

File E63492
Project 89ME11967

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REPORT

on

COMPONENT - TERMINAL BLOCKS

Adels Contact Elektrotechnische
Bergisch Gladbach 2,
Fed. Rep. of Germany

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D E S C R I P T I O NPRODUCT COVERED:

Component terminal blocks, Cat. Nos. GSK820, GSK830 followed by H or V, and one or two digit number, with or without DS, may be followed by additional suffixes.

GENERAL CHARACTER AND USE:

The terminal blocks 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.)

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

Terminal Type -

Front (Line)

Back (Load)

Pressure Wire Connector

Soldering Post

Type Wiring - Factory and Field wiring.

RATINGS:

<u>Cat. Nos.</u>	<u>Max Voltage, V</u>	<u>Max Current, # A</u>	<u>Wire Range AWG-Cu Solid/Stranded</u>	<u>Torque, lb-in</u>
*GSK820H	300	15	No. 14	5
*GSK820V	300	15	No. 14	5
*GSK820H/DS	300	15	No. 14-22	5
*GSK820V/DS	300	15	No. 14-22	5
GSK830H	300	16	No. 12-22	7
GSK830V	300	16	No. 12-22	7
GSK830H/DS	300	16	No. 12-22	7
GSK830V/DS	300	16	No. 12-22	7

- 10 A max field-wiring (general industrial use). See Spacings Table.

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CAT. NO. NOMENCLATURE CODE:

- * Example: GSK820 H /2 DS XX
 A B C D E
- A - Catalog number designation.
 GSK820, GSK830
- B - Solder pin orientation.
 H - Horizontal
 V - Vertical
- C - Number of poles.
* One or two digit number
- D - Terminal variations.
 DS - Wire guard provided.
 None - Wire guard omitted.
- * E - 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 solder pin 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.

<u>Manufacturer</u>	<u>Material</u>	<u>Base Material Temperature Rating, °C</u>
[REDACTED]	[REDACTED]	140
[REDACTED]	[REDACTED]	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.

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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 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</u> <u>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)	3/32 (2.4)
General industrial +	300	1/16 (1.6)	1/8 (3.2)

+ - These spacings are applicable to a terminal block for use with industrial control equipment whereby the following is met:

- A. Device rated 1 hp (746 W output) or less, 720 VA or less - break pilot duty; or not more than 15 A at 51-150 V, 10 A at 151-300 V, or 5 A at 301-600 V; or
- B. That the device controls more than one load provided the total load connected to the line at one time does not exceed 2 hp (1492 W output), 1440 VA, or have a current rating greater than 30 A at 51-150 V, 20 A at 151-300 V, or 10 A at 301-600 V.

- A. CAT. NO. GSK820V/3DS
- B. CAT. NO. GSK820V/3
- C. CAT. NO. GSK820H/3DS
- D. CAT. NO. GSK820H/3

FIG. 1 (M89-15946)

General - Cat. Nos. with Suffix V and H are similar except for solder pin orientation, vertical and horizontal, respectively. Suffix DS denotes wire guard provided. The /3 Suffix denotes 3-pole, and represents 2-pole devices /2 covered by this report.

1. Body - Recognized Component plastic [REDACTED], min 0.45 mm end wall thickness. Overall dimensions are 10 mm high, 7.5 mm wide, 15 mm long for 3-pole devices; 10 mm long for 2-pole devices. Ends of body provided with rib and slot which interlock to for multi-pole units of indefinite length.
2. Terminal Body (Cat. Nos. With Suffix V) - Plated copper alloy 4 by 4 by 5 mm overall. Wire entry is 3 mm diameter. Top threaded (min two full threads) for terminal screw, Item 4. Integral solder pin is 1 mm diameter, 5 mm long.
3. Wire Guard (Cat. Nos. with Suffix DS) - Stainless steel 0.2 mm thick, U-shaped, 2 mm wide at clamping area.
4. Terminal Screw - Plated steel, size M2.5 by 4.8 mm long under slot head.
5. Terminal Body (Cat. Nos. With Suffix H) - Similar to Item 2, except 4.8 by 3.8 by 5 mm overall, rounded at base. Solder pin exits horizontally. Wire guard (DS) and screw are same as Items 3 and 4 respectively.

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SERIES GSK830

General - Series GSK830 is similar to Series GSK820 (Page 4, Fig. 1), except for variations detailed below.

1. Body - 0.45 mm min end wall thickness, 12.5 mm high, 9.2 mm wide, 10 mm long for 2-pole device; 15 mm long for 3-pole device.

2. Terminal Body -

Cat. Nos. with Suffix V:

4.0 by 4.5 by 6.0 mm overall dimensions, with a 3.0 mm dia wire entry. Provided with a tapped hole (min two full threads). Integral solder pin is 1 mm dia, 5 mm long.

Cat. Nos. with Suffix H:

Similar to Cat. Nos. with Suffix V above except 4.0 by 4.8 by 6.0 mm overall dimensions and solder pin exits horizontally.

3. Terminal Screw - Overall dimensions (mm) are as follows:

Size - M3
Thread length - 4.0
Screw length - 7.0

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