

# BATTERY CONDITION & CHARGING INDICATORS

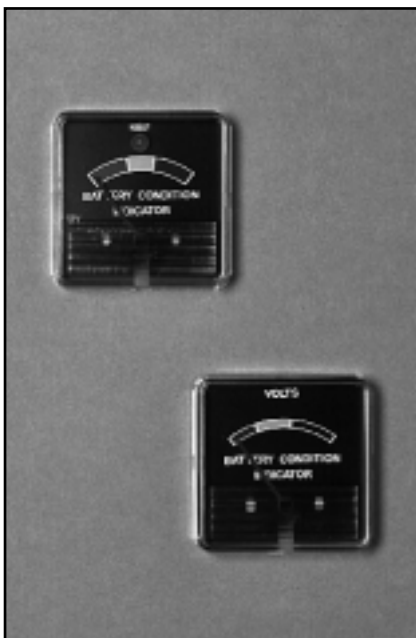
# HOBUT

**DESCRIPTION** A range of ammeters and voltmeters with tough moving magnet or polarised moving iron movements designed for low cost indication of d.c. or rectified a.c.



# CE

## F3PAM



**Application:** Suppressed zero battery condition indicators designed to monitor the state of lead acid batteries.

**Standard Range:**

12V (yellow zone 10.5 to 12.5V)  
 24V (yellow zone 21.0 to 25.0V)  
 36V (yellow zone 31.5 to 38.0V)  
 48V (yellow zone 42.0 to 50.5V)

**Calibration accuracy:**

±8% of range

**Movement:**

Polarised moving iron

**Temperature range:**

-20°C to +40°C

**Terminations:**

6.3 or 4.7mm faston tags

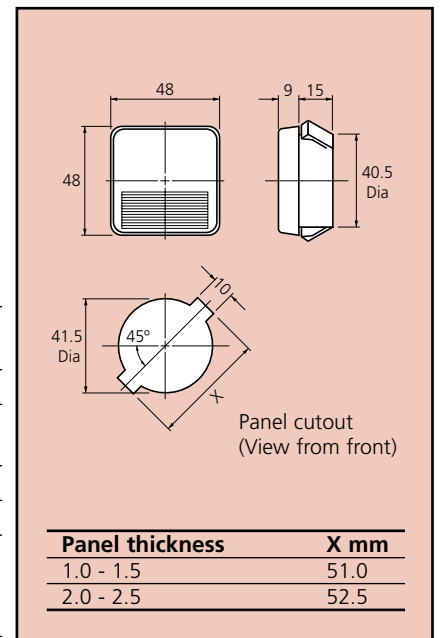
**Fixing:**

Snap into panel

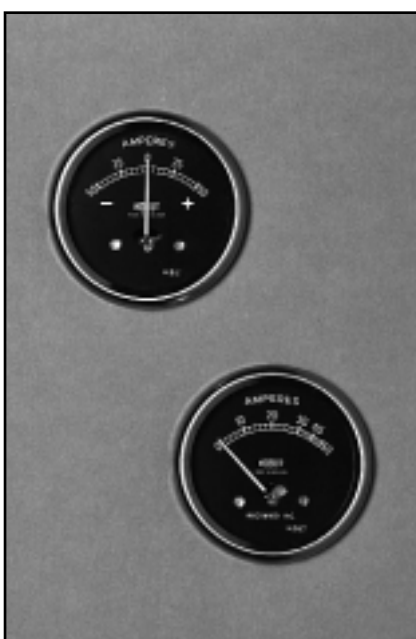
**Options:**

High intensity LED indicating system on.  
 Black or white dial

## Dimensions (mm)



## F3DM



**Application:** Ammeters normally used to indicate charge or discharge currents on vehicle battery charging systems.

**Standard Range:**

0/5A, 0/8A, 0/10A, 0/12A, 0/15A, 0/20A,  
 0/30A, 0/40A, 0/50A, 0/60A, 0/75A  
 8/0/8A, 12/0/12A, 30/0/30A, 50/0/50A,  
 60/0/60A

**Calibration accuracy:**

±8% of f.s.d.

**Movement:**

Polarised moving iron

**Temperature range:**

-20°C to +40°C

**Terminations:**

2BA up to 20A  
 1/4 BSF above 20A

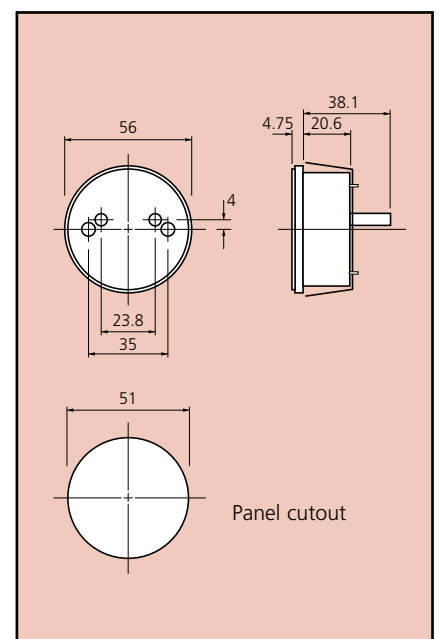
**Fixing:**

U clip

**Options:**

Illumination slots available  
 Black or white dial

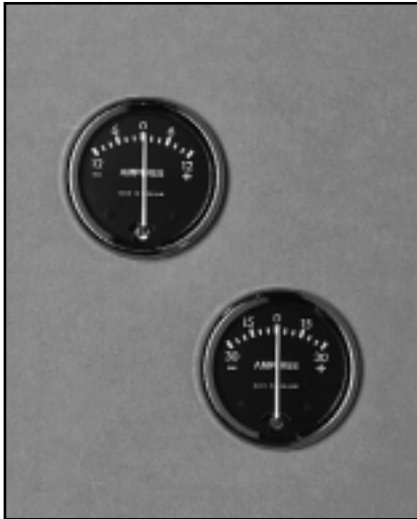
## Dimensions (mm)



# BATTERY CONDITION & CHARGING INDICATORS

# HOBUT

## F3VAM



**Application:** Ammeters normally used to indicate charge or discharge currents on vehicle battery charging systems. Illumination slots supplied as standard.

**Standard Range:** 8/0/8A, 12/0/12A, 30/0/30A

**Calibration accuracy:**  $\pm 8\%$  of f.s.d.

**Movement:** Polarised moving iron

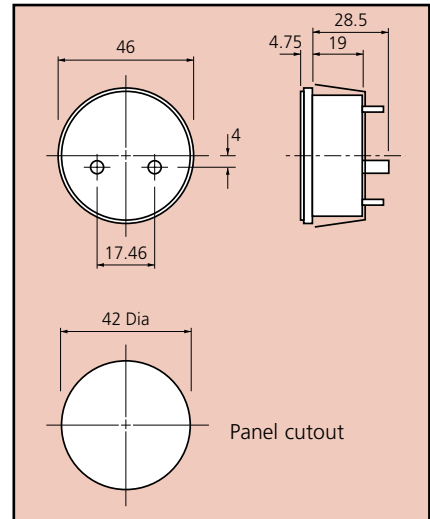
**Temperature range:**  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

**Terminations:** 2BA or 4BA studs

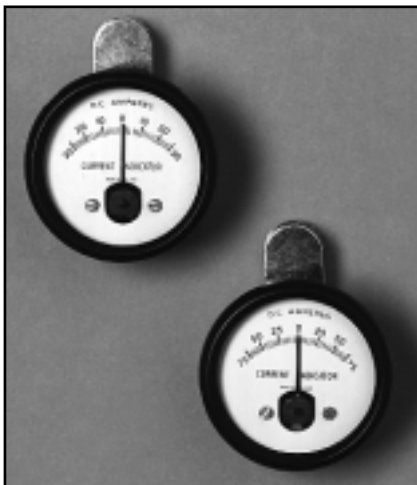
**Fixing:** U clip (bezel mounting clips available upon request)

**Options:** Black or white dial

## Dimensions (mm)



## F3DM/CT



**Application:** This clip-on meter is designed to give a quick indication of current & direction of flow. There are no connections to be made, it simply clips over the conductor & operates on the induction principle.

**Standard Range:** 30/0/30A, 75/0/75A  
Supplied with white dial

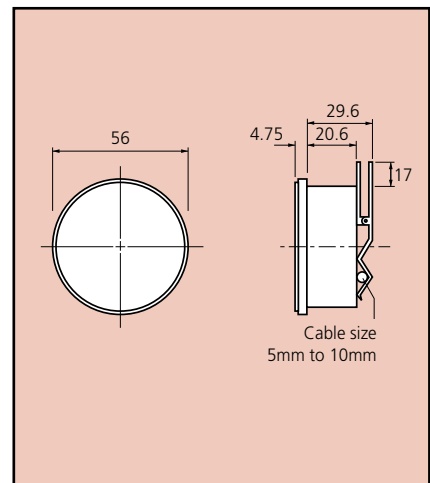
**Calibration accuracy:**  $\pm 10\%$  of f.s.d.

**Movement:** Moving magnet

**Temperature range:**  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

**Cable size:** For best results use with cable sizes 5mm to 10mm diameter

## Dimensions (mm)



## SPECIAL DIALS



The products detailed in this publication are our standard range, but for large quantity orders, HOBUT engineers will be pleased to work with customers to design individual dials to their specifications.

Our policy is one of continuous development and therefore specifications may change without notice.

## HOWARD BUTLER LTD

CROWN WORKS, LINCOLN ROAD  
WALSALL WS1 2EB ENGLAND

Tel: 01922 640003 Fax: 01922 723626

International Tel: +44 1922 640003 E-mail: sales@hobut.co.uk

Web: www.hobut.co.uk