

Type CT1 General Purpose Force Transducer



Product Description

Flintec Force Transducers are designed to meet the most stringent accuracy requirements. The CT1 *General Purpose* shear web metric series force transducers offer..

Key Features

- Capacities: 1.5 kN to 450 kN
- High accuracy (0.04-0.05 %)
- Low height
- First choice for structural and materials testing
- Guaranteed maximum off-centre load and moment error
- Low creep
- Low susceptibility to magnetic fields
- Barometric pressure compensated
- Temperature compensated
- Output up to 4 mV/V
- Bayonet connector
- Protection IP 67

Options

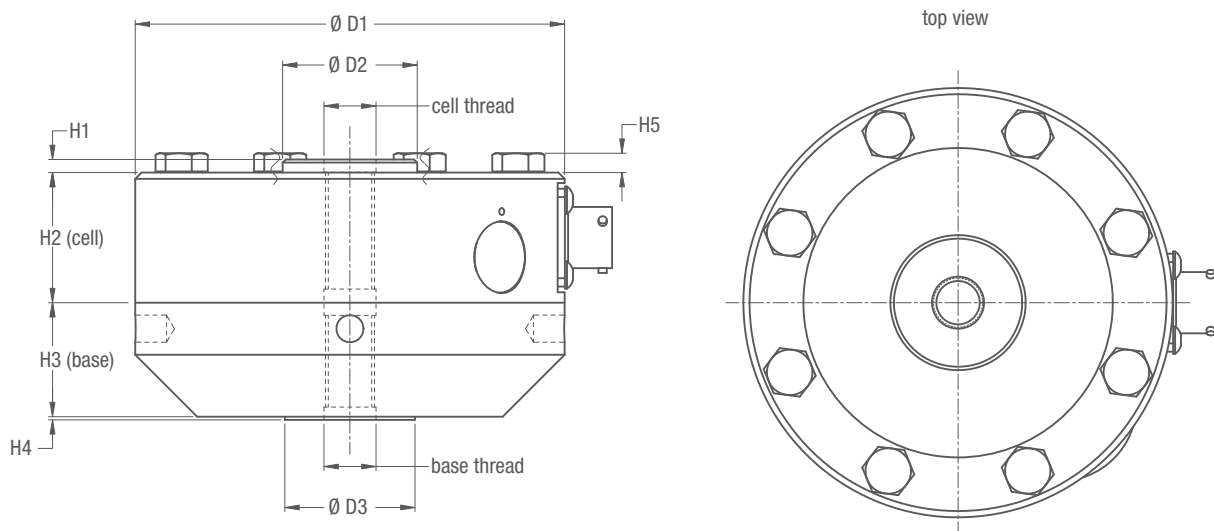
- Additional bridges
- Output adjustment to standard
- Compression overload protection
- Integral cable
- Custom connectors
- Imperial versions available

Available Accessoires

- Mating connector
- Loading fixtures
- Interconnection cable
- Shunt calibration connector
- Instrumentation

Specifications			CT1-10M-	CT1-10M-	CT1-20M-	CT1-30M-
MODEL						
Maximum capacity	(E _{max})	kN	1.5 / 2.5 / 5 / 10	25 / 50	100 / 250	450
ACCURACY						
Static error band		%*RO	≤ ± 0.04		≤ ± 0.05	
Non-linearity		%*RO	≤ ± 0.04		≤ ± 0.05	
Hysteresis		%*RO	≤ ± 0.04		≤ ± 0.05	
Non-repeatability		%*RO		≤ ± 0.01		
Creep error (20 minutes)		%*RO		≤ ± 0.03		
Off-centre load sensitivity		%*RO/cm		≤ ± 0.1		
Side load sensitivity		%*RO		≤ ± 0.25		
Zero balance		%*RO		≤ ± 1.0		
TEMPERATURE						
Compensated temperature range		°C		-10...+45		
Operating temperature range		°C		-55...+90		
Temperature effect on sensitivity	(T _{CLC})	%*of reading/°C		≤ ± 0.0015		
Temperature effect on zero	(T _{C0})	%*RO/°C		≤ ± 0.0027		
ELECTRICAL						
Rated Output	(R _O)	mV/V	2 ± 10%		4 ± 10%	
Excitation voltage		V		recommended 10, max. 20		
Input resistance	(R _{LC})	Ω		350 +40/-3.5		
Output resistance	(R _{out})	Ω		350 ± 3.5		
Insulation resistance (50 V DC)		MΩ		≥ 5 000		
MECHANICAL						
Safe load limit	(E _{lim})	%*E _{max}		150		
Weight		kg	1.2	3	10	24
Flexure material			aluminium	steel		
Protection according DIN 40.050				IP 67		

Dimensions (in mm)



Type	H1	H2	H3	H4	H5	D1	D2	D3	cell thread	base thread
CT1-10M-1.5/2.5/5/10 kN	3.1	31.8	28.7	0.8	5.1	104.8	32.8	31.8	M12x1.25	M12x1.25
CT1-10M-25/50 kN	3.1	31.8	28.7	0.8	5.1	104.8	32.8	31.8	M16x2	M16x2
CT1-20M-100/250 kN	3.1	41.4	44.5	0.8	7.6	154.0	100 kN-59.4 250 kN-65.5	57.2	M33x2	M33x2
CT1-30M-450 kN	6.3	57.2	50.8	0.8	10.2	203.2	95.5	76.2	M42x2	M42x2

Wiring

- The force transducer is provided with a bayonet connector.