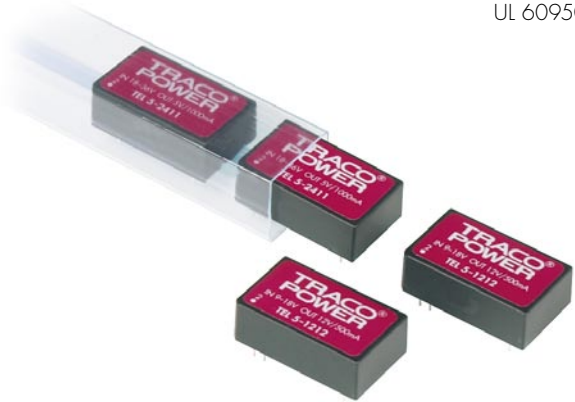




#### Features

- ◆ Wide 2:1 Input Range
- ◆ Cost efficient SMD-Design
- ◆ High Power Density
- ◆ High Efficiency up to 86%
- ◆ Regulated Outputs
- ◆ I/O-Isolation 1'500 VDC
- ◆ Indefinite Short-Circuit Protection  
24-pin DIP with Industry Standard Pinout
- ◆ High Reliability, MTBF >1 Mio. h
- ◆ Internal EMI Filter to comply with  
EN 55022, Class A (optional)
- ◆ Lead free Design, RoHS compliant
- ◆ 3 Year Product Warranty



The TEL 5 Series is a range of DC/DC-converter modules with wide input range of 2:1. State of the art SMD-technology guarantees a product with very high reliability and excellent cost /performance ratio. High efficiency allows an operating temperature range of  $-25^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$  at full load. This product series provides an economical solution for many cost critical applications in industrial and consumer electronics.

#### Models

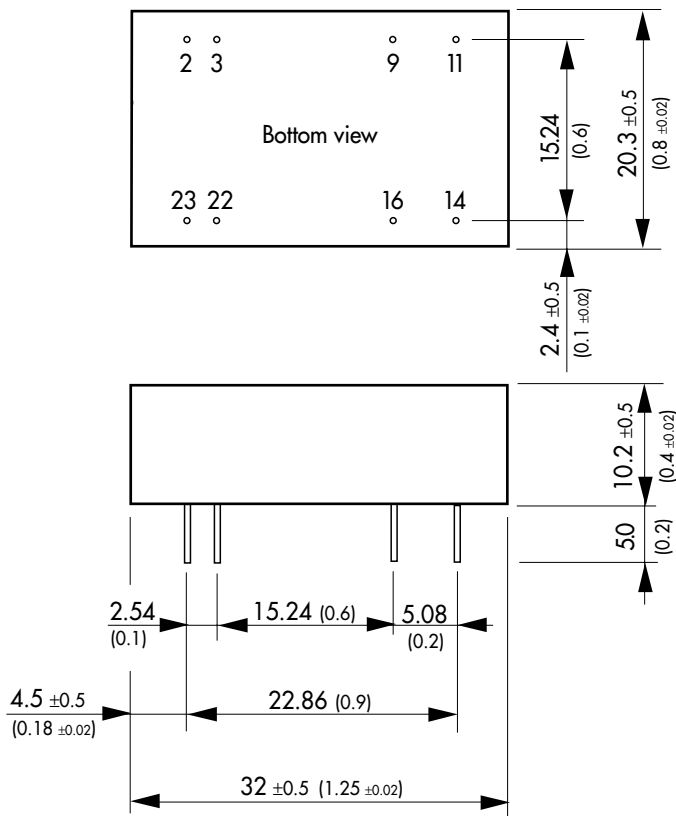
Ordercode	Input voltage range	Output voltage	Output current max.	Efficiency typ.
TEL 5-1210	9 – 18 VDC	3.3 VDC	1200 mA	77 %
TEL 5-1211		5 VDC	1000 mA	81 %
TEL 5-1212		12 VDC	500 mA	84 %
TEL 5-1222		$\pm 12$ VDC	$\pm 250$ mA	84 %
TEL 5-1223		$\pm 15$ VDC	$\pm 200$ mA	84 %
TEL 5-2410	18 – 36 VDC	3.3 VDC	1200 mA	79 %
TEL 5-2411		5 VDC	1000 mA	83 %
TEL 5-2412		12 VDC	500 mA	86 %
TEL 5-2422		$\pm 12$ VDC	$\pm 250$ mA	86 %
TEL 5-2423		$\pm 15$ VDC	$\pm 200$ mA	86 %



**Physical Specifications**

Case material	non conductive plastic (UL 94V-0 rated)
Weight	17 g (0.60 oz)
Soldering temperature	max. 265 °C / 10 sec.

**Outline Dimensions mm (inches)**



Pin-Out		
Pin	Single	Dual
2	-Vin (GND)	-Vin (GND)
3	-Vin (GND)	-Vin (GND)
9	No pin	Common
11	No con.	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)

Pin diameter  $\varnothing 0.5 \pm 0.05$  (0.02 ±0.002)  
Tolerances  $\pm 0.5$  (0.02)

Specifications can be changed any time without notice