

CDIT-3 Stainless Steel Low Profile Compression Load Cell

Description

The CDIT-3 series of load cells has been designed for a wide range of force measurement and weighing applications where space is limited. The CDIT-3 is constructed from stainless steel and has a fully welded construction, offering a high level of corrosion resistance for use in harsh environments, with environmental sealing to IP68.

Available in ranges covering 0-100kg to 0-200te, there are many applications ideally suited to the CDIT-3, including restricted height weighing applications, general force measurement and press calibration.

LCM Systems can provide the CDIT-3 on its own or combined with any of our instrumentation range, to offer a more complete package. Please consult our technical department for any advice required on suitable instrumentation solutions.

Specification

Rated load (kg/te)	100, 250, 500, 1000, 2500, 5000, 7500kg 10, 20, 30, 50, 75, 100, 150, 200te
Overload range	150% full scale output (FSO)
Ultimate breaking load	>300% FSO
Maximum transverse load	50% FSO
Output	2mV/V ($\pm 0.1\%$)
Zero balance	$\leq \pm 1\%$ FSO
Combined error	$\leq \pm 0.023\%$ FSO (equivalent to OIML R60, C2)
Non-repeatability	$\leq \pm 0.01\%$ FSO
Creep (at nominal load)	$\leq \pm 0.028\%$ FSO over 30 minutes $\leq \pm 0.008\%$ FSO over 20-30 minutes
Excitation voltage	10vdc recommended (18vdc maximum)
Input resistance	700 Ω $\pm 2\Omega$
Output resistance	700 Ω $\pm 2\Omega$
Insulation resistance	>5G Ω @50vdc
Compensated temperature range	-10 to +40°C
Operating temperature range	-20 to +70°C
Storage temperature range	-20 to +80°C
Zero temperature coefficient	$\leq \pm 0.025\%$ FSO/°C
Span temperature coefficient	$\leq \pm 0.017\%$ FSO/°C
Environmental protection level	IP68 (100 hours in 1 metre of water)
Electrical connections	5 metres PVC cable via special cable gland
Wiring connections	+ve supply: Red -ve supply: Black +ve signal: White -ve signal: Yellow

Available Options

- Load cap
- Weighing assembly (up to 30te) - See CDIT-3-WMOUNT data sheet
- Mounting plate (up to 30te)
- TEDS option (when used with TR150 handheld display)

Features

- Ranges: 100kg to 200te
- High Stability
- Fully welded stainless steel construction
- Low height
- Environmentally sealed to IP68
- Accuracy $\leq \pm 0.023\%$

Typical Applications

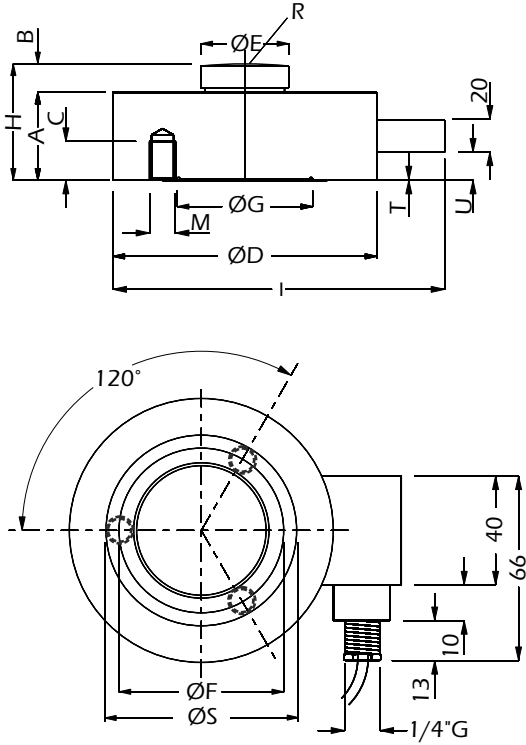
- Vessel weighing
- Press force monitoring
- Centre of gravity systems

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 Visit our website www.lcmsystems.com
 (In-stock items usually ship within 48 hours)

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Dimensions

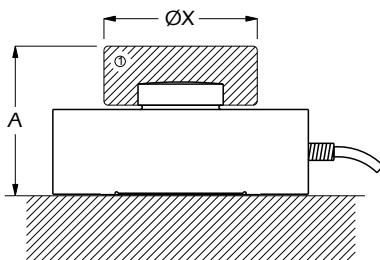


All dimensions are in mm

Rating	Part Number	Resolution
100kg	CDIT-3-100	0.01kg
250kg	CDIT-3-250	0.02kg
500kg	CDIT-3-500	0.05kg
1000kg	CDIT-3-1000	0.1kg
2500kg	CDIT-3-2500	0.2kg
5000kg	CDIT-3-5000	0.5kg
7500kg	CDIT-3-7500	0.5kg
10te	CDIT-3-10TE	0.002te
20te	CDIT-3-20TE	0.005te
30te	CDIT-3-30TE	0.005te
50te	CDIT-3-50TE	0.01te
75te	CDIT-3-75TE	0.01te
100te	CDIT-3-100TE	0.02te
150te	CDIT-3-150TE	0.02te
200te	CDIT-3-200TE	0.05te

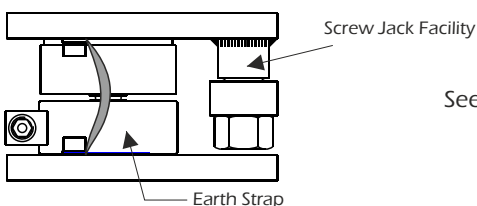
Rating	A	B	C	ØD	ØE	ØF	ØG	H	I	M	R	ØS	T	U	Weight (kg)
100kg - 10te	32	12	11	82	22	68	52.3	44	102	3xM8	50	60	0.3	6	1.3
20te - 30te	50	14	12	126	35	90	77.3	64	148	3xM8	160	100	0.5	15	3.4
50te - 100te	60	20	20	165	60	130	92.3	80	188	4xM16	300	115	1	17	9.4
150 - 200te	80	30	20	200	80	152	107	110	223	4xM16	300	128	1	23	18.2

Optional Loading Cap



Rating	A	ØX
250kg to 10te	59	57
20te to 30te	82	76
50te to 100te	106	126
150te to 200te	157	128

Optional Weighing Assembly



See CDIT-3-WMOUNT data sheet

