PASTERNACK®
THE ENGINEER'S RF SOURCE

WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V



Waveguide Electromechanical Relay Switches Technical — PEWGS6006

Features

- 18 to 26.5 GHz SPDT Wavguide Switch
- Optional DPDT Configuration
- WR-42 Waveguide with O-Rings
- Insertion Loss: 0.013 dB typ
- Isolation: 90 dB typ
- +12 Vdc Nominal Voltage
- Input Power Rating up to 0.8 kW CW max
- Latching Self Cut Off Actuator
- Position Indicator and Manual Override Access
- Fully Weatherized Package
- Quick Connect Circular DC Connector with Mate
- -40°C to +85°C Operating Temperature

Applications

- Electronic Warfare
- Electronic Countermeasures
- Microwave Radio
- VSAT
- Radar
- Space Systems
- Test Instrumentation
- Research and Devlopment

Description

The PEWGS6006 electromechnical WR-42 waveguide switch operates across a wide frequency range from 18 GHz to 26.5 GHz and is configured for single pole double throw (SPDT) operation. A shorting plate on port 3 can be removed for optional double pole double throw (DPDT) operation. This innovative design features a latching Self Cut Off actuator and patented motor drive with arc suppression. The motor drive housing supports a viewable position indicator window and a cover that can be removed for manual overide access.

Impressive performance includes 0.013 dB typ insertion loss, 90 dB typ Isolation, 1.07:1 typ VSWR, and an operating life of 250K cycles minimum. The design operates across a temperature range of -40°C to +85°C, requires +12Vdc nominal bias voltage, and has an input power rating of up to 0.8 KW CW maximum. The waveguide ports have Grooved UG-595/U Square Cover Flanges (O-Rings included) for pressurized operation. The rugged package design is fully weatherized for up to 100% humitidy exposure and supports a quick connect circular 6 pin MIL-SPEC DC bias connector with mate included.

Electrical Specifications

Switch Type	SPDT
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Self Cut Off, Window Indicator, Manual Override
Polarity	Negative Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		26.5	GHz
Impedance		50		Ohms
Operating Voltage	10	12	20	Volts
Actuating Current @ 12 Volts		471	786	mA
VSWR		1.07:1	1.1:1	
Insertion Loss		0.013	0.15	dB
Isolation	60	90		dB
Switching Time		54	80	ms
Input Power (CW)			800	Watts

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V PEWGS6006

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

© 2017 Pasternack Enterprises All Rights Reserved



WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V

Input Power (Peak) 10% Duty Cycle	25.3	KWatts

Mechanical Specifications

Size

Length	4.1 in [104.14 mm]
Width/Diameter	2.11 in [53.59 mm]
Height	2.11 in [53.59 mm]
Weight	1.065 lbs [483.08 g]
Operating Life (Cold Switching)	250,000 Cycles
Operating Pressure	30 psig

Configuration

Waveguide Size	WR-42
Flange Type	Square Cover
Flange Designation	UG-595/U
Body Material and Plating	Aluminum, Chem Film
Body Plating Specification	MIL-DTL-5541 Type II Class 3

Mechanical Specification Notes:
Production Burn-In IAW MIL-DTL-55041 1500 cycles

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +100 deg C
Ingress Protection (IP) Rating	IP67
Humidity	0-100%, Fully Weatherized
ESD Sensitivity	ESD Sensitive Material, Transport material in Approved ESD bags. Handle in approved ESD Workstation.



Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V PEWGS6006

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

© 2017 Pasternack Enterprises All Rights Reserved

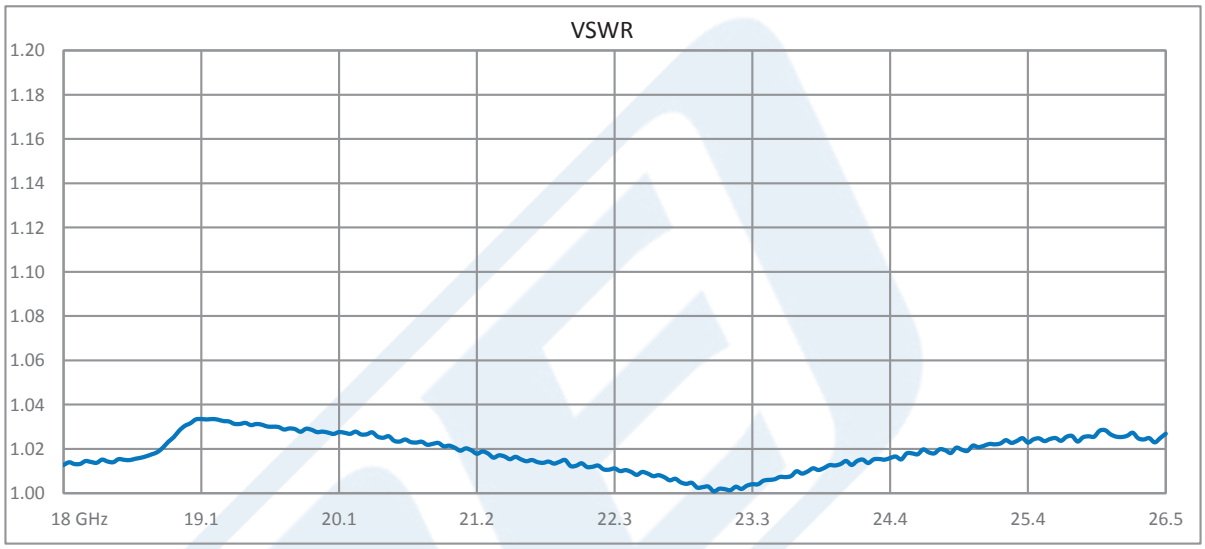
PASTERNACK®
THE ENGINEER'S RF SOURCE

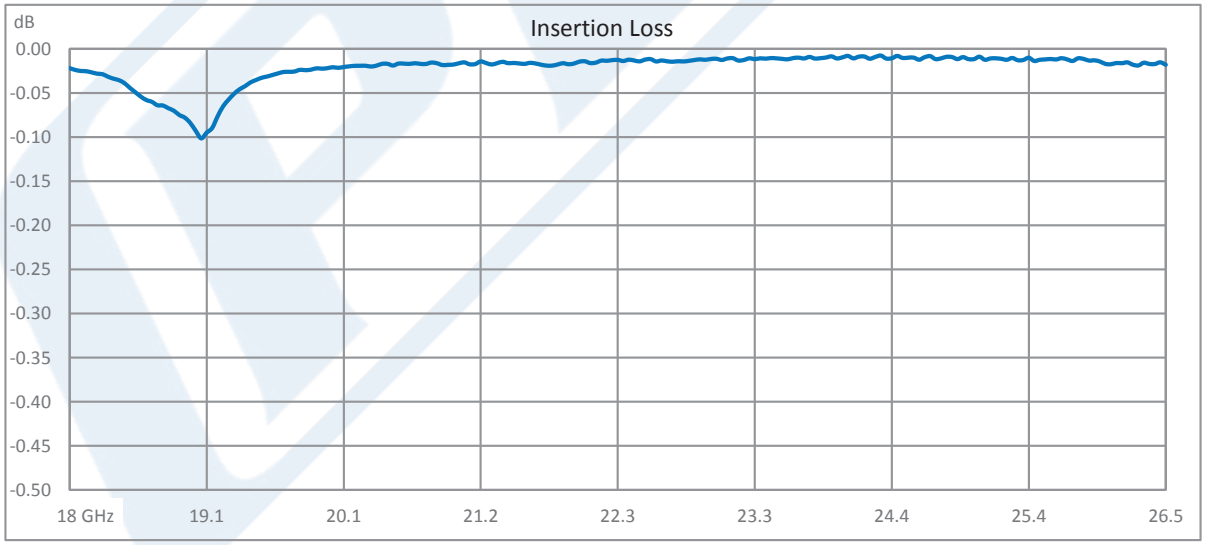


WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V

Waveguide Electromechanical Relay Switches Technical — PEWGS6006

Typical Performance Data





Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V PEWGS6006

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

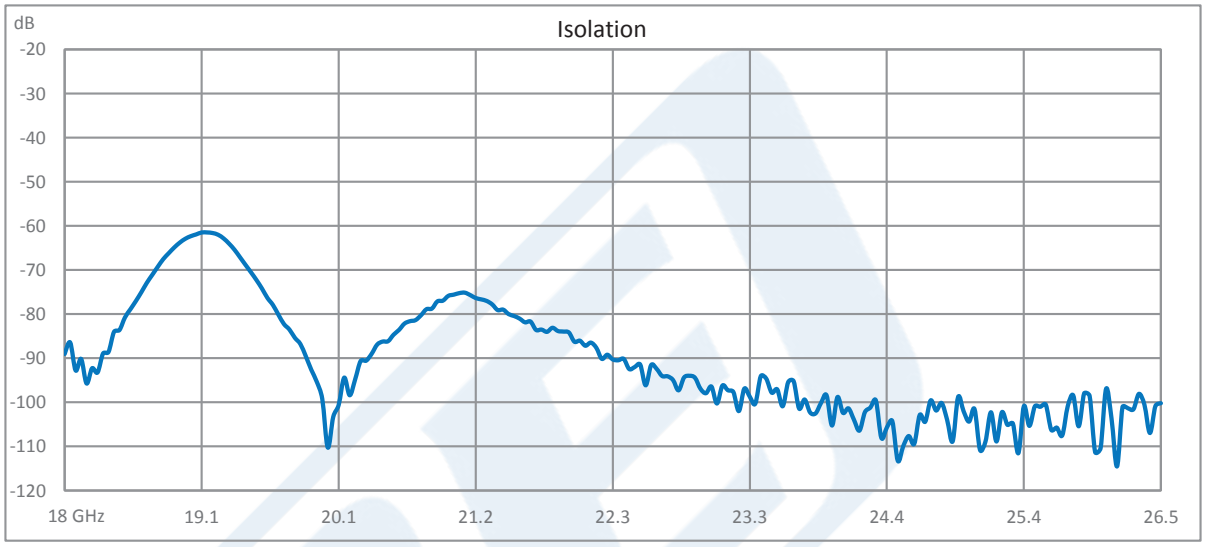
© 2017 Pasternack Enterprises All Rights Reserved

PASTERNACK®
THE ENGINEER'S RF SOURCE



WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V

Waveguide Electromechanical Relay Switches Technical PEWGS6006



WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V PEWGS6006

URL: https://www.pasternack.com/wr-42-waveguide-electromechanical-relay-spdt-latching-switch-26.5-ghz-pewgs6006-p.aspx

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

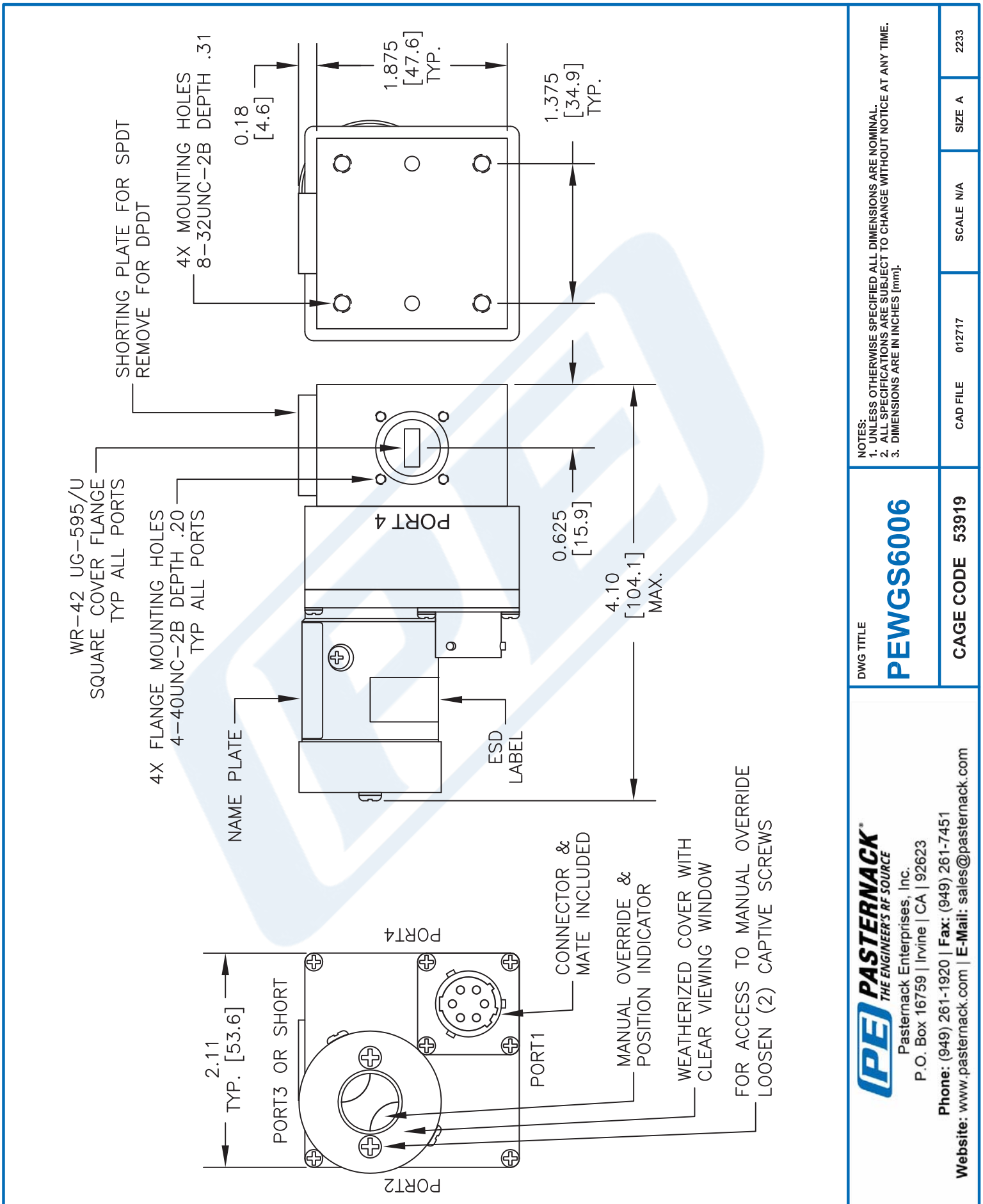
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

ISO 9001 : 2008 Registered

© 2017 Pasternack Enterprises All Rights Reserved

PEWGS6006 CAD Drawing

WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V



NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE	CAD FILE	SCALE	SIZE
PEWGS6006	012717	N/A	A

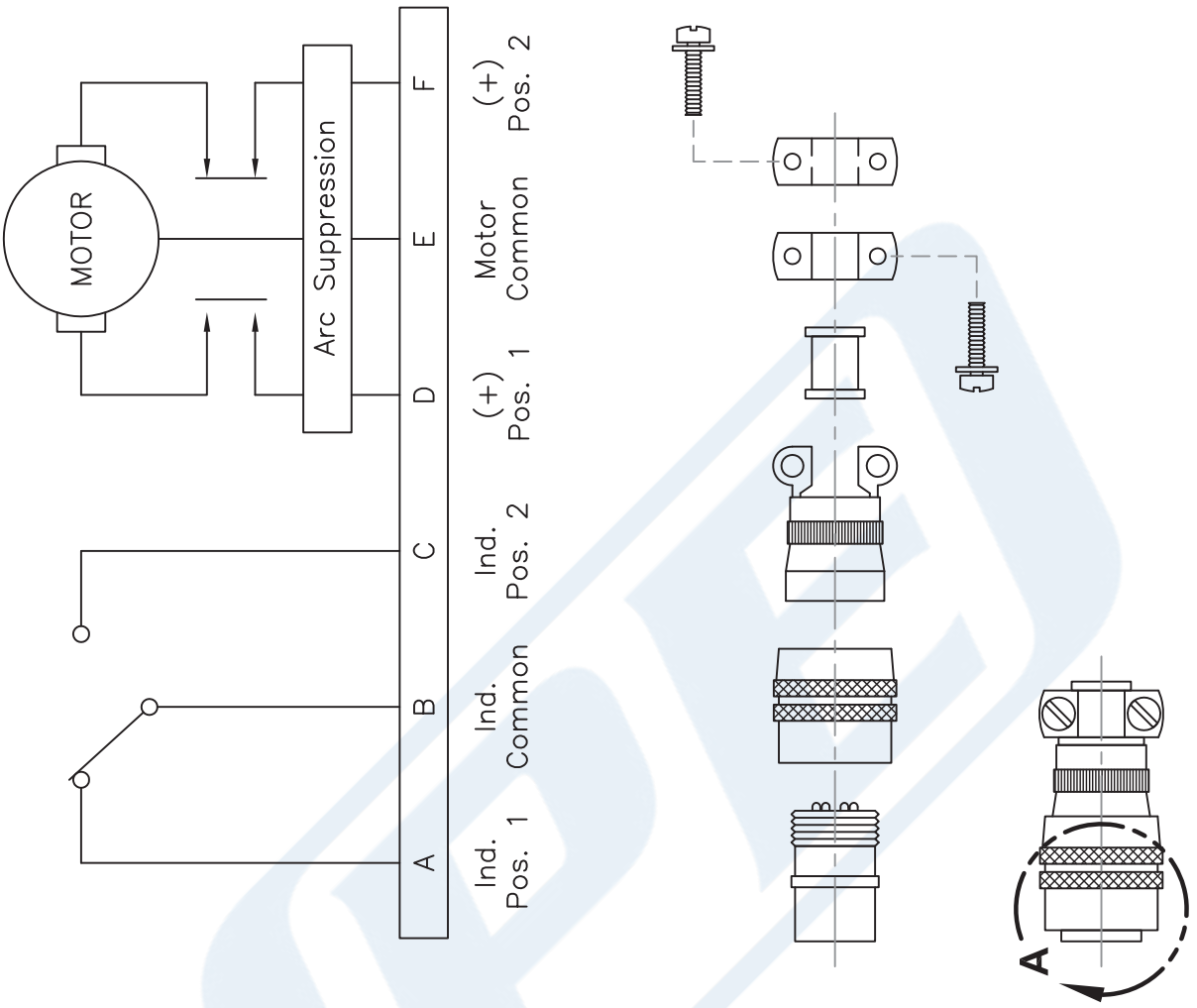
CAGE CODE 53919 — 2233

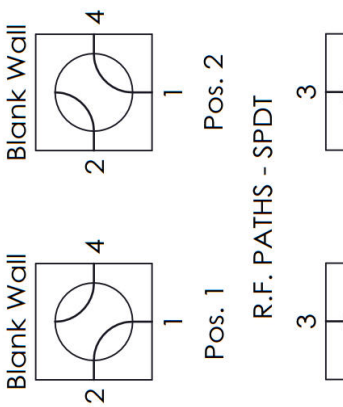
PASTERNACK
THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | **Fax:** (949) 261-7451
Website: www.pasternack.com | **E-Mail:** sales@pasternack.com

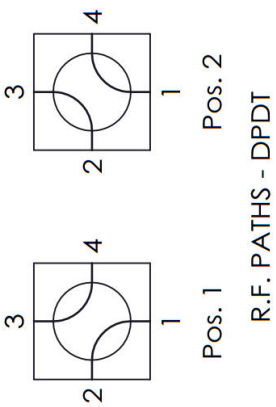
© 2017 Pasternack Enterprises All Rights Reserved

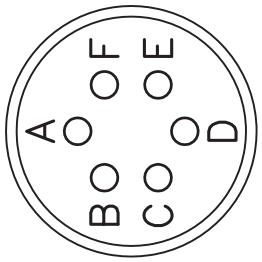
PEWGS6006 CAD Drawing

WR-42 Waveguide Electromechanical Relay SPDT Latching Switch, K Band 26.5 GHz Max. Freq., 800 Watts, UG-595/U Square Cover, 12V









View A

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE: PEWGS600

CAGE CODE 53919 | CAD FILE 122216 | SCALE N/A | SIZE A | 2233

PASTERNACK® THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | **Fax:** (949) 261-7451
Website: www.pasternack.com | **E-Mail:** sales@pasternack.com

© 2017 Pasternack Enterprises All Rights Reserved