

Pioneering Measured Solutions

# indicator GR400

The GR400 series of indicators are designed with both the installer and operator in mind and cover a wide range of applications.



#### **FEATURES**

- 100,000 d @ 0.25 µV/d.
- Built in RS232/RS485 communication modules.
- IP65 ABS or stainless steel housing.
- Designed to take 16x320 ohm load cells.
- Ethernet and Profibus DP support.
- Robust precise analogue output module.
- 250 Product storage.
- · Counting with piece weight entry.
- Custom unit switching.
- Set pointing configured on a product basis.
- Reporting.
- Custom printing.

#### **APPLICATIONS**

 Weigh bridges, general trade weighing, multiple indicator weighing systems and process control.



GR423 (Stainless steel housing):

GR420 (ABS housing):



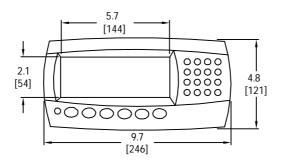
Group Four Transducers 22 Deer Park Drive, E. Longmeadow, MA 01028 www.groupfourtransducers.com

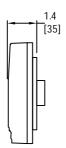
Phone : **(800) 419 1444** Fax : (413) 525 -6182 sales@group-4.com



#### **OUTLINE DIMENSIONS**

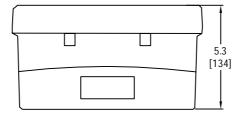
ABS Panel Mount :

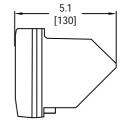




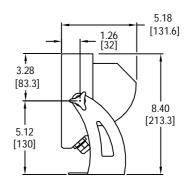
ABS with Rear Boot :

Stainless Steel Panel Mount:





0.2 [4] 5.5 [140.2] 5.5 [140.2] 5.5 [140.2] 5.5 [141.2]





2.0 [51]



12.73 [323.3] 10.52 [267.1] 8.40 [213.3]

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#### **SPECIFICATIONS**

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Resolution		Up to 100,000d minimum of 0.25uV/d						
Approvals		10,000d@0.7uV/d NMI(S-463), OIML R76						
		III/III L-NTEP 08-720 MID 2004/22/EC-WELMEC 2.1 & 7.2 FCC,						
		CE, C-tick						
Zero Cancellation		±2.0 mV/V						
Span Adjustment		0.1mV/V -3.0mV/V						
Excitation		7.4V for up to 16 x 350 or 32 x 700 ohm load cells (4-wire or 6-wire plus shield) Maximum total load cell resistance: 1,000 ohms						
А/D Туре		24bit Sigma Delta with ±8,388,608 internal counts						
Operating Environment		Temperature: -10 to +50°C ambient (14 °F to 122 °F) Humidity: <90% non-condensing						
Display		LCD with 4 alpha-numeric displays and LED backlighting: Primary display: 6 x 28.4mm (1.12") high digits with units and annunciators 2nd display: 9 x 17.6 mm (0.7") digits with units 3rd display: 8 x 6.1 mm (0.2") digits 4th display: 4 x 7.6 mm (0.3") digits						
Setup and Calibration		Full digital with visual prompting in plain messages						
Digital Filter		Sliding window average from 0.1 to 30.0 seconds						
Zero Range		Adjustable from +/- 2% to +/- 20% of full capacity						
Standard Power Input		12 to 24VDC (15 VA max) - ON/OFF key with memory feature						
	AC	AC power supply Input: 110/240VAC 50/60Hz Output: 12VDC 15VA						
Variants	Patton	2.5AH NiMH rechargeable battery pack						
	Battery	Charger Input: 110/240VAC 50/60Hz Output: 12VDC						
Optical Data Communications		Magnetically coupled infra-red communications Conversion cables available for RS232 or USB						
Correction		10 point linearity correction						
Serial Outputs		Serial 1A: RS-232 serial port for remote display, network or printer supports. Serial 1B: RS485 transmit only for remote display Transmission rate: 2400, 4800, 9600 or 19200 baud						
Assignable Function Keys					3			
Operating Modes				Single Range, Dual	Range and Dual Inte	erval		
Battery Backed Clock Calend	ar			Battery life 1	0 years minimum			
Application Software		K401	K402	K404	K410	K411	K412	
Functions			printing, m unit	Single pass weighing Two pass weighing Dedicated truck key Custom printing Temporary Truck IDs Preset Tare Specialised truck dockets	1 Material	6 Material	20 Material	
		swite cour manual h he auto e	m unit ching, nting, nold, peak old, output lising		Up to 10 Batching Stages 3 Speed Fill Fill, Dump & Pulse stages Inflight & jogging correction, Negative batching Batch suspend Timer (RTC) based multiple batching			
Products/Recipes		1	250	250 Trucks		100 Recipes		
Analogue Output * (M4401)			1	-		1	-	
Set points		8						
Additional Communications *		Module: RS232/RS232 Module: RS232/RS485 Module: RS485/RS485						
Button Input *					Buttons			
Data Storage Device * (M450)	1)				1			
Profibus-DP		Used with Group Four 1400 Profibus-DP Module						
Ethernet * (M4221)					1			
Housing Options			GR420 GR423					
Case Materials		ABS			Stainless Steel			
Packing Weights					Indicator: 1.2kg (42 oz)			
Environmental IP Rating		Indicator: 1kg (35 oz)						
(panel mounted or with rear b	noot)		IP65			IP66		

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### **APPLICATIONS**

#### Tank weighing

Tank weighing from a single tank to a tank farm can be handled with

GR400.

The GR400 indicators provide the most flexibility and control as they can be configured with multiple IO and communication options - including Profibus and Ethernet.

An GR400 indicator is suitable as a standalone controller or as a networked unit.

#### Filling and negative batching

#### **Batching specifications**

100 Recipes (Products) 3 fixed batching stages- Fill, Dump and Finish 1 Material 3 Speed Fill Fill correction using jogging or in-flight Dump to time or weight Negative batching Batch suspend Timer (RTC) based multiple batching

#### **Negative batching**

- · Negative batching is supported by setting the fill direction which defines if the weight is increasing or decreasing while batching
- · Ideal for discharge and dosing applications.

#### Batch suspend

- A suspend function key can be set that will pause the batch and adjust the tare weight when resuming the batch.
- Ideal for when a material feeding the batch needs to be topped up during the batch without affecting the batched amount. Or when feeding from multiple bulker bags etc.

#### Time of day batching

- · Timer based multiple batching
- The Real Time Clock is used to control the batch timing for time based batching.
- · Ideal for bio-fuel applications or where exothermic reactions occur.

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#### Applications -

- Dosing, bag and silo filling
- Filling applications using negative batching, for example discharge from a silo into a truck.

Measured

Input/Output Modules - the inputs are isolated to resist against system noise. The outputs are rate to 400mA drive current at 12-24VDC - capable of driving low voltage actuators directly or can be connected directly with PLC controllers. Optional external relay PCB can switch 250VAC to 8A, an ideal component for standalone batching.

Operator friendly – the large two line display uses logical prompts and there are dedicated and programmable function keys. Printing can be tailored with custom record, docket or reports printouts.

Solutions

Dimensions and specifications subject to change without notice



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