

# Angled (Exde) adaptors – AR-U & AS-U Series

## Technical specification

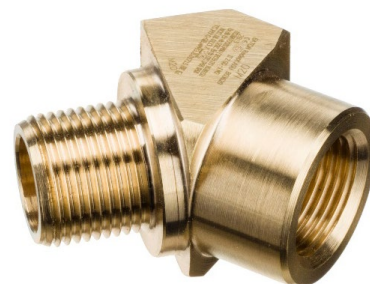
Redapt AR-U series of explosion-proof 90 degrees shaped adaptors provide a method of matching electrical thread forms on hazardous area approved equipment whilst ensuring the integrity and Ex approval of the installation is maintained.

Available in various threadforms, AR-U series are the perfect solution to provide means of connection where space is limited.

Our AS-U series is available in any angle, for more information please contact us.



Type AR-U



Type AS-U

### Certifications and compliances



#### Code of protection categories

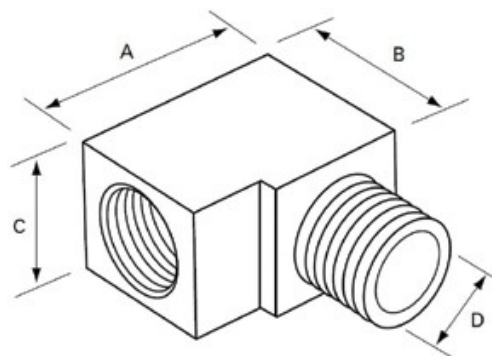
- ATEX/EAC:** II 2 GD
- IECEC:** Ex db IIC Gb, Ex eb IIC Gb, Ex tb IIIC Db (Aluminium not mining)
- CSA:** Ex db / Ex eb IIC Gb IP54  
 CI I Zn 1 AEx eb / AEx db IIC Gb IP54  
 CI I Div 1 Gr ABCD CI II Gr EFG CI III; Ty pe 3

#### Compliance standards

- ATEX:** EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
- IECEC:** IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
- CSA:** CAN/CSA C22.2 No. 60079-0, No. 60079-1, No. 60079-7, ANSI/UL 60079-0, 60079-1, 60079-7, UL1203

#### Certificate details

- ATEX:** ITS16ATEX101340U
- IECEC:** IECEx ITS 16.0015U
- EAC:** RU C-GB. nM43.B.01715
- INMETRO:** NCC 18.0133X
- CSA:** CSA01CA1248014X



In some instance the product can be supplied slightly different in appearance.

#### Temperature range

-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.

#### Plating options

- Electroless nickel
- Zinc
- Chromated
- Others on application

#### Threadforms

- Metric
- NPT
- NPSM
- Pg
- ISO Pipe (BSP)
- ET

#### Dimensions

Size	Bore (D)	Male length	Height (A)	Length (B)	Width (C)
M16 x M16	10.00	16.00	33.00	27.00	23.00
M20 x M20	14.00	16.00	39.00	29.00	25.40
M25 x M25	18.00	16.00	46.00	35.00	32.00
M32 x M32	24.00	16.00	51.00	44.00	40.00
M40 x M40	32.00	16.00	61.00	52.00	48.00
M50 x M50	41.00	16.00	73.00	65.00	60.00
M63 x M63	53.00	16.00	86.00	77.00	73.00
M75 x M75	64.00	16.00	99.00	94.00	87.00

# Angled (Exde) adaptors - Product coding

Product	DIGITS 1 & 2
90 degree Exde ADAPTOR	AR
45 degree Exde ADAPTOR	AS *

Certification	DIGIT 3
U	Exd I and IIC & Exe I and IIC

Material	DIGIT 4
1	Brass
2	Mild steel
3	Stainless steel
5	Aluminum

Plating	DIGIT 5
0	Unplated
1	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	29 1/2" NPT	42 1/2" NPSM	55 1/2" BSPP	68 1/2" BSPT	79 PG7	
04 M20	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	

For other thread options please contact us.

\* Available in any angle, for more information please contact us.

## Example

Digits 1&2	Digit 3	Digit 4	Digit 5	Digits 6 & 7	Digits 8 & 9
AR	- U	- 2	- 2	- 29	- 04
Adaptor	Exd/e certified	Mild steel	Zinc	1/2" NPT (male)	M20 (female)

Always quote male thread first.

Note: 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

## 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) JISB 303
CIS	<b>K mpy</b> (Taper)

## NPT

ANSI ASME B1.20.1

Size	Pipe dia.	TPI
½"	21.34	14.00
¾"	26.67	14.00
1"	33.40	11.50
1¼"	42.16	11.50
1½"	48.26	11.50
2"	60.33	11.50
2½"	73.03	8.00
3"	88.90	8.00
3½"	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

## BSP ISO pipe thread

ISO R/7; UNI 6125

Size	Pipe Dia.	TPI
⅝"	16.66	19.00
½"	20.96	14.00
¾"	26.44	14.00
1"	33.25	11.00
1¼"	41.91	11.00
1½"	47.80	11.00
2"	59.61	11.00
2½"	75.18	11.00
3"	87.88	11.00

## ET imperial conduit

BS31

Size	Major dia.	TPI
⅝"	15.88	18.00
¾"	19.05	16.00
1"	25.40	16.00
1¼"	31.75	16.00
1½"	38.10	14.00
2"	50.80	14.00
2½"	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	–	⅝"
M20	½"	11, 13.5	½"	¾"
M25	¾"	16	¾"	1"
M32	1"	21	1"	1¼"
M40	1¼"	29	1¼"	1½"
M50	1½"	36	1½"	2"
M63	2"	42, 48	2"	2½"
M75	2½"	–	2½"	3"
M90 x 2.0	3"	–	3"	–
M100 x 2.0	3½"	–	–	–
M110 x 2.0	–	–	–	–
M120 x 2.0	–	–	–	–



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