



LD 5204, -06 Weighing Indicators



The LD5204, LD5206 are versatile, general purpose weight indicators, manufactured according to the highest quality standards. User friendly, simple and fast in operation, with an attractive stainless steel design and sophisticated hardware and software features, the LD5204, -06 models represent powerful solutions to a multitude of weighing applications.



APPLICATIONS

- Bench and floor scales, weighbridges and dual scale applications requiring weight indication and professional documentation
- Silo weighing – weight indication and data collection
- Piece counting (single or dual scale configurations)
- Computer based weighing systems

STANDARD SUPPLY includes:

- Versatile stainless steel bracket to mount at any angle
- Windows-based PC software for downloading customized weigh ticket formats (via the standard RS232) plus set-up and calibration parameters (via the optional second serial interface)

BASIC FEATURES

- Approved for 10,000 divisions
- Up to 70 measurements per second
- Alibi-memory for 10,000 records
- Excitation for up to 10 strain gauge load cells, 350Ω each (or more)
- Large, 6 digit LED (20mm) or LCD (16mm) display with status annunciators
- 8 keys membrane keyboard with tactile feedback
- Single or dual interval / range
- Analogue and digital filtering
- Standard RS232 for PC or printer connection
- 1 digital input (programmable as tilt input or to tare scale remotely or for other purposes)
- 2 digital outputs (programmable as weight set points or as other control outputs)
- Stainless steel enclosure (IP65) or powder coated aluminium (IP40)

OPTIONS

- Second serial interface RS485 or RS232 with protocol output
- Analogue output (current or voltage)
- Second analogue input for second scale connection
- Real time clock

OPERATING KEYS

- On / off - Zero scale
- Tare key (sets/resets indicator to net mode)
- Tare recall key
- Print key (initiates printouts and adds to total)
- Total key (displays totals and number of weighings)
- Piece counting key (activates piece counting program)
- Scale exchange key (selects the analogue input #1 or #2 to be displayed)
- Preset tare entry is also possible via the front panel or remotely via the PC
- Front panel key lock capability

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APPROVALS	EU-Type approval for 10,000 divisions (approval Nr.: DK 0199.27) & OIML R76
ACCURACY CLASS	III
DISPLAY – KEYBOARD	
DISPLAY	6 digit, 7 segment, LED 20mm (LD5204) or LCD 16 mm (LD5206)
STATUS ANNUNCIATORS	No motion, zero, tare in use, net, scale in operation (#1 or #2 or SUM #1+2, if second scale connected), piece counting mode
KEYBOARD	8 key membrane keyboard with tactile feedback
DECIMAL POINT SETTING	Between any digit of the weight display
DISPLAY STEP	1, 2, 5, 10, 20, 50, 100, 200 (set-up selectable)
DISPLAY DIGITS	4, 5, 6 (set-up selectable)
A/D CONVERTER	
TYPE	Sigma-Delta ratiometric with analogue and digital filtering (FIR & post filtering, rolling average)
CONVERSION RATE	3 up to 70 measurements per second (set-up selectable)
SENSITIVITY	0.4µV/VSI for approved scales, 0.1µV/VSI for non-approved scales
ANALOGUE SIGNAL RANGE	-0.25 to 2mV/V (-1.25mV to -10mV) or -0.25 to 4mV/V (-1.25mV to -20mV)
RESOLUTION	Internal 550,000 counts, display : 99,000 dd (selectable, in accordance with regulations)
LINEARITY & STABILITY	
LINEARITY	Within 0.002 % of full scale
LONG TERM STABILITY	0.005 % of full scale per year
TEMPERATURE COEF.	Deadload ≤ 2ppm / ° C, Span ≤ 2ppm / ° C
SCALE CALIBRATION AND FUNCTIONS	
CALIBRATION	Digital calibration (dead load and span) and scale parametrization via keyboard dialogue menu . The weight display can be set to any capacity and resolution with 6 digits (subject to application and regulations). Calibration of two analogue inputs (one standard and one optional) with individual coefficients.
WEIGHING FUNCTIONS	Electronic calibration can be also performed via the m V/V output values of load cells. Automatic zero tracking, no-motion detection, auto-zero on power-up, zero, tare (max tare effect = -Max), multiple test functions
FULL SCALE RANGE	The two most significant decades of the digital display are programmable from 1 up to 99 for the full scale range. Single or dual interval / range, auto-switching between the different display steps.
MEMORIES	Serial EEPROM for the storage of calibration data (32KB) Flash, tally-roll (Alibi) memory capable of 10,000 weight registrations (64KB)
LOAD CELL CONNECTION	
NUMBER OF LOAD CELLS	Up to 10 strain gauge load cells, 350 Ω each (or more, provided min input impedance =35Ω)
EXCITATION	+5V alternating polarity or +5VDC (set-up selectable), with sense
CONNECTION TECHNIQUE	6-wire technique
INTERFACES	
SERIAL COM. PORT 1	RS232, non-programmable, 2400 baud , full duplex (continuous output, printer output, print on demand and Alibi modes)
CONTROL I/O	
DIGITAL INPUT (x1)	9-24 VDC, positive common, opto-isolated to 2.5 KV, set up programmable
DIGITAL OUTPUTS (x2)	24 VDC ± 10%, transistor (SOURCE) darlington, positive common, max current 100 m A, opto-isolated to 2.5KV, set up programmable
POWER SUPPLY	
INOX VERSION	85-265 VAC, 50/60 Hz (alternatively 9 - 15 VDC via external source)
ALUM VERSION	85-265 VAC, 50/60 Hz (Or via internal rechargeable battery , 6V/3Ah, for LD5206 alum)
ENVIRONMENTAL CONDITIONS / CONSTRUCTION	
EMC	According to OIML R76 and EN 45501 requirements
OPERATING TEMPERATURE	-10°C to +40°C - STORAGE TEMPERATURE : -10°C to +70°C
HUMIDITY	40% to 90% RH (non condensing)
ENCLOSURE	Stainless steel, AISI 304, sealed to IP65. Dimensions (in mm): 252(L)x152(H)x62(W) Powder coated aluminium, sealed to IP40. Dimensions (in mm): 194 (L)x100(H)x135(W)
OPTIONAL FEATURES	
SECOND SERIAL PORT	RS232 or RS485, set-up programmable, 2400-57600 baud , half duplex, (continuous output, remote printer output, EDP and master-slave protocols)
SECOND ANALOGUE INPUT	For second scale connection, with the same specifications as the primary analogue input
REAL TIME CLOCK	Providing print-outs with date and time
ANALOGUE OUTPUT	Analogue output, current (0/4 -20m A) or voltage (0.02 -10V) (hardware selectable), resol. 16 bit

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