



## Features

Extensive range  
High accuracy 0.5%  
Up to 3 analogue outputs in one housing  
Zero and span adjustments  
DIN rail mounting  
Single and 3 phase systems  
Flame retardant cases  
Screw clamp terminals

## Benefits

Cost saving remote metering  
Reduction of signal levels for ease of metering  
Isolated output for safety  
Protection against high voltage and overload

## Applications

Switchgear  
Distribution systems  
Generator sets  
Control panels  
Energy management  
Building management  
Utility power monitoring  
Process control  
Motor control

## Approvals

UL File No: E140758  
CSA File No: LR52592  
BV File No: 3896H-07425-AO PRSO BV

*An extensive range of Class 0.5 transducers providing measurement, isolation and conversion of electrical parameters into industry standard DC output signals. The range offers protection against high voltage and overload, and resistance to vibration in harsh electrical environments. Transducers offer multiple analogue outputs from one housing, and individual measurement of most electrical parameters.*

## Introduction

Crompton transducers can be used for measuring most electrical parameters. The following transducers can be supplied:

- A.C. and D.C. current and voltage.
- Active, reactive and apparent power.
- Frequency.
- Power Factor and Phase Angle.
- Integrating current for maximum demand indication and Alarm Control.
- Suppressed zero voltage for monitoring a narrow voltage range.
- Tap position on a high voltage transformer.
- Temperature transmitters for thermocouples and resistance thermometer detectors (RTD's).
- Resistance (slidewire) transmitters.

## Safety Features

Crompton transducers and transmitters are designed for use in harsh electrical environments and feature:

- High protection against overload - 20 x rated current for 1 second.
- High degree of mechanical shock and vibration resistance.
- Protection against high voltage.  
Inputs, outputs and power supply are galvanically isolated from one another (excluding Resistance transmitters).

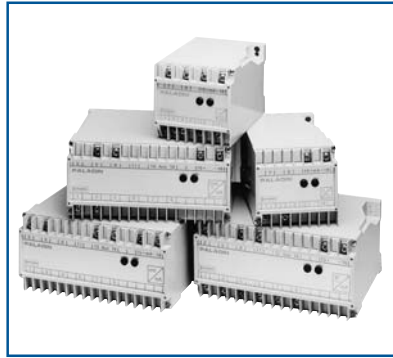
## Application

- Measurement of most electrical parameters
- Conversion to standard d.c. output signals
- Outputs suitable for indication, PLC's
- For use in Control Cabinets, Switchboards, Motor Control Centres, Generating Sets, Energy Management & Building Management systems.

## Ordering Information

When ordering please specify:

1. Product catalogue number
2. Current and/or voltage
3. Frequency
4. Auxiliary voltage A.C. or D.C.
5. Options e.g. calibration at 30°C
6. For power products:
  - a. P.T. & C.T. ratios
  - b. System configuration i.e. Single Phase, 3 Phase 3 or 4 Wire, balanced or unbalanced load
7. For slide wire transmitters quote R1, R2 and R3, see page G9.
8. National Specification:  
Indicated by 7th letter of part number.



## Specification

Performance	Designed to comply with BS6253 part 1, EN60688, IEC688, AS1384 and ANSI. C37.
Temperature Range:	Storage -20°C to +70°C Operating 0°C to +60°C Calibrated at 23°C
Temperature Coefficient:	0.03%/ per °C
Humidity Range:	Up to 95% RH
Zero Adjustment:	±2% minimum (except TAA & TVA)
Span Adjustment:	±10% minimum
Accuracy Class:	0.5 unless otherwise specified
Accuracy Range:	0 to 125% (except self powered)
Stability:	+0.25% per annum (reducing with time)
Test Voltage:	2kV ms to ANSI, C37
Response Time:	<400ms from 0 to 99% of rated output, 250 ms to 90%
D.C. outputs (Typical):	0/1mA into 0-10kΩ 0/5mA into 0-2kΩ 0/10mA into 0-1kΩ 0/20mA into 0-500Ω (600Ω available on selected models) 4/20mA into 0-500Ω (600Ω available on selected models) 0/5V 1k ohm minimum load 0/10V 1K ohm minimum load - bipolar for some models
Current Output Protection:	Fully protected against open and short circuited output
Voltage Output Protection:	Fully protected against open circuit output
Maximum output:	20V d.c. when open circuit
Output Ripple:	<0.5% of full rated output
Overload Capacity:	2 x rated current continuous 1.25 x rated voltage continuous 20 x rated current for 1 second 1.5 x rated voltage for 10 seconds
Input Impedance: (d.c. I/P)	d.c. 1000 ohms/volt as standard 10k ohms/volt available on request
Input Burden:	a.c. <2VA
Auxiliary Burden:	<2VA a.c., <3.5W d.c. auxiliary voltage variation: ±20% a.c., ±15% d.c., maximum 14% ripple
Safety:	To IEC1010 with terminal cover, basic insulation category
Minimum Test Voltage:	2kV rms for 1 minute
Flammability:	Flame retardant
Isolation:	Input/Output/Supply/Case (except TRR, TRP, TRT and TRV with no input/output isolation)
Intereference:	Electrical stress surge withstand to IEC 688 part of IEC 801 and ANSI C37 90a
Immunity:	Impulse test 5kV transient to IEC688 and IEC801
Enclosure:	IP50 to BS5490, IEC529 when the terminal cover is fitted. The case is UL94V0 and the terminal cover is UL94V2
Fixing:	EN50022
Approvals:	EMC and LVD UL recognised File No: E140758 CSA recognised File No: LR52592 BV File No: 3896H-07425-AO PRSO BV



## A.C. Current Average Sensing - Self Powered

Current measuring applications to 0.5% accuracy. Average sensing and calibrated to indicate the RMS value of a sine wave with less than 1% distortion. Internal power is derived from the input signal. Input and output are isolated.

### Specification

Inputs:	1, 5 or 10A A.C. 50 or 60 Hz
Auxiliary Power:	Self Powered
Output:	0/1, 0/5, 0/10 and 0/20mA

### Product Code – Single Phase Current Transducer - 1 D.C. Output

Input A.C.	Aux Power	O/P D.C.	Catalogue No.	Connection Diag.
5A 60Hz	Self	0/1mA	253-TAA*-LSFA-C6	1

### Product Code – 3 Phase Current Transducer - 3 D.C. Output

Input A.C.	Aux Power	O/P D.C.	Catalogue No.	Connection Diag.
5A 60Hz	Self	0/1mA	256-TAA-LSFA-C6	47



## A.C. Current Average Sensing - Auxiliary Powered

Single or three phase models offering current measurement down to zero input Model TAL provides a current output with a live zero (4-20mA). Average sensing and calibrated to indicate the RMS value of a sinewave with up to 1% distortion, isolation is provided between input, output and auxiliary.

### Specification

Inputs:	1, 5 or 10A A.C 50 or 60 Hz
Output:	01-, 0-5, 0-10, 0-20,4/20mA
Auxiliary Power:	A.C.: 63.5, 100, 110, 120, 220, 240, 250, 380, 400, 415, 440 and 480V D.C.: 12, 24, 48, 110,120 or 135V nominal

### Product Code – Single Phase Current Transducer - 1 D.C. Output

Input A.C.	A.C. Aux Power	O/P D.C.	Catalogue No.	Connection Diag.
5A 60Hz	120V	4/20mA	253-TAL*-LSHG-C6-DG	6

### Product Code – 3 Phase Current Transducers - 3 D.C. Outputs

Input A.C.	A.C. Aux Power	O/P D.C.	Catalogue No.	Connection Diag.
5A 60 Hz	120V	0/1mA	256-TAS*-LSFA-C6-DG	2
5A 60 Hz	120V	4/20mA	256-TAL*-LSHG-C6-DG	2

With multiple analogue outputs, do not common the -ve terminals.

