

Metallic (Exd/Exe) adaptors and reducers - ADU / RDU Series



Type ADU

Features

- International Ex approvals
- IP66, IP68, CSA Enclosure Type (NEMA) 4X, 6P
- Various threadforms/materials available

Benefits

- Used to change size/threadform of connection device
- Maintains Ex certification while matching threadforms

Materials

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

Threadforms

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

Plating options

- Electroless nickel
- Zinc
- Others on application

Technical specification

Code of protection categories

ATEX: I M2, II 2 GD, Ex d I/IIC Mb Gb, Ex e I/IIC Mb Gb, Ex tb IIIC Db, IP6X

IECEX: Ex d I/IIC, Mb/Gb, Ex e I/IIC, Mb/Gb, Ex tb IIIC Db, IP6X

CSA: Ex de IIC IP66/67/68; Class I, Divisions 1 and 2; Groups A, B, C, D; Class II, Groups E, F, G; Class III; Enclosure Type 4X/6P

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: C22.2 No. 30-M1986 (R2012), CAN/CSA 60079-0-11, CAN/CSA 60079-1-11, CAN/CSA 60079-7-12, CAN/CSA 60079-31:12, UL1203-5th Edition

Certificate details

ATEX: Sira 00ATEX1094X; ITS16ATEX101339X

IECEX: IECEX SIR 12.0016X; IECEX ITS 16.0013X

CSA: 1248014 (LR 106084)

EAC: RU C-GB.MIO62.B.06225

CCoE: P362565/1

INMETRO: NCC 18.0133 X

Temperature

Temperature will depend on the type of O-ring used:

None: -60°C to ~ +200°C

Nitrile: -20°C to +80°C (supplied as standard)

EPDM: -30°C to +125°C

Neoprene: -20°C to +100°C

Viton: -5°C to +180°C

Silicone: -30°C to +180°C

Fluorosilicone: -50°C to +150°C

The maximum temperature is limited to +150°C for Group I applications

Ingress protection (IP):

Independently tested to IP66 / IP68 when fitted in accordance to manufacturer's instructions

Part number:

Please refer to page 10 for part numbering system

Available thread sizes and corresponding bore size

Metric	Bore	NPT	Bore	ISO Pipe	Bore	ET	Bore	PG	Bore
M16	10.00	-	-	3/8"	10.00	5/8"	10.00	PG7	8.00
M20	14.00	1/2"	15.00	1/2"	15.00	3/4"	14.00	PG9	10.00
M25	18.00	3/4"	19.00	3/4"	19.00	1"	18.00	PG11	13.50
M32	24.00	1"	25.00	1"	25.00	1 1/4"	24.00	PG13.5	14.00
M40	32.00	1 1/4"	32.00	1 1/4"	32.00	1 1/2"	32.00	PG16	16.00
M50	41.00	1 1/2"	38.00	1 1/2"	38.00	2"	41.00	PG21	21.00
M63	53.00	2"	49.00	2"	49.00	2 1/2"	53.00	PG29	29.00
M75	64.00	2 1/2"	60.00	2 1/2"	60.00	3"	64.00	PG36	38.00
M80 x 2.0	69.00	3"	75.00	3"	75.00	-	-	PG42	45.00
M85 x 2.0	73.00	3 1/2"	88.00	3 1/2"	88.00	-	-	PG48	50.00
M90 x 2.0	78.00	4"	100.00	4"	100.00	-	-	-	-

Sizes M12 to M120 available.

Part numbering system

Codes

Page No.	Product	Digits 1 & 2
Adaptors and reducers		
14-17	AD	Adaptor
14-17	RD	Reducer
19	AY	'Y' adaptor
20	AT	'T' adaptor
21	AR	90° adaptor
22	AS	45° adaptor
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
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		
33	SB	Stopper box (rigid conduit/cable gland)
34	UN	Union - male to female
34	UF	Union - female to female
35	AE	Earth lead adaptor
36	ET	Threaded earth plate
37	FX	Stopper box (flexible conduit)

Certification	Digit 3
U	Exd I and IIC & Exe 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	Chromatised

Example

Digits1 & 2	Digit 3	Digit 4	Digit 5	Digits 6 & 7	Digits 8 & 9			
AD	-	U	-	1	-	29	-	04
Adaptor	Exd/e certified		Brass	Nickel-plated	1/2" NPT (male)		M20 (female)	

Always quote male thread first.

Male thread – digits 6 & 7, female thread – digits 8 & 9 Note: threadform codes below to be used for both male and female threads.

Metric	ET imperial conduit	NPT	NPSM	ISO pipe parallel (BSPP)	ISO pipe taper (BSPT)	PG
02 M12						
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
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						
MT Special						

Part numbering system for DPE breather drains only (page 31)

Product	Certification	Material	Plating	Thread type	Thread length	Hole position	Castellated I/nut
DP Standard	E Exe I and IIC	1 Brass	0 Unplated	04 M20	S1 10mm	2 Holes	With
		3 S/steel	1 E/nickel	05 M25	S2 10mm	2 Holes	Without
		4 GF Nylon	2 Zinc	06 M32	S3 15mm	3 Holes	With
				29 1/2" NPT	S4 15mm	3 Holes	Without
				30 3/4" NPT			
				31 1" NPT			

Note: Glass filled nylon version is only available in S3 and S4 options and is supplied complete with a brass castellated locknut.
NPT threaded breather drains are only available in S3 and S4 options.

Example

Standard	Exe I and IIC		Stainless steel		Unplated		M20		10mm	
DP	-	E	-	3	-	0	-	04	-	S1

Part numbering system for BDU breather drains only (page 32)

Product	Certification	Material	Plating	Thread	O-ring
BD Standard	U Exd I and IIC and Exe I and IIC	1 Brass	0 Unplated	04 M20	D0 no O-ring
		3 Stainless steel	1 Electroless nickel	05 M25	D1 Silicone
			2 Zinc	29 1/2" NPT	D2 Fluorosilicone
				30 3/4" NPT	D3 Viton
					D4 EPDM
					D5 Neoprene
					D6 Nitrile

Example

Standard	Exd I and IIC and Exe I and IIC	Stainless steel	Unplated	M20	Silicone O-ring					
BD	-	U	-	3	-	0	-	04	-	D1