Transmitter

FEATURES

- Analog output ±10 VDC, 0-20 VDC or 4-20 mA
- Serial communications: RS-485, MODBUS RTU protocol
- 24-bit internal resolution
- Relay outputs
- Digital inputs
- Compact DIN rail mounting
- CE compliant

CE

DESCRIPTION

AST 5P 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 5P 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. All set-up data can be stored in the host computer and downloaded in case of replacement of the transmitter with PC software deltaCOM.

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

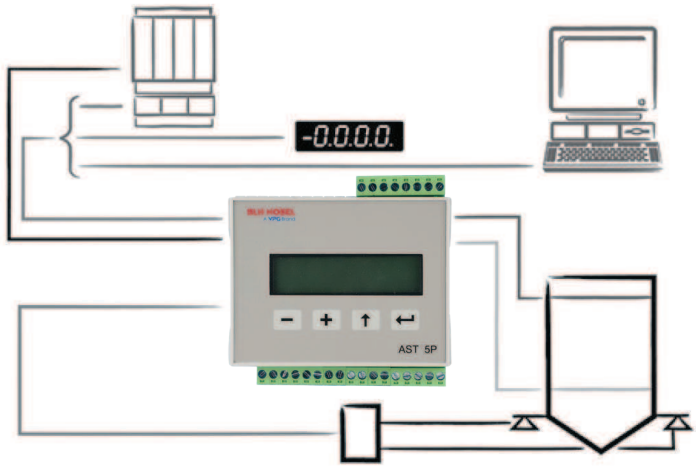
A high accuracy A/D converter, of high resolution and stability, serves as the heart of the transmitter.

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 5P is compatible with other instruments in the BLH Nobel program and can communicate via standard RS-485/MODBUS RTU protocol with a common process control host – PC/PLC.

The transmitter is CE marked, fully compliant with all requirements.

CONFIGURATION

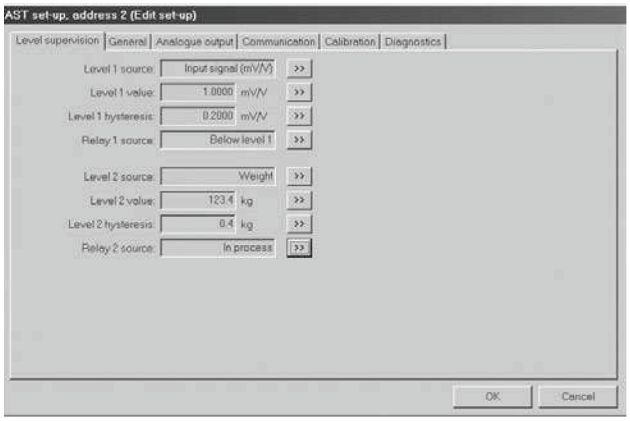


SPECIFICATIONS

PARAMETER	VALUE
PERFORMANCE	
Resolution	24 bits
Full Scale Range	±3.3 mV/V
Non-Linearity	<0.005% of used range
Excitation Voltage	±5.1V
No. of 350 Ω load cells	8 pcs (total load >45 Ω)
Filter	0.05 to 100 Hz,
Offset, drift	<0.0002 % of 3.3mV/V/°C
Gain drift	<0.0015% of full scale
Calibration Methods	Data sheet, table, dead weight
ENVIRONMENTAL	
Operating Temperature	–10 to +50°C
Storage Temperature	–25 to +80°C
Relative Humidity	95%
IP Level	IP20
FRONT PANEL	
Display Type and Size	2 × 6 character LCD display with backlight
Keyboard	4 buttons for menu control and data entry
POWER SUPPLY	
Voltage	24 VDC ±20%
Power Consumption	6 W
Isolation	Digital inputs common with power supply. Other parts –500 V
ANALOG OUTPUT	
Type	16-Bit Current/Voltage Output DAC
Non-Linearity	<0.01% of full scale
Gain Drift	<0.003% of full scale/°C
Filter	0.05 to 100 Hz, type FIR, selectable bandwidth
Voltage	0–10 or ±10 VDC
Load Data	min. 1kΩ
Offset Drift	<0.003% of actual value/°C
Current	0 to 20 mA, ±20 mA, 4 to 20 mA or –12 to 20 mA
Load Data	max. 500 Ω
Offset Drift	<0.7 µA/°C

PARAMETER	VALUE
DIGITAL INPUTS	
Inputs	2 pcs
Type and Load	24 VDC, 6 mA
RELAY OUTPUTS	
Number	2 pcs (each with 1 switching group)
Load	max. 1 A, 30 VAC or VDC
COMMUNICATION INTERFACE	
Interface	RS-485 (two-wires or four-wires), isolated 500 V
Protocol	MODBUS RTU or ASCII
Baud Rate	Up to 115.2 kbaud
Function	For control communication (MODBUS RTU) or external display (ASCII)
MECHANICAL DATA	
Dimensions	75 × 100 × 110 mm (H × W × D)
Standard Mounting	DIN 46277 and DIN EN 50022
Connector Type	Plug-in screw terminals

Subject to change without notice.



Setup Example

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