

## SEALED, ILLUMINATED ROCKER SWITCHES

ATTRACTIVE &amp; RUGGED FOR WET &amp; DUSTY ENVIRONMENTS

The OTTO K5 series is a quality, precision switch designed to comply with standards established for appliance, marine (ignition protection) and off-road vehicles along with other demanding applications where rugged rocker switches are required.

K5 series sealed rocker switches snap into industry-standard panel cutouts. Choose illuminated and printed legends, thru-panel drain option and switching compatibility from low level up to 20 amps.

The K5 series offers a choice of LED, incandescent and neon illumination. Legends can be stamped onto a non-illuminated button, stamped onto an illuminated lens or laser etched into the lens and backlit.

Available in standard and low level contact ratings, the K5 rockers will fit a wide range of applications. Expect a minimum of 25,000 cycles at a full rated load of 20 amps resistive or 15 amps inductive. 100,000 cycles mechanical. A full complement of switch operation is available including momentary and maintained action in 2 or 3-position switches in SPST, SPDT, SPTT, DPST and DPDT circuit arrangements.

OTTO can provide custom colors upon request. Value-added assemblies with wire leads are also available. Please consult the factory for assistance.

## Features:

- Sealed watertight per IP68S
- Snap-in panel mounting into industry standard panel cutout
- Optional panel seal gasket
- LED, neon & incandescent lighting
- 0.250" Quick Connect terminals
- Optional one-piece connector
- Optional terminal barriers
- Low level up to 20 amp switch
- Configurable Single Pole Triple Throw (SPTT) with external jumpers
- Soft Touch button available
- RoHS/WEEE/Reach compliant



Raised Bars Shown

### Standard Characteristics/Ratings:

#### ELECTRICAL RATINGS:

| Load      | Sea Level<br>@ 28VDC                   | Sea Level<br>@ 115VAC, 60/400Hz |
|-----------|----------------------------------------|---------------------------------|
| Resistive | 20A                                    | 16A                             |
| Inductive | 15A                                    | 15A                             |
| Lamp      | 5A                                     | 5A                              |
| Motor     | 0.5HP @ 110VAC                         |                                 |
| DWV       | 1050Vrms except across light terminals |                                 |
| Low Level | 10mA @ 30mV                            |                                 |

**Electrical Life:** 25,000 cycles

#### LIGHTING:

| Light Source | Rating                 |
|--------------|------------------------|
| Incandescent | (VDC) 6V, 12V, 24V     |
| Neon         | (VAC) 125V, 250V       |
| LED          | (VDC) 2V, 6V, 12V, 24V |

**Mechanical Life:** 100,000 cycles**Seal:** IP68S**Operating Temp Range:** -40°C to +85°C

#### MATERIALS:

|                           |                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Case:</b>              | Thermoplastic                                                                                            |
| <b>Button:</b>            | Thermoplastic                                                                                            |
| <b>Terminals/Contact:</b> | Brass, silver alloy with silver plate, gold flash for low level                                          |
| <b>Terminal Hardware:</b> | K5 series recommended Quick Connect terminals:<br>AMP 60253-2 for 12-16 AWG<br>AMP 42100-2 for 14-18 AWG |
| <b>Mounting Hardware:</b> | None provided                                                                                            |

## SNAP-IN PANEL MOUNTING

### K5 SERIES PART NUMBER CODE

Part Number Code Continued Below

| K5                                                                   |  | X                                                                                                                                                                                                                               | X | X                                                                                                                                                     | XX | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|----------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Base Options                                                         |  | Rocker Color*/Style                                                                                                                                                                                                             |   | Rocker Features                                                                                                                                       |    | Switch Action/Circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   | Light Source Type                                                                                                                                                                                                                                                                                                                                            |  | Light Circuit                                                                                                                                                                                                                                                                                                                                                                                               |  |
| A. With Keying Pin Only<br>Standard Rating<br>Silver Plate           |  | A. Black Plastic Rocker<br>B. Black "Soft Touch" Rocker<br>C. Red Plastic Rocker                                                                                                                                                |   | Position "A" Position "C"<br>1. No Feature 1. No Feature<br>2. Lens 2. Lens<br>3. Raised Bars 3. Raised Bars<br>4. Raised Lit Bars 4. Raised Lit Bars |    | Position "A" Position "B" Position "C" Circuit<br>1A. 3-4 NONE OFF SPST<br>2A. 3-4/8-9 NONE OFF DPST<br>1B. 3-4 NONE 3-2 SPDT<br>2B. 3-4/8-9 NONE 3-2/8-7 DPDT<br>1C. (3-4) NONE OFF SPST<br>2C. (3-4)/(8-9) NONE OFF DPST<br>1D. (3-4) NONE 3-2 SPDT<br>2D. (3-4)/(8-9) NONE 3-2/8-7 DPDT<br>1E. (3-4) OFF (3-2) SPDT<br>2E. (3-4)/(8-9) OFF (3-2)/(8-7) DPDT<br>1F. 3-4 OFF 3-2 SPDT<br>2F. 3-4/8-9 OFF 3-2/8-7 DPDT<br>1G. (3-4) OFF 3-2 SPDT<br>2G. (3-4)/(8-9) OFF 3-2/8-7 DPDT |   | A. No Illumination<br>B. 6V Incandescent<br>C. 12V Incandescent<br>D. 24V Incandescent<br>E. 125VAC Neon<br>F. 250VAC Neon<br>G. 2V Red LED<br>H. 2V Green LED<br>J. 2V Amber LED<br>K. 6V Red LED<br>L. 6V Green LED<br>M. 6V Amber LED<br>N. 12V Red LED<br>P. 12V Green LED<br>Q. 12V Amber LED<br>R. 24V Red LED<br>S. 24V Green LED<br>T. 24V Amber LED |  | Circuit Terminal Connections<br>A. NONE NONE<br>B. Dep. in "A" 1(-) & 4(+)<br>C. Dep. in "C" 2(+) & 5(-)<br>D. Ind. in "A" 1(-) & 6(+)<br>E. Ind. in "C" 5(-) & 10(+)<br>F. Dep. in "A" 1(-) & 4(+)<br>Dep. in "C" 2(+) & 5(-)<br>G. Dep. in "A" 1(-) & 4(+)<br>Ind. in "C" 5(-) & 10(+)<br>H. Ind. in "A" 1(-) & 6(+)<br>Dep. in "C" 2(+) & 5(-)<br>J. Ind. in "A" 1(-) & 6(+)<br>Ind. in "C" 5(-) & 10(+) |  |
| B. Without Barriers or Pin<br>Standard Rating<br>Silver Plate        |  | D. Red "Soft Touch" Rocker<br>E. White Plastic Rocker<br>F. White "Soft Touch" Rocker<br>H. Green Plastic Rocker<br>J. Orange Plastic Rocker<br>K. Blue Plastic Rocker<br>L. Gray "Soft Touch" Rocker<br>M. Gray Plastic Rocker |   | NOTE: Soft Touch rockers require same color lenses/ lit bars for both positions.                                                                      |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  | NOTE: Polarity only applies to LED circuits.                                                                                                                                                                                                                                                                                                                                                                |  |
| C. With Terminal<br>Barriers Only<br>Standard Rating<br>Silver Plate |  | *Additional colors available.<br>Contact factory.                                                                                                                                                                               |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| D. With Keying Pin Only<br>Low Level Rating<br>Gold Plate            |  |                                                                                                                                                                                                                                 |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| E. Without Barriers or Pin<br>Low Level Rating<br>Gold Plate         |  |                                                                                                                                                                                                                                 |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| F. With Terminal<br>Barriers Only<br>Low Level Rating<br>Gold Plate  |  |                                                                                                                                                                                                                                 |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| G. With Keying Pin Only<br>Standard Rating<br>No Plate               |  |                                                                                                                                                                                                                                 |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| H. Without Barrier or Pin<br>Standard Rating<br>No Plate             |  |                                                                                                                                                                                                                                 |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| J. With Terminal<br>Barriers Only<br>Standard Rating<br>No Plate     |  |                                                                                                                                                                                                                                 |   |                                                                                                                                                       |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                             |  |

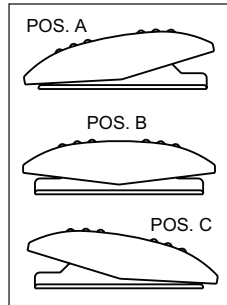
POS. A

POS. B

POS. C

NOTE: All code combinations are not feasible. Consult factory for product availability.

NOTE: ( ) denotes momentary action.



NOTE: All code combinations are not feasible.  
Consult factory for product availability.

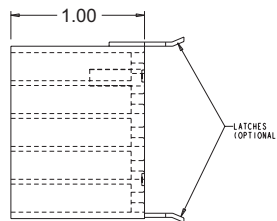
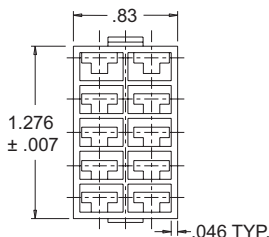
NOTE: ( ) denotes momentary action.

### K5 PART NUMBER CODE - CONTINUED FROM ABOVE

| X                                                                                                                                                                                                                                                                                                 | X | XX                                                                                                                                                                                                                                         | XX | X                                                                                                                                                                                                                                         | X | X                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------|
| Lens Color                                                                                                                                                                                                                                                                                        |   | Legend Style                                                                                                                                                                                                                               |    | Legend Color                                                                                                                                                                                                                              |   | Legend Orientation                                                                   |
| Position "A" Position "C"<br>1. Transparent Red 1. Transparent Red<br>2. Transparent Green 2. Transparent Green<br>3. Transparent Amber ① 3. Transparent Amber ①<br>4. Clear ① 4. Clear ①<br>5. Translucent White ② 5. Translucent White ②<br>Z. No Lens Z. No Lens                               |   | Position "A" Position "C"<br>ZZ. No Legend ZZ. No Legend                                                                                                                                                                                   |    | Position "A" Position "C"<br>1. Red 1. Red<br>2. Black 2. Black<br>9. White 9. White<br>B. Backlight/ Daylight White ③ B. Backlight/ Daylight White ③<br>D. Backlight/ Deadfront ③ D. Backlight/ Deadfront ③<br>Z. No Legend Z. No Legend |   | Position "A" Position "C"<br>1. Std. A C<br>2. 90° A C<br>3. 180° A C<br>4. 270° A C |
| NOTE: It is not recommended to use green LEDs with translucent white lenses. This will reduce light intensity. Use clear lenses with green LEDs for maximum light intensity.<br>① Recommended for neon lamps.<br>② Special Order: Ultra bright green LEDs to be used with translucent white lens. |   | NOTE: For all other legend options, refer to the legend table on page 155, find the two digit code and enter the code in the appropriate position(s).<br><br>STOP HERE for lighted switches without legends.<br><br>Example: K5AA331FNH-44 |    | ③ Only available on Rocker Style "A" & Rocker Features "1" and lens color "Z" for each position.                                                                                                                                          |   |                                                                                      |

STOP HERE for unlighted switches without legends.

Example:  
K5AA331BAA



**K5 Connector**  
P/N 801775-2A Without Latches  
P/N 801775-2B With Latches

**Recommended Quick Connect Terminals**  
AMP 60253-2 for 12-16 AWG  
AMP 42100-2 for 14-18 AWG

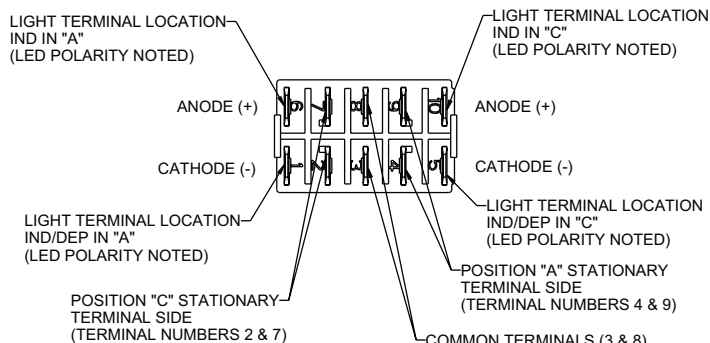
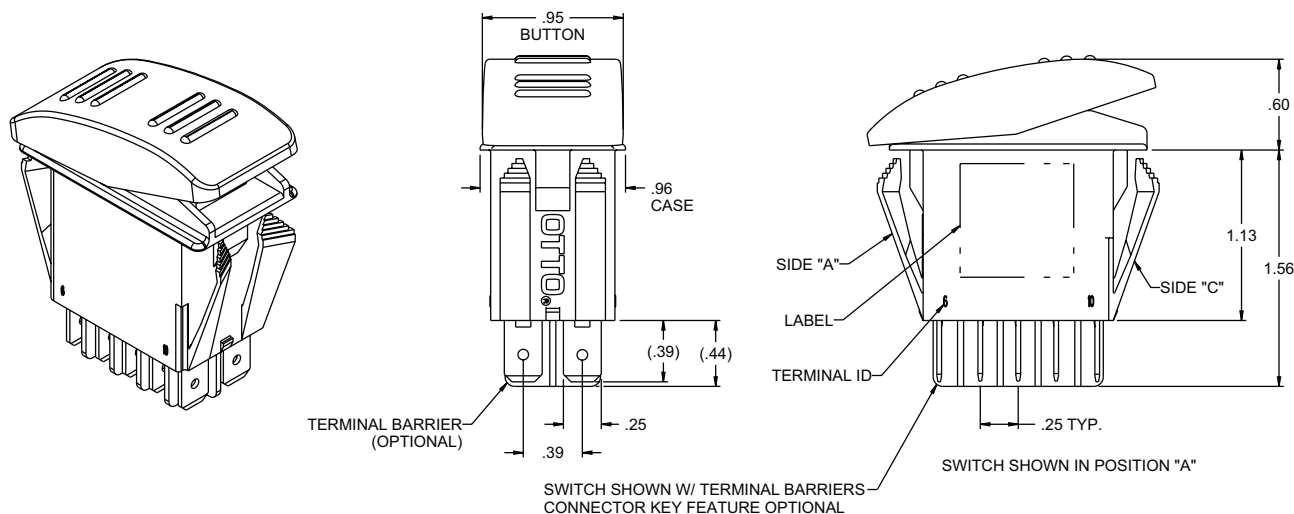
**Panel Seal Gasket**  
P/N 807109

• K5 panel plugs available as shown on page 160.

# SEALED, ILLUMINATED ROCKER SWITCHES

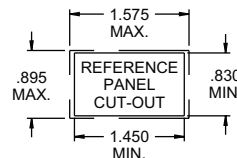
**K5**  
SEALED  
ROCKERS

ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS



TERMINAL LOCATIONS AS VIEWED FROM BOTTOM OF SWITCH  
(CASE REMOVED FOR CLARITY)  
CONTACT MADE IN OPPOSITE DIRECTION OF ROCKER TRAVEL

MOUNTING OPENING:  
PANEL THICKNESS RANGE OF .025 - .105 A GASKET IS RECOMMENDED  
PANEL THICKNESS RANGE OF .105 - .187 W/O GASKET  
PANEL OPENING: MIN. TYP. MAX.  
WIDTH .830 .863 .895  
LENGTH 1.450 1.513 1.575



|                                                                                          |                                                                               |                                                                                          |                                                                                                             |                                                                                                             |                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>POS "A"</p> <p>POS "B"</p> <p>POS "C"</p> <p>SPECIAL CIRCUIT - ON-ON-ON SCHEMATIC</p> | <p>K5....2A....</p> <p>DPST - ON-NONE-OFF SCHEMATIC</p>                       | <p>K5....2B....</p> <p>DPDT - ON-NONE-ON SCHEMATIC</p>                                   | <p>K5....2C....</p> <p>DPST - (ON)-NONE-OFF SCHEMATIC</p>                                                   | <p>K5....2D....</p> <p>DPDT - (ON)-NONE-ON SCHEMATIC</p>                                                    | <p>GENERAL SCHEMATIC INFORMATION</p> <p>○—○ INDICATES MAINTAIN ACTION (FIXED POSITION)</p> <p>▼—○ INDICATES MOMENTARY ACTION (AUTOMATIC RETURN POSITION)</p> <p>FOR OTHER LIGHTING SCHEMATICS REPLACE FOLLOWING SYMBOLS:</p> <p> INCANDESCENT (REPLACE RESISTOR &amp; LED)</p> <p> NEON (REPLACE LED)</p> |
| <p>K5....2E....</p> <p>DPDT - (ON)-OFF-(ON) SCHEMATIC</p>                                | <p>K5....2F....</p> <p>DPDT - ON-OFF-ON SCHEMATIC</p>                         | <p>K5....2G....</p> <p>DPDT - (ON)-OFF-ON SCHEMATIC</p>                                  | <p>K5....2BND...Z</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A"</p>                             | <p>K5....2BNC-Z</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "C"</p>                               |                                                                                                                                                                                                                                                                                                           |
| <p>K5....2BND...Z</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A"</p>          | <p>K5....2BNE-Z</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "C"</p> | <p>K5....2BNF...</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A" &amp; "C"</p> | <p>K5....2BNG...</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A" &amp; INDEPENDENT LED IN "C"</p> | <p>K5....2BNH...</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "A" &amp; DEPENDENT LED IN "C"</p> | <p>K5....2BNJ...</p> <p>DPDT - ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "A" &amp; "C"</p>                                                                                                                                                                                                                |

## SNAP-IN PANEL MOUNTING

## Standard Legends Per SAE Specifications

| STANDARD LEGENDS PER SAE SPECIFICATIONS |                                                                                       |                         |    |                                                                                       |                                  |
|-----------------------------------------|---------------------------------------------------------------------------------------|-------------------------|----|---------------------------------------------------------------------------------------|----------------------------------|
| A1                                      |      | ANCHOR                  | K2 |      | UNLOCK                           |
| B1                                      |      | BATTERY                 | L1 |      | LIGHT                            |
| B2                                      |      | ELECTRIC POWER          | L2 |      | MASTER LIGHTING SWITCH           |
| C1                                      |      | AC/COOLING SYSTEMS      | L3 |      | HEADLIGHTS                       |
| C2                                      |      | DEHUMIDIFIER            | L4 |      | HEADLIGHTS-LOW /<br>DIPPED BEAM  |
| C3                                      |      | HEATER/INTERIOR HEATING | L5 |      | HEADLIGHTS-HIGH /<br>UPPER BEAM  |
| D1                                      |      | WINDSHIELD DEFROSTER    | L6 |      | PARKING LIGHT                    |
| D2                                      |      | REAR WINDOW DEFROSTER   | L7 |      | WORK LAMP                        |
| D3                                      |      | MIRROR DEFROSTER        | L8 |      | WORK LAMP                        |
| E1                                      |      | ENGINE/START            | L9 |      | INTERIOR DOME LIGHT              |
| E2                                      |     | ENGINE/STOP             | M1 |     | BEACON                           |
| E3                                      |    | ON/START                | M2 |    | HAZARD/POSITION LIGHTS           |
| E4                                      |    | OFF/STOP                | M3 |    | CLEARANCE LIGHTS                 |
| E5                                      | ON                                                                                    | ON                      | M4 |    | SIDE MARKER LIGHT                |
| E6                                      | OFF                                                                                   | OFF                     | M5 |    | RUNNING LIGHTS<br>(UNDER POWER)  |
| E7                                      |    | ENGINE ELECTRIC PREHEAT | M6 |    | ANCHOR LIGHT                     |
| E8                                      |    | ENGINE-GAS INJECTION    | M7 |    | RUNNING/ANCHOR LIGHTS            |
| F1                                      |    | FRONT FOG LIGHTS        | M8 |    | SEARCH LIGHT                     |
| F2                                      |    | REAR FOG LIGHTS         | M9 |    | LEFT TURN SIGNAL                 |
| G1                                      |    | FUEL                    | MA |    | RIGHT TURN SIGNAL                |
| H1                                      |    | HORN                    | P1 |    | BILGE PUMP #1                    |
| H2                                      |    | HORN REAR               | P2 |    | BILGE PUMP #2                    |
| K1                                      |    | LOCK                    | P3 |    | BILGE PUMP #3                    |
|                                         |                                                                                       |                         | P4 |    | BILGE PUMP                       |
| P5                                      |    | BILGE BLOWER            | R1 |    | LIFT                             |
| R2                                      |    | LOWER                   | R3 |    | UP                               |
| R4                                      |    | DOWN                    | R5 |    | RIGHT                            |
| R6                                      |    | LEFT                    | R7 | FWD                                                                                   | FORWARD                          |
| R8                                      | REV                                                                                   | REVERSE                 | S1 |    | RADIO                            |
| S2                                      |   | MUTE                    | T1 |  | FAST                             |
| T2                                      |  | SLOW                    | T3 |  | TRIM TAB /<br>TRIMMING OPERATION |
| T4                                      |  | TRANSMISSION            | V1 |  | VENTILATING / AC FAN             |
| W1                                      |  | WINDSHIELD WIPER        | W2 |  | WINDSHIELD-WASHER                |
| W3                                      |  | WINDSHIELD-WASHER/WIPER | W4 |  | REAR WINDOW WIPER                |
| W5                                      |  | REAR WINDOW-WASHER      | W6 |  | REAR WINDOW-WASHER/WIPER         |
| ZZ                                      |                                                                                       | NO LEGEND               |    |                                                                                       |                                  |

For legends not shown, please consult an OTTO representative.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.