

File E63492  
Project 93ME50527

June 30, 1993

REPORT

on

COMPONENT - TERMINAL BLOCKS

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## DESCRIPTION

## PRODUCT COVERED:

Component terminal blocks, Cat. Nos. GSK760, GSK860, GSK864, GSK865, followed by a /one or /two digit number may be followed by additional suffixes. Pin headers, Cat. Nos. GST760, GST860, GST864, GST865, followed by Suffix HO, VO, HG or VG, followed by a /one or /two digit number, may be followed by additional suffixes.

## GENERAL CHARACTER AND USE:

The devices covered by this Report are intended for use in the following applications and within the ratings specified.

## Application -

Commercial appliances (such as business and EDP equipment, etc).

General industrial (such as motor controllers, pushbutton stations, etc).

Industrial control devices having limited ratings (see Par. 6.7 of the Standard).

## Terminal Type -

Front

Back

Pressure Wire Connector

Soldering post

Type Wiring - Factory wiring only.

## RATINGS:

Series	Max Voltage, V	Max Current, +A	Wire Range (AWG/SOL/STR) Copper	Torque, lb/in
GSK860, GSK865	300	12	12-22	7
GST860, GST865	300	12	-	-
GSK760	300	8	14-22	3
GST760	300	8	-	-
GSK864	300	8	14-22	3
GST864	300	8	-	-
+ - Refer to Spacing Table for current limitations.				

## TERMINAL BLOCK NOMENCLATURE CODE:

<u>GSK860</u>	<u>/2</u>	<u>XX</u>
I	II	III

## I - Basic Construction -

GSK760  
GSK860  
GSK864  
GSK865

## II - Number of Poles -

One or two digit number

## III - Optional Suffixes (Commercial Purposes Only) -

Additional suffixes may be provided

## PIN HEADER NOMENCLATURE CODE:

<u>GST860</u>	<u>VO</u>	<u>/2</u>	<u>XX</u>
I	II	III	IV

## I - Basic Construction -

GST760  
GST860  
GST864  
GST865

## II - Construction Variation -

HO - Horizontal soldering posts 1 open ended construction.  
VO - Vertical soldering posts 1 open ended construction.  
HG - Horizontal soldering posts 1 open ended construction.  
VG - Vertical soldering posts 1 open ended construction.

## III - Number of Poles -

/one or two digit number

## IV - Optional Suffixes (Commercial Purposes Only) -

Additional suffixes may be provided

## ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only in or with products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

## Conditions of Acceptability -

1. The Pin Header soldering post terminals are to be factory wired only and the suitability of the connection (including spacings between factory connectors) shall be determined in the end use.

2. The insulating bodies are molded of polymeric materials, as specified in the following tabulation. The use of these materials shall be judged in the end use application.

Manufacturer	Material	Base Material Temperature Rating, C
		140
		130

These materials may be interchangeable at 130°C.

3. The tightening torque for field wiring pressure wire connector terminals is recorded in the Ratings section of this Report. This torque value shall be marked on the end-use product for those categories which require torque markings for field terminated conductors.

4. These terminal blocks use are intended for factory wiring only.

5. Pin Header Series GST760, GST860, GST864, GST865 are intended for mating with terminal blocks Series GSK760, GSK860, GSK864, GSK865 respectively.

6. The terminal block female contacts and the mating pin header male contacts have not been investigated for current rupturing.

CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following description.

Marking - The marking of a terminal block shall include:

1. The manufacturer's name or trade name or trademark on the terminal block.
2. The catalog numbers which may be marked on the terminal block, shipping carton, or stuffer sheet placed in the shipping carton.
3. Wire range, tightening torque, ampere and voltage rating are optional.

Corrosion Protection - All parts are of corrosion resistant material or are suitably plated to resist corrosion.

Spacings - The following minimum spacings in inches (millimeters) shall be maintained between uninsulated live parts of opposite polarity, uninsulated live parts, and uninsulated grounded parts other than the enclosure or exposed metal parts.

	<u>Max V</u>	<u>Through Air</u>	<u>Over Surface</u>
Commercial appliance, including business equipment, electronic data processing equipment, etc.	250	3/32 (2.4) <sup>b</sup>	3/32 (2.4) <sup>b</sup>
General industrial	150	1/8 (3.2) <sup>b</sup>	1/4 (6.4) <sup>b</sup>
General industrial +	300	1/16 (1.6) <sup>b</sup>	1/8 (3.2) <sup>b</sup>

<sup>b</sup> - The spacing between wiring terminals of opposite polarity and the spacing between a wiring terminal and a grounded dead metal shall not be less than 1/4 in (6.4 mm) if short-circuiting or grounding of such terminals may result from projecting strands of wire.

+ - These spacings are applicable to a terminal block for use only in or with industrial control equipment where the load on any single circuit of terminal block does not exceed 15 A at 51-150 V, 10 A at 151-300 V, 5 A at 301-600 V, or the maximum ampere rating for the terminal block, whichever is less.

## A. TERMINAL BLOCK

\* CAT. NO. GSK860 (REPRESENTS CAT. NO. GSK865)

## B. PIN HEADER

CAT. NO. GST860HO

(REPRESENTS ALL PIN HEADERS)

FIG. 1 (M93-23826)

\* General - Cat. Nos. GSK860 and GSK865 are identical except for terminal center to center spacings (pitch), 5.0 and 5.08 mm respectively.

1. Housing - Recognized Component (QMFZ2), as outlined in Engineering Considerations, 1.07 mm min thick for terminal blocks and 0.8 mm min thick for pin headers. Refer to Ill. 1 for overall dimensions.
2. Soldering Post Terminal - Plated copper alloy, 1.0 by 1.0 mm, refer to Ill. 1 for overall length.
3. Connector Body - Plated copper alloy, 5 by 4 by 7.5 mm high, provided with a 3 mm square wire opening and a threaded tapped hole (min two full threads).
4. Contact Terminal - Plated copper alloy, 0.42 mm min thick, provided with serrations on wire entry end. Overall dimensions (mm) as follows:

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
2.5	6.0	5.5	13.0	2.8	6.0

Terminal Screw - Plated steel slot headed screw, overall dimensions (mm) as follows:

Size                   - M3  
Thread length       - 4.0  
Screw length         - 7.0

## A. TERMINAL BLOCK

CAT. NO. GSK760 (REPRESENTS GSK864)

PIN HEADER

## B. CAT. NO. GST760

(REPRESENTS ALL PIN HEADERS)

FIG. 2 (M94-12186)

1. Housing - Recognized Component (QMFZ2), as outlined in Engineering Considerations, 0.7 mm min thick for terminal blocks and 0.6 mm min thick for headers. Refer to Ill. No. 2 and 3 for overall dimensions.
2. Soldering Post Terminal - Plated copper alloy, 0.8 mm by 0.8 mm, refer to Ill. No. 2 and 3 for overall length.
3. Connector Body - Plated copper alloy, 4 mm by 2.5 mm by 5 mm high, provided with a 1.6 mm by 3 mm wire opening and a threaded tapped hole (min two full threads).
4. Contact Terminal - Plated copper alloy, 0.42 mm min thick, provided with serrations on wire entry end.
5. Terminal Screw - Plated steel socket head screw, overall dimensions as follows:

Size:	M2
Thread length:	2.4 mm
Screw length:	5.8 mm