

# UVAC

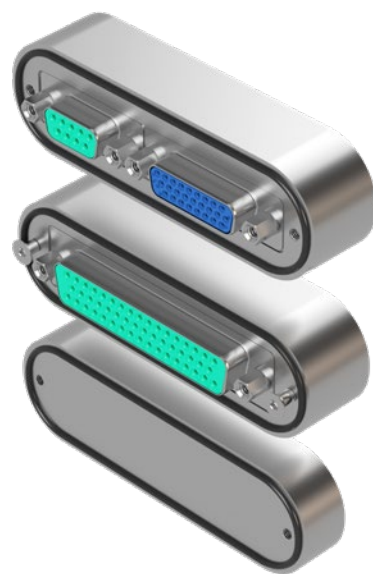
## UNIVERSAL HERMETIC FEEDTHROUGH FLANGE SYSTEMS FOR VACUUM APPLICATIONS

**UVAC Series** flanges contain configurable arrangements of D-Subminiature feedthroughs for space or industrial customers working in laboratory vacuum applications. Both sides contain two threaded mounting holes, an O-ring groove, and fixed female jackscrews. These features allow either side of the connector to be mounted toward the vacuum, giving the customer ultimate flexibility.

Positronic products feature solid, machined contacts to ensure reliability, durability, and strength. Hermetic D-Sub connectors are intermateable with MIL-DTL-24308-style connectors.

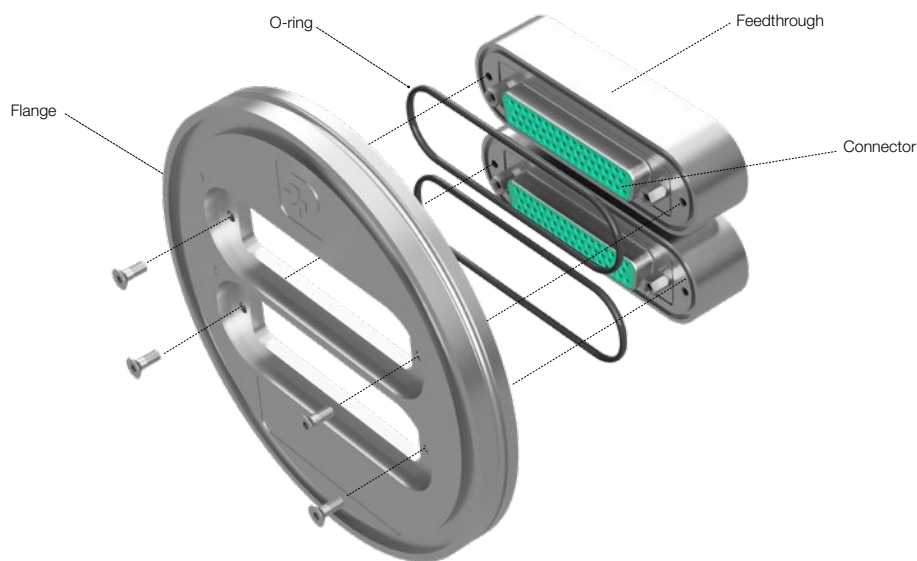
### FEATURES

- Designed for laboratory vacuum applications
- Universal mounting style for each size
- 100% leak tested after fabrication



Flange Material, Stainless Steel AISI 304

### MOUNTING



Positronic®

THE SCIENCE OF **CERTAINTY**®

M046 rev.NC 25/03

## TECH SPECS

### GENERAL

Part Number Prefix	UVAC
Performance Level	Industrial
RoHS Compliance	Yes (by default)

### MATERIALS

Insulator	DAP (Standard Density) PBT (High Density)
Insulator Color	Green (DAP) Blue (PBT)
Housing	Aluminum
Contact Plating	1.27µm Au (min)
O-ring	Fluorocarbon, black
Sealant	Epoxy resin, black
Jackscrews, Washers, Fixing Screws	Stainless steel, passivated
Dust Cover	Conductive low-density polyethylene

### MECHANICAL

Contact Retention	40N (9 lbs)
Mechanical Durability	500 cycles
Shock	EIA 364-27 Condition E
Polarization	Trapezoidal shape of shell
Torque for M3 Fixation Screws	0.90 Nm [8 in-lbs] Max

### ELECTRICAL

Working Voltage (rms)	300V
Initial Contact Resistance	5 mΩ maximum
Contact Current Rating	Size 20 - 9A Size 22 - 5A
Proof Voltage (rms)	1000V
Insulation Resistance	5 GΩ
Clearance And Creepage Distance (min)	1.0 mm [.039 inch] - Standard Density 1.06 mm [.042 inch] - High Density

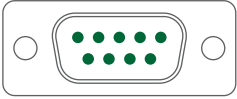
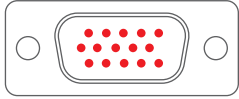
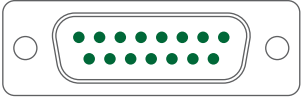
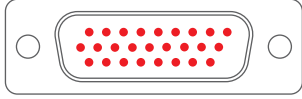
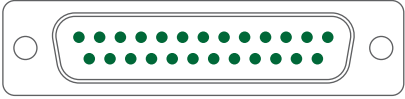
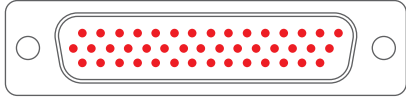
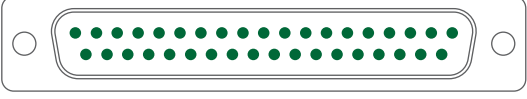
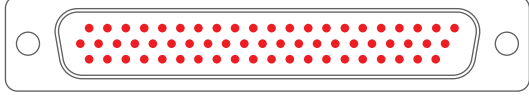
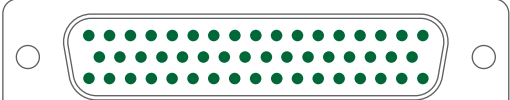
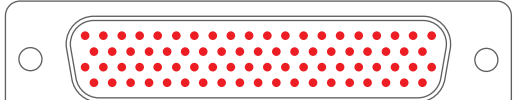
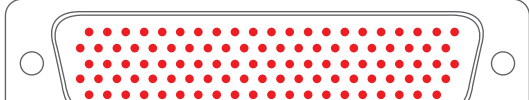
### ENVIRONMENTAL



Operating Temperature	Ambient
Helium Leak Rate At Ambient Temperature	EIA-364-02 < 5x10 <sup>-9</sup> mbar-l/s under a vacuum of 1.5x10 <sup>-2</sup> mbar
Outgassing Non-Metallic Material	TML <1.0%, CVCM <0.1%, RML <1.0%

# LAYOUTS

Connectors shown at actual size. Face view of male or rear view of female shown. All Positronic products utilize solid, machined contacts.

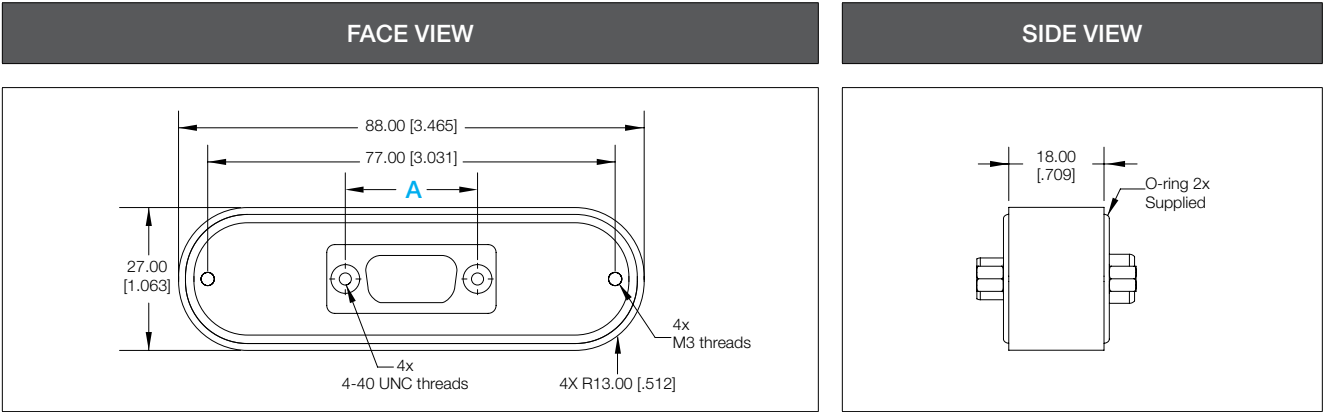
Scale 1:1

STANDARD DENSITY	SIZE	HIGH DENSITY
 (9) #20	1	 (15) #22
 (15) #20	2	 (26) #22
 (25) #20	3	 (44) #22
 (37) #20	4	 (62) #22
 (50) #20	5	 (78) #22
	6	 (104) #22

CONTACT SIZE	
#20	#22
	

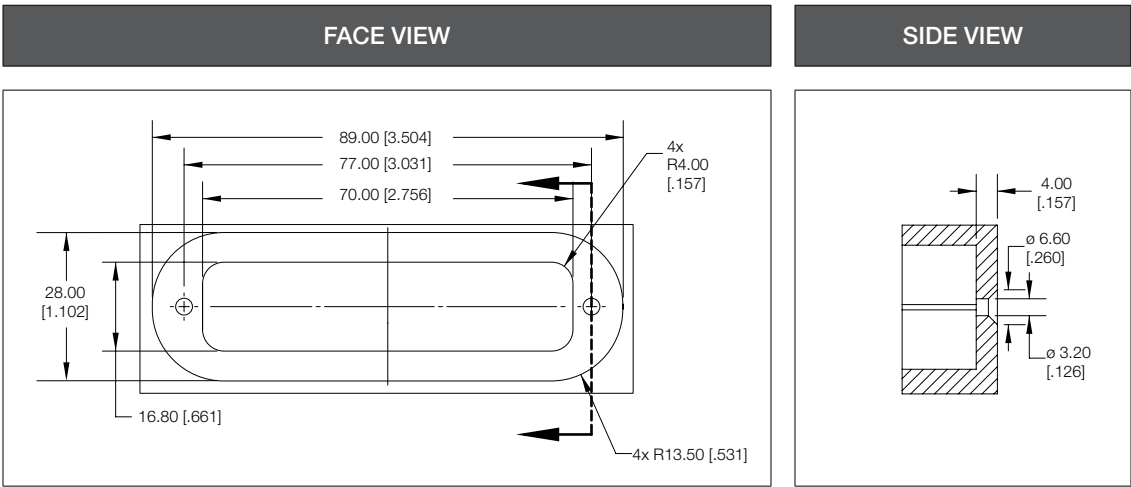
DIMENSIONS

Select mechanical details have been removed for clarity.



SHELL SIZE	Connector Layout		A
	Standard Density	High Density	
1	9	15	24.99 [984]
2	15	26	33.32 [1.312]
3	25	44	47.04 [1.852]
4	37	62	63.50 [2.500]
5	50	78	61.11 [2.406]
6	-	104	63.50 [2.500]

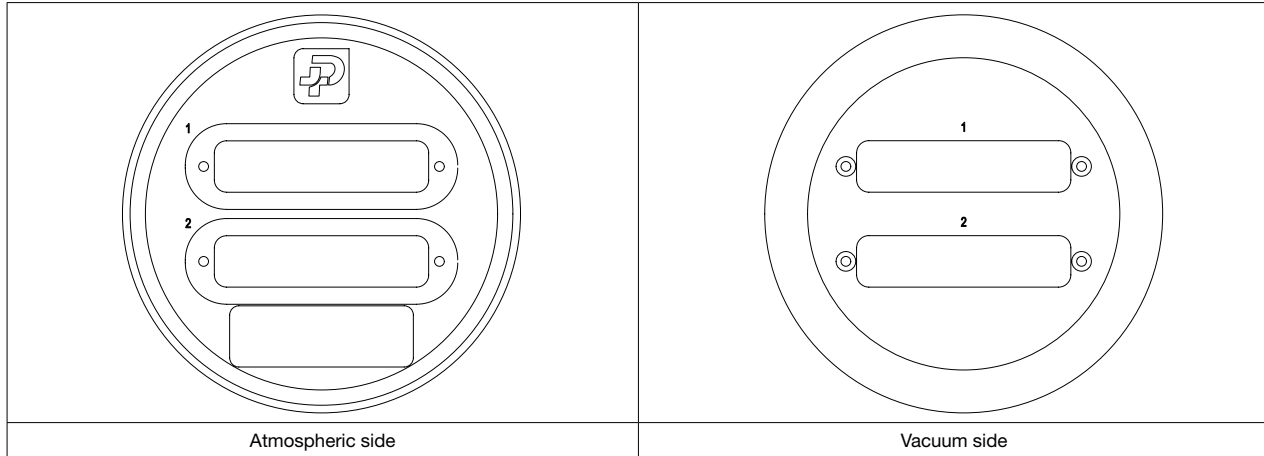
PANEL CUTOUT INFORMATION



## AVAILABLE FLANGE LAYOUTS

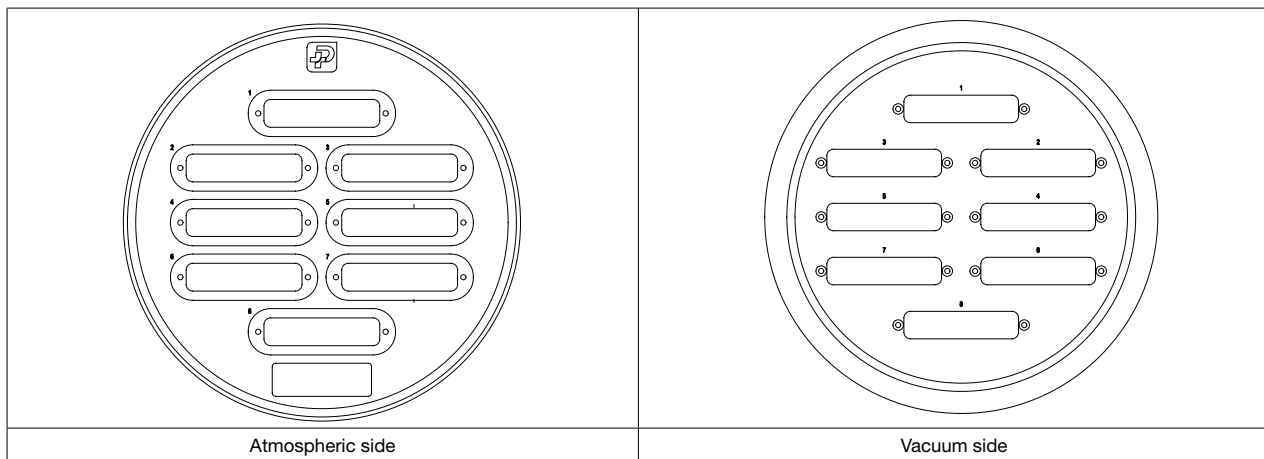
### 2 CAVITY FLANGE

ISO-K DN 100, ø100 mm nominal



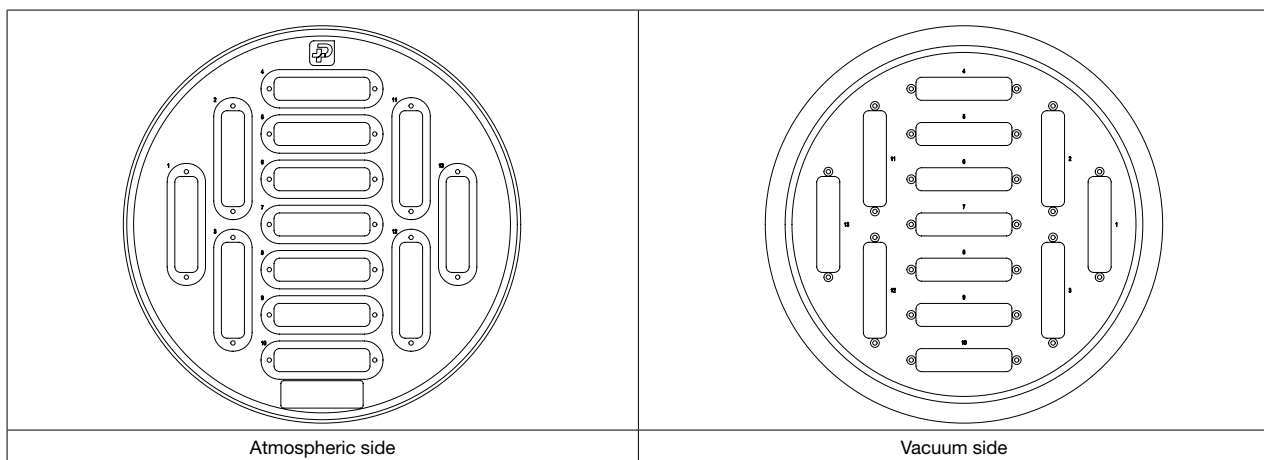
### 8 CAVITY FLANGE

ISO-K DN 200, ø200 mm nominal



### 13 CAVITY FLANGE

ISO-K DN 250, ø250 mm nominal



CREATE A PART

SINGLE CONNECTOR FEEDTHROUGH

UVAC

9

M/S

S

.0

Series

UVAC

Layout

Type of Contacts

Type of Applications

Connector Gender

All UVAC systems are RoHS-compliant by default

Standard Density

9	(9) #20	37	(37) #20
15	(15) #20	50	(50) #20
25	(25) #20		

High Density

15	(15) #22	62	(62) #22
26	(26) #22	78	(78) #22
44	(44) #22	104	(104) #22

.0 Standard Density

.1 High Density

G\*2 Gold shells, space grade

D\*2 Gold and dimpled, space grade (male only)

S Stainless-steel

M/S Male/Female PosiBand

M/M\*1 Male/Male

S/S\*1 Female Posiband/Female PosiBand

Note

\*1 Cavity ID marking is not aligned from front to rear insulator; Not available for High Density

\*2 Contact Technical Sales for availability



CREATE A PART

BLANK CAVITY

UVAC

-

HO

-

0

Series

UVAC

Accessories

Blank cavity (dummy plug)

Housing Size

All UVAC systems are RoHS-compliant by default

HO Blank cavity (dummy plug)

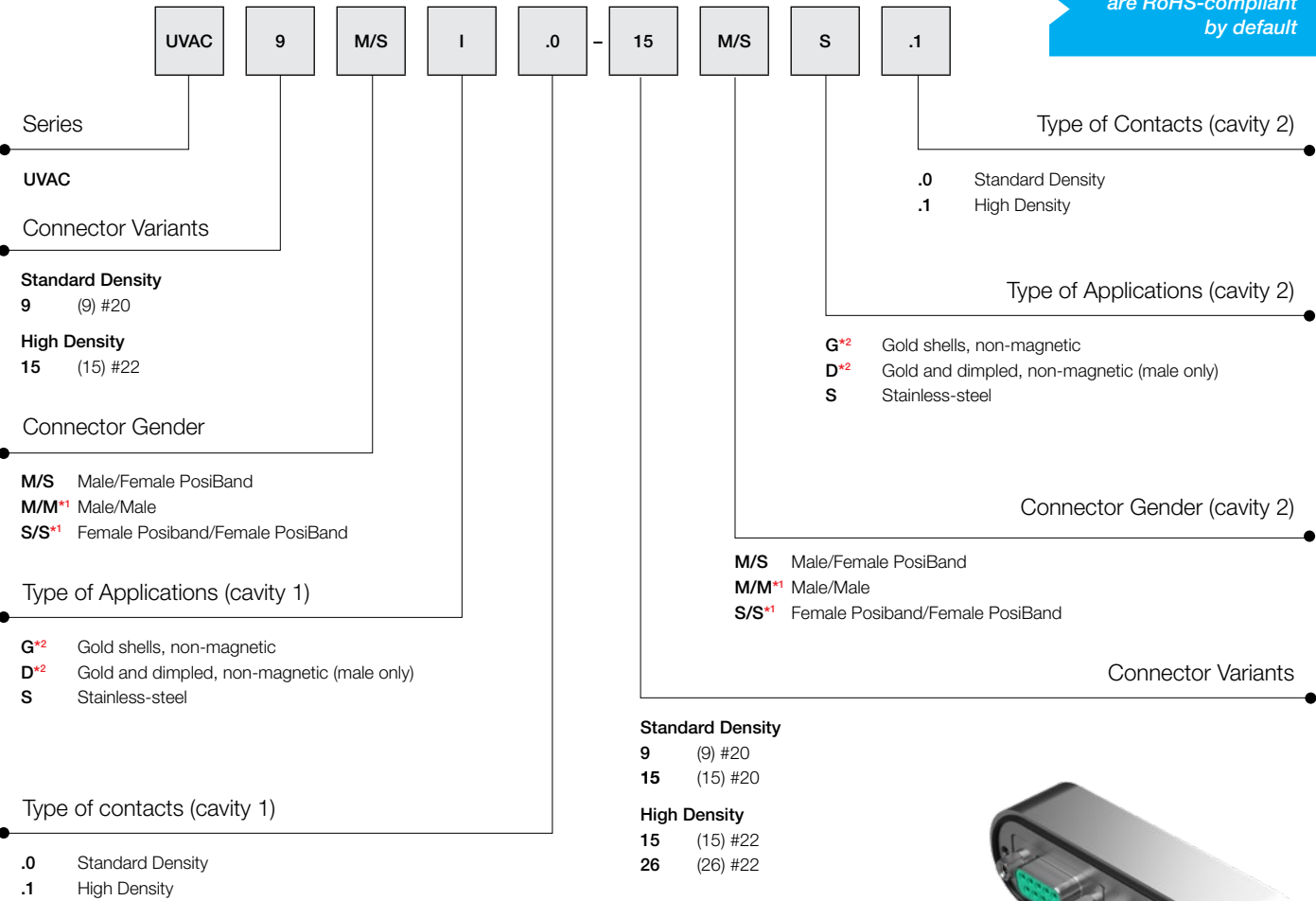
0 88 x 27mm



CREATE A PART

DOUBLE CONNECTOR FEETHROUGH






All UVAC systems are RoHS-compliant by default



**Note**  
\*1 Cavity ID marking is not aligned from front to rear insulator; Not available for High Density  
\*2 Contact Technical Sales for availability

CONTACT TECHNICAL SALES FOR  
THERMOCOUPLE CONTACT OPTIONS

See [connectpositronic.com/hermetic](https://connectpositronic.com/hermetic)  
for all other Hermetic-related  
information including:

- ✓ **Footprints** 
- ✓ **Tooling** 
- ✓ **Product updates** 
- ✓ **Detailed dimensions** 
- ✓ **2D/3D drawings** 

All dimensional tolerances are  $\pm 0.38$  [0.015], unless otherwise specified. Dimensions are in millimeters [inches]. All dimensions are subject to change. Product pictures may not be identical in appearance to actual production parts.

Information in this catalog is proprietary to Positronic and its subsidiaries. Positronic believes the data contained herein to be reliable. Since the technical information is given free of charge, the user employs such information at his own discretion and risk. Positronic assumes no responsibility for results obtained or damages incurred from use of such information in whole or in part.

The following trademarks are owned by Positronic Industries, Inc.: Positronic Industries, Inc.®, Positronic®, Connector Excellence®, P+ logo®, PosiBand®, PosiShop®, Optik-D™, and The Science of Certainty®. The color blue as it appears on various connectors is a trademark of Positronic Industries, Inc., Registered in U.S. Patent and Trademark Office.

Products described within this catalog may be protected by one or more of the following US patents:

#4,900,261\* #5,255,580 #5,329,697 #6,260,268  
#6,835,079 #7,115,002 #8,944,697 #9,304,263

\*Patented in Canada, 1992 Other patents pending

**Federal Supply Code for Manufacturers**

Positronic Industries: 28198  
Positronic Industries SAS: FA7Y0  
Positronic Asia PTE LTD: QB952

**Positronic | Americas**

1325 N Eldon Ave  
Springfield MO 65803 USA  
+1 800 641 4054  
[info@connectpositronic.com](mailto:info@connectpositronic.com)

**Positronic | Europe**

46 route d'Engachies  
F-32020 Auch Cedex 9 France  
+33 5 6263 4491  
[contact@connectpositronic.com](mailto:contact@connectpositronic.com)

**Positronic | Asia**

3014A Ubi Rd 1 #07-01  
Singapore 408703  
+65 6842 1419  
[singapore@connectpositronic.com](mailto:singapore@connectpositronic.com)

**Sales Offices**

Positronic has local sales  
representation all over the world.  
For the nearest sales office visit  
[www.connectpositronic.com/sales](http://www.connectpositronic.com/sales)