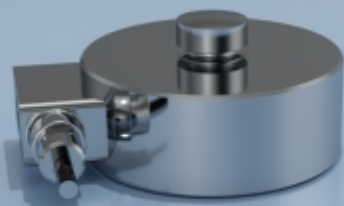




CDIT-3



CDIT-3 Stainless Steel Low Profile Compression Load Cell

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

AVAILABLE TO BUY ONLINE

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

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/tonne)	100, 250, 500, 1000kg 2.5, 5, 7.5, 10, 20, 30, 50, 75, 100, 150, 200te
Accuracy Class	OIML R60 C2
Legal Divisions	2000
Minimum Verification Interval	$E_{max} / 10,000$
Combined error	$\leq \pm 0.023\%$ FSO
Non-repeatability	$\leq \pm 0.01\%$ FSO
Zero return over 30 minutes	$\leq \pm 0.026\%$ FSO
Creep at nominal load	$\leq \pm 0.028\%$ over 30 mins / $\leq \pm 0.008\%$ over 20 & 30 mins
Temperature effect on zero	$\leq \pm 0.0024\%$ per °C
Temperature effect on sensitivity	$\leq \pm 0.0017\%$ per °C
Nominal sensitivity	2mV/V
Calibration tolerance	$\leq \pm 0.1\%$ FSO
Input resistance	700Ω $\pm 2\Omega$
Output resistance	700Ω $\pm 2\Omega$
Insulation resistance	>5GΩ @ 50VDC
Zero balance	$\leq \pm 1\%$ FSO
Recommended supply voltage	10V (1-15V nominal, 18V maximum)
Minimum load	0%
Service load	120%
Maximum permissible load	150%
Breaking load	>300%
Maximum transverse load	50%
Maximum permissible dynamic load	50%
Displacement at nominal load	100kg - 10te 20te - 30te 50te - 100te 150te - 200te ~0.06mm ~0.16mm ~0.23mm ~0.36mm
Temperature nominal range	-10 to +40°C
Service temperature	-20 to +70°C
Storage temperature	-20 to +80°C
ATEX certification details	II 2G Ex ib IIC T5 Gb II 2G Ex ib IIIC T115°C Db
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

- Hazardous Area certified - Intrinsically Safe (Ex i)
- TEDS option when used with TR150 handheld display (Not available with Hazardous Area versions)
- Load cap
- Weighing assembly (up to 100te). See CDIT-3-WMOUNT data sheet
- Mounting plate (up to 10te)
- Integral connector (M12 or MIL spec) (Not available with Hazardous Area versions)

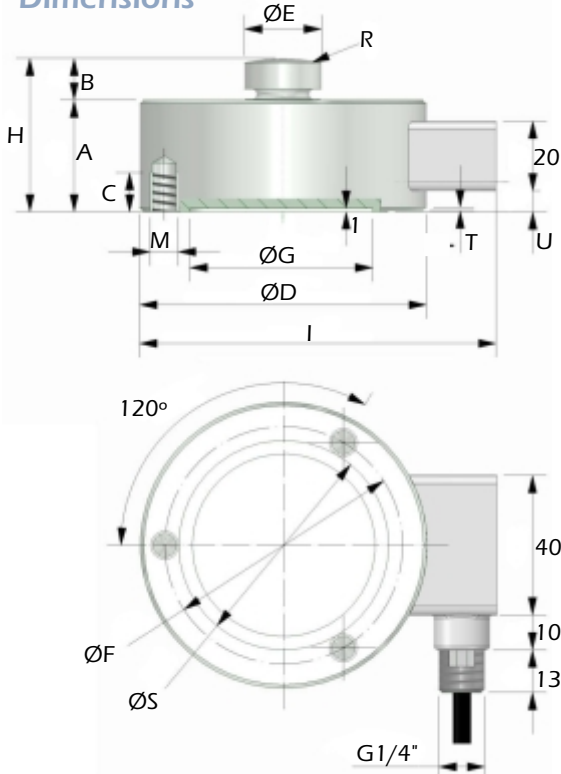
ATEX approval pending

Ex i



CDIT-3 Stainless Steel Low Profile Compression Load Cell

Dimensions



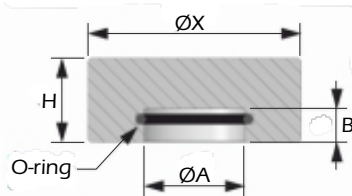
Rating	Part Number	Resolution
100kg	CDIT-3-100	0.01kg
250kg	CDIT-3-250	0.02kg
500kg	CDIT-3-500	0.05kg
1000kg	CDIT-3-1000	0.1kg
2500kg	CDIT-3-2.5TE	0.2kg
5000kg	CDIT-3-5TE	0.5kg
7500kg	CDIT-3-7.5TE	0.5kg
10te	CDIT-3-10TE	0.002te
20te	CDIT-3-20TE	0.005te
30te	CDIT-3-30TE	0.005te
50te	CDIT-3-50TE	0.01te
75te	CDIT-3-75TE	0.01te
100te	CDIT-3-100TE	0.02te
150te	CDIT-3-150TE	0.02te
200te	CDIT-3-200TE	0.05te

Note: Part numbers for ATEX versions will be suffixed with -ATEX e.g. CDIT-3-100-ATEX.

Fixing Screws	100kg to 30te	50te to 200te
Diameter	M8	M16
Resistance Class	12.9	12.9
Tightening Torque	80Nm	230Nm

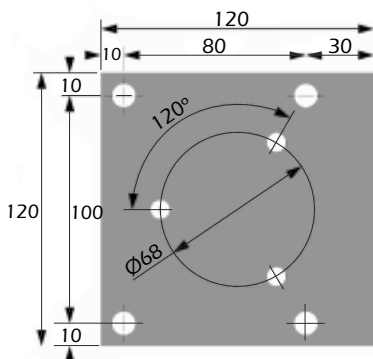
Rating	A	B	C	ØD	ØE	ØF	ØG	H	I	M	R	ØS	T	U	Weight (kg)
100kg - 10te	32	12	11	82	22	68	52.3	44	102	3xM8	50	60	0.3	6	1.3
20te - 30te	50	14	12	126	35	90	77.3	64	148	3xM8	160	93	0.5	15	3.4
50te - 100te	60	20	20	165	60	130	92.3	80	188	4xM16	300	115	1	17	9.4
150 - 200te	80	30	20	200	80	152	107	110	223	4xM16	300	128	1	23	18.2

Optional Loading Cap

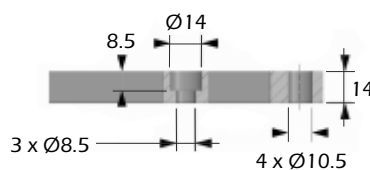


Rating	A	ØX	ØA	B	H
100kg to 10te	59	57	23	9	24
20te to 30te	82	76	36	12	30
50te to 100te	106	126	61	12	38
150te to 200te	157	128	81	21	68

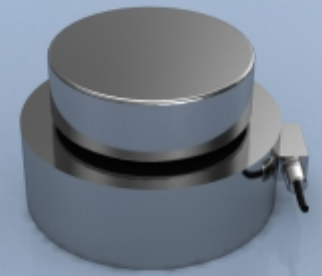
Optional Mounting Plate



NOTE:- Optional mounting plate is only available for load cells rated between 100kg and 10te



ATEX approval pending



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Due to continual product development, LCM Systems Ltd reserves the right to alter product specifications without prior notice.

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APPROVED

(unapproved if printed)