



### Introduction

The InSight Sample Controller is the best choice for sampling applications. Based on a modular design it provides the guarantee of accurate real-time operation and samples in either a flow or time proportional manner. Incorporating control functions for pipeline mixers and product temperature monitoring the InSight Controller will operate samplers at 100 grabs per minute and uses signals from automatic *Can-Weigh* stations to produce performance factor calculations. The Sample

### FEATURES

- EMC Compliant
- Operator Friendly
- Designed for easy DCS integration
- Performs flow or time proportional sampling.
- Auto can change up to 4 cans
- Built in emergency stop when cans are full.
- Single or multi-batch modes.



# InSight Sampler Controller

Controller will perform pre-batch linefill and can operate in single or multi-batch mode.

The InSight is so named for its touch screen interface which is both easy to use and offers sophisticated configuration options for supervisors and engineers. It can be configured using a simple menu structure with clear prompting and is aided by a context sensitive help. The InSight Sample Controller offers full diagnostic facilities with four levels of security and can be fully configured from the front panel. System configurability is further enhanced by the use of a wireless infra red link which allows configuration, reporting and operation from a suitable 'Windows' PC.

The InSight Controller uses a real-time 32 bit, multi-tasking operating system and is designed to be operated as either, stand alone, or integrated as part of a Distributed Control System. The Controller supports Allen-Bradley and Modicon Modbus protocols and has two serial ports as standard offering either RS232 or RS 422.

- Full diagnostics available.
- Performs performance calculations to check system integrity.
- Performs pre-batch line fill (either pass volume or separate sample).
- Product temperature monitoring.
- Full supervisor override at all times.
- Complies with ISO 3171, IP 6.2 & API 8.2

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## Instrument Specification

<b>Accuracy</b>	Calculation	IEEE754 double precision floating point arithmetic to 15 decimal points
<b>Touch Screen</b>	Viewing Area Resolution Keys	126mm x 70mm (H x W) 240 x 128 pixel with fluorescent backlight Software defined with audio confirmation
<b>Status Indication</b>	Front Panel LEDs Alarms	Power - System Running - Security Status - Watchdog Timer - Alarm Status Software user-defined
<b>Number I/O Cards</b>	Standard Instrument Rack Mounted	2 max 2 - 10
<b>Power</b>	Voltage Frequency Consumption Output	90 - 264VAC (autoswitching) 47 - 63Hz 40W - typical 24V fused @ 250mA
<b>Environment</b>	Temperature Range Humidity	5 - 40°C 5% - 90% (non-condensing)
<b>Dimensions</b>	Instrument Panel Cut out	146mm x 286mm x 355mm (W x H x D over connectors) 282mm x 137mm
<b>Standards</b>	Manufacture Operating	The InSight Controller is manufactured in accordance with ISO 9002 CE Marked

## I/O Card Specification (Each Card)

<b>Analogue Inputs</b>	Quantity Input Type Resolution Input Level Current Load Configuration Protection	6 Differential and floating when input < 10V 16 bit A-D 4 - 20 mA 50 Ohm Software user-defined Surge and ESD protected
<b>Pulse Inputs</b>	Quantity Input Type Input Voltage Logic Threshold Frequency Range Configuration Protection	4 Single ended voltage - 2 with isolated loop powered input 0 - 24 V Pk - Pk Software user-defined 2 - 12V 0 - 10 KHz Software user-defined Surge, ESD and reverse polarity protected on voltage pulse inputs
<b>Analogue Outputs</b>	Quantity Output Resolution Load Configuration Protection	4 4 - 20mA 12 bit 500 Ohm max Software user-defined Surge and ESD protection
<b>Digital Event I/O</b>	Quantity Type Configuration Input Level Output Level Protection	16 Bi-directional Software user-defined for either Input or Output 24VDC @ 2mA max 24VDC @ 100mA max Opto isolated to 100VAC and fused
<b>Serial Ports</b>	Quantity Protocols Support Connection Protection	2 per I/O card RS232 (DTE) - RS485 - RS422 RX - TX - RTS - DTR 9 pin 'D' type 10KV discharge
<b>Watchdog</b>	Type Output Type Time Out	Continuity N/C - solid state volt free contact. Open on Alarm 1.6 seconds

These are standard design specifications. We operate a policy of continuous development and the information on this sheet may be updated without notice.



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