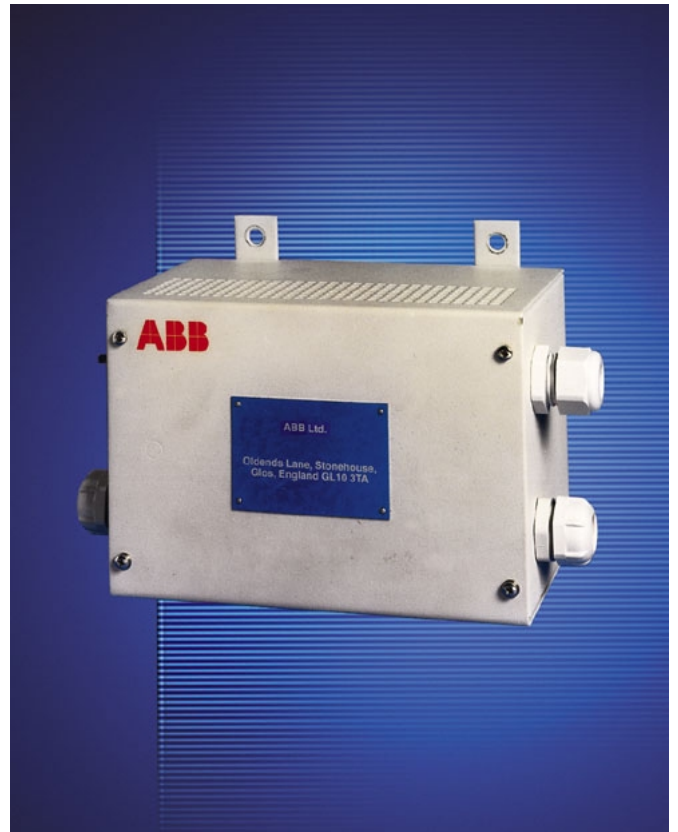


- **Constant-current DC supply**
  - for use with the ABB range of Katharometers
  
- **Certified intrinsically safe**
  - ATEX directive to the GENELEC standard [EEx ia]  
IIC T<sub>amb.</sub> -20 to 55°C
  
- **Can replace earlier power supply models**
  - mounting-strap adapters available for ease of installation



The constant-current supply for all  
your Katharometer applications

### General

The 4234-500 and 4234-600 Series of Katharometer Power Supplies are constant-current DC supplies, designed for use with the ABB range of Katharometers.

**Models 4234-500 and 4234-501** are certified Intrinsically Safe under the ATEX Directive to the CENELEC Standard [EEx ia] IIC T<sub>amb.</sub> -20 to +55°C for use with the ABB Intrinsically Safe Katharometers types 6539960/J or K and 6548001.

**Models 4234-600 and 4234-601** power supplies are uncertified and are intended for use with all other models of Katharometer in the 6700, 6510/6515 and 6517 Series.

**Models 4234-500 and 4234-501** are available only as 350mA DC (or lower) constant-current output units. Other versions have the option of higher or lower outputs to suit the Katharometer duty and calibration, plus an additional 10V DC supply for temperature-controlled Katharometers.

Models 4234-500 and 4234-501 replace the earlier models 4234-000/02 and 4234-000/01 respectively and variations to the earlier BASEEFA Certification to SFA 3012 permit use of the new units as replacements in systems certified to that earlier standard. Where such requirements are to be met a mounting-strap adapter kit (part no. 4234519) is required to enable use of the existing 4234000 mounting centers.

Full details of all the available options are shown in the following Specification.

## Specification

### 4234-500 and 4234-501

#### Mains supply

Series 4234-501	115V AC 50/60Hz
Series 4234-500	230V AC 50/60Hz

#### Supply limits

Voltage variation	±15%
Frequency range	46 to 64Hz

#### Power consumption

13W

#### Fuse ratings

L & N	250mA (20 x 5mm) 250VA, 1500A h.b.c. cartridge type
DC line	400mA (250V AC)

#### Load

One katharometer (12.5Ω max.)  
plus interconnecting cable (1.5Ω max.)

---

## Output

### Output

180, 250 or 350mA DC (constant current)

### Output regulation

Within ±0.8% for:

- Load variation ±15%
- Supply variation ±6%
- Ambient temperature ±10°C (50°F)

### Ripple

Less than 17.5V across 10Ω load peak to peak

### Output stability

Within ±0.7% of initial setting over a period of one month with load resistance, supply voltage and ambient temperature at nominal stated values

### Maximum load

12.5Ω (one Katharometer)

## Environmental

### Protection

IP30 (NEMA 1)

### Ambient temperature range

-20 to 55°C (-4 to 131°F)

### Mounting centres

140mm x 110mm (5.5 x 4.3 in.)

### Overall dimensions

170mm high x 160mm width x 110mm depth  
(6.7 in. high x 6.3 in. width x 4.3 in. depth)

### Weight

2.12kg (0.96 lb) approx.

### Power consumption

30VA

### IS certification

CENELEC [EEx ia] IIC T<sub>amb.</sub> -20 to 55°C  
BASEEFA Certificate No. BAS01 ATEX7041

## ...Specification

### 4234-600 and 4234-601

#### Mains supply

Series 4234-601	115V AC 50/60Hz
Series 4234-600	230V AC 50/60Hz

#### Permissible supply

Voltage variation	±15%
Frequency range	46 to 64Hz

#### Power consumption

Katharometer	3.5W max.
Katharometer with temperature control	13W max.

#### Fuse ratings

L & N	250mA (20 x 5mm) 250VA, 1500A h.b.c. cartridge type
DC line	400mA (250V AC)
Auxiliary 10V DC line	400mA (250V AC)

#### DC output

Optional, stabilized 500, 400, 350, 250 or 180mA

#### Load

One katharometer (12.5Ω max.)  
plus interconnecting cable (1.5Ω max.)

### Environmental

#### Protection

IP30 (NEMA 1)

#### Ambient temperature range

-20 to 55°C (-4 to 131°F)

#### Mounting centers

140mm x 110mm  
(5.5 in. x 4.33 in.)

#### Overall dimensions

160mm high x 170mm width x 111mm depth  
(6.3 in. high x 6.7 in. width x 4.4 in. depth)

#### Weight

2.12kg (4.7 lb) approx.

---

## Output

### Output

180, 250, 350, 400 or 500mA DC (constant current)

### Output regulation

Within ±0.8% for:

- Load variation ±15%
- Supply variation ±6%
- Ambient temperature ±10°C (50°F)

### Ripple

Less than 17.5V across 10Ω load peak to peak

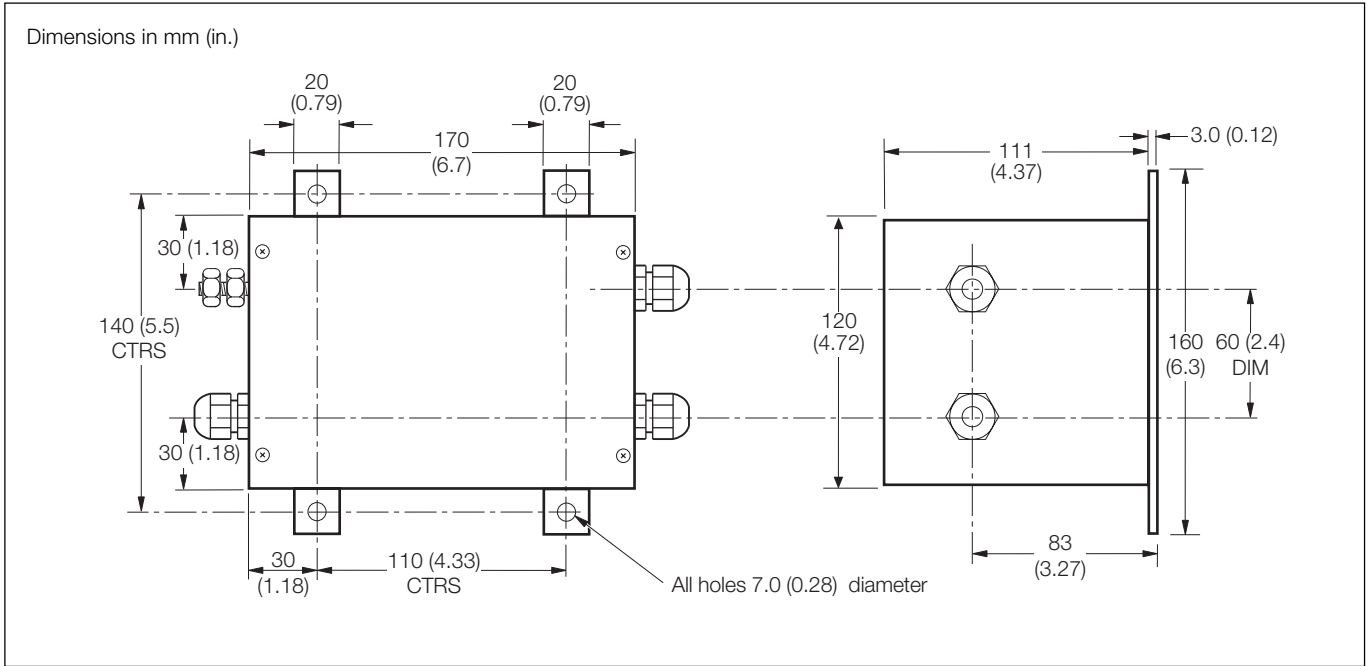
### Output stability

Within ±0.7% of initial setting over a period of one month with load resistance, supply voltage and ambient temperature at nominal stated values

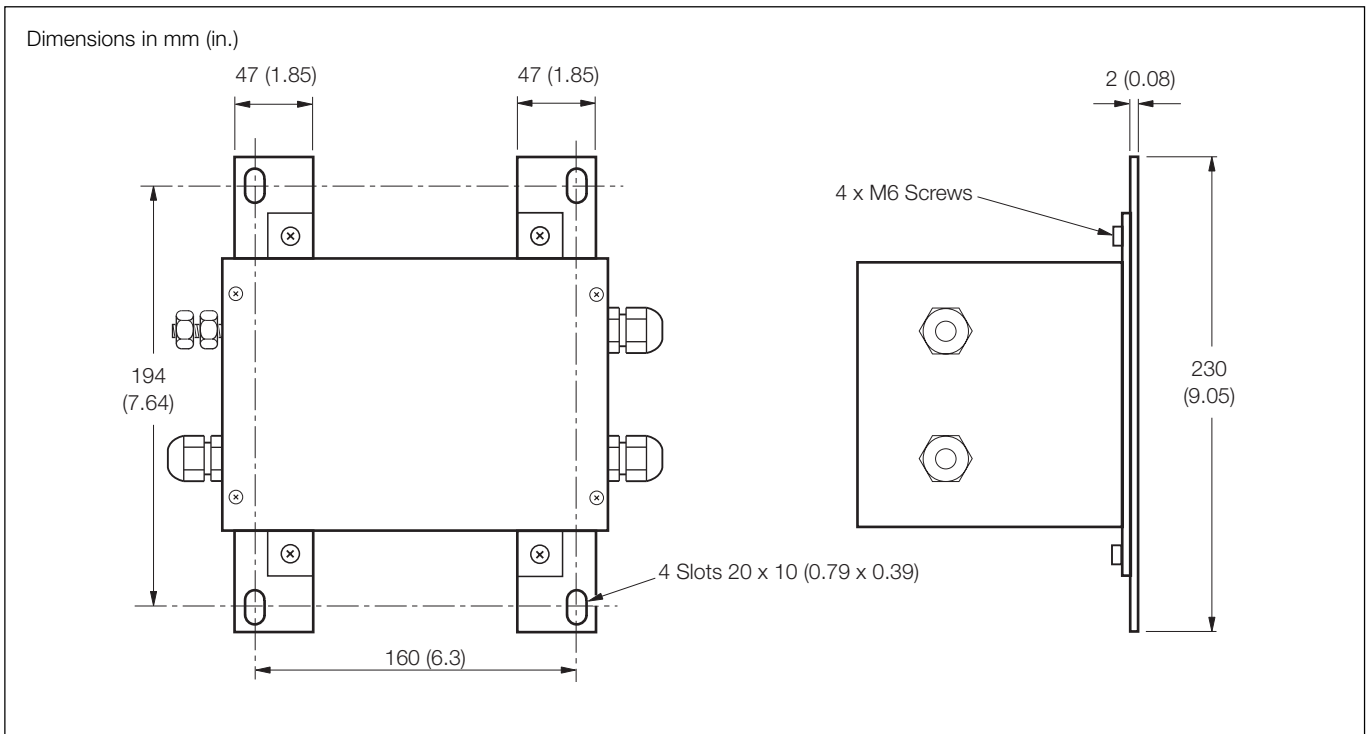
### Auxiliary output

10V DC nominal a 1A for katharometer temperature control

**Overall Dimensions**

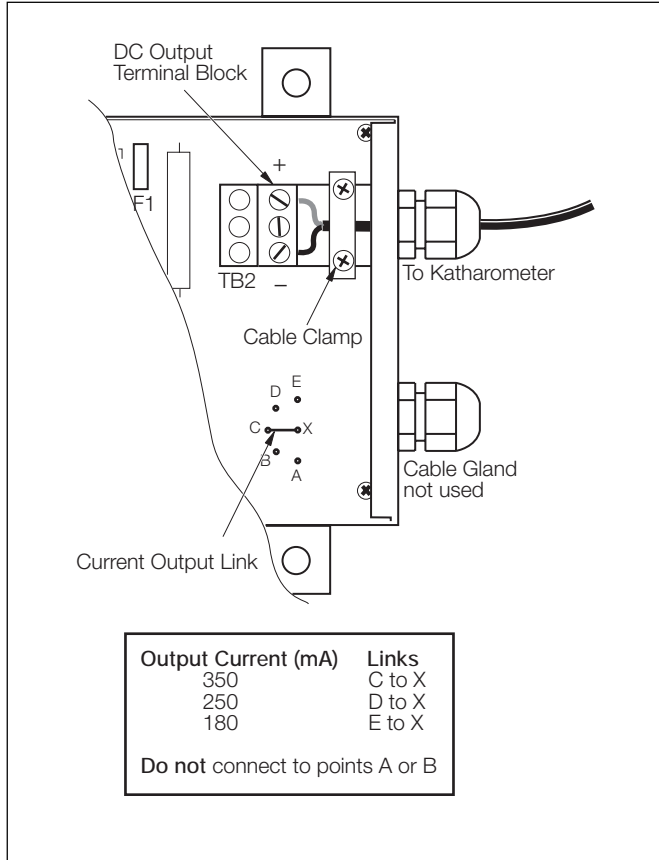


Dimensions – 4234-500 and 4234-600 Series

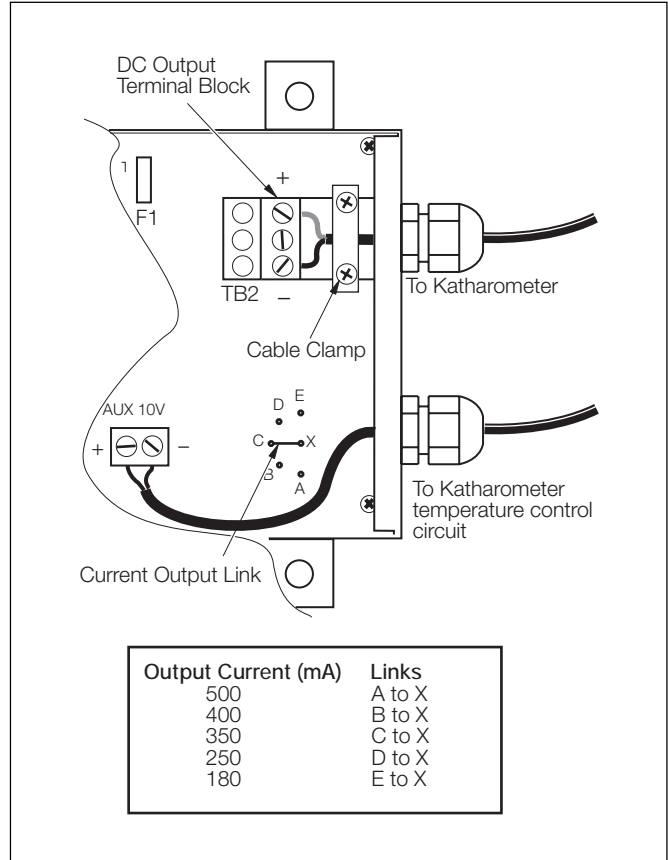


Dimensions – 4234-500 and 4234-501 with 4234000 Mounting Adapter Kit

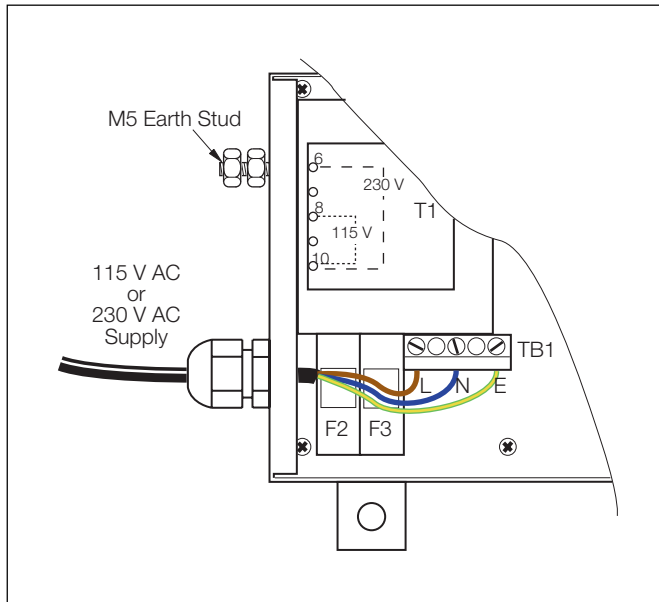
**Electrical Connections**



DC Output Current Ranges for 4234-500 Series



DC Output Current Ranges for 4234-600 Series



AC Connections for 4234-500/600 Series

**Ordering Information**

Series 4234-500 or 4234-600 Katharometer Power Supply Unit		4234/	X X	X	X	X
<b>Approval</b>						
IS			5 0			
Non IS			6 0			
<b>Power Supply</b>						
230V AC				0		
115V AC				1		
<b>Output mA</b>						
350*					0	
180*					1	
250*					2	
400					3	
500					4	
<b>Manual</b>						
English						0
German						1
French						2
Spanish						3
Italian						4

\* Only these outputs can be provided on IS units (4234/50X)

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