

# Metallic 90 Degree Rotating Adaptors and Reducers

Ex db : Ex eb : Ex nR : Ex ta : IP66 : IP68 : Class I Zone 1 AEx db : AEx eb : AEx ta



PRODUCT TYPE RA\*\*90

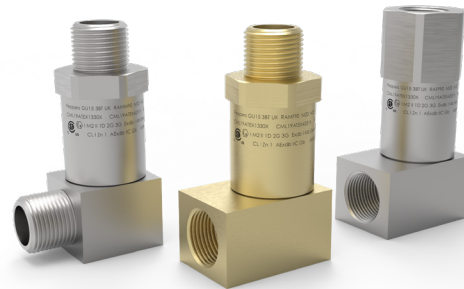


## PRODUCT DESCRIPTION

"RA"90" Series Dual Certified Right Angled Rotating Adaptors are designed to protect cables when installed in confined spaces where the cable may otherwise be subject to excessive bending and / or stress whilst maintaining Ex db, Ex eb, Ex ta and Ex nR methods of explosion protection. Approved for use in mining (except Aluminium) and surface installations, they maintain IP66 & IP68 for IEC type applications. They are Class I Zone 1 approved for NEC and CEC type applications whilst also maintain Type 4X/6P rating. The series is available with Male/Male, Male/Female or Female/Female connection threads.

## COMPLIANCE STANDARDS:

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31  
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529  
C22.2 (see certificate), ANSI/UL 514B, ANSI/UL 60079-0/1/7, ANSI/ISA 60079-31, UL50E



### CERTIFICATION:

<b>UKEX</b>	I M2 II 1D 2G Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex ta IIIC Da II 3G Ex nR IIC Gc
<b>ATEX</b>	I M2 II 1D 2G Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex ta IIIC Da II 3G Ex nR IIC Gc
<b>IECEX</b>	Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
<b>CEC - Canada</b>	Ex db IIC Gb / Ex eb IIC Gb / Ex ta IIIC Da Type 4X / 6P
<b>NEC - USA</b>	Class I Zone 1 AEx db IIC Gb / Ex eb IIC Gb Zone 20 AEx ta IIIC Da Type 4X / 6P
<b>EAC</b>	PB Ex db I Mb X / 1Ex db IIC Gb X / PB Ex eb I Mb X / 1Ex eb II Gb X / 2Ex nR II Gc X Ex ta IIIC Da X
<b>CCC - China</b>	Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
<b>CCoE - India</b>	Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc
<b>ABS</b>	Specified ABS Rules
<b>LLOYD'S</b>	Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da
<b>DNV</b>	Ex db I Mb / Ex db IIC Gb / Ex eb I Mb / Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da

### CERTIFICATION No:

<b>UKEX</b>	CML 21UKEX1026X & CML 21UKEX4027X
<b>ATEX</b>	CML 19ATEX1330X & CML 19ATEX4331X
<b>IECEX</b>	IECEX CML 19.0101X
<b>CEC - Canada</b>	CSA 2310046
<b>NEC - USA</b>	CSA 2310046
<b>EAC</b>	RU C-GB.AK58.B.051063/24
<b>CCC - China</b>	2021312313000376
<b>CCoE - India</b>	PESO P494321/5 & P494321/14
<b>ABS</b>	20-LD1944057-PDA
<b>LLOYD'S</b>	LR2124442TA
<b>DNV</b>	TAE00004XK

### NOTES

- Assembly instructions must be read prior to installation and adhered to in full.
- For Ex db applications female threads must comply with clause 5.3 of IEC 60079-1.
- For Ex nR applications parallel entry threads must be installed with a suitable entry thread seal.
- ATEX / IECEX versions are supplied as standard.
- Where applicable, the standard O-ring material is nitrile. Other options are available upon request.
- Only products with Metric and NPT threads are marked with CSA approval.
- Peppers supply products with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. We usually incorporate a thread

### EXAMPLE PART NUMBERING:

<b>RA</b>	Rotating Thread converting Adaptor/Reducer
<b>MF90</b>	Male / Female (MF90) - Male / Male (MM90) - Female/Female (FF90)
<b>O</b>	No IP O-ring
<b>B</b>	Brass (B) - Stainless Steel (S)
<b>F</b>	Multiple Certification
<b>K-V-H</b>	Locknut & Nylon (K) - Fibre (V) - PTFE (H) IP Washer
<b>S</b>	Including Serrated Washer
<b>1</b>	Quantity per kit
<b>NP</b>	Nickel Plated
<b>M20</b>	Male Entry Thread
<b>M20</b>	Female Entry Thread

### OPTIONAL ACCESSORIES:

<b>Locknut (L)</b>	Brass (ACBLN) - St-Steel (ACSLN)
<b>Earth Tag (T)</b>	Brass (ACBET) - St-Steel (ACSET)
<b>IP WASHERS</b>	Nylon (N) / Fibre (J) / PTFE (Z)
<b>Serrated Washer</b>	Stainless Steel (S)

<b>IP RATING:</b>	IP66, IP68 (2 metres for 24 hours) & Type 4X/6P
<b>OPERATING TEMPERATURE:</b>	Washer - None -60°C to +135°C Washer - Fibre -40°C to +95°C Washer - Nylon -40°C to +135°C Washer - PTFE -60°C to +135°C
<b>MATERIALS:</b>	Brass or Stainless Steel
<b>PLATING:</b>	Electroless Nickel

**Male and Female Thread References and Size information can be found on page 77 of our product catalogue. Male and female threads are manufactured in accordance with:-**

- ISO Metric threads to ISO 965-1, ISO 965-3, BS3643 and IEC 60423
- NPT and NPS threads are in accordance to ANSI B1.20.1
- PG threads to DIN40430
- ET threads to Imperial Conduit BS31
- ISO Pipe Parallel to ISO 228 and BS2779 (BSPP, G, R, PF & Tpy 6)
- ISO Pipe Taper to ISO 7-1 and BS21 (BSPT, Gc, Gk, Rk, PT & Kmpy 6)

run out according to the general machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.

• Where approval in addition to UKEX, ATEX, IECEX and CSA is required, this must be clearly requested at time of enquiry / order.