Leon-Engineering
INDUSTRIAL WEIGHING & AUTOMATION SYSTEMS

Weighbridge Terminal - D3500

Product Description

The D3500 is a compact and powerful weight measuring and data processing instrument. It offers high performance, hardware and software reliability, legal-for-trade accuracy at a competitive price. Operator friendly configuration and
operation software allow the instrument to be configured for all weighing systems, with substantial data handling capability and peripheral interfacing.

Basic Features

- Large 7 digit VFD weight display.
- 80 character LCD with backlight for operator dialogues.
- 71 key QWERTY waterproof membrane keyboard with 16 direct function keys.
- Internal resolution 300,000 counts.
- Display resolution 99,000 increments.
- Approval for 5,000 divisions.
- Menu driven operation & configuration.
- User programmable data files and print formats.
- 1 centronics parallel and 4 serial communication ports
- Networking and remote control via EDP interface.
- 256 kbytes RAM and Real time clock with battery back up.
- Keyboard calibration.
- Loadcell excitation for 10 loadcells of 350 Ω each.
- Analog and digital filtering.
- Motion detection & Autozero tracking.
- Surge load cell protection.
- 250 locations for storage of tare weights.
- 5 data files with programmable totalizers (total capacity 1,600 records).

Application

- Weighbridges, platform scales, pallet scales requiring weight indication and professional documentation
- Labelling applications
- Computer based weighing systems

Operating Fuctions

- **Operator Dialogue**:
  Menu driven or function key operation
- **User Programmable Data**:
  Weighing ticket formats, Attributes, References, Commercial text, Data files Print date/ time/ indicated weight, First & Second weighing dialogue/printout, Third party weighing,Combined weighing.

Weighing Options

- Stainless steel housing
  AISI 304 table top housing, IP 65 Protection
- Digital set point and analogue output card (Optoisolated set points 8 inputs 24 Vdc, active high, 8 outputs, 300mA per output)

Operating Fuctions

Zero, tare, gross, test, tare recall, Auto zero maintenance, No motion detection, Dual interval

Specifications

DISPLAY - KEYBOARD

STATUS ANNUNCIATORS	Power on, standstill, tare memory, zero
KEYBOARD	71 keys Full QWERTY Alphanumeric keyboard incl. 16 direct
DISPLAY DIGITS	4, 5, 6 (programmable via set up)
DISPLAY STEPS	1, 2, 5, 10, 20, 50, 100, 200, 500 (programmable via set up)
FULL SCALE RANGE	The 2 most significant decades of the digital display are programmable from 1 to 99 for the full scale range
DECIMAL POINT	Between any decade of the display
WEIGHT DISPLAY	Display 9 digit, 7 segment, high intensity, green VFD, 13 mm high
DATA DISPLAY	LCD 2 X 40 Characters backlit

SCALE CALIBRATION & FUCTIONS

WEIGHING FUNCTIONS	Auto Zero Maintenance, Motion Detection, Auto Zero on power-up
AUTO ZERO TRACK	Off or 0,5 dd
INTERNAL RESOLUTION	300,000 counts
DISPLAY RESOLUTION	Selectable up to 20,000 dd (in accordance with application and regulation)
INTEGRATION TIME	20-100 ms, Setup selectable
MAXIMUM TARE EFFECT	-Max
DIGITAL CALIBRATION	Deadload and Span measurement via keyboard dialogue menu.

A/D CONVERTER

INPUT BIAS Current	10 nA, typical
INPUT NOISE VOLTAGE	0.35 µV p-p, typical
ANALOG FILTER	Active 2-pole 5HZ
A/D CONVERTER TYPE	Dual slope integrating ratiometric

POWER SUPPLY

integrated in power cord receptacle	Mains voltage 220 VAC +15%, 50 Hz, 20 VA. Mains filter

ENVIRONMENTAL CONDITIONS / CONSTRUCTION

SURGE LOAD CELL PROTECTION	Standard high capacity surge arresters and RF troys
OPERATING TEMPERATURE	-10o to +40o C
STORAGE TEMPERATURE	-10o to +70o C
HUMIDITY	90% RH max. non condensing
ELECTROMAGNETIC IMMUNITY	RFI and EMI safe. Full compliance to OIML R 76

OTHER FEATURES

TABLE TOP HOUSING	Powder coated, aluminium housing offering IP 40 protection
PROGRAM MEMORY	256 k
DATA MEMORY	256 k (with rechargeable battery backup)
REAL TIME CLOCK	Standard (with rechargeable battery backup)
CALIBRATION MEMORY	Serial EEPROM

LINEARITY & STABILITY

TEMP.COEFF.OF SPAN	< 3 ppm / oC
TEMP.COEFF.OF ZERO	< 3 ppm / oC
LONG TERM STABILITY	0,01% of full scale per year
LINEARITY	Within 0,01% of full scale

LOAD CELL CONNECTION

LOADCELL EXCITATION VOLTAGE	10 VDC + 5% Symmetric to Zero - 50% duty cycle
LOADCELL CONNECTION	6 wire technique
DIGITAL FILTER	Programmable via set up parameter for 1, 2, 4, 8, 16, 32, 64
ANALOG INPUT	Auto zeroed, full scale signal 25 mV
MIN. INPUT VOLTAGE PER VSI	1.33 µV (for legal-for-trade applications), 0.2 µV (for other applications)
MIN. INPUT IMPEDANCE	
MIN. NOMINAL INPUT IMPEDANCE	35 Ohm (10 loadcells of 350 Ohm)
MAX.LINE RES.INDICATOR TO	350 Ohm
LOADCELL	14 Ohm for each wire. Max length of cable 800 m/mm2

INTERFACES

PARALLEL PRINTER PORT	Standard CENTRONICS D 25 Female Serial output bidirectional RS232C
COM 1 SERIAL EDP PORT	Weight or Printer output RS 232C
COM 2 GEN. PURPOSE SERIAL PORT	Serial output bidirectional RS232C
COM 3	20 m A C.L.
COM 4	

APPROVALS

ACCURACY CLASS III
Approval Number DK 0199.12
(According to Dir.90/384/EU) 5000 div

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