



## ATEX / IECEX RATED LINE BUSHINGS



### 57754 SERIES

#### FEATURES

- Pre-assembled and tested sealed line bushings
- Combine various mechanical and electrical features to meet your needs
- Customize and integrate to your certification needs

#### APPLICATIONS

- Instrumentation
- Controls
- Sensors

#### OVERVIEW

Line bushings are commonly used to seal an electrical junction in hazardous locations transmitting power or signal. The line bushing protects against the penetration of hazardous liquids and gases within the explosive or hazardous environment. Douglas Electrical Components manufactures our 57754 series sealed line bushings certified for ATEX and IECEx ratings for flameproof enclosure "d" ratings.

## CERTIFICATION

- ATEX Flameproof Rated to: II 2 G Ex db IIC Gb
- IECEx Rated to: Ex db IIC Gb

## MATERIAL OPTIONS

- Stainless steel
- Aluminium
- Brass

## SPECIFICATIONS

<b>Housing Material</b>	Brass, Stainless Steel, or Aluminum
<b>Sealing Insulation Material</b>	Epoxy
<b>Wire Insulation</b>	Any cable types complying with IEC 60079-14
<b>Wire Gauge</b>	26 AWG to 2 AWG (0.14 mm <sup>2</sup> to 35 mm <sup>2</sup> )
<b>Wire Conductor Count</b>	1 to 107
<b>NPT Thread Sizes</b>	1/2"   3/4"   1"   1.25"
<b>Metric Thread Sizes</b>	M20   M24   M33   M42
<b>Bushing Type</b>	Plug - Single-ended male thread   Nipple - Two Male Threads   Adapter - Female to Male threads
<b>Service Temperature Range</b>	-40°C to +110°C

## MAXIMUM WIRE COUNT PER FITTING

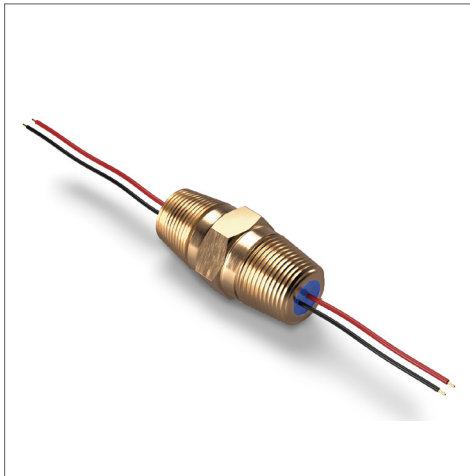
Line bushing	Wires													
	mm <sup>2</sup>	0.14	0.25	0.34	0.5	0.75	1.5	2.5	4	6	10	16	25	35
	AWG	26	24	22	20	18	16	14	12	10	8	6	4	2
	Max. diameter [mm] <sup>1</sup>	1.166	1.273	1.405	1.57	1.76	2.16	2.79	3.3	4.06	5.86	6.9	8.38	10.29
1/2 NPT	Max no. of wires	12	9	9	5	5	4	4	4	2	1	1	0	0
3/4 NPT		23	23	20	20	13	12	9	7	5	4	2	1	1
1 NPT		52	50	43	36	28	23	20	13	12	5	4	2	1
1-1/4 NPT		84	77	67	58	50	42	36	23	20	12	7	4	3
M20		12	9	9	5	5	4	4	4	2	1	1	0	0
M24		20	16	13	9	9	9	5	5	4	1	1	1	1
M33		52	50	43	36	28	23	20	13	12	5	4	2	1
M42		107	93	86	66	58	50	36	31	23	12	9	4	4

Notes:  
<sup>1</sup>Includes insulation thickness

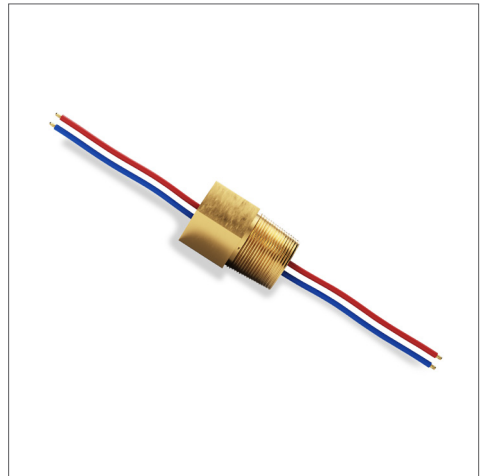
# ORDERING INFORMATION



ADAPTER



NIPPLE



PLUG

**57754**

**XX - X - X - X - XX - XX**

**Housing Size**

- 1 = 1/2" NPT Nipple
- 2 = 3/4" NPT Nipple
- 3 = 1" NPT Nipple
- 4 = 1 1/4" NPT Nipple
- 5 = M20x 1.5 Metric Nipple
- 6 = M24x 1.5 Metric Nipple
- 7 = M33 x 1.5 Metric Nipple
- 8 = M42 x 1.5 Metric Nipple
- 9 = 1/2" NPT Plug
- 10 = 3/4" NPT Plug
- 11 = 1" NPT Plug
- 12 = 1 1/4" NPT Plug
- 13 = M20x 1.5 Metric Plug
- 14 = M24x 1.5 Metric Plug
- 15 = M33 x 1.5 Metric Plug
- 16 = M42x 1.5 Metric Plug
- 17 = M20x 1.5 Metric Plug (short hex)
- 18 = 1/2" NPT Adapter
- 19 = 3/4" NPT Adapter
- 20 = 1" NPT Adapter
- 21 = 1 1/4" NPT Adapter
- 22 = M20x 1.5 Metric Adapter
- 23 = M24x 1.5 Metric Adapter
- 24 = M33 x 1.5 Metric Adapter
- 25 = M42x 1.5 Metric Adapter

**Housing Material**

- 1 = Brass CA360
- 2 = Stainless Steel, 300 Series
- 3 = Aluminum 6061-T6

**Insulator Material**

- 1 = Cast Epoxy - 7113/1481

**Wire Gauge**

xx = Gauge of wire must comply with wire requirements, see page 2

**Number of Wires**

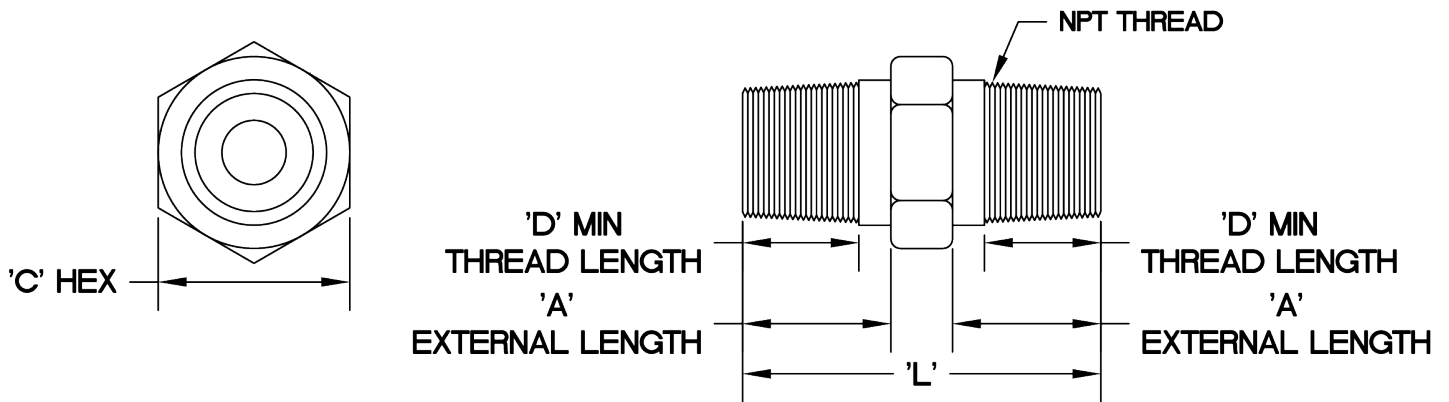
xx = Number of wires must comply with wire requirements, see page 2

**Type of Insulation**

- 1 = Teflon Family (-40°C to 200°C)
- 2 = THHN (Thermoplastic high heat Nylon coat)(-40°C to 90°C)
- 3 = THWN (Thermoplastic heat water-resistant Nylon coat) (-40°C to 75°C)
- 4 = THW (Thermoplastic heat water resistant)(-40°C to 75°C)
- 5 = PVC (-40°C to 105°C)
- 6 = XLPE/XLPO (-40°C to 125°C)

## DIMENSIONAL DATA

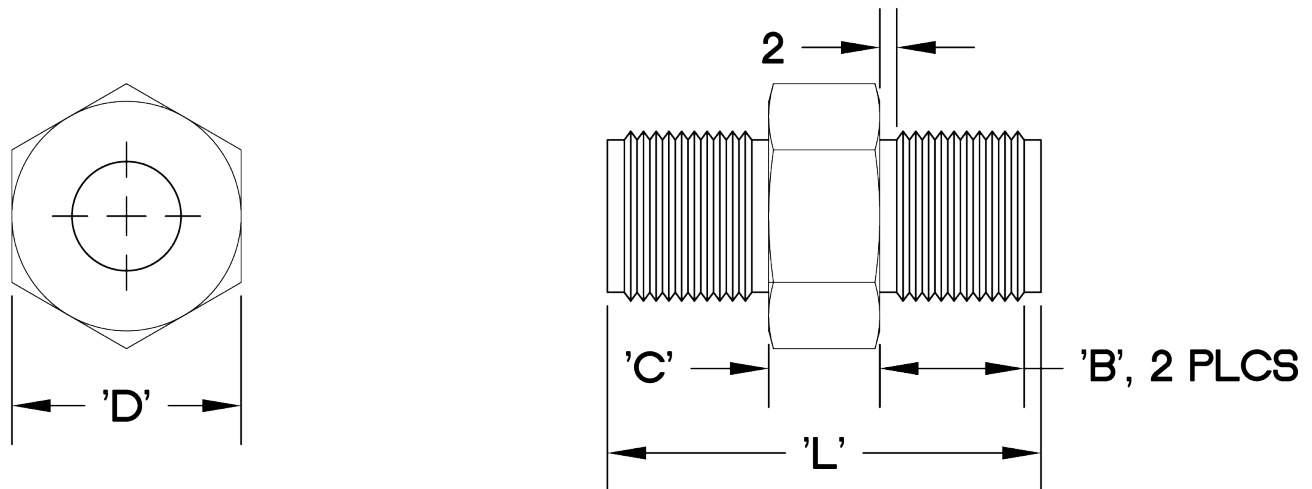
### NPT NIPPLE



HOUSING SIZE	THREAD	A (min)	'B'	'C'	D (min)	'L'
1	1/2"	19.9	12.7	22.0	13.6	48.0
2	3/4"	20.2	19.1	27.8	13.9	50.0
3	1"	25.0	25.4	34.7	17.3	59.4
4	1 1/4"	25.6	31.8	44.3	18.0	63.0

Note: Dimensions in millimeters unless otherwise noted.

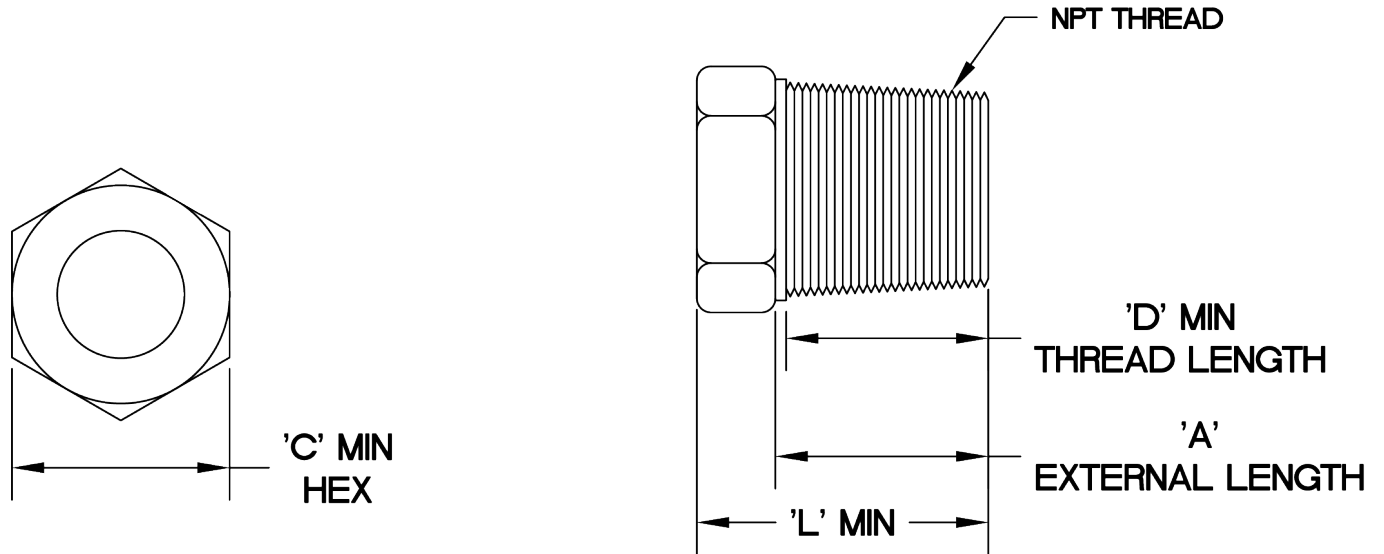
### METRIC NIPPLE



HOUSING SIZE	THREAD	'B'	'C'	'D'	'L'
5	M20x 1.5-6g	17	14	25	52
6	M24x 1.5-6g	19	14	27	56
7	M33 X 1.5-6g	19	16	35	60
8	M42 X 1.5-6g	25	16	48	72

Note: Dimensions in millimeters unless otherwise noted.

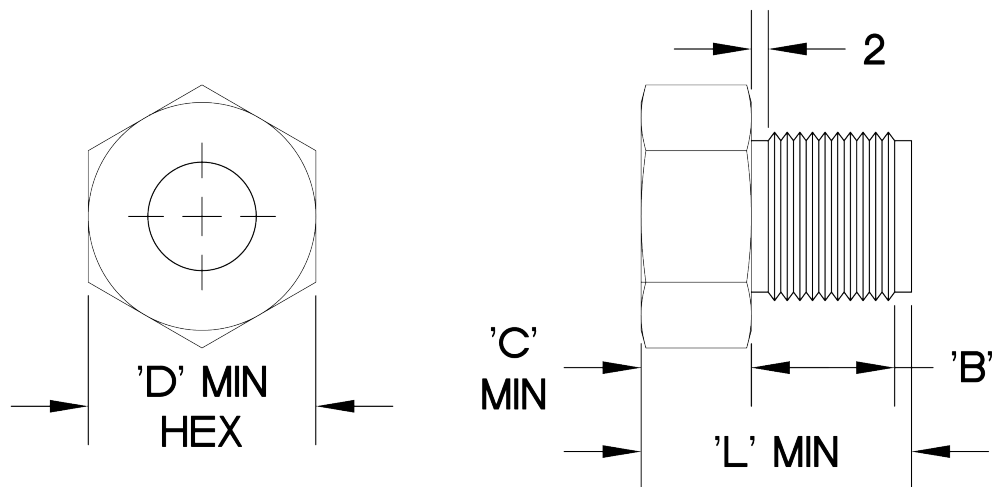
## NPT PLUGS



HOUSING SIZE	THREAD	'B'	C (min)	D (min)	L (min)
9	1/2"	12.7	22.0	13.6	33.3
10	3/4"	19.1	26.8	13.9	39.7
11	1"	25.4	34.7	17.3	44.5
12	1 1/4"	31.8	44.3	18.0	44.5

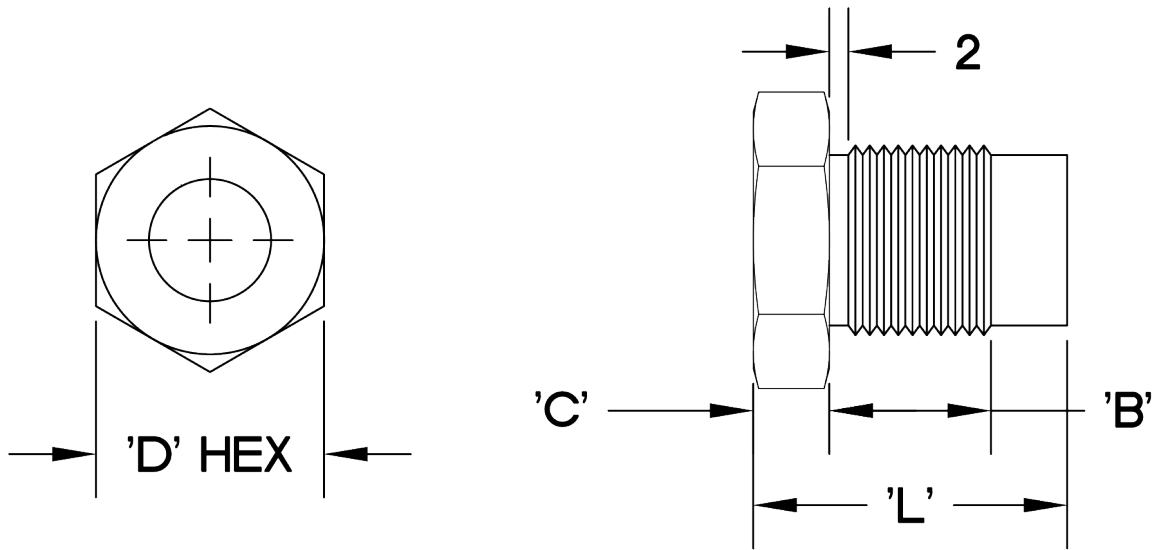
Note: Dimensions in millimeters unless otherwise noted.

## METRIC PLUG



HOUSING SIZE	THREAD	'B'	'C' (min)	'D' (min)	'L' (min)
13	M20x 1.5-6g	17	14	25	33
14	M24x 1.5-6g	19	14	27	35
15	M33 X 1.5-6g	19	16	35	38
16	M42 X 1.5-6g	25	16	48	44

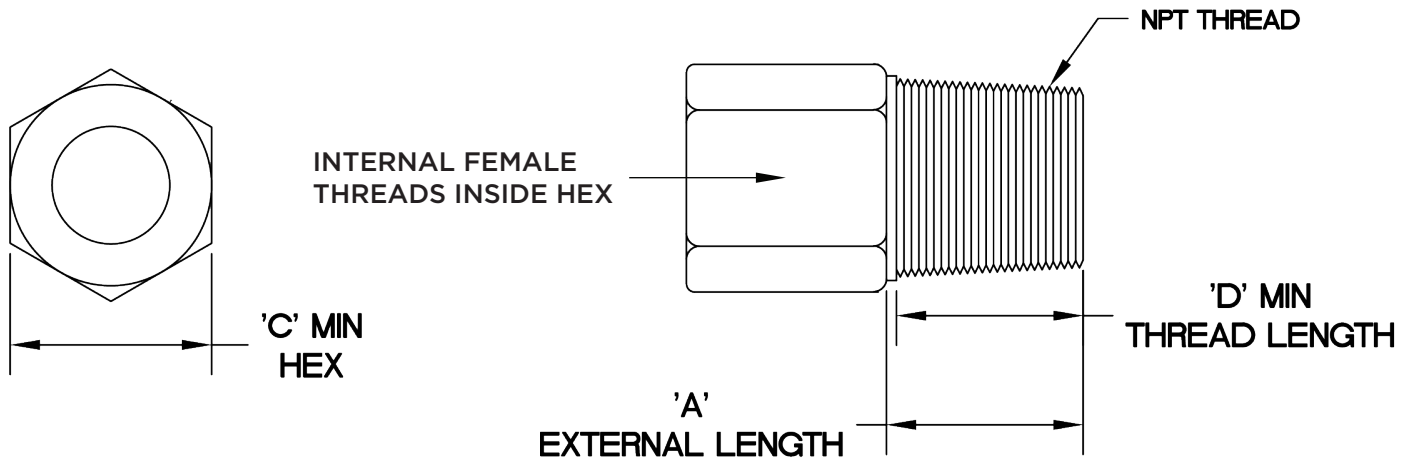
Note: Dimensions in millimeters unless otherwise noted.



HOUSING SIZE	THREAD	'B'	'C'	'D'	'L' (min)
17	M20x 1.5-6g	17	8	24	33

Note: Dimensions in millimeters unless otherwise noted.

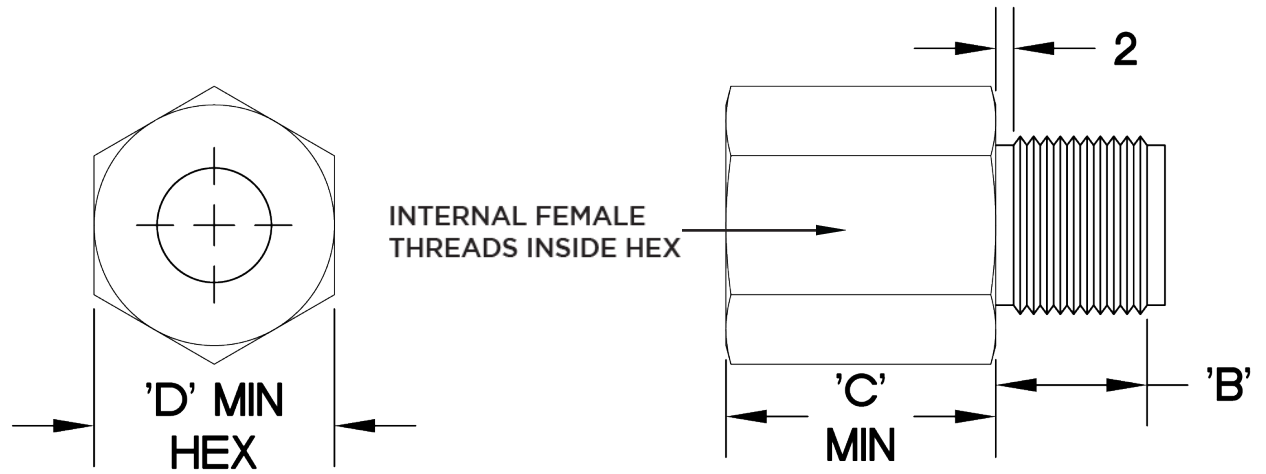
## NPT ADAPTER



HOUSING SIZE	THREAD	'B'	C (min)	D (min)	L (min)
18	1/2"	12.7	26.8	13.6	33.3
19	3/4"	19.1	33.1	13.9	39.7
20	1"	25.4	41.1	17.3	44.5
21	1 1/4"	31.8	50.6	18.0	44.5

Note: Dimensions in millimeters unless otherwise noted.

## METRIC ADAPTER



HOUSING SIZE	THREAD	'B'	'C' (min)	'D' (min)	'L' (min)
22	M20x 1.5-6g	17	14	25	33
23	M24x 1.5-6g	19	14	27	35
24	M33 X 1.5-6g	19	16	35	38
25	M42 X 1.5-6g	25	16	48	44

Note: Dimensions in millimeters unless otherwise noted.

Contact Douglas Electrical Components to request a quote for your standard or custom explosion-proof feedthrough or bushing



### To Order

You may place an order directly with our sales staff at 973.627.8230.

### Technical Questions or Design Assistance

Please call our Product Engineering Department 973.627.8230.

### Standard Terms and Conditions

Domestic shipments: All products are shipped F.O.B. Randolph, NJ. We offer a prompt payment discount of 1% 10 days, Net Cash 30 days to customers who have had their credit approved. Prices and specifications are subject to change without notice. Foreign shipments: All terms and conditions will be negotiated at time of order placement.

### Note to Purchaser

While we believe all statements, representations, and recommendations are correct and reliable, we cannot guarantee accuracy or completeness. It is the user's responsibility to determine and confirm suitability for use. All sales of Douglas Electrical Components' products are subject to our Standard

Terms and Conditions. A copy of our Standard Terms and Conditions may be obtained by calling our Sales Administration Office at 973.627.8230. Douglas Electrical will provide Special Certificates of Compliance, Test Reports, and certificates of origin but only if they are requested at the time of order.

### Warranty

All products are warranted to be free of defects in materials and workmanship for a period of twelve months from date of shipment. Our liability, unless explicitly changed by us, is strictly limited to the repair or replacement (at our option) of defective parts. Any defective parts must be returned to us to receive credit or replacement. Returned product must be accompanied by an RMA number. RMA numbers may be obtained by calling our Sales Administration Office at 973.627.8230.

### Errors

While we believe that all information in this catalog is accurate and correct, we do not take responsibility for typographical errors.

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