

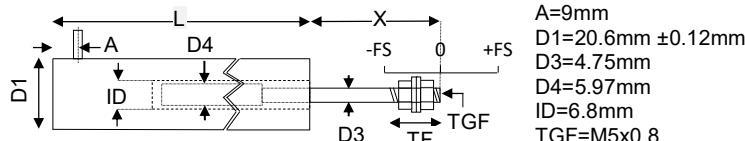
- High accuracy
- High cycle life
- Infinite resolution
- Stainless steel



The ACT series displacement transducers form part of our industrial series of LVDTs. Because they use the LVDT principle they have a very long life as there is no electrical contact across the sensing element which means clean, reliable data. The ACT transducer gives an output proportional to the position of the armature assembly with respect to the body of the transducer. ACT series transducers are available in three versions as detailed below.

RDP are the designers and manufacturers of the ACT series and so in addition to the range of standard options (higher temperature, IP rating, radiation tolerance etc) we can offer tailor made mechanical solutions to mounting and installing the transducer.

Unguided version.

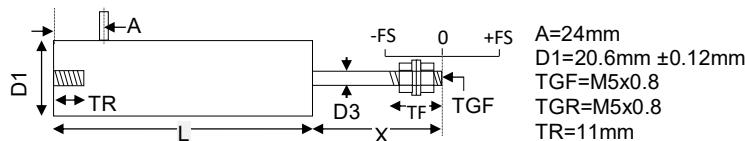


$A=9\text{mm}$
 $D1=20.6\text{mm} \pm 0.12\text{mm}$
 $D3=4.75\text{mm}$
 $D4=5.97\text{mm}$
 $ID=6.8\text{mm}$
 $TGF=M5x0.8$

On our ACT unguided LVDTs the armature assembly is a separate component, to make a measurement the user must guide the armature inside the body without touching the sides. Our ACT unguided position measurement transducers are appropriate where external guidance is available and give truly non-contact operation

Type	Range	Linearity error (% F.S.)	L	X (nom)	Total weight	Armature weight	TF	Inward over-travel	Sensitivity (nom)
ACT500	$\pm 12.5\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	127mm	43mm	170g	17g	15mm	16mm	0.7V/V
ACT1000	$\pm 25\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	155mm	68mm	227g	23g	15mm	22mm	0.9V/V
ACT2000	$\pm 50\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	270mm	81mm	320g	37g	15mm	16mm	1.5V/V
ACT3000	$\pm 75\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	380mm	120mm	454g	55g	15mm	29mm	1.5V/V
ACT4000	$\pm 100\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	427mm	132mm	568g	71g	15mm	16mm	3.2V/V
ACT6000	$\pm 150\text{mm}$	$\pm 0.5/\pm 0.25$	617mm	183mm	824g	100g	15mm	16mm	2.4V/V
ACT8000	$\pm 200\text{mm}$	$\pm 0.5/\pm 0.25$	808mm	259mm	1.2kg	140g	29mm	27mm	1.5V/V

Captive guided version.

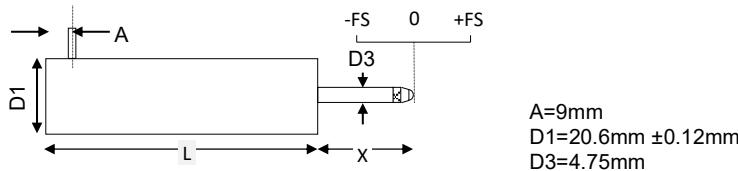


$A=24\text{mm}$
 $D1=20.6\text{mm} \pm 0.12\text{mm}$
 $TGF=M5x0.8$
 $TGR=M5x0.8$
 $TR=11\text{mm}$

Our ACT captive guided displacement transducer has bearings to guide the armature inside the measurement sensor. Our ACT captive LVDTs are for position measurement applications where guidance may be poor and end bearings may be required.

Type	Range	Linearity error (% F.S.)	L	X (nom)	D3	Total weight	TF	Inward over-travel	Outward over-travel	Sensitivity (nom)
ACT500C	$\pm 12.5\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	152mm	38mm	4.75mm	284g	15mm	10mm	12mm	0.7V/V
ACT1000C	$\pm 25\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	180mm	63mm	4.75mm	340g	15mm	13mm	10mm	0.9V/V
ACT2000C	$\pm 50\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	295mm	76mm	4.75mm	511g	15mm	10mm	14mm	1.5V/V
ACT3000C	$\pm 75\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	406mm	114mm	4.75mm	653g	15mm	24mm	15mm	1.5V/V
ACT4000C	$\pm 100\text{mm}$	$\pm 0.5/\pm 0.25/\pm 0.1$	452mm	127mm	4.75mm	710g	15mm	8mm	14mm	3.2V/V
ACT6000C	$\pm 150\text{mm}$	$\pm 0.5/\pm 0.25$	643mm	178mm	4.75mm	1.0kg	15mm	12mm	17mm	2.4V/V
ACT8000C	$\pm 200\text{mm}$	$\pm 0.5/\pm 0.25$	833mm	254mm	4.75mm	1.4kg	32mm	22mm	25mm	1.5V/V
ACT10000C	$\pm 250\text{mm}$	$\pm 0.5/\pm 0.25$	1030mm	305mm	4.75mm	1.6kg	27mm	34mm	35mm	2.0V/V
ACT15000C	$\pm 380\text{mm}$	± 0.5	1435mm	406mm	4.75mm	2.1kg	19mm	13mm	13mm	3.2V/V
ACT18500C	$\pm 470\text{mm}$	± 0.5	1702mm	508mm	6.00mm	2.5kg	27mm	5mm	33mm	3.6V/V

Spring return version.



Our ACT spring displacement transducer has bearings to guide the armature inside the measurement sensor and a spring which pushes the armature to the fully out position. Our ACT spring return LVDTs are appropriate where it is not possible to connect the transducer armature to the moving component being measured.

Type	Range	Linearity error (% F.S.)	L	X (nom)	Total weight	Spring force at X	Spring rate	Inward over-travel	Outward over-travel	Sensitivity (nom)
ACT500A	±12.5mm	±0.5/±0.25/±0.1	133mm	38mm	184g	1.3N	0.2N/cm	1mm	13mm	0.7V/V
ACT1000A	±25mm	±0.5/±0.25/±0.1	161mm	63mm	227g	2.0N	0.3N/cm	3mm	10mm	0.9V/V
ACT2000A	±50mm	±0.5/±0.25/±0.1	276mm	75mm	398g	1.8N	0.2N/cm	8mm	14mm	1.5V/V
ACT3000A	±75mm	±0.5/±0.25/±0.1	387mm	114mm	483g	6.0N	0.4N/cm	15mm	15mm	1.5V/V

Specification

Excitation/supply (acceptable)	0.5V to 7V rms, 2kHz to 10kHz (sinusoidal)
Excitation/supply (calibrated)	5V rms, 5kHz (sinusoidal)
Linearity error (Standard)	±0.5% F.S.
Linearity error (Optional on some models)	±0.25% F.S.
Linearity error (Optional on some models)	±0.1% F.S.
Temperature coefficient (span)	±0.01% F.S. /°C (typical)
Operating temperature range	-50°C to 125°C
Electrical termination	2m (integral cable) Longer available to order.



Due to our policy of on-going development, ACT specifications may change without notice. Any modification to our ACT may affect some or all of the specifications for our equipment. All ACT dimensions and specifications are nominal.

ACT - WARNING - PERSONAL INJURY

Do not use our ACT as safety, emergency stop or feedback devices in any application where the failure of this product could result in damage to equipment, personal injury or death.

USA & Canada
RDP Electrosense
2216 Pottstown Pike
Pottstown, PA 19465
USA
Tel: 610-469-0850
Tel: 800-334-5838
Fax: 610-469-0852
Email: info@rdpe.com

Global Head Office
RDP Electronics Ltd
Grove Street, Heath Town
Wolverhampton, West Midlands, WV10 0PY
United Kingdom
Tel: +44 1902 457512
Email: sales@rdpe.com
URL: www.rdpel.com

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