Delivering high performance in industrial environments

- Accurate weighing with precise batching control
- Cost saving and minimum material wastage
- Improved productivity, product uniformity and repeatability
- User friendly interface, real time monitoring and report generation
INTRODUCTION TO PROCESS WEIGHING

- Tank / Vessel / Reactor / Hopper / Blender weighing. Capacities from 50 kg to 200 tons
- Horizontal and vertical tanks
- Gain-in-weight or loss-in-weight measurement
- Batching and flow metering
- Suitable for safe or hazardous area installations
- Wide range of electronic indicators to meet process control requirements
- Range of load cells and mounting assemblies for variety of tank profiles

REAL TIME MONITORING

WEIGHT INDICATORS / CONTROLLERS

**1020**

Multipurpose high speed digital weight indicator / controller

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>2.8” colour TFT</td>
</tr>
<tr>
<td>Housing</td>
<td>Panel / DIN rail</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 Vdc</td>
</tr>
<tr>
<td>COM Ports</td>
<td>USB, Ethernet (Modbus TCP/IP)</td>
</tr>
<tr>
<td>I/O section</td>
<td>3 In / 4 Out</td>
</tr>
<tr>
<td>Optional</td>
<td>Analog output, PROFIBUS, RS 232/485, CAN bus</td>
</tr>
</tbody>
</table>

- Unique G-Cal technology for calibration

**Flex 2100**

Multipurpose high speed digital weight indicator / controller

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>5.7” colour TFT touch screen</td>
</tr>
<tr>
<td>Housing</td>
<td>Panel / Flameproof</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 Vdc</td>
</tr>
<tr>
<td>COM Ports</td>
<td>RS 232 / 422 / 485 and Ethernet (Modbus RTU / ASCII / TCP/IP), CAN bus, USB</td>
</tr>
<tr>
<td>I/O section</td>
<td>8 In / 8 Out. Expandable up to 400 I/Os</td>
</tr>
<tr>
<td>Optional</td>
<td>Analog output, analog input, PROFIBUS DP</td>
</tr>
</tbody>
</table>

- Unique G-Cal technology for calibration
- Note: Flex 4 channel for up to 4 weighing systems is also available
WEIGHT INDICATORS / CONTROLLERS

SGM 700
High speed digital weight transmitter
Display : Red LED, h = 7.6 mm Housing : DIN rail
Power supply : 18 - 32 Vdc Functions : Weight transmitter.
COM Ports : USB, RS 485
I/O section : 3 In / 4 Out. Expandable upto 400 I/Os
Optional : Analog output, PROFIBUS DP, RS 232/422, Ethernet (Modbus RTU / ASCII / TCP/IP), CAN bus

I015
Multipurpose high speed digital weight indicator / transmitter
Display : Red LED, h = 20 mm Housing : Panel / Desk / Wall mounting
Power supply : 24 Vdc Functions : Zero, Tare, Print, Totalization, and Piece Counting.
COM Ports : RS 232 (Modbus RTU)
Optional : Analog output, isolated RS 422, Ethernet
Enclosure : Weatherproof / Flameproof

I900
Multipurpose high speed digital weight indicator / transmitter / controller
Display : Red LED, h = 12.5 mm Housing : Panel / Desk / Wall mounting
Power supply : 110 - 240 Vac Functions : Zero, Tare, Print, Totalization, Piece Counting, Setpoint for filling, and Checkweighing or high / low.
COM Ports : RS 232 / 422 / 485 (Modbus RTU / ASCII)
I/O section : 3 inputs / 3 relay output
Optional : Analog output, Ethernet (Modbus TCP/IP)
Enclosure : Weatherproof / Flameproof

DFW ATEX
Weight indicator in ATEX versions for Zone 1, 21 and Zone 2, 22 hazardous zones, ideal for creating weighing systems, batching and automations. Available in single-product or multi-product dosage software version.
Display : 25 mm. LCD display Housing : Desk mounted
Power supply : 24 Vdc / 110 Vac / 240 Vac Functions : Zero, Tare, Print, Totalization, Piece Counting, Peak setpoint and Hold (for suspended loads).
I/O section : 4 Barriered in / out (Zone 1, 21)
Optional : Zone 1 and 21 : Fibre optic bidirectional port, RS 485, digital output / logic Input (4 Nos)
Zone 2 and 22 : RS 485, analog output, Ethernet, digital output / input (2 Nos)

2200
Multipurpose high speed digital weight indicator / controller
Display : Red LED, h = 12.5 mm for weight, backlite LCD for LIW, GIW, flow rate and message Housing : Panel / Desk / Wall mounting
Power supply : 110 - 240 Vac Functions : Zero, Tare, Print, Totalization, Piece Counting, LIW/GIW, Checkweighing, Flow rate indication and Setpoint for filling.
COM Ports : RS 232 / 422 / 485 (Modbus RTU / ASCII)
I/O section : Up to 8 inputs and 8 Relay outputs
Optional : Analog output for net weight / flow rate, Ethernet (Modbus TCP/IP)
Enclosure : Weatherproof / Flameproof
**LOAD CELLS WITH MOUNTING ASSEMBLY**

### B 310 Bending Beam Load cell
- Stainless steel construction
- Fully welded and hermetically sealed to IP68 protection
- Certified for OIML R60
- Capacity 5 kg to 200 kg

### H 310 Shear Beam Load cell
- Alloy steel / stainless steel construction
- Fully welded and hermetically sealed to IP68
- Certified for OIML R60
- ATEX approved to use in hazardous area
- Capacity 300 kg to 5 tons

### D 310 Double Ended Shear Beam Load cell
- Alloy steel / stainless steel construction
- Fully sealed to IP68 protection
- Capacity 11 tons to 16 tons
- Insensitive to side loads and bending forces

### C 310 Compression Load cell
- Stainless steel construction
- Hermetically sealed to IP68 protection
- Inbuilt surge arrester for lightning protection
- Capacity 10 tons to 50 tons (OIML R 60 C3) and 100 tons/200 tons/600 tons (OIML R 60 C1)
- Optional - Digital output

### C 340 Compact Compression Load cell
- Stainless steel construction
- Hermetically sealed to IP68 protection
- Accuracy as per OIML R 60 C3
- Capacity 250 kg to 10 tons
CONTROL VALVES

Control valves are used to control the process parameters such as liquid level, flow and temperature. They open or close, fully or partially, in response to signals received from controllers that compare “setpoint” to “process variable”.

General Features -
- Size and MOC : Available in all Industrial standards
- Weatherproof and flameproof execution
- Special solutions as per requirements

Actuator for Control valve -
- Double Rack & Pinon
- Available in ON/OFF type, 3 Position i.e. Coarse, Fine and Close
- Rotation - 0 to 90° Globe Valve (I to P control)
- Pressure - 4 to 8 kg/cm²

Positioner for I/P valve -
- Electro pneumatic positioner with limit switch
- Control Pressure - 0.2 to 1 bar
- Linear or Equal % characteristics

FLEXIBLE HOSE

The accurate vessel weighment can be achieved by utilizing inlet and outlet pipelines connected through suitable flexible pipes, hose or bellow.

This is to avoid tension and compression effect of external pipe lines. These are available in various constructions.

ELECTRICAL AND INSTRUMENTATION PANEL

- Customized design of electrical and instrumentation panel consists of PLC with HMI / batch controller, SMPS, relay logic, MCCB, contactors, terminals, snubbers, transmitters, push buttons and buzzer etc.
- Customized and complete batching process control in auto mode as well as with manual intervention.
- Safety interlocks for motors/pumps trip, valves and pumps feedback. Can be designed as per requirement.
- User friendly setting and online process indication on MIMIC.
- Control SCADA and report generation with time trends and alarm reports etc.
- Software features for inflight material correction for highest control accuracy.
APPLICATION EXAMPLES

Vessel Weighing and Batching

Belt / Conveyor Weighing

Checkweigher

Reel Optimizing System for Paper Industry

Coil Weighing System for Steel Industry

Ladle Weighing System for Steel Industry

PLC Based Weighing Automation

Loss-in-Weight Dosing for plastic, food and chemicals

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