

Digital Indicator CSD-903-EX

2024/03/13

Features



- Best for high accuracy (6 000 div.) scale applications. (at the input of 0.2 micro-V/d or more)
- FLVFD(Front Luminous Vacuum Fluorescence Display) type fluorescence display tube of 11.55 mm character height provides good visibility to main display.
- Display the measuring condition actively by a variegated 18 digits of sub-display and 16 points of status display.
- Supplementary flow, auto free fall compensation and auto accumulation function can be controlled beside a controll of weigh-in and discharge.
- Equipped with serial interface and RS-485 interface as a standard.
- 9 kinds of functions are simply proceeded by one key action with F key that the user can define.
- Compact size of depth 136.5 mm.
- Prepare a communications tool that can read and write a setting of parameter by connecting PC.
- Protection grade : IP65
- CE Mark Mark applied.

Specification

Specification name	Specification contents
Bridge power	10 VDC±0.5VDC within 180 mA (Changeable to 5 VDC or 2.5 VDC) with remote sensing function

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supply	10 VDC±0.5VDC within 100 mA (changeable to 5 VDC or 2.5 VDC) with remote sensing function
Input sensitivity	0.2 μ V/d or more (d = minimum scale)
Input range	-3.1 mV/V ~ 3.1 mV/V
Zero adjustment range	-2.5 mV/V ~ 2.5 mV/V
Non-linearity	0.01 %F.S.
Temperature coefficient	Zero balance \pm 0.2 μ V/ $^{\circ}$ C, Sensitivity \pm 0.001 5 %F.S./ $^{\circ}$ C (When the calibration is set at 0.2 μ V/d or more for input sensitivity.)
Noise in input signal	\pm 0.2 μ VP-P or less (At the default setting for analog filter, digital filter, stabilization filter and A/D sampling.)
Analog filter	Approx. 4 Hz (Changeable to 2 Hz, 6 Hz, 8 Hz or 10 Hz)
A/D sampling speed	200 times/s (Changeable to 20 times/s)
A/D internal resolution	24 bit
Main display	<p>Display range : -999 999 ~ 999 999</p> <p>Display incliment : 1 (changeable to 2, 5, 10, 20 or 50)</p> <p>Display unit : 7 segment green colored fluorescent display tube with 7 digits and 11.55 mm character height</p> <p>Over display : '-OL' at minus over, 'OL' at plus over.</p> <p>Over display of A/D value : '-OVF' at minus over, 'OVF' at plus over.</p>
Sub display	<p>Display range : "Total accumulation value -19 999 999 ~ 99 999 999 Accumulation times 0 ~ 999 999 "</p> <p>Display unit : 7-segment green colored fluorescent display tube with 18 digits and 5 mm character height.</p> <p>Display item : "changeable to no display, accumulated times /accumulated value, updated accumulated data / accumulated value, updated accumulated times / accumulated data, updated accumulated data / final, accumulated times / final, final / accumulated value, final / over / under or near zero / final. * it displays weighing value + unit during the set of function.</p>
Status display	STABLE, PRE.TARE, TARE, GROSS, NET, ZERO, HOLD, ERROR, Z-BAND,OK/S0, F.FLOW/S1, M.FLOW/S2, D.FLOW/S3, OVER/S4, UNDER, FULL
Display times	4 times/s (Changeable to 20 times/s)
Display of decimal point	Changeable to no display, 10 ¹ , 10 ² , 10 ³ , 10 ⁴ .
Display of unit	Changeable to no display, g, kg, t, N, kN, or lb.
External control input signal	<p>9 signals in the following can be arbitrarily selected.</p> <p>OFF, key operation either of [ON/OFF], [SET], [ACCUM./left arrow], [PRE-TARE/right arrow], [TARE/▲], [NET/GROSS/▼], [ZERO] or [F/enter]. zero clear, tare clear, flow start, DISCHARGE start, cancell former accumulation, clear accumulation, error reset, print command or emergency stop,</p> <p>*Above is pulse input, and effective once at a pulse width of 50 ms or more.</p> <p>Change of Flow/Weigh out (ON: Weigh-out, OFF: Flow), hold, Display of NET (ON: NET, OFF: GROSS)</p> <p>* Above is level input, and effective during short input of 50 ms or more.</p>
External control output signal	<p>13 signals in the following can be arbitrarily selected.</p> <p>OFF, RUN, stable, during tare, gross display, net display, center of zero, during hold, capacity exceeded error, weighing sequece error, zero band, OK(S0), big flow (S1), medium flow (S2), Dribble flow (S3), over (S4), under, full, during measurement, batch</p>

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Output signal	finish, discharge (for gate open), discharge finish (for gate)
Function of comparator	<p>Set value -999 999 ~ 999 999</p> <p>No. of set points: 4 points of S1, S2, S3 and S4</p> <p>Set value of hysteresis data width: 0 to 99 digit</p> <p>Direction of hysteresis: Selectable from 'On delay' or 'Off delay'</p> <p>Conversion times of comparator: Changeable to 200 times/s or 20 times/s (Synchronous with the A/D sampling rate.)</p>
2-wires method serial interface	<p>Baud rate : 600 bps</p> <p>Data bit length : 8 bit</p> <p>Parity bit : Odd number</p> <p>Stop bit : 1 bit</p> <p>Start bit : 1 bit</p> <p>Transmission data : Binary code, BCD</p>
Serial interface	<p>Baud rate : Selectable from 1 200 bps, 2 400 bps, 4 800 bps, 9 600 bps, 19 200 bps or 38 400 bps.</p> <p>Data bit length : Selectable from 7 bit or 8 bit.</p> <p>Parity bit : Selectable from none, even or odd.</p> <p>Stop bit : Selectable from 1 bit or 2 bit</p> <p>Terminator : Selectable from CR+LF or CR.</p> <p>Communication method : Half duplex</p> <p>Synchronous method : Start-stop synchronous method</p> <p>Address : Select one from 0 to 31.</p> <p>Communication data : ASCII code</p> <p>Cable length : Approx. 1 km</p> <p>Connectable units : Up to 32 units</p> <p>Terminating resistance : Externally</p> <p>Data transmission mode : Selectable from command or modbus</p>
Various function	<ul style="list-style-type: none"> • Zero tracking • Digital filter • Stabilization filter • Calibration LOCK switch • Digital linearize • Accumulating function • Preset tare
Operating temp./humidity range	Temperature -10 °C~ 50 °C, Humidity 85 % or less (Non condensing)
Power supply voltage	100 VAC ~ 240 VAC (85 VAC ~ 264 VAC) 50/60 Hz
Power consumption	<p>Approx. 10 VA (without any options, at 100 VAC)</p> <p>Approx. 18 VA or less (with options, at 100 VAC)</p>
Outline dimensions (WxHxD)	144 mm x 72 mm x 146.7mm (excludes protruding parts)
Weight	Approx. 1.0 kg (without options)
Protection code	IP65 or equivalent (Only for the front panel when the attached panel mounting gasket is installed.)

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Options

Current output

Voltage output

BCD output

RS-232C interface

RS-422/RS-485 interface

CC-Link interface

Latest News

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New Product

[New Product]Digital Indicator "CSD-701C" is released ! Great improvement on Temperature Characteristics and Non-linearity!

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