

Pressure Transducers

General Purpose Pressure Transducers

May be used to measure pressure of gases. These general purpose models may be used for sensing pressure levels in many kinds of test equipment. The design incorporates a ceramic pressure element in a stainless steel enclosure.



Pressure Transducers

General Purpose Transducers	
E-110	General Purpose Pressure Transducer, 0 - 15 psig, male thread
E-111	General Purpose Pressure Transducer, 0 - 30 psig, male thread
E-112	General Purpose Pressure Transducer, 0 - 75 psig, male thread
E-114	General Purpose Pressure Transducer, 0 - 150 psig, male thread
E-116	General Purpose Pressure Transducer, 0 - 300 psig, male thread
Related Items	
E-405	Smart Digital indicator
E-8000E	EZ-Daq 8-Channel Data Acquisition System (US units)
E-8000M	EZ-Daq 8-Channel Data Acquisition System (SI units)

Pore Pressure Transducers

Used to measure pore fluid pressure of soil test specimens.

Select the E-120 Series Pore Pressure Transducers for reliability and ease of use. The design incorporates a ceramic pressure element in a stainless steel enclosure and bleed valve to eliminate air traps.



Pore Pressure Transducer

Pore Pressure Transducers					
Model	Range		Readability		Shipping Weight
	(psi)	(kPa)	(psi)	(kPa)	
E-120	0 - 30	0 - 207	0.1	0.690	2 lb
E-122	0 - 75	0 - 517	0.1	0.690	2 lb
E-124	0 - 150	0 - 1034	0.1	0.690	2 lb
E-126	0 - 300	0 - 2068	0.1	0.690	2 lb
Replacement Part					
2152027	Replacement Teflon Ball for Pore Pressure Transducer				
Related Items					
E-405	Smart Digital indicator				
E-8000E	EZ-Daq 8-Channel Data Acquisition System (US units)				
E-8000M	EZ-Daq 8-Channel Data Acquisition System (SI units)				

Specifications for General and Pore Pressure Transducers	
Excitation:	10 V (dc)
Rated Output:	70 mV at full scale
Non-Linearity:	0.2% at full scale
Hysteresis:	0.2% at full scale
Bridge Resistance:	13 k Ohms nominal
Volume Change:	10 - 6 cc full-scale

Displacement Transducers, Strain Gauge Type



Displacement Transducers

These transducers measure deformation or travel:

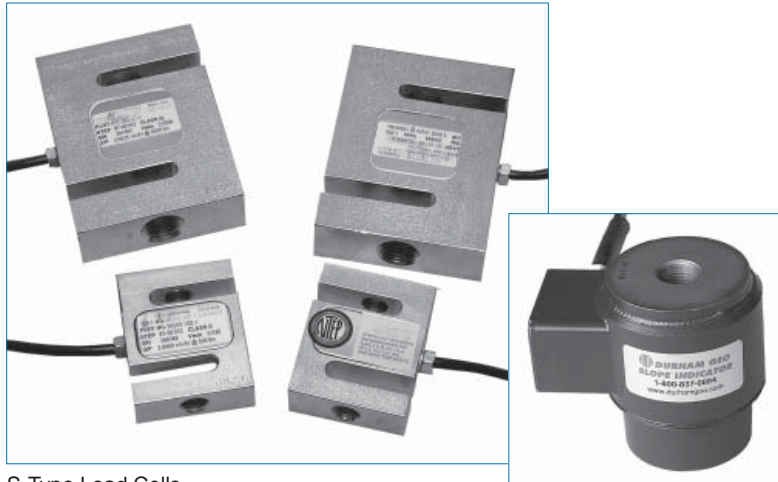
- Linear deformation in triaxial, CBR & direct shear tests
- Travel of components in testing equipment
- LDT, not LVDT

The E-310 Series of displacement transducers are available in four models with operating ranges between 0.5 - 4.0 in (13 - 102 mm).

Specifications for Displacement Transducers (LDT)	
Excitation:	10 V (dc)
Rated Output:	35-65 mV at full scale
Non-linearity:	0.1% at full scale
Hysteresis:	0.1% at full scale
Bridge Resistance:	350 Ohms nominal
Operating Temp:	-10 to 60°C
Excitation Outputs:	5 V (dc), 100 mA maximum, 10 V (dc), 120 mA maximum, 24 V (dc), 50 mA maximum

Displacement Transducers (LDT)					
Model	Range		Readability		Shipping Weight
	(inches)	(mm)	(inches)	(mm)	
E-310	0.5	13	0.0001	0.0025	2 lb
E-311	1.0	25	0.001	0.025	2 lb
E-312	2.0	50	0.001	0.025	2 lb
E-314	4.0	102	0.001	0.025	2 lb
Related Items					
E-405	Smart Digital indicator				
E-8000E	EZ-Daq 8-Channel Data Acquisition System (US units)				
E-8000M	EZ-Daq 8-Channel Data Acquisition System (SI units)				

Load Cells



S-Type Load Cells

Cylindrical Type Load Cell

Load Cells measure the total load applied to a sample. DGSI S-Type load cells display excellent long term stability and have significant overload characteristics to protect against accidental damage. They are made in a variety of ranges and are easily adapted to any type of load frame. Select from the range or contact us for information on other ranges available and calibration in other engineering units.

Load cells have tapped female ends with 1/2 x 20 tpi for E-210 and E-212, and 3/4 x 16 tpi for E-214, E-215, E-216 and E-217.

S-Type and Cylindrical Load Cells						
Model	Description	Range	Readability	Weight		
		(lbf) (kN)	(lbf) (kN)			
E-210	S-Type 0.5k	500 2.2	0.1 .0004	2 lb		
E-212	S-Type 2.5k	2,000 8.9	1.0 .004	2 lb		
E-214	S-Type 6.0k	6,000 26.7	1.0 .004	4 lb		
E-216	S-Type 10.0k	10,000 44.5	10.0 .04	4 lb		
E-215	Cylindrical Type 6.0k	6,000 26.7	1.0 .004	5 lb		
E-217	Cylindrical Type 10.0k	10,000 44.5	10.0 .04	5 lb		
Related Items						
E-405	Smart Digital Indicator			5 lb		
E-40404	RS-485 Output					
E-8000E	EZ-Daq System (US units)			11 lb		
E-8000M	EZ-Daq System (SI units)			11 lb		
E-40508	RS-485 to RS-232 Converter					
E-40521	WinSAS™ Collecting Software					

Specifications for	S-Type	Cylindrical Load Cells
Excitation:	10 V (dc)	10 V (dc)
Rated Output:	3 mV/V maximum	3 mV/V maximum
Non-linearity:	0.03% full scale output	± 0.1% full scale output
Hysteresis:	0.03% full scale output	± 0.1% full scale output
Bridge Resistance:	350 ohms nominal	350 ohms nominal
Overload:	100% of rated capacity	15% of rated capacity
Operating Temp:		-65°F to + 250°F



Smart Digital Indicator (E-405) shown with optional transducers



Proving Rings

Proving Rings have a repeatability of 0.2% and an accuracy of 1% or better. They are supplied with a dial indicator, 0.2 in range and 0.0001 in divisions. The rings have tapped female ends, 1/2 in - 20 threads. Each ring is supplied with a calibration chart.

Proving Rings				
Model	Description	Accuracy	Sensitivity (lbf/Div)	Weight
E-708	250 lbf (1.1 kN)	0.5%	0.25	4 lb
E-710	500 lbf (2.2 kN)	0.5%	0.5	4 lb
E-711	1,000 lbf (4.45 kN)	1%	1.0	6 lb
E-712	2,000 lbf (8.9 kN)	1%	2.0	6 lb
E-713	2,500 lbf (11.1 kN)	1%	2.5	8 lb
E-714	5,000 lbf (22.2 kN)	1%	5	8 lb
E-716	10,000 lbf (44.5 kN)	1%	10	20 lb

Dial Indicators



E-880



E-332

(L-R) E-805, E-821 and E-812

Dial Indicators

Model	Description	Range	Divisions	Reading	Rotation	Jewel Bearing	Applications	Ship. Weight
E-802	Mechanical, 2 3/4 in Dial	0.2 in	0.0001 in	0-10	CW	No	Proving Rings	1 lb
E-802B	Mechanical with brake	0.2 in	0.0001 in	0-10	CW	No	Proving Rings	1 lb
E-805	Mechanical, 3 5/8 in Dial	0.4 in	0.0001 in	0-20	CCW	Yes	Consolidation	1 lb
E-812	Mechanical, 2 3/4 in Dial	1.0 in	0.001 in	0-100	CCW	No	Triaxial, UCC, CBR	1 lb
E-814	Mechanical, 2 3/4 in Dial	1.0 in	0.001 in	0-100	CW	No	Triaxial, UCC, CBR	1 lb
E-821	Mechanical, 2 1/4 in Dial	2.0 in	0.001 in	0-100	CW	Yes	Triaxial, UCC	1 lb
E-815	Mechanical, 2 3/4 in Dial	25 mm	0.01 mm	0-100	CW	No	Triaxial, UCC, CBR	1 lb
E-825	Mechanical, 2 3/4 in Dial	50 mm	0.01 mm	0-100	CW	Yes	Triaxial, UCC	1 lb
E-332	Digital Display, batt. op.	1.0 in	0.0001 in	0-1	---	---	Triaxial, UCC, CBR	5 lb

Related Items

E-333	AC Power Supply for E-332 (Recommended)	E-860	Extended Contact Point, 1/2 in long (1.3 cm)
E-344	Adaptor for mounting LDT to Magnetic Holder	E-861	Extended Contact Point, 1 in long (2.5 cm)
E-868	Dial Stem Extension Flat Tip, 1/2 in dia., male	E-862	Extended Contact Point, 1.5 in long (3.8 cm)
E-875	Dial Stem Contact Bar for S-610 Load Frame, AM-100, S-600, and S-360	E-863	Extended Contact Point, 2 in long (5.1 cm)
E-877	Dial Holder Assembly for Triaxial Cells	E-864	Extended Contact Point, 3 in long (7.6 cm)
E-880	Magnetic Holder with Swivel Adaptor Post	E-867	Dial Stem Flat Contact Point, 1/4 in dia. (.64 cm)
E-870	Dial Indicator Support Assy for use with S-610 Load Frame, AM-100, S-600, and S-360	E-868	Dial Stem Flat Contact Point, 1/2 in dia. (1.3 cm)
E-885	Dial Holder with Granite Base		