

IM48DGR

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TE Internal #: 1462039-9

General Purpose Signal Relay, DC, Bistable, 1 Coil, 2 Form C DPDT-CO, 5 A Contact Rating, 2.4 VDC Coil Voltage, 250 VAC Contact Voltage, Axicom IM

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Relays & Contactors > Electromechanical Relays



Relay & Contactor Type: **General Purpose Signal Relay**

Current Type: **DC**

Coil Magnetic System: **Bistable, 1 Coil**

Contact Arrangement: **2 Form C DPDT-CO**

Contact Current Rating: **5 A**

Features

Product Type Features

|                        |                              |
|------------------------|------------------------------|
| Relay & Contactor Type | General Purpose Signal Relay |
|------------------------|------------------------------|

Configuration Features

|                          |                                     |
|--------------------------|-------------------------------------|
| Contact Special Features | Bifurcated/Twin Contacts, Gull Wing |
| Relay Options            | RF Rated                            |
| Contact Number of Poles  | 2                                   |
| Contact Arrangement      | 2 Form C DPDT-CO                    |

Electrical Characteristics

|                                                         |          |
|---------------------------------------------------------|----------|
| Contact Limiting Short-Time Current                     | 5 A      |
| Contact Limiting Making Current                         | 5 A      |
| Contact Limiting Continuous Current                     | 5 A      |
| Contact Limiting Breaking Current                       | 5 A      |
| Insulation Initial Dielectric Between Open Contacts     | 750 Vrms |
| Insulation Initial Dielectric Between Adjacent Contacts | 750 Vrms |
| Contact Switching Voltage (Max)                         | 250 VAC  |



|                                                       |                                  |
|-------------------------------------------------------|----------------------------------|
| Contact Switching Load (Min)                          | .1mA @ .0001V                    |
| Voltage Standing Wave Ration (HF Parameter)           | 1.06db @ 100MHz, 1.49db @ 900MHz |
| Coil Resistance                                       | 58 Ω                             |
| Insulation Initial Resistance                         | 1000000 MΩ                       |
| Contact Current Rating                                | 5 A                              |
| Coil Voltage Rating                                   | 2.4 VDC                          |
| Contact Voltage Rating                                | 220 VDC                          |
| Coil Power Rating DC                                  | .1 W                             |
| Insulation Initial Dielectric Between Contacts & Coil | 1500 Vrms                        |

Signal Characteristics

|                               |                                  |
|-------------------------------|----------------------------------|
| Isolation (HF Parameter)      | -18.8dB @ 900MHz, -37dB @ 100MHz |
| Insertion Loss (HF Parameter) | -.03dB @ 100MHz, -.33dB @ 900MHz |

Body Features

|                |                     |
|----------------|---------------------|
| Product Weight | .75 g[.026 oz]      |
| Enclosure Type | Hermetically Sealed |

Contact Features

|                          |      |
|--------------------------|------|
| Contact Plating Material | Gold |
| Contact Material         | AgNi |

Termination Features

|                                    |         |
|------------------------------------|---------|
| Main Termination & Connection Type | PCB SMT |
| Coil Termination & Connection Type | PCB SMT |

Mechanical Attachment

|                    |             |
|--------------------|-------------|
| Product Mount Type | Board Mount |
|--------------------|-------------|

Dimensions

|                |                  |
|----------------|------------------|
| Product Width  | 6 mm[.236 in]    |
| Product Length | 10 mm[.393 in]   |
| Product Height | 5.65 mm[.222 in] |

Usage Conditions

|                                         |                           |
|-----------------------------------------|---------------------------|
| Operating Temperature Range             | -40 – 85 °C[-40 – 185 °F] |
| Environmental Category of Protection    | RTV                       |
| Environmental Ambient Temperature (Max) | 85 °C[185 °F]             |

Operation/Application



|                      |                       |
|----------------------|-----------------------|
| Solder Process       | Reflow Solder Capable |
| Performance Type     | High Current          |
| Current Type         | DC                    |
| Coil Magnetic System | Bistable, 1 Coil      |

Packaging Features

|                  |      |
|------------------|------|
| Packaging Method | Reel |
|------------------|------|

Other

|                                         |            |
|-----------------------------------------|------------|
| Coil Power Rating Class                 | .05 – .3 W |
| Contact Current Class                   | 0 – 5 A    |
| Environmental Ambient Temperature Class | 70 – 85 °C |
| Height Class (Mechanical)               | 0 – 6 mm   |
| Length Class (Mechanical)               | 0 – 10 mm  |
| Width Class (Mechanical)                | 0 – 6 mm   |

Product Compliance

For compliance documentation, visit the product page on TE.com>

|                                               |                                                                                                                               |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS Directive 2011/65/EU                  | Compliant                                                                                                                     |
| EU ELV Directive 2000/53/EC                   | Compliant                                                                                                                     |
| China RoHS 2 Directive MIIT Order No 32, 2016 | No Restricted Materials Above Threshold                                                                                       |
| EU REACH Regulation (EC) No. 1907/2006        | Current ECHA Candidate List: JAN 2025 (247)<br>Candidate List Declared Against: JAN 2025 (247)<br>Does not contain REACH SVHC |
| Halogen Content                               | Low Bromine/Chlorine - Br and Cl < 900 ppm per homogenous material. Also BFR /CFR/PVC Free                                    |
| Solder Process Capability                     | Reflow solder capable to 260°C                                                                                                |

Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulation, the information TE provides on SVHC in articles for this part number is based on the latest European Chemicals Agency (ECHA) 'Guidance on



requirements for substances in articles’ posted at this URL: <https://echa.europa.eu/guidance-documents/guidance-on-reach>

Compatible Parts

TE Part # CAT-AX41-IM11B  
Standard Signal Relay 2 Form C,2 CO  
Cont

Also in the Series | Axicom IM

PCB Relays(142)

RJ45 Connectors(2)

Customers Also Bought

TE Part #1903978-1  
POWER MODULE 4POS. REC. ASSY,

TE Part #552274-1  
ASSY, PLUG, 36 POS, B SLOT

TE Part #5748676-2  
DIE CAST CBL CLMP KIT,SZ 2

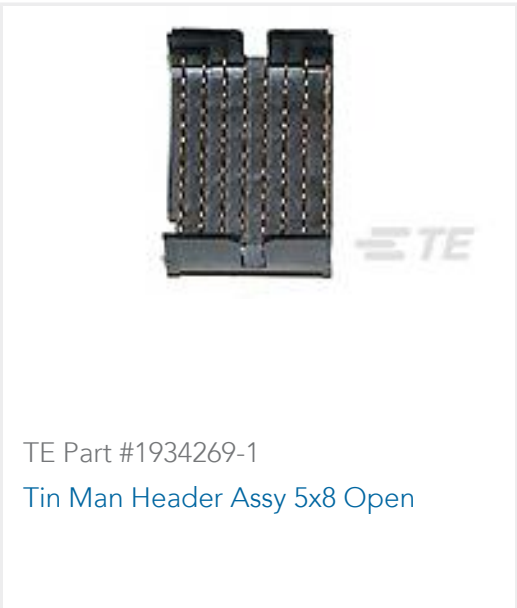
TE Part #281740-5  
HEADER HE13 STRAIGHT 2X5 P

TE Part #1617148-4  
JMGAPD-26M = M39016/18-030M

TE Part #4-1676480-5  
CRG0402 1% 2K7

TE Part #8-2176403-2  
3550 2K4 1%

TE Part #1-215079-2  
MICRO-MATCH FOB.12P



Documents

Product Drawings

IM48DGR=IM RELAY 100mW 2.4V BIS

English

CAD Files

Customer View Model

ENG\_CVM\_CVM\_1462037-2\_A.2d\_dxf.zip

English

3D PDF

3D

Customer View Model

ENG\_CVM\_CVM\_1462037-2\_A.3d\_igs.zip

English

Customer View Model

ENG\_CVM\_CVM\_1462037-2\_A.3d\_stp.zip

English

Customer View Model

ENG\_CVM\_CVM\_1462039-9\_F.3d\_igs.zip

English

Customer View Model

ENG\_CVM\_CVM\_1462039-9\_F.3d\_stp.zip

English

Customer View Model

ENG\_CVM\_CVM\_1462039-9\_F.2d\_dxf.zip

English

3D PDF

3D

By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.

Datasheets & Catalog Pages

Axicom Signal and High Frequency Relays (RF Switches) APPLICATION NOTE #2

English

IM\_Datasheet

English



Product Specifications

Definitions General Purpose Relays

English

Agency Approvals

VDE Certificate

English