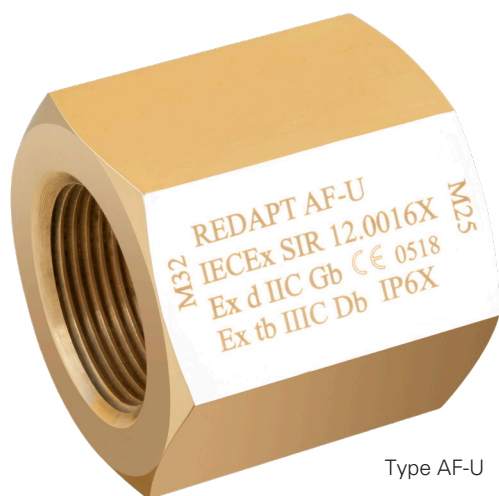


# Female to female (Exd/Exe) adaptors - AF-U Series



Type AF-U

## Technical specifications

### Code of protection categories

ATEX: I M2, II 2 GD

IECEX: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/Gb, Ex tb IIIC Db

### Compliance standards

ATEX: EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IECEX: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

### Certificate details

ATEX: ITS16ATEX101339X

IECEX: IECEX ITS 16.0013X

EAC: RU C-GB.M1062.B.06225

INMETRO: NCC 18.0133 X

### Temperature

-60°C to +200°C

### Ingress protection (IP):

IP64 when fitted without sealing washer. IP66/IP68 when fitted with washer or thread sealant according to manufacturer's instructions

### Part number:

Please refer to part numbering system below

Redapt AF-U series of explosion-proof metallic adaptors provide a method of matching electrical thread forms on hazardous area approved equipment whilst ensuring the integrity and Ex approval of the installation is maintained.

Available in various threadforms, AF-U series are the best solution to provide method of connecting male threadforms.

[Download certificates and documents here](#)

## Materials

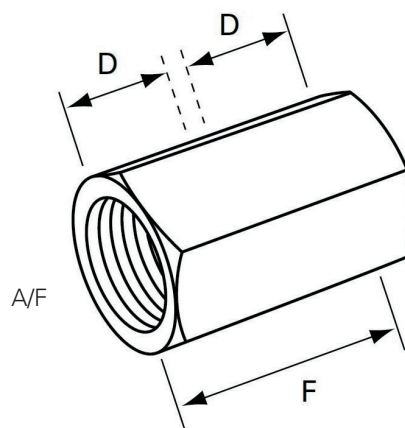
- Brass CZ121
- 316 stainless steel
- Mild steel
- Aluminium

## Threadforms

- Metric
- NPT
- PG
- ISO pipe (BSP)
- ET

## Plating options

- Electroless nickel
- Zinc
- Chromated
- Others on application



## Dimensions

Size	D	F	A/F
M16	16.00	37.50	23.37
M20	16.00	37.50	23.37
M25	16.00	37.50	30.48
M32	16.00	37.50	37.59
M40	16.00	37.50	47.24
M50	16.00	37.50	55.88
M63	16.00	37.50	70.10
M75	16.00	37.50	80.01

# Female to female (Exd/Exe) adaptors - Product coding

Product	Digits 1 & 2
Exd/Exe fem. to fem. ADAPTOR	<b>AF</b>

Certification	Digit 3
<b>U</b>	Exd I and IIC & Exe I and IIC

Material	Digit 4
<b>1</b>	Brass
2	Mild steel
3	Stainless steel
5	Aluminium

Plating	Digit 5
0	Unplated
<b>1</b>	Electroless nickel
2	Zinc
6	Chromated

## Digits 6 & 7, Male thread – Digits 8 & 9, Female thread

Metric	ET imperial conduit	NPT	NPSM	ISO pipe parallel (BSPP)	ISO pipe taper (BSPT)	PG
03 M16	17 5/8" ET	<b>29 1/2" NPT</b>	42 1/2" NPSM	55 1/2" BSPP	68 1/2" BSPT	79 PG7
<b>04 M20</b>	18 3/4" ET	30 3/4" NPT	43 3/4" NPSM	56 3/4" BSPP	69 3/4" BSPT	80 PG9
05 M25	19 1" ET	31 1" NPT	44 1" NPSM	57 1" BSPP	70 1" BSPT	81 PG11
06 M32	20 1 1/4" ET	32 1 1/4" NPT	45 1 1/4" NPSM	58 1 1/4" BSPP	71 1 1/4" BSPT	82 PG13.5
07 M40	21 1 1/2" ET	33 1 1/2" NPT	46 1 1/2" NPSM	59 1 1/2" BSPP	72 1 1/2" BSPT	83 PG16
08 M50	22 2" ET	34 2" NPT	47 2" NPSM	60 2" BSPP	73 2" BSPT	84 PG21
09 M63	23 2 1/2" ET	35 2 1/2" NPT	48 2 1/2" NPSM	61 2 1/2" BSPP	74 2 1/2" BSPT	85 PG29
10 M75	24 3" ET	36 3" NPT	49 3" NPSM	62 3" BSPP	75 3" BSPT	86 PG36
11 M80 x 2.0	ET Special	37 3 1/2" NPT	50 3 1/2" NPSM	63 3 1/2" BSPP	76 3 1/2" BSPT	87 PG42
12 M85 x 2.0		38 4" NPT	51 4" NPSM	64 4" BSPP	77 4" BSPT	88 PG48
13 M90 x 2.0		NT Special	NS Special	BP Special	BT Special	PG Special
14 M100 x 2.0						
15 M110 x 2.0						
BZ M120 x 2.0						

For other thread options please contact us.

## Example

Digits 1 & 2	Digit 3	Digit 4	Digit 5	Digits 6 & 7	Digits 8 & 9
<b>AF</b>	<b>- U</b>	<b>- 1</b>	<b>- 1</b>	<b>- 29</b>	<b>- 04</b>
Adaptor	Exd/e certified	Brass	Nickel-plated	1/2" NPT (male)	M20 (female)

### Notes:

- Please specify the largest thread first
- Threadform codes below to be used for both male and female threads.

# Thread dimension chart

## ISO metric

### BS 3643 1.5mm pitch

Size	Major dia.	TPI
M12	11.97	16.93
M16	15.97	16.93
M20	19.97	16.93
M25	24.97	16.93
M32	31.97	16.93
M40	39.97	16.93
M50	49.97	16.93
M63	62.97	16.93
M75	74.97	16.93

### 2.0mm pitch

M80	79.97	12.70
M85	84.97	12.70
M90	89.97	12.70
M100	99.97	12.70
M110	109.97	12.70
M120	119.97	12.70

## NPT

### ANSI/ASME B1.20.1

Size	Pipe dia.	TPI
1/2"	21.34	14.00
3/4"	26.67	14.00
1"	33.40	11.50
1 1/4"	42.16	11.50
1 1/2"	48.26	11.50
2"	60.33	11.50
2 1/2"	73.03	8.00
3"	88.90	8.00
3 1/2"	101.60	8.00
4"	114.30	8.00

## PG

### DIN 40430

Size	Major dia.	TPI
PG7	12.50	20.00
PG9	15.20	18.00
PG11	18.60	18.00
PG13.5	20.40	18.00
PG16	22.50	18.00
PG21	28.30	16.00
PG29	37.00	16.00
PG36	47.00	16.00
PG42	54.00	16.00
PG48	59.30	16.00

## Alternate ISO pipe thread designations

UK	<b>BSP</b> Parallel or Taper BS2279 (BS21)
Europe	<b>G</b> (Parallel) <b>GK</b> (Taper) <b>R</b> (Parallel) <b>RK</b> (Taper)
Japan	<b>PF</b> (Parallel) JIS B 303
CIS	<b>K mpy</b> (Taper)

## BSP ISO pipe thread

### ISO R/7; UNI 6125

Size	Pipe Dia.	TPI
3/8"	16.66	19.00
1/2"	20.96	14.00
3/4"	26.44	14.00
1"	33.25	11.00
1 1/4"	41.91	11.00
1 1/2"	47.80	11.00
2"	59.61	11.00
2 1/2"	75.18	11.00
3"	87.88	11.00

## ET imperial conduit

### BS31

Size	Major dia.	TPI
5/8"	15.88	18.00
3/4"	19.05	16.00
1"	25.40	16.00
1 1/4"	31.75	16.00
1 1/2"	38.10	14.00
2"	50.80	14.00
2 1/2"	63.50	14.00
3"	76.20	14.00

## Thread dimension substitution chart

Metric	NPT (or NPS)	PG	BSP ISO Pipe	ET
M16	–	7, 9	–	5/8"
M20	1/2"	11, 13.5	1/2"	3/4"
M25	3/4"	16	3/4"	1"
M32	1"	21	1"	1 1/4"
M40	1 1/4"	29	1 1/4"	1 1/2"
M50	1 1/2"	36	1 1/2"	2"
M63	2"	42, 48	2"	2 1/2"
M75	2 1/2"	–	2 1/2"	3"
M90 x 2.0	3"	–	3"	–
M100 x 2.0	3 1/2"	–	–	–
M110 x 2.0	–	–	–	–
M120 x 2.0	–	–	–	–

# Part numbering system

## Codes

Page No.	Product	Digits 1 & 2
<b>Adaptors and reducers</b>		
14-17	<b>AD</b>	Adaptor
14-17	RD	Reducer
18	TA	Swivel - in-line male to female
18	TC	Swivel - in-line female to female
18	TD	Swivel - in-line male to male
18	TP	Swivel - 90° male to female
18	TQ	Swivel - 90° female to female
18	TR	Swivel - 90° male to male
19	AY	'Y' adaptor
20	AT	'T' adaptor
21	AR	90° adaptor
22	AM	Male to male adaptor
23	AF	Female to female adaptor
24-25	DB	Insulated adaptor
<b>Stopping Plugs</b>		
26-27	PD	Dome head plug
28	PA	Type A plug
28	PB	Type B plug
<b>Breather Drains</b>		
31	DP	Breather drain (Exe)
32	BD	Breather drain (Exde)
<b>Other products</b>		
34	UN	Union - male to female
34	UF	Union - female to female
35	AE	Earth lead adaptor

Certification	Digit 3
<b>U</b>	Exd I and IIC & Exe I and IIC
D	Exd I and IIC
E	Exe I and IIC
F	Industrial (marked product)

Material	Digit 4
<b>1</b>	Brass
2	Mild steel
3	Stainless steel
4	Glass filled nylon
5	Aluminium
6	Nylon 6
7	Red fibre

Plating	Digit 5
0	Unplated
<b>1</b>	Electroless nickel
2	Zinc
6	Chromated

## Example

Digits 1 & 2	Digit 3	Digit 4	Digit 5	Digits 6 & 7	Digits 8 & 9
<b>AD</b>	<b>- U</b>	<b>- 1</b>	<b>- 1</b>	<b>- 29</b>	<b>- 04</b>
Adaptor	Exd/e certified	Brass	Nickel-plated	1/2" NPT (male)	M20 (female)

Always quote male thread first.