



Leon-Engineering
INDUSTRIAL WEIGHING & AUTOMATION SYSTEMS

DJB-4 Digital Junction Box & RDT 52 Remote Display Terminal



Specifications

DJB - 4 Digital Junction Box

SCALE CALIBRATION & FUNCTIONS

CALIBRATION	Two calibration points (zero and span). Electronic calibration via the mV/V output values of load cells. Digital corner adjustment. Scale parametrization via serial commands (coming from PC or the remote display terminal RDT52)
WEIGHING FUNCTIONS	Zero, tare, auto-zero on power-up, automatic zero-tracking, continuous error detection
DISPLAY DIGITS	5
DISPLAY STEP	1, 2, 5, 10, 20, 50

A/D CONVERTER

TYPE	Sigma Delta ratiometric, 550,000 Counts
CONVERSION RATE	8, 20, 40, 80 measurements per second, divided by the number of load cells connected
ANALOGUE SIGNAL RANGE	-0.25 to 4 mV / V for each load cell (- 1.25mV to 20 mV)
SENSITIVITY	0.4 μ V / d
RESOLUTION	Selectable up to 99,000 dd (in conformity with application and regulations)
DIGITAL FILTER	Rolling average (1,2,4 samples)
INPUT AMPLIFIER	Input noise 0.3 μ Vp-p. Analogfilter passive, 2pole 10Hz.

POWER SUPPLY

REQUIREMENTS	7 – 10 VAC or 7.5 – 12 VDC external
CONSUPTION	1.8 W max. by 4 load cells connected

ENVIRONMENTAL CONDITIONS / CONSTRUCTION

EMC	In accordance with the EN 45501 regulations
OPERATING TEMPERATURE	-10 oC to +40 oC
STORAGE TEMPERATURE	-20 oC to +55 oC
ENCLOSURE	Inox box, sealed to IP67, Dimensions (in mm): 200 x 105 x 45

LINEARITY & STABILITY

LINEARITY	Within 0,002% of full scale
TEMPERATURE COEF. (ZERO)	< 2 ppm / oC
TEMPERATURE COEF. (SPAN)	< 2 ppm / oC
LONG TERM STABILITY	0.005 % of full scale per year

APPROVALS

ACCURACY CLASS III	EU-Type approval for 10,000 divisions (approval Nr.: DK0199.27) & OIML R76
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LOAD CELL CONNECTION

SERIAL COM. PORT (x1)	RS485A, half duplex. Baudrate 2400 to 115200 (Setup selectable)
DIGITAL INPUT (x1)	24Vdc +20% negative common. Input impedance 3.3 K Ω . On/Off delay 2msec. Opto-isolated to 2.5KV
DIGITAL OUTPUT (x2)	24Vdc +10%, Transistor (sink) negative common. Max current 10mA. Max offstate voltage 30Vdc. Leakage current 50 μ A. On/off delay 2msec. Opto-isolated to 2.5KV
ANALOGUE OUTPUT (OPTIONAL)	Current (hardware selectable 0-20 m A oder 4-20 m A, opto-isolated) Power supply external 15-24 VDC, resolution 16 bit

RDT 52 Remote Display Monitor

APPROVALS	Approval Nr.: DK0199.27 & OIML R76
DISPLAY – KEYBOARD	6-digit, LED display(14mm). 6 key membrane keyboard with tactile feedback
ENCLOSURE	Panel mount enclosure, Dimensions(in mm): 144(L)x72(H)x70(D)
INTERFACES	RS485 (2.4 – 115 K Baud) (by RDT52A) RS485 + RS232 (1,2Kbaud (by RDT 52B)
POWER SUPPLY	7.5 - 10 V AC or 6-12 V DC, power consumption 1,8W max.
REAL-TIME-CLOCK	Only by RDT52B, battery backed , totalizing register