

1 **UK-TYPE EXAMINATION CERTIFICATE**

2 **Component Intended for use on/in a Product or Protective System Intended for use in
Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1**

3 UK-Type Examination Certificate Number: **BAS21UKEX0038U**

4 Product: **HTB Terminal Block**

5 Manufacturer: **Hawke International**

6 Address: **A Division of Hubbell Limited, A Member of the Hubbell Group of
Companies, Oxford Street West, Ashton-under-Lyne, Lancashire,
OL7 0NA**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **21(C)0033**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


EN 60079-0: 2012: +A11: 2013 EN IEC 60079-7: 2015: +A1: 2018

except in respect of those requirements listed at item 18 of the Schedule.

10 The sign “U” is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as the basis for certification of an equipment or protective system.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

 **II 2G Ex eb IIC Gb**

SGS Baseefa Customer Reference No. **0500**

Project File No. **21/0033**

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R S SINCLAIR
TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number BAS21UKEX0038U

15 Description of Product

The HTB Terminal Block comprises a circular nylon base into which are moulded between 2 and 6 nickel-plated brass terminal pillars rated. The terminal block is rated at 37Amps and 550Volts.

The terminals are separated by 6 integrally moulded barriers. The threaded terminal pillar has a slot to receive conductors. The conductors are secured by a threaded terminal cap, which is screwed onto the top of the pillar. The cap has a screwdriver slot on top and an optional knurl on its outer diameter.

Inside the terminal cap cavity is a pressure bar which can slide up and down the slot inside the pillar as the terminal cap is rotated. A pressure bar spindle sits above the pressure bar. It has a flange at its top and is secured at the top of the cavity by a self-locking ring under its flange, which locks against the cavity wall. It also contributes to clamping the assembly of parts inside the cavity. The pressure bar spindle passes down through the top of the pressure bar and the end of the spindle is swaged over. This completes the securing of the assembly of parts inside the cavity and also enables the over pressure to slide up and down the spindle. The pressure bar also has a flange at the top. A helical compression spring is positioned between the top of this flange and the underside of the self-locking ring.

When the conductors are connected to the terminal they are held in the slot under the pressure of the bar, with the spring fully compressed, which locks the connection.

The voltage rating is an absolute condition of use and includes the 10% margin permitted in EN IEC 60079-7. The current ratings below are not absolute maximums but are recommended values when used in general purpose junction boxes or marshalling boxes:

| Cable Size (mm ²) | Maximum Current (Amps) |
|----------------------------------|---------------------------|
| 0.5 | 1 |
| 0.75 | 1 |
| 1 | 8 |
| 1.5 | 10 |
| 2.5 | 15 |
| 4 | 21 |
| 6 | 26 |
| 10 | 37 |

Higher currents may be permitted subject to individual examination of each specific application.

Maximum Number of Conductors of the Same Size Connected to each Terminal:

| Conductor Size (mm ²) | Maximum Number of Conductors |
|--|------------------------------|
| 10 | 2 |
| 6 | 3 |
| 4 | 4 |
| Smaller conductors $\geq 0.5\text{mm}^2$ | 4 |

Conductors to be either all solid or all stranded.

Alternatively the following **PAIRS** of conductor combinations may be fitted:

| | |
|-----------------------------------|--|
| 1.5mm ² solid with: | Stranded: 2.5mm ² or 4mm ² or 6mm ² or 10mm ² Solid: 1.5mm ² |
| 1.5mm ² stranded with: | Stranded only: 0.9mm ² or 1.2mm ² or 1.5mm ² or 2.2mm ² or 2.5mm ² or 4mm ² or 6mm ² or 10mm ² |
| 2.5mm ² solid with: | Stranded: 0.9mm ² or 1.2mm ² or 6mm ² or 10mm ² Solid: 2.5mm ² or 4mm ² |
| 2.5mm ² stranded with: | Stranded only: 2.5mm ² or 4mm ² or 6mm ² or 10mm ² |
| 4mm ² stranded with: | Stranded only: 4mm ² or 6mm ² or 10mm ² |
| 6mm ² stranded with: | Stranded only: 6mm ² or 10mm ² |
| 10mm ² stranded with: | Stranded only: 10mm ² |

Alternatively, the following **THREE** conductors may be fitted in one terminal:
Two solid 2.5mm² conductors and one 6mm² stranded conductor.

The HPB* Terminal Block is very similar to the existing circular HTB* Terminal Block.

The HPB* comprises a rectangular moulded plastic/insulated base with 4 partitioned sections, with 2 to 4 pillar type terminals, one per section. The Terminal Block is coded HPB2, HPB3 or HPB4. Any two adjacent pillars may be fitted with a terminal link to drawing number 9476.

The pillar terminal is the same as that already used in the existing HTB4 and HTB6 Terminal Blocks, therefore the conductor sizes, associated current ratings and conductor combinations per pillar are in-line with the existing HTB* Terminal Block.

The HPB terminal block is rated at 37A and 550V.

HTB and HPB Terminal Block:

The specified tightening torque for each pillar is 1 to 2 Nm.

The terminal resistance for each pillar is 0.0003 Ohms.

Each terminal pillar at 37A (+10%), fitted with 2 x 10mm² conductors has a rise of 11K.

16 Report Number

21(C)0033

17 Schedule of Limitations

1. Leads connected to the terminals shall have insulation extending to within 3mm of the terminal throat and the bare end of each lead shall not extend more than 3mm beyond the other side of the slot and shall remain straight.
2. The terminal cap of each terminal, used and unused, shall be fully tightened down by the end user. The tightening torque is 1 to 2 Nm.
3. Conductors of different sizes and configurations shall not be inserted into the same terminal throat/slot except for the specific combinations listed in this certificate schedule.
4. When installed in an enclosure the creepage and clearance distances between the terminals, adjacent equipment and enclosure walls must comply with the requirements of EN IEC 60079-7.
5. When installed in plastic enclosures there shall be at least 3mm clearance between the inside of the removable cover/lid of the enclosure and the terminal screws, after the connections have been made and the terminal screws and cover/lid have been fully tightened down.
6. For conductor sizes less than 1mm² but not less than 0.5mm², the maximum current rating shall not exceed 1 amp.
7. The service temperature range for the HTB* Terminal Block shall not exceed -60°C to +100°C.
8. The service temperature range of the HPB* Terminal Block shall not exceed -60°C to +75°C.
9. When the HPB* is fitted with terminal link to drawing number 9476, the clearance distances may be affected.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

| Clause | Subject |
|--------|-----------------------|
| 1.2.7 | LVD type requirements |
| 1.4.1 | External effects |
| 1.4.2 | Aggressive substances |

19 Drawings and Documents

| Number | Sheet | Issue | Date | Description |
|--|--------|-------|----------|------------------------------------|
| D2580 | 1 of 1 | D | 12/05/21 | Label for HTB & HPB Terminal Block |
| Baseefa08ATEX0266U IECEX BAS 08.0085U | | | | |