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Thermocouple Connectors

Miniature

Air Service to 125°C



TYPE	PART #
C	A0381-4-CN
E	A0381-6-CN
J	A0381-5-CN
K	A0381-1-CN
N	A0381-7-CN

Crimp and Push Connectors

350°C Vacuum and Air Service





MATERIAL	L	QTY	PART #
Chromel	.275	Pack of 5	A1041-1-CN
Alumel	.275	Pack of 5	A1041-2-CN
Iron	.300	Pack of 5	A1041-3-CN
Constantan-J	.300	Pack of 5	A1041-4-CN
Constantan-E-T	.325	Pack of 5	A1041-5-CN
Nickel	.325	Pack of 5	A1041-6-CN

Screw & Nut Connectors

350°C Vacuum and Air Service

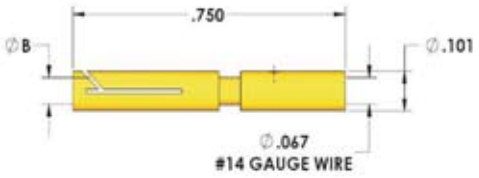


THREAD SIZE	QTY	PART #
3-48	Pack of 10	A1526-1-CN

Power — Crimp Type Contacts

Operating Temperature -269°C to 200°C



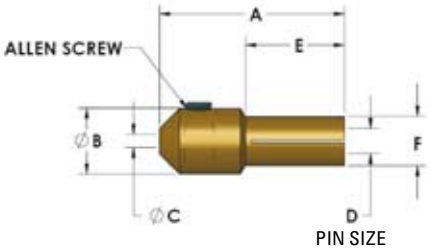


MATERIAL	QTY	B	PART #
BeCu (Gold Plated)	Pack of 10	.050	A2965-1-CN
BeCu (Gold Plated)	Pack of 10	.056	A2965-3-CN
BeCu (Gold Plated)	Pack of 10	.062	A2965-2-CN

Power — Push-on Connectors

150°C Air / 200°C Vacuum



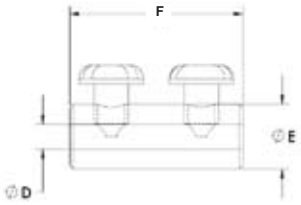


MATERIAL	A	B	C	D	E	F	QTY	PART #
BeCu (Gold Plated)	.69	.25	.050	.050	.38	.19	Pack of 10	A0721-2-CN
BeCu (Gold Plated)	.69	.25	.050	.060	.38	.19	Pack of 10	A0721-4-CN
BeCu (Gold Plated)	.69	.25	.050	.094	.38	.19	Pack of 10	A0721-1-CN
BeCu (Gold Plated)	.69	.25	.050	.040	.38	.19	Pack of 10	A0721-3-CN
BeCu (Gold Plated)	1.00	.50	.096	.250	.50	.45	Pack of 2	A1969-1-CN

Power — In-line Connectors

150°C Air / 400°C Vacuum





MATERIAL	D	E	F	QTY	PART #
BeCu (Gold Plated)	.059	.187	.500	Pack of 10	A0725-1-CN
BeCu (Gold Plated)	.067	.187	.500	Pack of 10	A0725-3-CN
BeCu (Gold Plated)	.120	.250	.560	Pack of 10	A0725-2-CN
BeCu (Gold Plated)	.134	.250	.630	Pack of 10	A0725-4-CN
BeCu (Gold Plated)	.161	.350	.560	Pack of 10	A0725-7-CN
BeCu (Gold Plated)	.260	.500	1.00	Pack of 10	A0725-6-CN

MS Circular Connectors

Voltage Rating 700 Volts Peak
Current Rating 10 Amps/pin
Accepts 0.056 or 0.062 Diameter Pins



MAXIMUM CURRENT*	PART #	TEMPERATURE
4 Pin - 28 Amps	A0125-1-CN	125° C
6 Pin - 36 Amps	A0126-1-CN	125° C
10 Pin - 50 Amps	A0127-1-CN	125° C
20 Pin - 75 Amps	A0128-1-CN	125° C
35 Pin - 100 Amps	A0740-1-CN	125° C
4 Pin - 28 Amps	A1070-2-CN	350° C
6 Pin - 36 Amps	A1136-3-CN	350° C
10 Pin - 50 Amps	A1070-1-CN	350° C
20 Pin - 75 Amps	A1181-1-CN	350° C
35 Pin - 100 Amps	A1388-1-CN	350° C

*all pins loaded

Power — High Voltage Silicon Cable

Operating Temperature -55°C to 125°C



5KV



10KV / 20KV

MATERIAL	COND. DIAM	AMPS	CABLE LENGTH	PART #
5KV	.094	25	96″	A2459-1-CN
10KV / 20KV	.094	25	96″	A2459-2-CN

Coaxial Connectors







COAXIAL TYPE	CABLE USED	PART #
BNC	RG58B/U	A0060-2-CN
MHV	RG59B/U	A0060-1CN
SHV-5	RG59B/U	A0154-1-CN
SHV-10	RG58, 58A, 58 C/U	A1498-1-CN
TYPE-N	RG214/U	A0675-1-CN
SMA	RG58B/U	A0667-1-CN
SHV-B	RG59B/U	A0843-1-CN
SHV-20	RG213/U	A0700-1-CN
MICRODOT CABLE (10ft)	RG178B/U	A1645-1-CN

Sub Type C & D Connectors & Contacts

Vacuum-side Connectors

Connectors do not include contacts



FEMALE PINS

PINS	PART #
9	A2375-1-CN
15	A1881-1-CN
25	A2378-1-CN
50	A2380-1-CN



MALE PINS

PINS	PART #
9	A2374-1-CN
15	A2376-1-CN
25	A2377-1-CN
50	A2379-1-CN



PEEK ®

FEMALE PINS

PINS	PART #
9	A3030-1-CN

Air-side Connectors

Connectors do not include contacts



FEMALE PINS

PINS	PART #
9	A2711-4-CN
15	A2711-3-CN
25	A2711-2-CN
50	A2711-1-CN



DELRIN ®

FEMALE PINS

PINS	PART #
9	A3034-1-CN

Contacts



QTY	PART #
Pack of 10 (FEMALE)	A2386-1-CN
Pack of 10 (MALE)	A2385-1-CN

Crimping Tool

Works for Male & Female Contacts

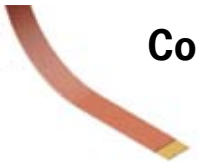


QTY	PART #
1 each	A4109-1-CT

Sub C & D Type, UHV Connectors & Wires

Please call for custom cable length and/or assembly.

Contact to Cable
FEMALE PINS



PINS	LENGTH	PART #
9	19″	A2356-1-WR
9	39″	A2357-1-WR
15	19″	A2360-1-WR
15	39″	A2361-1-WR
25	19″	A2364-1-WR
25	39″	A2365-1-WR
50	19″	A2368-1-WR
50	39″	A2369-1-WR

Contact to Cable
MALE PINS



PINS	LENGTH	PART #
9	19″	A2354-1-WR
9	39″	A2355-1-WR
15	19″	A2358-1-WR
15	39″	A2359-1-WR
25	19″	A2362-1-WR
25	39″	A2363-1-WR
50	19″	A2366-1-WR
50	39″	A2367-1-WR

Connector to Cable
FEMALE PINS



PINS	LENGTH	PART #
9	19″	A2340-1-CN
9	39″	A2341-1-CN
15	19″	A2344-1-CN
15	39″	A2345-1-CN
25	19″	A2348-1-CN
25	39″	A2349-1-CN
50	19″	A2352-1-CN
50	39″	A2353-1-CN

Ribbon Cable



PINS	LENGTH	PART #
9	19″	A2402-1-WR
9	39″	A2402-2-WR
9	96″	A2402-3-WR
15	19″	A2403-1-WR
15	39″	A2403-2-WR
15	96″	A2403-3-WR
25	19″	A2404-1-WR
25	39″	A2404-2-WR
25	96″	A2404-3-WR

Connector to Connector
FEMALE PINS



PINS	LENGTH	PART #
9	19″	A2370-1-CN
15	19″	A2371-1-CN
25	19″	A2372-1-CN
50	19″	A2373-1-CN

Connector to Cable
FEMALE PINS



PINS	LENGTH	PART #
9 - Male	19″	A2418-1-CN
9 - Male	39″	A2419-1-CN
9 - Female	19″	A2420-1-CN
9 - Female	39″	A2421-1-CN

Coaxial — BNC, UHV Cable Assemblies

The cables in the assemblies listed below consist of 26AWG, 50-Ohm coaxial cable.
These components are UHV compatible to $1x10^{-10}$ Torr.
See pg. 198 for cable details, part # A2236-5-WR.


Grounded Shield UHV Connector


Floating Shield UHV Connector


User End Female | SMA Male | BNC Male


BNC to BNC UHV Cable

CONNECTOR TYPE	FIG	LENGTH	PART #

Connector to Cable

Connector to Cable UHV cable assemblies are fitted with stainless steel or
BNC Male connectors at one end and a non-terminated, Kapton® insulated wire at the other.

Grounded	1	19″	A7301-1-CN
Grounded	1	39″	A7302-1-CN
Floating	2	19″	A7303-1-CN
Floating	2	39″	A7304-1-CN
BNC	---	19″	A7305-1-CN
BNC	---	39″	A7306-1-CN

Connector to Connector

Connector to Connector UHV cable assemblies are fitted with stainless steel BNC Male connectors at one end and a user-specified connector at the other: User-End Female, SMA Male, or BNC Male. These connectors mate directly to the vacuum side of corresponding single-ended feedthroughs.

User-End Female	3	-2
SMA Male	---	-5
BNC Male	---	-3

To add a connector, change the dash number at the end of the part number from -1 to the corresponding number of your desired connector; then add the price of the connector to the price of the cable assembly. For example, a 39″ BNC cable assembly with a BNC Male connector would be part number A7306-3-CN

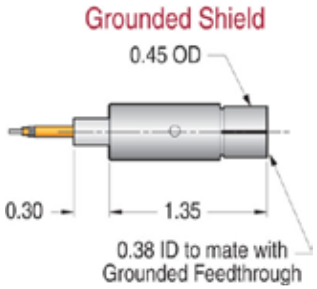


Fig. 1

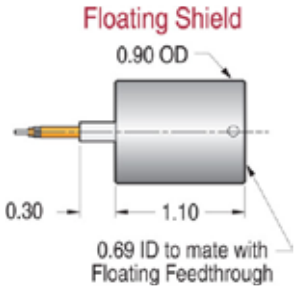


Fig. 2

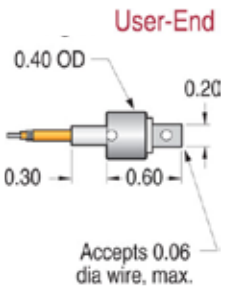


Fig. 3

Coaxial — SMA, UHV Cable Assemblies

The cables in the assemblies listed below consist of 26AWG, 50-Ohm coaxial cable.
These components are UHV compatible to $1x10^{-10}$ Torr.
See pg. 198 for cable details, part # A2236-5-WR.



Grounded Shield UHV Connector to Cable



Floating Shield UHV Connector to Cable



User End Female | SMA Male | SMA Female



SMA to SMA UHV Cable

CONNECTOR TYPE	FIG	LENGTH	PART #

Connector to Cable

Connector to Cable UHV cable assemblies are fitted with stainless steel Female or SMA Male connectors at one end and a non-terminated, Kapton® insulated wire at the other.

Grounded	1	19″	A7307-1-CN
Grounded	1	39″	A7308-1-CN
Floating	2	19″	A7309-1-CN
Floating	2	39″	A7310-1-CN
SMA	---	19″	A7311-1-CN
SMA	---	39″	A7312-1-CN

Connector to Connector

Connector to Connector UHV cable assemblies are fitted with stainless steel Female or SMA Male connectors at one end and a user-specified connector at the other: User-End Female, SMA Male, or SMA Female. These connectors mate directly to the vacuum side of corresponding single-ended feedthroughs.

User-End Female	3	-2
SMA Male	---	-5
SMA Female	---	-6

To add a connector, change the dash number at the end of the part number from -1 to the corresponding number of your desired connector; then add the price of the connector to the price of the cable assembly. For example, a 39″ SMA cable assembly with an SMA Male connector would be part number A7312-5-CN

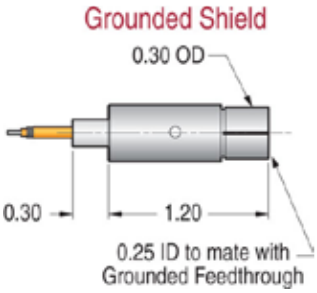


Fig. 1

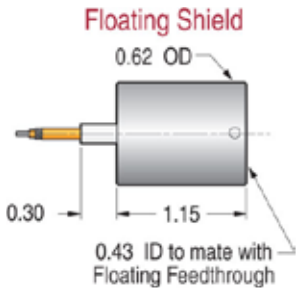


Fig. 2

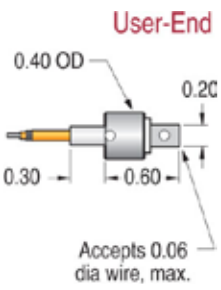


Fig. 3

Coaxial — MHV, UHV Cable Assemblies

The cables in the assemblies listed below consist of 26AWG, 50-Ohm coaxial cable.
These components are UHV compatible to $1x10^{-10}$ Torr.
See pg. 198 for cable details, part # A2236-5-WR.

CABLE IS RATED TO 2KVDC


MHV Grounded Shield UHV Connector


MHV Floating Shield UHV Connector


User End Female


MHV Male


MHV to MHV UHV Cable

CONNECTOR TYPE	FIG	LENGTH	PART #

Connector to Cable

Connector to Cable UHV cable assemblies are fitted with either stainless steel Female or MHV Male connectors at one end and a non-terminated, Kapton® insulated wire at the other.

Grounded	1	19″	A7313-1-CN
Grounded	1	39″	A7314-1-CN
Floating	2	19″	A7315-1-CN
Floating	2	39″	A7316-1-CN
MHV	---	19″	A7317-1-CN
MHV	---	39″	A7318-1-CN

Connector to Connector

Connector to Connector UHV cable assemblies are fitted with either stainless steel Female or MHV Male connectors at one end and a user-specified connector at the other: User-End Female or MHV Male. These connectors mate directly to the vacuum side of corresponding single-ended feedthroughs.

User-End Female	---	-2
MHV Male	---	-4

To add a connector, change the dash number at the end of the part number from -1 to the corresponding number of your desired connector; then add the price of the connector to the price of the cable assembly. For example, a 39″ MHV cable assembly with an MHV Male connector would be part number A7318-4-CN

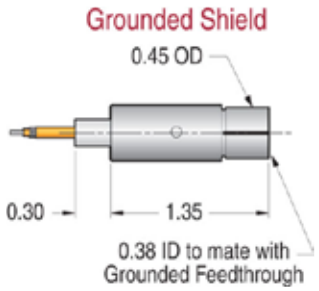


Fig. 1

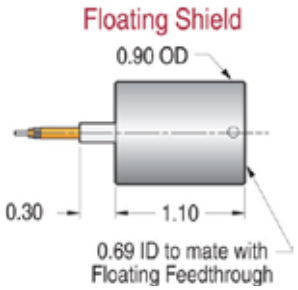


Fig. 2

Coaxial — SHV-5, UHV Cable Assemblies

The cables in the assemblies listed below consist of 26AWG, 50-Ohm coaxial cable.
These components are UHV compatible to $1x10^{-10}$ Torr.
See pg. 198 for cable details, part # A2236-5-WR.

CABLE IS RATED TO 2KVDC



SHV-5 Grounded Shield UHV Connector



SHV-5 Floating Shield UHV Connector



User End Female

CONNECTOR TYPE	FIG	LENGTH	PART #

Connector to Cable

Connector to Cable UHV cable assemblies are fitted with stainless steel Female connectors at one end and a non-terminated, Kapton® insulated wire at the other.

Grounded	1	19″	A7319-1-CN
Grounded	1	39″	A7320-1-CN
Floating	2	19″	A7321-1-CN
Floating	2	39″	A7322-1-CN
SHV-5	---	19″	A7323-1-CN
SHV-5	---	39″	A7324-1-CN

Connector to Connector

Connector to Connector UHV cable assemblies are fitted with stainless steel Female connectors at one end and a user-specified connector at the other.
These connectors mate directly to the vacuum side of corresponding single-ended feedthroughs.

User-End Female	3		-2

To add a connector, change the dash number at the end of the part number from -1 to the corresponding number of your desired connector; then add the price of the connector to the price of the cable assembly. For example, a 39″ SHV-5 Floating cable assembly with a User-End Female connector would be part number A7322-2-CN

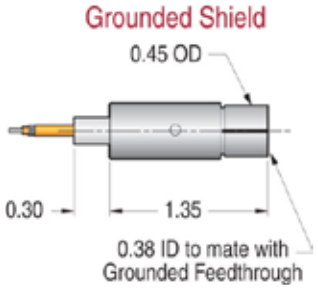


Fig. 1

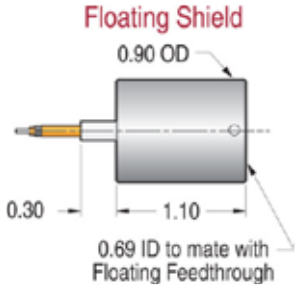


Fig. 2

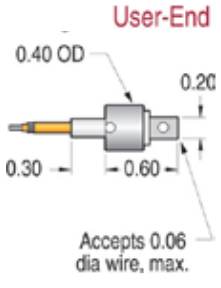


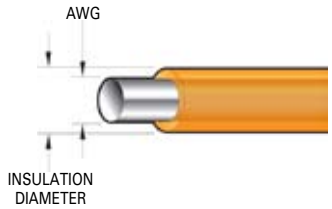
Fig. 3

Kapton Insulated Wire

Features and Specifications

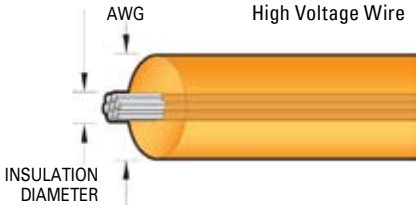
UHV, Ultrahigh Vacuum ..... 1 x 10^{-10} Torr
Temperature Range ..... -75° to 250°C
Dielectric Constant 2.9
Dielectric Strength ..... 80kV / mm
Dissipation Factor, 1MHz 0.002
Moisture Absorption ..... 0.4% @ 50% RH
Radiation Resistance ..... 109 Rads

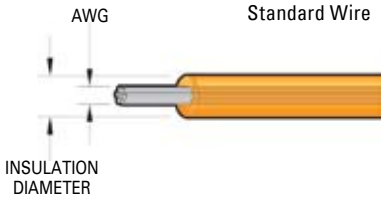
Solid Wire



WIRE AWG	WIRE LENGTH	WIRE DIAMETER	INSULATION DIAMETER	VOLTAGE RATING	CURRENT RATING	MIN. BEND RADIUS	PART #
30	30′	0.010	0.020	600VAC / 2kVDC	1.50 A	0.30	A2236-1-WR
26	30′	0.016	0.025	600VAC / 2kVDC	3.00 A	0.31	A7300-2-WR
22	30′	0.024	0.034	600VAC / 2kVDC	5.50 A	0.32	A2236-2-WR

Stranded Wire





WIRE AWG	WIRE LENGTH	# OF STRANDS X DIAMETER	INSULATION DIAMETER	VOLTAGE RATING	CURRENT RATING	MIN. BEND RADIUS	PART #
28	30′	7 x 0.005	0.020	600VAC / 2kVDC	2 A	0.25	A7300-3-WR
26	30′	7 x 0.006	0.025	600VAC / 2kVDC	3 A	0.25	A7300-4-WR
24	30′	7 x 0.008	0.030	600VAC / 2kVDC	4 A	0.55	A7300-5-WR
				High Voltage			
26	15′	7 x 0.006	0.062	3kVAC / 10kVDC	3 A	1.10	A7325-1-WR

Coaxial Wire

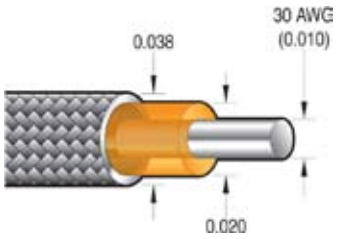


Fig. 1

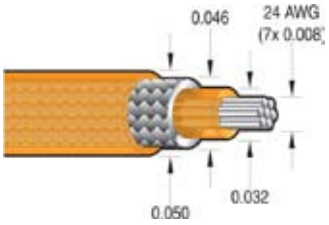


Fig. 2

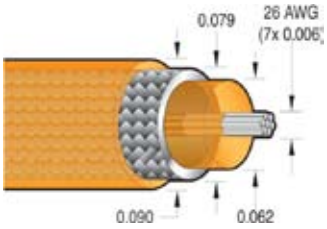
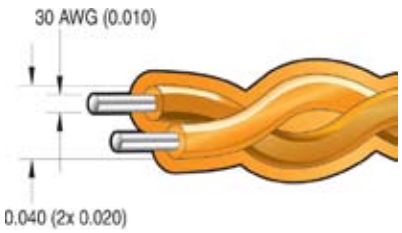


Fig. 3

FIG	CABLE LENGTH	WIRE DIAMETER	RESISTANCE	VOLTAGE RATING	CURRENT RATING	MIN. BEND RADIUS	PART #
			30 AWG COAXIAL CABLE , Solid Core				
1	30′	0.010	*377 Ω/km at 20°C max*	600VAC / 2kVDC	1.5 A	0.45	A2236-3-WR
			24 AWG COAXIAL CABLE , Multi-strand Core				
2	15′	7 x 0.008	*88.3 Ω/km at 20°C max*	600VAC / 2kVDC	4.5 A	1.00	A7326-1-WR
2	30′	7 x 0.008	*88.3 Ω/km at 20°C max*	600VAC / 2kVDC	4.5 A	1.00	A2236-4-WR
			50 Ohm Coaxial Cable				
			30 AWG COAXIAL CABLE, Multi-strand Core				
3	15′	7 x 0.004	*353 Ω/km at 20°C max*	600VAC / 2kVDC	1.5 A	0.45	A7326-2-WR
			26 AWG COAXIAL CABLE, Multi-strand Core				
3	15′	7 x 0.006	*159 Ω/km at 20°C max*	600VAC / 2kVDC	3.0 A	1.05	A2236-5-WR

Thermocouple Wire, Type-K



Thermocouple Wire pairs consist of non-welded positive Chromel® and negative Alumel® legs. Kapton® is applied with a resin process to eliminate air pockets normally associated with Kapton® tape insulated thermocouple wire from other suppliers.
UHV rated to $1x10^{-10}$
Operating Temperature 250° C

TYPE	WIRE AWG	WIRE LENGTH	WIRE DIAMETER	INSULATION DIAMETER	MIN. BEND RADIUS	PART #
K	30	19″	2 x 0.010	0.020	0.55	A2331-1-WR
K	30	39″	2 x 0.010	0.020	0.55	A2332-1-WR
K	30	96″	2 x 0.010	0.020	0.55	A2333-1-WR
To add welded thermocouple junction to wire ends, change -1 to -2						

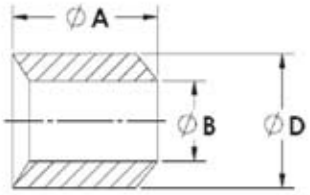
Ceramic Standoff, Steatite, Female



DC (KV) AIR	DC (KV) VACUUM	THREAD SIZE	A	B	PART #
3	7	6/32	.38	.38	A1625-1-C
4	10	6/32	.50	.38	A1625-2-C
5	12	8/32	.63	.50	A1625-5-C
6	15	8/32	.75	.38	A1625-4-C
8	20	6/32	1.00	.38	A1625-3-C
8	20	8/32	1.00	.50	A1625-6-C
8	20	10/32	1.00	.75	A1625-8-C
10	25	1/4-20	1.25	1.00	A1625-10-C
14	35	8/32	2.00	.50	A1625-7-C
14	35	10/32	2.00	.75	A1625-9-C
16	40	1/4-20	2.5	1.00	A1625-11-C

Ceramic Beads, Alumina





A	D	B	ACCEPTS WIRE	PART #
.110	.100	.053	.045	A1429-1-C
.185	.183	.087	.064	A1429-2-C
.170	.156	.068	.050	A1429-3-C
.260	.239	.107	.102	A1429-4-C
.260	.240	.144	.128	A1429-5-C
.400	.366	.146	.128	A1429-6-C

Ceramic Spacers, Alumina



PINS	DIAMETER	THICKNESS	ACCEPTS WIRE	PART #
4 & 10	.62	.135	.070	A0175-1-C
6	.62	.135	.070	A0175-2-C
20	1.25	.125	.070	A0207-1-C
35	1.25	.125	.070	A0735-1-C