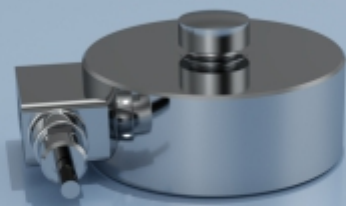




CDIT-3



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

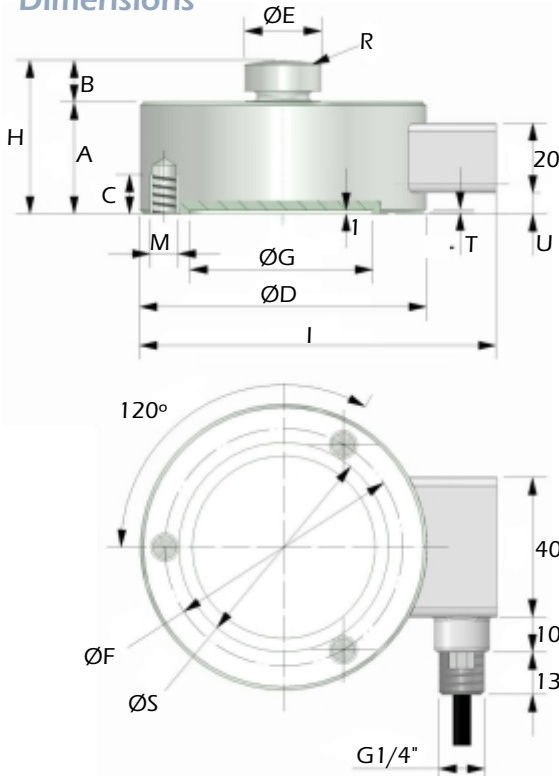
Rated load (kg/tonne)	100, 250, 500, 1000kg 2.5, 5, 7.5, 10, 20, 30, 50, 75, 100, 150, 200te
Accuracy Class	OIML R60 C2
Legal Divisions	2000
Minimum Verification Interval	$E_{max} / 10,000$
Combined error	$\leq \pm 0.023\%$ FSO
Non-repeatability	$\leq \pm 0.01\%$ FSO
Zero return over 30 minutes	$\leq \pm 0.026\%$ 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 T1 15°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)

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

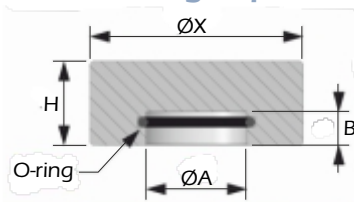
Note: Part numbers for ATEX versions will be suffixed with -ATEX e.g. CDIT-3-100-ATEX.

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

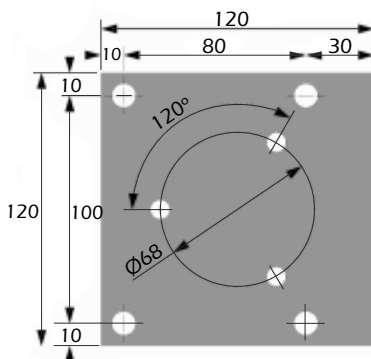
Note: When paired with instrumentation, accuracy figures may become subject to system inaccuracies. Please refer to calibration certificate for actual performance.

Optional Loading Cap

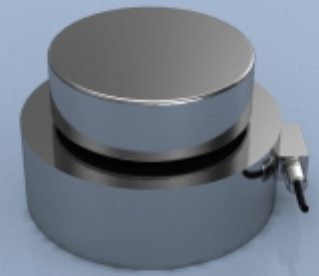
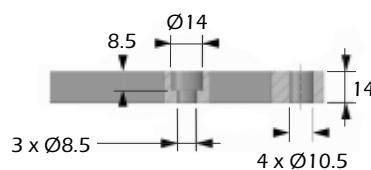


Rating	A	ØX	ØA	B	H
100kg to 10te	59	57	23	9	24
20te to 30te	82	76	36	12	30
50te to 100te	106	126	61	12	38
150te to 200te	157	128	81	21	68

Optional Mounting Plate



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



LCM Systems Ltd

Unit 15, Newport Business Park, Barry Way
Newport, Isle of Wight PO30 5GY UK

Tel: +44 (0)1983 249264

sales@lcm systems.com

www.lcm systems.com

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)