Weigh Indicator / Controller

FEATURES

- High speed process control, 300 samples per second
- Batch, blend, and mix systems
- Up to 30 recipes with 24 activities each
- Excellent connectivity and operator interface
- Flow measurement capability
- Easy setup via front panel keypad or remote PC

APPLICATIONS

- Batch/blend/mix systems
- Multiple recipe controller
- Quality-critical process weighing
- Custom weighing applications

DESCRIPTION

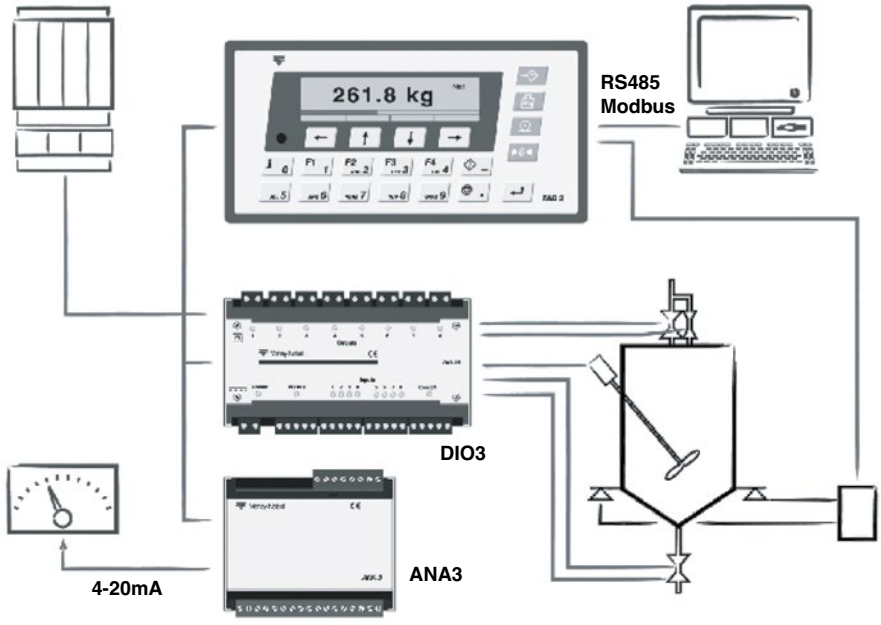
The TAD 3 Weight Processor monitors and controls strain gage load-cell-based weighing systems. It has an A-D resolution of nearly 14 million counts and easily interfaces with other PC and PLC controllers via two communication ports. It can also be used with an external alphanumeric or graphical display, in addition to its integral backlit graphic liquid crystal display. High accuracy and very fast transmission rates make the TAD 3 ideal for advanced process control applications.

The TAD 3 recipe batching version allows storage of up to 30 recipes with up to 24 activities per recipe. Batching is carried out over separate, digital I/O units.

The batching version of the TAD 3 makes it possible to perform batching of up to six components in coarse and fine feeding phases. Other process functions like stirring, heating, dumping, etc. also can be controlled with the batching version.

A menu program leads the operator through all phases of the process. He can enter alphanumeric information in his own language on the graphic display. Another way to perform setup and calibration is to use the deltaCOM program on a PC (please see separate data sheet).

OUTLINE DIMENSIONS



BLH NOBEL
A VPG Brand

Weigh Indicator / Controller

SPECIFICATIONS

PARAMETER	VALUE
PERFORMANCE	
Resolution	13 800 000 counts
Conversion speed	0.5 to 300 Hz, ratiometrically integrating converter
Update rate	0.5 to 60 Hz
Display divisions	100 000, legal 10 000
Minimum division	0.3 µV, legal 0.5 µV
Accuracy	0.002% of full scale
Full scale range	±3.3 mV/V
Non-linearity	<0.002% of used range
Excitation voltage	9.7 VDC to 5.5 VDC with 1 to 8 of 350 Ω transducers
Number of 350 Ω l.c.	8 pcs (Total load >45 Ω)
Filter	0.04 to 20 seconds digital average. Adaptive filter.
Offset drift	<±0.01 µV/°C
Gain drift	<±0.00015% of actual value/°C
Calibration methods	Data sheet, table, dead weight, shunt
ENVIRONMENTAL	
Operating temperature	–10°C to +50°C
Storage temperature	–25°C to +85°C
Relative humidity	95%
IP level	IP 65 at the front end by panel mounting
FRONT PANEL	
Display type and size	Graphic LCD with backlight, 248×60 pixels (94×20 mm)
Keyboard	Total of 21 buttons. Digit and character entry, -sign, decimal point, ENTER, 4 function buttons, tare, gross/net, print, zero
POWER SUPPLY	
Voltage	24 VDC ±20%
Power consumption	8 W
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

PARAMETER	VALUE
COMMUNICATION INTERFACE, COM 1	
Interface	RS-485/RS422 (two-wires or four-wires) or RS-232
Protocol	MODBUS RTU or ASCII
Baud rate	Up to 115.2 kbaud
Function	For control communication (MODBUS RTU), external display/printer (ASCII) or fieldbus communication (via GATE 3S).
COMMUNICATION INTERFACE, COM 2	
Interface	RS-485/RS422 (two-wires or four-wires)
Protocol	MODBUS RTU or ASCII
Baud rate	Up to 460.8 kbaud
Function	For control communication (MODBUS RTU), optional I/O units, external display/printer (ASCII) or fieldbus communication (via GATE 3S).
MECHANICAL DATA	
Dimensions	100×200×123 mm (H×W×D) Depth behind panel 135 mm (add 50 mm if D-sub connector is used for RS-232)
Standard mounting	Panel mounting (max. 10 mm thick panel). Cut-out 92×186 mm, r <5 mm.
Connector type	Plug-in screw terminals, D-sub (RS-232)
Certifications	CE, Welmec TC to OIML 10000e
HARDWARE OPTIONS	
Separate units, connected to a serial communication port of TAD 3.	
Analog Output unit ANA 3 Two units can be connected to serial communication port COM 2 of TAD 3. See separate data sheet.	
Digital I/O unit DIO 3 R Two units (up to four in special applications) with each 8 in-/outputs, can be connected to serial communication port COM 2 of TAD 3. See separate data sheet.	
Gateway GATE 3 / GATE 3S For fieldbus communication. One unit can be connected to one of the serial communication ports of TAD 3. See separate data sheet.	

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