1 A, 30 V AC or DC

Calibration

Methods	Data sheet, Table or Dead weight

Power supply

Supply voltage	24 VDC ± 20 %. 7 W

Environmental

Temperature range	–10 to +50°C
CE conformity	EMC, industrial for process control

Mechanical data

Dimension	75 x 100 x 110 mm (H x W x D)
Rail mount	DIN 46277 and DIN EN 50022

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