

## Transmitter

### FEATURES

- Analog output  $\pm 10$  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

### 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 outputs 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.

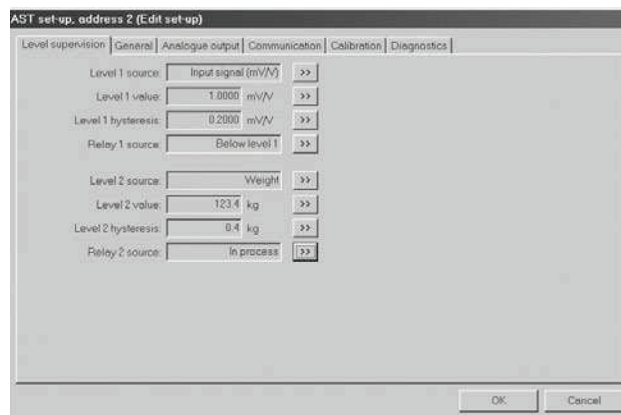
The transmitter is CE marked, fully compliant with all requirements.

### CONFIGURATION



SPECIFICATIONS		PARAMETER	VALUE	PARAMETER	VALUE
<b>PERFORMANCE</b>		<b>Resolution</b>	24 bits	<b>DIGITAL INPUTS</b>	
<b>Full Scale Range</b>	$\pm 3.3$ mV/V	<b>Inputs</b>	2 pcs	<b>Type and Load</b>	24 VDC, 6 mA
<b>Non-Linearity</b>	<0.005% of used range	<b>RELAY OUTPUTS</b>			
<b>Excitation Voltage</b>	$\pm 5.1$ V	<b>Number</b>	2 pcs (each with 1 switching group)	<b>Load</b>	max. 1 A, 30 VAC or VDC
<b>No. of 350 <math>\Omega</math> load cells</b>	8 pcs (total load >45 $\Omega$ )	<b>COMMUNICATION INTERFACE</b>			
<b>Filter</b>	0.05 to 100 Hz,	<b>Interface</b>	RS-485 (two-wires or four-wires), isolated 500 V		
<b>Offset, drift</b>	<0.0002 % of 3.3mV/V/°C	<b>Protocol</b>	MODBUS RTU or ASCII		
<b>Gain drift</b>	<0.0015% of full scale	<b>Baud Rate</b>	Up to 115.2 kbaud		
<b>Calibration Methods</b>	Data sheet, table, dead weight	<b>Function</b>	For control communication (MODBUS RTU) or external display (ASCII)		
<b>ENVIRONMENTAL</b>		<b>MECHANICAL DATA</b>			
<b>Operating Temperature</b>	-10 to +50°C	<b>Dimensions</b>	75 × 100 × 110 mm (H × W × D)		
<b>Storage Temperature</b>	-25 to +80°C	<b>Standard Mounting</b>	DIN 46277 and DIN EN 50022		
<b>Relative Humidity</b>	95%	<b>Connector Type</b>	Plug-in screw terminals		
<b>IP Level</b>	IP20				
<b>FRONT PANEL</b>					
<b>Display Type and Size</b>	2 × 6 character LCD display with backlight				
<b>Keyboard</b>	4 buttons for menu control and data entry				
<b>POWER SUPPLY</b>					
<b>Voltage</b>	24 VDC $\pm 20\%$				
<b>Power Consumption</b>	6 W				
<b>Isolation</b>	Digital inputs common with power supply. Other parts -500 V				
<b>ANALOG OUTPUT</b>					
<b>Type</b>	16-Bit Current/Voltage Output DAC				
<b>Non-Linearity</b>	<0.01% of full scale				
<b>Gain Drift</b>	<0.003% of full scale/°C				
<b>Filter</b>	0.05 to 100 Hz, type FIR, selectable bandwidth				
<b>Voltage</b>	0-10 or $\pm 10$ VDC				
<b>Load Data</b>	min. 1k $\Omega$				
<b>Offset Drift</b>	<0.003% of actual value/°C				
<b>Current</b>	0 to 20 mA, $\pm 20$ mA, 4 to 20 mA or -12 to 20 mA				
<b>Load Data</b>	max. 500 $\Omega$				
<b>Offset Drift</b>	<0.7 $\mu$ A/°C				

Subject to change without notice.



Setup Example

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