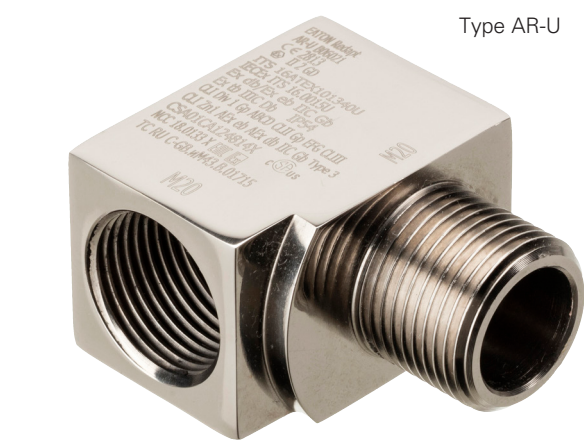


90 degree (Exd) adaptors - AR-U Series



Type AR-U

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.

Materials

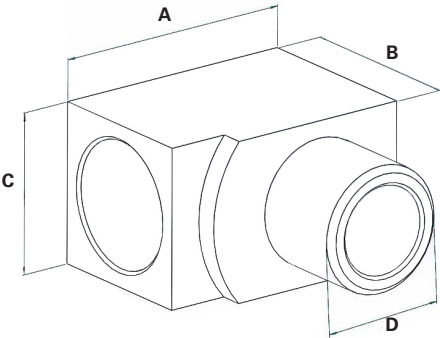
- Brass CZ121
- Mild steel
- 316 stainless steel
- Aluminium

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

Technical specifications

Code of protection categories
ATEX: II 2 GD
IECEx: 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 Div1 Gr ABCD CI II Gr EFG CI III; Type 3
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
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
IECEx: IECEx ITS 16. 0015U
EAC: RU C-GB.11M43.B.01715
CSA: CSA01CA1248014X
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 accdord to manufacturer's instructions
Part number:
Please refer to part numbering system below

[Download certificates and documents here](#)

90 degree (Exd) 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	Aluminium

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	-	29	-	04
Adaptor	Exd/e certified	Mild steel	Zinc	1/2" NPT (male)	M20 (female)			

- Notes:
- Always quote male 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

Alternate ISO pipe thread designations

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

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
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
3⁄8"	16.66	19.00
1⁄2"	20.96	14.00
3⁄4"	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
5⁄8"	15.88	18.00
3⁄4"	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	–	5⁄8"
M20	1⁄2"	11, 13.5	1⁄2"	3⁄4"
M25	3⁄4"	16	3⁄4"	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	–	–	–	–

Part numbering system

Codes

Page No.	Product	Digits 1 & 2
Adaptors and reducers		
14-17	AD	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
Stopping Plugs		
26-27	PD	Dome head plug
28	PA	Type A plug
28	PB	Type B plug
Breather Drains		
31	DP	Breather drain (Exe)
32	BD	Breather drain (Exde)
Other products		
34	UN	Union - male to female
34	UF	Union - female to female
35	AE	Earth lead adaptor

Certification	Digit 3
U	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
1	Brass
2	Mild steel
3	Stainless steel
4	Glass filled nylon
5	Aluminium
6	Nylon 6
7	Red fibre

Plating	Digit 5
0	Unplated
1	Electroless nickel
2	Zinc
6	Chromated

Example

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

Always quote male thread first.