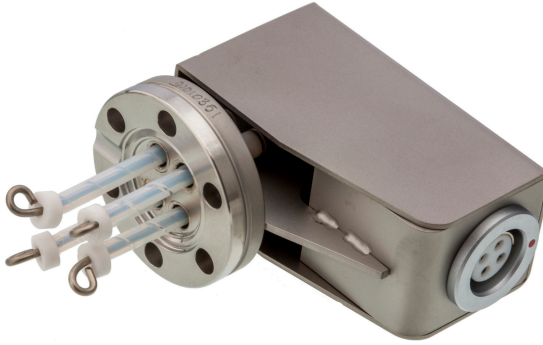


## Instrumentation Feedthroughs

Instrumentation feedthroughs are used to carry electrical signals (including thermocouples) which are normally low current and/or voltage. These feedthroughs are available in multiple pin variations on a range of flange sizes. 34 mm OD and 70 mm OD.



### Product Overview

- Variety of electrical feedthroughs with a range of electrical ratings.
- Voltage ratings are conservative DC flashover with clean ceramics
- Power transfer up to 5 Amps

VACGEN supplies a variety of conductor materials primarily nickel and stainless steel. Thermocouple feedthroughs use either the same metal or a special compensation material that mimics the thermocouple electrical circuit. The standard thermocouple material is type K using a Chromel/Alumel material construction. N type thermocouple with Nicrosil/Nisil material is available for the EFT 924 feedthrough.

# Instrumentation Feedthroughs

Instrumentation Feedthrough data table											
DN Number	Flange OD		Type	Max Current per pin	Max voltage V	Number and OD of conductors	Internal External	External	Bakeout Temp °C with connector	Bakeout Temp °C without connector	Order code
	mm	mm									
DN16	34	1.33	BNC	1A	50	1 x 2.3	2.3mm pin	BNC (MHV)	175	400	ZEFT920 <sup>(1)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	2000	4 x 1.2	Direct to wire	Direct to wire	N/A	400	ZEFT922 <sup>(2)</sup>
DN16	34	1.33	Power/TCN	3A (Power only)	2000	4 x 1.2	Direct to wire	Direct to wire	N/A	400	ZEFT922N <sup>(2)</sup>
DN16	34	1.33	Power/TC	3A (Power Only)	50	4 x 1.2	Wire loop & BC	Inline	200	400	ZEFT922I <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	R/angle connector	200	400	ZEFT922S <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	R/angle connector	200	400	ZEFT922T <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	R/angle connector	200	400	ZEFT922X <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	Inline	200	400	ZEFT92NI <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	R/angle connector	200	400	ZEFT92NS <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	R/angle connector	200	400	ZEFT92NT <sup>(3)</sup>
DN16	34	1.33	Power/TC	3A (Power only)	50	4 x 1.2	Wire loop & BC	R/angle connector	200	400	ZEFT92NX <sup>(3)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Direct to wire	Direct to wire	N/A	400	ZEFT924 <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Direct to wire	Direct to wire	N/A	400	ZEFT924N <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Wire Loop	Inline	200	400	ZEFT924I <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Wire loop	R/angle connector	200	400	ZEFT924S <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Wire loop	R/angle connector	200	400	ZEFT924T <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Wire loop	R/angle connector	200	400	ZEFT924X <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type K TC	-	4 x 1.2	Wire loop	Inline	200	400	ZEFT94NI <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type N TC	-	4 x 1.2	Wire loop	R/angle connector	200	400	ZEFT94NS <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type N TC	-	4 x 1.2	Wire loop	R/angle connector	200	400	ZEFT94NT <sup>(4)</sup>
DN16	34	1.33	Twin TC	Type N TC	-	4 x 1.2	Wire loop	R/angle connector	200	400	ZEFT94NX <sup>(4)</sup>
DN16	34	1.33	Twin Power	5A (per pair)	2000	4 x 1.2	Direct to wire	Direct to wire	N/A	400	ZEFT940 <sup>(2)</sup>
DN16	34	1.33	Twin Power	5A (per pair)	1000	4 x 1.2	Barrell Connectors	Inline	200	400	ZEFT9H4I <sup>(3)</sup>
DN16	34	1.33	Twin Power	5A (per pair)	1000	4 x 1.2	Barrel Connectors	R/angle connector	200	400	ZEFT9H4S <sup>(3)</sup>
DN16	34	1.33	Twin Power	5A (per pair)	1000	4 x 1.2	Barrel Connectors	R/angle connector	200	400	ZEFT9H4T <sup>(3)</sup>
DN16	34	1.33	Twin Power	5A (per pair)	1000	4 x 1.2	Barrel Connectors	R/angle connector	200	400	ZEFT9H4X <sup>(3)</sup>
DN40	70	2.75	Multi-pin	5A	1000	11 x 1.0	Direct to wire	Optional connector	250	350	ZEFT16 <sup>(2)</sup>
DN40	70	2.75	Multi-pin	5A	1000	11 x 1.0	Direct to wire	Optional connector	250	350	ZEFT17 <sup>(2)</sup>

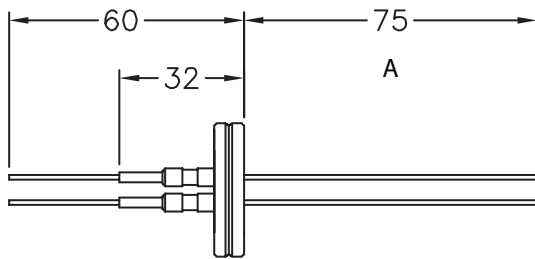
- (1) BNC Plug  
 (2) No Plug  
 (3) Fisher®  
 (4) Lemo®

# Instrumentation Feedthroughs

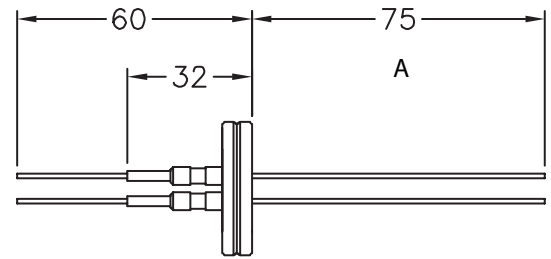
Instrumentation Power / Feedthrough (ZEFT922)					
Type	A mm	Power Nickel Wire Ø mm	Thermocouple Wire Ø mm	Thermocouple material	Order Code
Power / Thermocouple	75	1.2	1.2	1x Chromel 1x Alumel	<b>ZEFT922</b>

Instrumentation Feedthrough (ZEFT940)			
Type	A mm	Nickel Wire Ø	Order Code
Twin Power	75	4 x 1.2mm	<b>ZEFT940</b>

ZEFT922 Power and thermocouple

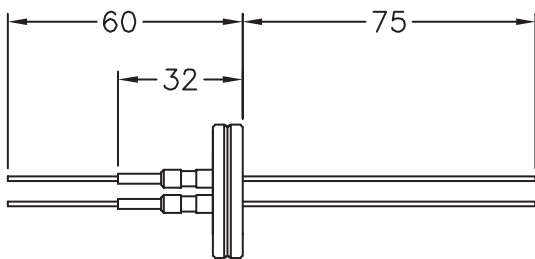


ZEFT940 Twin power

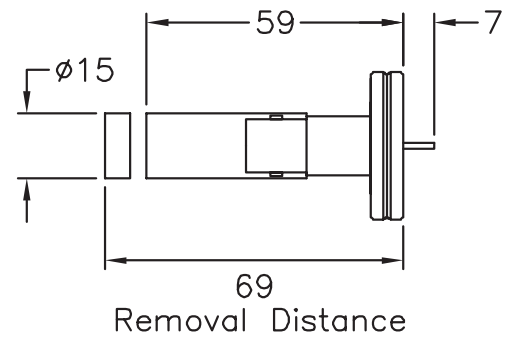


Instrumentation Feedthrough (ZEFT924)				
Type	A mm	Wire Ø mm	Thermocouple material	Order Code
K Type	75	1.2	2x Chromel 2x Alumel	<b>ZEFT924</b>
N Type	75	1.2	2 x Nicrosil 2 x Nisil	<b>ZEFT924N</b>

ZEFT924 and ZEFT924N Twin Thermocouple



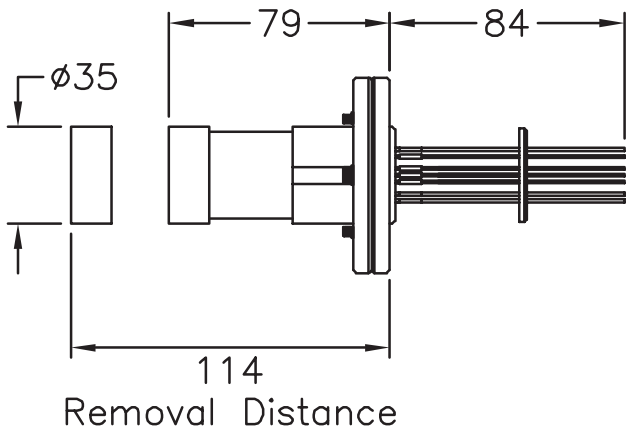
ZEFT920



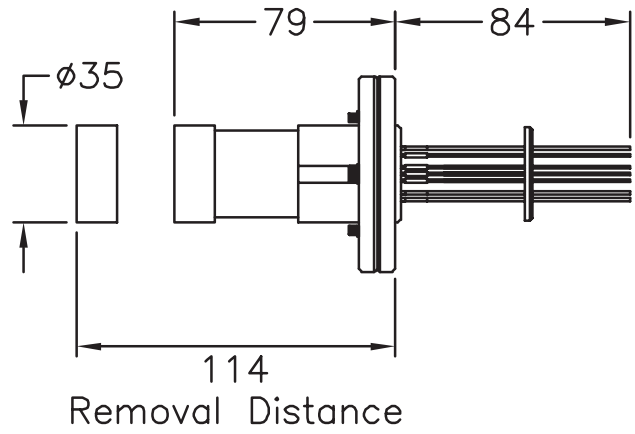
# Instrumentation Feedthroughs

Feedthrough (ZEFT16 & ZEFT17)				
Type	A mm	Pin Ø mm	Pin Type	Order Code
Multipin	84	11 x 1 Nickel	Standard	ZEFT16
Multipin	84	11 x 1	Resistivity > 10 <sup>15</sup> Ωm	ZEFT17
Connector				
Air side connector for above feed throughs				ZEFT17SK
Pins for above connector (Pk 20)				ZEFT95C

ZEFT16 Feedthrough



ZEFT17 Feedthrough

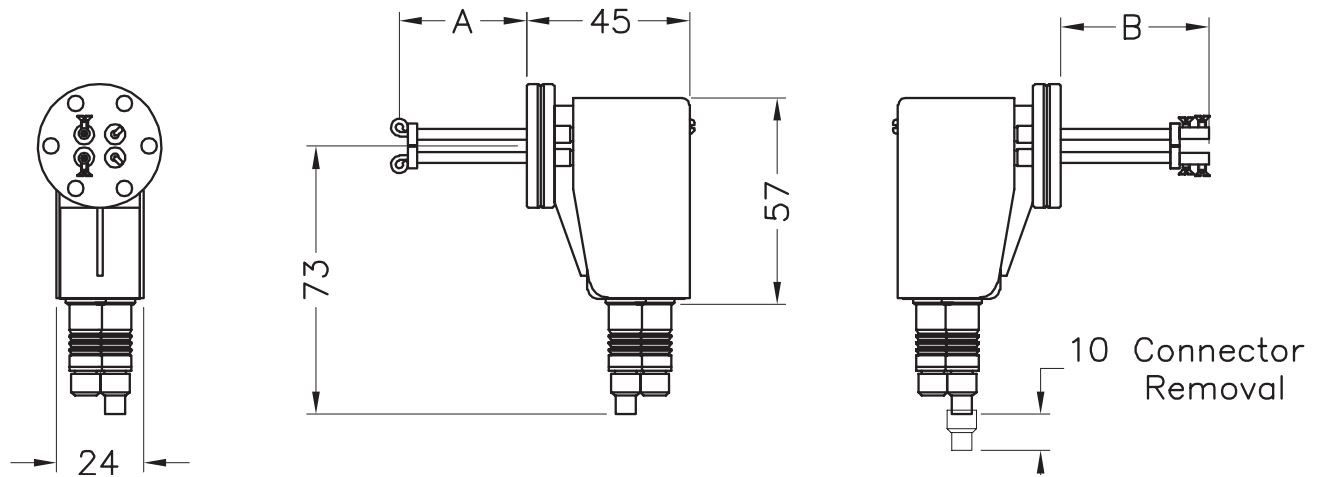


## Instrumentation Feedthroughs

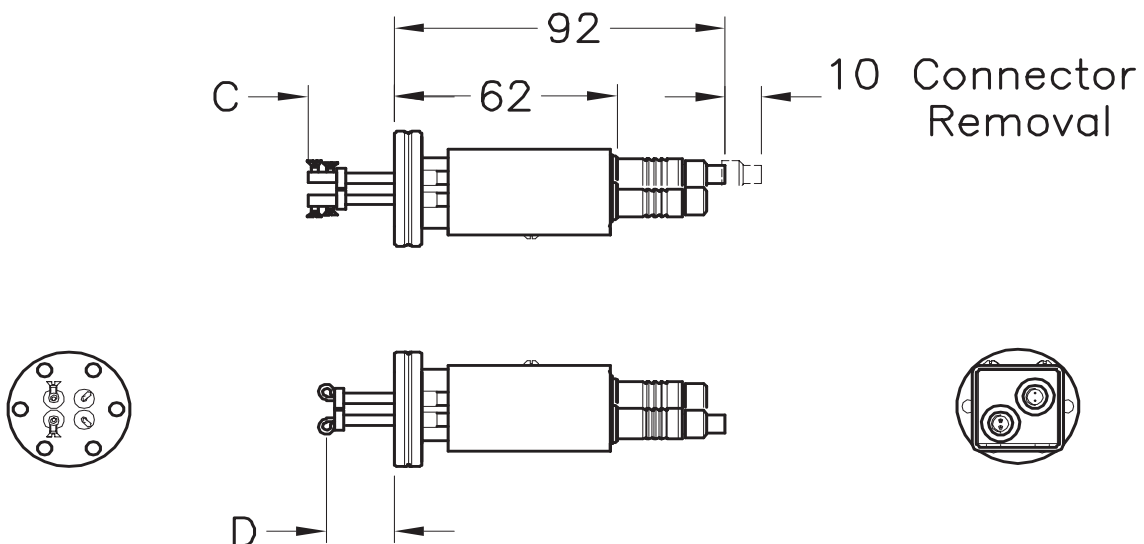
Instrumentation Feedthrough (ZEFT 922)					
Type	A mm	B mm	C mm	D mm	Order Code
Inline	-	-	24	19	ZEFT922I
R/Angle	75	80	-	-	ZEFT922S
R/Angle	35	40	-	-	ZEFT922T

Instrumentation Feedthrough (ZEFT 92)					
Type	A mm	B mm	C mm	D mm	Order Code
Inline	-	-	24	19	ZEFT92NI
R/Angle	75	80	-	-	ZEFT92NS
R/Angle	35	40	-	-	ZEFT92NT
R/Angle	19	24	-	-	ZEFT92NX

### Right Angle



### In line



# Instrumentation Feedthroughs

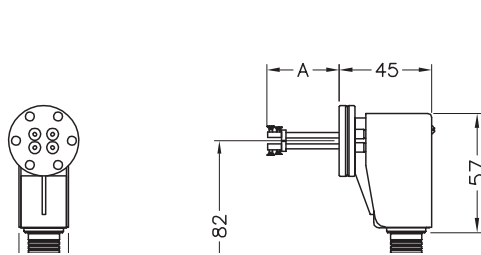
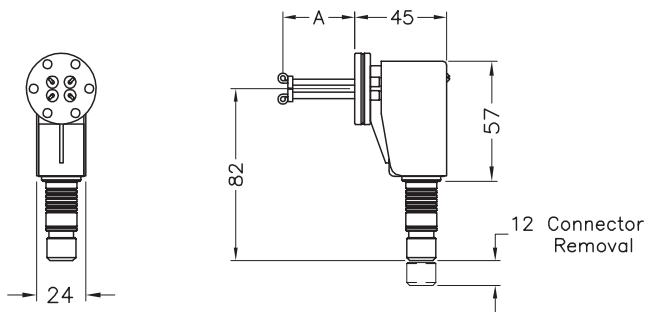
Type Thermocouple Series Feedthrough (ZEFT924) K			
Type	A mm	B mm	Order Code
Inline	-	22	ZEFT924I
R/Angle	75	-	ZEFT924S
R/Angle	40	-	ZEFT924T
R/Angle	22	-	ZEFT924X

Type Thermocouple Series Feedthrough (ZEFT94 N)			
Type	A mm	B mm	Order Code
Inline	-	22	ZEFT94NI
R/Angle	75	-	ZEFT94NS
R/Angle	40	-	ZEFT94NT
R/Angle	22	-	ZEFT94NX

Feedthrough Material Information			
Type	Material	Leg	Colour
K Type	T1 Cromel	+	Green
K Type	T2 Alumel	-	White
N type	N1 Nicrossi	+	Pink
N type	N2 Nisil	-	White

## Right Angle

## In line



Series Power Feedthrough (ZEFT 9H4)			
Type	A mm	B mm	Order Code
Inline	-	22	ZEFT9H4I
R/Angle	75	-	ZEFT9H4S
R/Angle	40	-	ZEFT9H4T
R/Angle	22	-	ZEFT9H4X

## Right Angle

## In line

