



The Type 2506 series Intrinsically Safe (IS) Amplifiers are designed for use with transducer installations either completely in a hazardous area, or connected via Zener barriers or isolators to a safe area.

- **Built-in calibration check via 'Cal' button**
- **4-20 mA output**
- **Coarse & fine adjustment on Gain and Zero**
- **DIN-rail mounted**

Available in two versions, the type 2506A is for a full bridge strain gauge inputs with a minimum bridge resistance of 240Ω, whilst the type 2506B is for quarter or half bridge elements, or in structural load measurements with a minimum gauge resistance of 120Ω.

For applications using 24V supply with the control instrumentation in the safe area, a positive double-channel barrier rated 28V/240Ω (or 234Ω) with 28V diode return is suitable for all gas groups. Other combinations are available upon request

Product

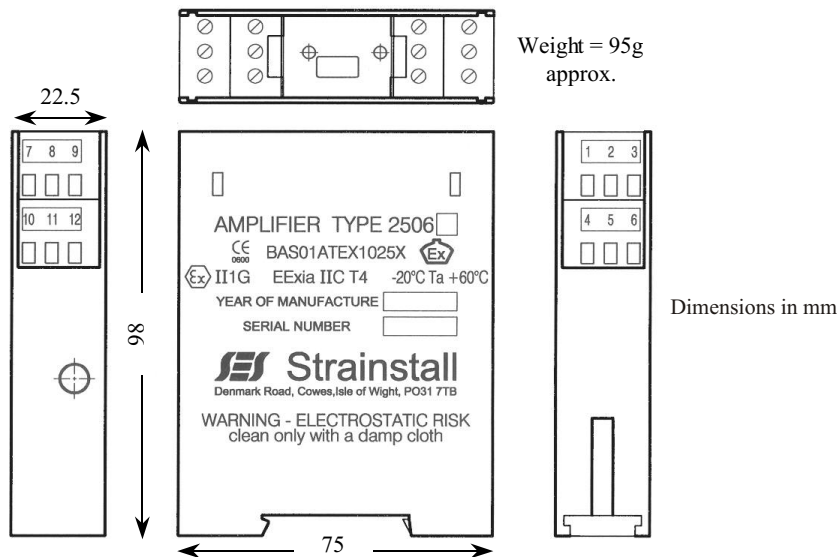
Intrinsically Safe Amplifier Type 2506



The World of Load
Measurement and
Stress Analysis

Typical Specification

Mounting	DIN rail TS35 x 7.5 or TS35 x 15
Supply Voltage	24 VDC @ 65mA max. 12VDC with input limitations
Selectable Input Ranges	2506A 2506B
	0.23 to 3.5 mV/V 200 to 3000 μ e
Frequency Response	0 to 1130 Hz (-3dB)
Step Change Response	95% of final value in 400 μ s
Noise	50 μ V max. peak-peak referred to input
Bridge Supply	8.0 VDC regulated
Output	4-20 mA into 50-270 Ω
Temperature Range	-20° to +60° C



The following table lists the approval certificates and drawings that have been published for the amplifier (the A and B variants are covered by the same certification, as they differ only in passive input components). Copies of these documents are obtainable from Strainstall.

Apparatus Approval to BS EN50014 and BS EN50020	System Approvals to BS EN50039	
	Gas Group & Barrier Type	Approval Cert. No.
BAS01ATEX1025 X (EExiaIIC T4)	IIC (Zener)	Ex01E203 1
	IIB (Zener)	Ex01E203 2
	IIC (Isolator)	Ex01E203 3

Safety Parameters (Certified Figures)

$U_i = 30V$ $C_i = 0$
 $I_i = 300mA$ $L_i = 0.1mH$
 $P_i = 1.2W$ $L_i/R_i = 19\mu H/\Omega$

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Due to continuous development, Strainstall UK reserve the right to change specification without notice.