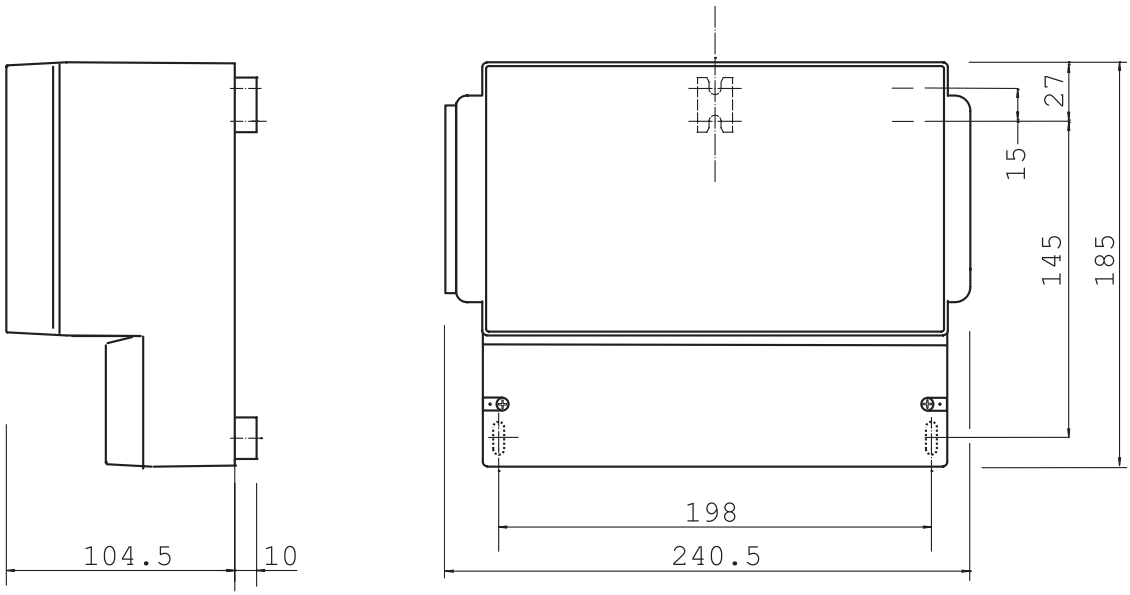
BCD TO ANALOGUE CONVERTER

TYPE 116-24A

- ✶ ***User selectable output ranges***
- ✶ ***User selectable input range for FSD***
- ✶ ***Positive or negative logic inputs***
- ✶ ***Charging for battery powered encoders***
- ✶ ***AC mains or DC powered versions***

DIMENSIONS



This instrument provides accepts up to four decades of BCD data and converts the digital information into a proportional analogue signal.

Input range for full scale may be user set by four switches, each corresponding to a decade of BCD. Output ranges are user selectable by jumper links.

Typical application include conversion of BCD data from linear or rotational position optical encoders.

Ordering Information

- ❑ SpecifyType **116-24A**
- ❑ Input signal type (TTL or volt-free contact)
- ❑ Input signal logic type (positive or negative)
- ❑ Output signal type
- ❑ Supply voltage and frequency

SPECIFICATION

INPUTS *(factory set)*
TTL or voltage-free contact,
positive (active state = "1")
or negative logic (active state = "0")
NB both input and logic types must be specified at time of order.

INPUT RANGE FOR FULL SCALE
Maximum range 9999
(user selectable by four switches)

OUTPUTS (field programmable)
0-10 mA into 2000 ohms max.
0-20 mA into 1000 ohms max.
2-10 mA into 2000 ohms max
4-20 mA into 1000 ohms max.
0-1 V into 500 ohms min.
0-5 V into 500 ohms min.
0-10 V into 1000 ohms min.
0.2-1 V into 500 ohms min.
1-5 V into 500 ohms min.
2-10 V into 1000 ohms min.
N.B. Outputs other than those listed can be provided.

OUTPUT SELECTION
Outpur options are selected using internal jumper links; span and zero controls are provided for trimming.

HOLD SIGNAL
TTLevel signal to transducer. The 116-24A sets high when processing current data.

TRANSDUCER CHARGER SUPPLY
12 VDC @ 10mA max.

ISOLATION
The input and output are isolated from each other and from the power supply. However, inputs are not isolated from each other.
Maximum Voltage 250V RMS or 400V DC
Resistance between input, output(s) or power supply
$\geq 50 \times 10^6$ ohms measured at 1000V DC.

ACCURACY
± 0.25% FSD at 100% when factory calibrated. NB ranges set to less than 100 will reduce accuracy to approx. 100

LINEARITY ERROR
≤ ± 0.1% FSD

SUPPRESSION / ELEVATION ERROR
≤ ± 0.1% FSD

OUTPUT RIPPLE
≤ 0.2% RMS of FSD

LOAD RESISTANCE EFFECT
≤ 0.001% of span / 100 ohm change

STABILITY
Over 24 hours ± 0.1% FSD
Over 1 year ± 0.25% FSD

INTERFERENCE REJECTION
Filtering is incorporated to attenuate R.F. and other industrial noise.

SERIES MODE AC REJECTION RATIO
For 50/60Hz series mode signals with p.t.p. amplitude ≤ input; rejection ratio greater than 40dB.

COMMON MODE REJECTION
<0.2% error for 250V RMS 50/60 Hz, or 400V DC, common mode signals.

TEMPERATURE COEFFICIENTS
Zero: ± 0.02% span / °C
Span: ± 0.02% span / °C

TEMPERATURE RANGE
Operating: -10°C to +60°C
Storage: -20°C to +70°C

POWER SUPPLY
Standard
AC 110, 220 or 240V ±10% 50/60Hz 5VA
Fuse: 100 mA quick blow type 20 x 5 mm
DC Option
DC 12, 24 or 48V –10% to +20% @ 3.5 W
Fuse: 250mA Anti-surge type

WEIGHT
Approx. 1.1kg

WARNING: THIS UNIT CAN BE MAINS POWERED, AND ALL INPUTS TO IT MUST BE ISOLATED FROM DANGEROUS VOLTAGES BEFORE THE FRONT COVER IS REMOVED. LIVE TERMINALS WILL BE EXPOSED.

Continuous development may necessitate changes in these details without notice

SIL
STROUD INSTRUMENTS LTD.
36-40 Slad Road, Stroud, Glos. GL5 1QW, England
Telephone: +44 (0)1453 765433 Fax No: +44 (0)1453 764256
www.sil.co.uk