



InSight Ex

Hazardous Area Sampler Controller

Introduction

The InSight Sampler 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 Sampler 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 that is both easy to use and offers

Features

- 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.
- Suitable for use in Zone I II BT hazardous area or Class I Div I Groups C&D T4.

sophisticated configuration options for supervisors and engineers. It is configured using a simple menu structure with clear prompting and aided by context sensitive help. The InSight Sampler Controller offers full diagnostic facilities with four levels of security and can be fully configured from the front panel.

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, RS422 or RS485.

- Single or multi-batch modes.
- 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.

Data Sheet SI 18-0812-3 • InSight Ex Hazardous Area Controller



Instrument Specification

Accuracy	Calculation	IEEE 32 bit floating point
Touch Screen	Viewing Area Resolution Keys	126mm x 70mm (H x W) 240 x 128 pixel with fluorescent backlight Software defined with audio confirmation
Status Indication	Alarms	Software user-defined
Number I/O Cards	Standard Instrument	1
Power	Voltage Frequency Consumption Output	110 - 240VAC 50 - 60Hz 40W Typical 24V fused @ 250mA
Environment	Temperature Range Humidity IP Rating Altitude	0 - 40°C 5% - 90% (non-condensing) IP65 (When using a grease on the flame path) 2000 metres max.
Dimensions	NEC Version	21.12" x 29.12" X 11.87" nom.
Standards	Manufacture	The InSight Controller is manufactured in accordance with ISO 9001

I/O Specification (Standard)

Analogue Inputs	Quantity Input Type Accuracy Input Current Load Configuration Protection	4 Differential (With respect to ground) 5µA 4 - 20 mA 50 Ohm Software user-defined Surge and ESD protected
Pulse Inputs	Quantity Input Type Input Trigger Threshold Frequency Range Configuration Protection	1 Differential current or voltage pulse 0 - 24VDC or 4-20mA Software Configurable 0 - 10 kHz Software user-defined Surge, ESD and reverse polarity protected
Digital Event I/O	Quantity Type Configuration Input Level Output Level Protection	4 Bi-directional Software user-defined for either Input or Output 24VDC @ 0.5mA max 24VDC @ 100mA max Opto isolated and fused
Serial Ports	Quantity Protocols	1 RS232 (DTE), RS422 or RS485

Options

Relay Outputs	Quantity Type Rating	6 max. AC or DC Solid State Relay 1A AC or 2A DC max,
Load Cell / Strain Gauge Amplifiers	Quantity	2 max.

	UK Jiskoot Quality Systems Tel: +44 (0)1892 518000 Fax: +44 (0)1892 518100 Email: ms-jiskootuksales@c-a-m.com	USA Jiskoot Quality Systems Tel: +1 281 583 0583 Fax: +1 281 583 0587 Email: ms-jiskootusales@c-a-m.com	Cameron Measurement Systems Tel: +1 281 582 9500 Fax: +1 281 582 9599 Email: ms-marketing@c-a-m.com	Jiskoot Quality Systems A Cameron Company www.jiskoot.com www.c-a-m.com/flo