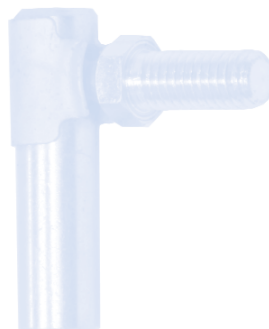


# MEDWAY®

# BALL JOINTS



**MEDWAY (UK) LIMITED**

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## A - SERIES | AMG - AIG

## PAGE 1

### Description

A - Series is our 4-piece standard range of nylon lined ball joints suitable for light to medium industrial/mechanical load applications requiring smooth action and good wear resistance, available in both metric & imperial thread sizes. A-series ball joints are also available without the ball stud allowing for assembly on to a pre-positioned stud, please refer to compatible ball stud options in our miscellaneous product section. Neoprene gaiter helps resist dirt contamination, if gaiter is not required please remove the letter G from the part number.

### Materials

Body: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)  
 Ball stud: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)  
 Liner: Nylon 6 white  
 Gaiter: Neoprene

### Features

Metric & imperial thread sizes  
 Ultra smooth action  
 Can be assembled in situ  
 Good wear resistance  
 Lubricated

### Possible Applications

Industrial equipment  
 Construction equipment  
 Agricultural equipment  
 Lawn & garden equipment

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



## BL - SERIES | BL

## PAGE 2

### Description

BL - Series is our 4-piece standard range of die cast Zinc alloy ball joints suitable for medium industrial/mechanical load applications requiring smooth action and good wear resistance. The Body is die cast around the ball giving an ultra smooth surface contact area, the ball stud is hardened and friction welded to the ball. The Neoprene gaiter helps resist dirt contamination.

### Materials

Body: Die cast Zinc alloy  
 Ball: 100Cr6 bearing steel  
 Ball stud: Steel S35C case hardened Zinc plated white & blue passivate (silver/clear)  
 Gaiter: Neoprene

### Features

Metric thread sizes  
 Ultra smooth action  
 Strong & cost effective  
 High pull out load axial & radial  
 Good wear resistance  
 Lubricated

### Possible Applications

Industrial equipment  
 Construction equipment  
 Agricultural equipment  
 Lawn & garden equipment

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



## BMG - SERIES | BMG

## PAGE 3

### Description

BMG - Series is our 3-piece range of light weight nylon bodied ball joints suitable for light industrial/mechanical load applications requiring smooth action and good wear resistance. BMG series ball joints are also available without the ball stud allowing for assembly on to a pre-positioned stud, please refer to compatible ball stud options in our miscellaneous product section. BMG series ball joints can be moulded directly onto a linkage rod etc. Neoprene gaiter helps resist dirt contamination, if gaiter is not required please remove the letter G from the part number.

### Materials

Body: Nylon 12 grey with graphite additive  
 Ball stud: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)  
 Gaiter: Neoprene

### Features

Metric thread sizes  
 Smooth action  
 Can be assembled in situ  
 Good wear resistance  
 Light weight  
 Economical  
 Lubricated

### Possible Applications

Light Industrial equipment  
 Light agricultural equipment  
 Lawn & garden equipment  
 Engine controls

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



## M - SERIES | M

PAGE 3

### Description

M - Series is our 2-piece range of light weight nylon bodied lockable ball joints suitable for light industrial/mechanical load applications requiring smooth action and good wear resistance. M series ball joints are also available without the ball stud allowing for assembly on to a pre-positioned stud, please refer to compatible ball stud options in our miscellaneous product section. M series ball joints have a unique locking clip incorporated into the one piece body that when closed increases axial pull out and reduces backlash.

### Materials

Body: Nylon PA 6.6 black with MoS2 additive

Ball stud: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)

### Features

Metric thread sizes  
Smooth action  
Can be assembled in situ  
Economical  
Light weight

### Temperature Range

-40°C to +80°C

### Possible Applications

Light Industrial equipment  
Light agricultural equipment  
Lawn & garden equipment  
Engine controls

### Specification

ELV & RoHS compliant



## C - SERIES | CMG - CMG/1 - CMG/2

PAGE 4

### Description

C - Series is our 5-piece range of spring retained & lockable ball joints suitable for medium industrial/mechanical load applications, inner ring retains the ball stud while the safety clip prevents the ball stud from being removed. C - Series ball joints are also available without the ball stud allowing for assembly on to a pre-positioned stud, please refer to compatible ball stud options in our miscellaneous product section. CMG ball joints have a pre-machined counter bore making them ideal for gas strut applications etc. Neoprene gaiter helps resist dirt contamination, if gaiter is not required please remove the letter G from the part number.

### Materials

Body: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)

Ball stud: Steel 212A42 case hardened and Zinc plated white & blue passivate (silver/clear)

Inner ring & safety clip: Spring steel to BS5216

Gaiter: Neoprene

### Features

Metric thread sizes  
Lubricated  
Can be assembled in situ  
Good wear resistance  
Medium duty  
Safety features

### Temperature Range

-30°C to +90°C

### Possible Applications

Industrial equipment  
Construction equipment  
Agricultural equipment  
Lawn & garden equipment

### Specification

ELV & RoHS compliant



## D - SERIES | DMG - DIG

PAGE 6

### Description

D - Series is our 3-piece range of swaged design ball joints suitable for medium industrial/mechanical load applications, the swaging of the body produces a permanent assembly with the ball stud. Available in both metric & imperial thread sizes. Neoprene gaiter helps resist dirt contamination, if gaiter is not required please remove the letter G from the part number.

### Materials

Body: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)

Ball stud: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)

Gaiter: Neoprene

### Features

Metric & imperial thread sizes  
Permanent assembly  
High pull out load  
Good wear resistance  
Lubricated

### Temperature Range

-30°C to +120°C

### Possible Applications

Industrial equipment  
Construction equipment  
Agricultural equipment  
Lawn & garden equipment

### Specification

ELV & RoHS compliant



## F - SERIES | FMG - FIG

## PAGE 7

### Description

F - Series is our 4-piece range of spring retained ball joints suitable for medium industrial/mechanical load applications, available in both metric & imperial thread sizes. F-Series ball joints are ideal for severe wear conditions and are resistant to vibration and high shock loading. Neoprene gaiter helps resist dirt contamination, if gaiter is not required please remove the letter G from the part number.

### Materials

Body: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Ball stud: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Inner ring: Hardened and tempered spring steel to BS5216  
 Gaiter: Neoprene

### Features

Metric & imperial thread sizes  
 High pull out load  
 High wear conditions  
 High shock loads  
 Resistant to vibration  
 Lubricated

### Possible Applications

Industrial equipment  
 Construction equipment  
 Agricultural equipment  
 Lawn & garden equipment

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



## I - SERIES | ILMMG - ILIMG - ILMFG - ILIFG - IMG

## PAGE 8

### Description

I - Series is our 5-piece range of inline nylon lined ball joints suitable for medium industrial/mechanical load applications, IMG has an inner ring that retains the ball stud and has no nylon liner. Available in both metric & imperial thread sizes. Neoprene gaiter helps resist dirt contamination, if gaiter is not required please remove the letter G from the part number.

### Materials

Body: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 IL - Ball stud: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)  
 IMG - Ball Stud: Steel 212A42 induction hardened  
 Liner: Nylon 6 white (No liner in IMG range)  
 Inner ring & safety clip: Spring steel to BS5216  
 Gaiter: Neoprene

### Features

Metric & imperial thread sizes  
 Ultra smooth action  
 High pull out loads  
 Good wear resistance  
 Push & pull applications  
 Lubricated  
 Male to Male option

### Possible Applications

Industrial equipment  
 Construction equipment  
 Agricultural equipment  
 Lawn & garden equipment

### Temperature Range

-40°C to +80°C

### Specification

ELV & RoHS compliant



## P - SERIES | PM - PI

## PAGE 11

### Description

P - Series is our 3-piece range of quick release ball joints suitable for light industrial/mechanical load applications requiring good wear resistance, available in both metric & imperial thread sizes. Easily disconnected or re-assembled during installation. P-series ball joints are also available without the ball stud allowing for assembly on to a pre-positioned stud please refer to compatible ball stud options in our miscellaneous product section.

### Materials

Body: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Ball stud: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Clip: CS70 carbon steel, hardened and tempered and Geomet finish

### Features

Metric & imperial thread sizes  
 Easily disconnected or re-assembled during installation  
 Can be assembled in situ  
 Good wear resistance  
 Lubricated  
 Light weight

### Possible Applications

Light industrial equipment  
 Light construction equipment  
 Light agricultural equipment  
 Lawn & garden equipment  
 Automotive

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



### Description

Q - Series is our 4-piece range of quick release, spring loaded ball joints suitable for medium industrial/mechanical load applications, available in both metric & imperial thread sizes. Q-Series Ball joints are also available without the ball stud allowing for assembly on to a pre-positioned stud please refer to compatible ball stud options in our miscellaneous product section. Q-Series ball joints are ideal for severe wear conditions and are resistant to vibration and high shock loading.

### Materials

Body: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Ball stud: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Shield: Steel 230M07PB Zinc plated white & blue passivate (silver/clear)  
 Spring: Stainless Steel

### Features

Metric & imperial thread sizes  
 High pull out load  
 High wear conditions  
 High shock loads  
 Resistant to vibration  
 Lubricated  
 Knurl aids assembly

### Possible Applications

Industrial equipment  
 Construction equipment  
 Agricultural equipment  
 Lawn & garden equipment

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



### Description

T series is our 2-piece range of clip retained quick release ball joints suitable for light industrial/mechanical load applications requiring good wear resistance. T-series ball joints are supplied without the ball stud allowing for assembly on to a pre-positioned stud, please refer to compatible ball stud options in our miscellaneous product section.

### Materials

Body: Steel 230M07PB case hardened & Zinc plated white & blue passivate (silver/clear)  
 Spring: CS70 spring steel hardened & austemper, Deltatone & Deltaseal black

### Features

Quick release  
 Can be assembled in situ  
 Good wear resistance  
 Lubricated  
 High pull out load

### Possible Applications

Light industrial equipment  
 Light construction equipment  
 Light agricultural equipment  
 Gas struts

### Temperature Range

-30°C to +120°C

### Specification

ELV & RoHS compliant



## NOTES |

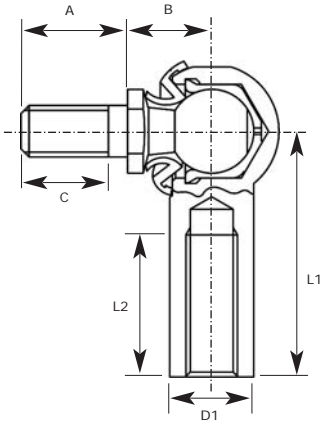
All Metric ball joints are based on DIN 71802 & DIN 71803 and all imperial ball joints are based on SAE J 490.

40% of our total production is purpose made to suit individual customer requirements, therefore please do not hesitate to contact us for any item not shown or if you have a specific application, our engineering team are available to help you.

All of the above catalogue ball joints are ELV & RoHS compliant, all bodies/studs are Zinc plated with white & blue passivate (Silver/Clear) specification suffix "F39" unless otherwise stated to give a surface protection of 96 hours salt spray, other platings options are available but may not be ELV & RoHS compliant, please refer to our "Plating Options" section for full details and availability.

Every care has been taken to ensure the accuracy of the information contained in the following pages of this publication. No liability can be accepted for any loss or damage whether direct or indirect or consequential arising out of the use of the information contained herein. The stated load rating and design options are provided as an indication only and customers should test the suitability of all products to their own satisfaction, applications vary immensely therefore samples are available for this purpose.

## AMG - SERIES LINER RETAINED BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Liner:** Nylon 6.

**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Seal:** Neoprene.

### Specification

ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1   | L2 MIN | STUD A/F | A    | B    | C MIN | D1 |
|--------------|--------------|-------------|-------------|----------|------|--------|----------|------|------|-------|----|
| AMG6         | AMG6LH       | M6X1.00     | M6X1.00     | 10       | 25.0 | 11.5   | 8        | 12.5 | 11.0 | 10.0  | 10 |
| AMG6/2       | AMG6/2LH     | M6X1.00     | M8X1.25     | 10       | 25.0 | 11.5   | 8        | 12.5 | 11.0 | 10.0  | 10 |
| AMG8         | AMG8LH       | M8X1.25     | M8X1.25     | 13       | 30.0 | 14.0   | 11       | 16.5 | 13.0 | 13.5  | 13 |
| AMG8/1       | AMG8/1LH     | M8X1.25     | M8X1.25     | 13       | 41.0 | 25.0   | 11       | 16.5 | 13.0 | 13.5  | 13 |
| AMG8/6       | AMG8/6LH     | M8X1.25     | M8X1.25     | 13       | 41.0 | 25.0   | 11       | 20.0 | 13.0 | 17.5  | 13 |
| AMG8/7       | AMG8/7LH     | M8X1.25     | M8X1.25     | 13       | 30.0 | 14.0   | 11       | 20.0 | 13.0 | 17.5  | 13 |
| AMG8/8       | AMG8/8LHF    | M6X1.00     | M8X1.25     | 13       | 30.0 | 14.0   | 11       | 16.5 | 13.0 | 13.5  | 13 |
| AMG8/10      | AMG8/10LHF   | M8X1.25     | M8X1.25     | 13       | 30.0 | 14.0   | 11       | 18.5 | 13.0 | 15.5  | 13 |
| AMG8/11      | AMG8/11LHF   | M6X1.00     | M8X1.25     | 13       | 51.0 | 25.0   | 11       | 16.5 | 13.0 | 13.5  | 13 |
| AMG8/13      | AMG8/13LHF   | M10X1.50    | M8X1.25     | 13       | 30.0 | 15.0   | 11       | 16.5 | 13.0 | 13.5  | 13 |
| AMG8/14      | AMG8/14LHF   | M8X1.0      | M8X1.25     | 13       | 25.0 | 12.0   | 11       | 16.5 | 13.0 | 13.5  | 13 |
| AMG10        | AMG10LH      | M10X1.50    | M10X1.50    | 16       | 35.0 | 15.5   | 13       | 20.0 | 16.0 | 15.0  | 16 |
| AMG10/1      | AMG10/1LH    | M12X1.75    | M10X1.50    | 16       | 45.0 | 25.5   | 13       | 20.0 | 16.0 | 15.0  | 16 |
| AMG10/2      | AMG10/2LH    | M6X1.00     | M10X1.50    | 16       | 30.0 | 10.5   | 13       | 19.0 | 14.5 | 11.1  | 16 |
| AMG10/3      | AMG10/3LH    | M10X1.50    | M10X1.50    | 16       | 35.0 | 15.5   | 13       | 25.0 | 16.0 | 20.0  | 16 |
| AMG10/5      | AMG10/5LH    | M10X1.50    | M10X1.50    | 16       | 35.0 | 15.5   | 13       | 20.0 | 16.0 | 15.0  | 16 |
| AMG12        | AMG12LH      | M12X1.75    | M12X1.75    | 16       | 45.0 | 25.5   | 13       | 20.0 | 16.0 | 15.0  | 16 |
| AMG12/1      | AMG12/1LH    | M16X2.00    | M12X1.75    | 16       | 45.0 | 30.0   | 13       | 20.0 | 16.0 | 17.0  | 16 |

## IMPERIAL

## AIG - SERIES LINER RETAINED BALL JOINTS

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1    | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|--------------|--------------|-------------|-------------|----------|-------|--------|----------|-------|-------|-------|-------|
| AIG312       | AIG312LH     | 5/16 UNF    | 5/16 UNF    | 0.512    | 1.181 | 0.555  | 0.433    | 0.650 | 0.512 | 1.181 | 0.512 |
| AIG312/1     | AIG312/1LH   | 5/16 UNF    | 5/16 UNF    | 0.512    | 1.181 | 0.555  | 0.433    | 0.827 | 0.512 | 1.181 | 0.512 |



## BL - SERIES DIE CAST BALL JOINTS

### Materials

**Body:** Die Cast Zinc alloy.

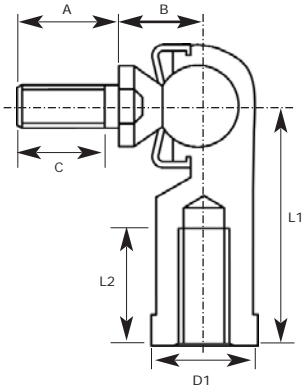
**Ball:** 100CR6 Bearing Steel.

**Ball Stud:** S35C, case hardened Zinc plated white & blue passivate (silver/clear).

**Seal:** Neoprene.

### Specification

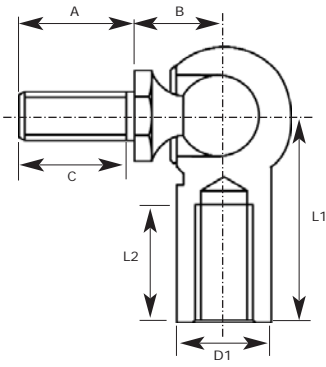
ELV & RoHS Compliant.



## METRIC

| R/H<br>PART NO. | L/H<br>PART NO. | BODY<br>THREAD | STUD<br>THREAD | BALL<br>DIA | L1 | L2<br>MIN | STUD<br>A/F | A    | B    | C<br>MIN | D1 |
|-----------------|-----------------|----------------|----------------|-------------|----|-----------|-------------|------|------|----------|----|
| BL6D            | BL6DL           | M6X1.00        | M6X1.00        | 8           | 30 | 16        | 10          | 15.0 | 11.0 | 11.0     | 11 |
| BL8D            | BL8DL           | M8X1.25        | M8X1.25        | 8           | 36 | 19        | 12          | 17.0 | 14.0 | 12.0     | 14 |
| BL10BD          | BL10BDL         | M10X1.50       | M10X1.50       | 10          | 43 | 23        | 14          | 26.0 | 17.0 | 21.0     | 17 |
| BL10D           | BL10DL          | M10X1.25       | M10X1.25       | 13          | 43 | 23        | 14          | 20.0 | 17.0 | 15.0     | 17 |
| BL12BD          | BL12BDL         | M12X1.75       | M12X1.75       | 13          | 50 | 26        | 17          | 30.0 | 19.0 | 24.0     | 19 |
| BL12D           | BL12DL          | M12X1.25       | M12X1.25       | 13          | 50 | 26        | 17          | 23.0 | 19.0 | 17.0     | 19 |
| BL14BD          | BL14BDL         | M14X2.00       | M14X2.00       | 13          | 57 | 30        | 19          | 40.5 | 21.5 | 28.0     | 22 |
| BL14D           | BL14DL          | M14X1.50       | M14X1.50       | 13          | 57 | 30        | 19          | 34.5 | 21.5 | 22.0     | 22 |
| BL16BD          | BL16BDL         | M16X2.00       | M16X2.00       | 13          | 64 | 34        | 22          | 42.5 | 23.5 | 29.0     | 24 |
| BL16D           | BL16DL          | M16X1.50       | M16X1.50       | 13          | 64 | 34        | 22          | 36.5 | 23.5 | 23.0     | 24 |

## BMG - SERIES NYLON BODY BALL JOINTS



### Materials

**Body:** Nylon 12 with Graphite trace.

**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Seal:** Neoprene.

### Specification

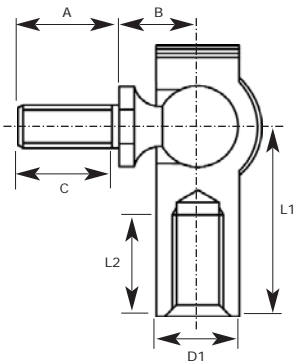
ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1 | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|--------------|--------------|-------------|-------------|----------|----|--------|----------|------|------|-------|------|
| BMG5         | BMG5LH       | M5X0.80     | M5X0.80     | 8        | 20 | 12     | 7        | 10.2 | 9.0  | 8.2   | 8.0  |
| BMG5/6*      | BMG5/6LH*    | M5X0.80     | M5X0.80     | 8        | 20 | 12     | 7        | 10.2 | 9.0  | 8.2   | 8.0  |
| BMG6         | BMG6LH       | M6X1.00     | M6X1.00     | 10       | 24 | 14     | 8        | 12.5 | 11.0 | 10.5  | 10.0 |
| BMG8         | BMG8LH       | M8X1.25     | M8X1.25     | 13       | 30 | 17     | 11       | 16.5 | 13.0 | 14.5  | 12.8 |

## M - SERIES SELF RETAINED BALL JOINTS



### Materials

**Body:** PA 6.6.

**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

### Specification

ELV & RoHS Compliant.



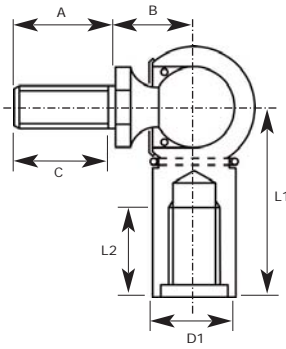
## METRIC

| PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1 | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|----------|-------------|-------------|----------|----|--------|----------|------|------|-------|------|
| M6008    | M4X0.70     | M4X0.70     | 6        | 17 | 10     | 6        | 6.5  | 6.5  | 5.5   | 8.0  |
| M6010    | M5X0.80     | M5X0.80     | 8        | 22 | 12     | 8        | 10.2 | 9.0  | 8.0   | 9.5  |
| M6012    | M6X1.00     | M6X1.00     | 10       | 25 | 14     | 10       | 12.5 | 11.0 | 10.0  | 12.0 |
| M6014    | M8X1.25     | M8X1.25     | 13       | 30 | 17     | 13       | 16.5 | 13.0 | 14.0  | 15.0 |

**Note:** BMG5/6\* Cross hole for locking pin.



## CMG - SERIES DIN STANDARD BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 212A42, Hardened Zinc plated white & blue passivate (silver/clear).

**Inner Safety Clip:** Spring Steel.

**Outer Clip:** Spring Steel.

**Seal:** Neoprene.

### Specification

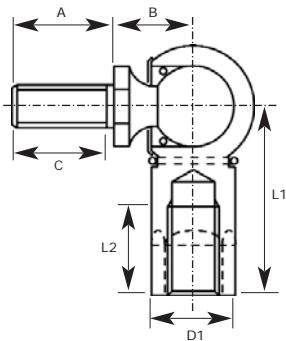
ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | C'BORE DIA* | L1 | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|--------------|--------------|-------------|-------------|----------|-------------|----|--------|----------|------|------|-------|------|
| CMG5         | CMG5LH       | M5X0.80     | M5X0.80     | 8        | 5.10        | 22 | 10     | 7        | 10.2 | 9.0  | 7.7   | 8.0  |
| CMG6         | CMG6LH       | M6X1.00     | M6X1.00     | 10       | 6.10        | 25 | 11     | 8        | 12.5 | 11.0 | 10.0  | 10.0 |
| CMG8         | CMG8LH       | M8X1.25     | M8X1.25     | 13       | 8.20        | 30 | 14     | 11       | 16.5 | 13.0 | 14.0  | 13.0 |
| CMG10        | CMG10LH      | M10X1.50    | M10X1.50    | 16       | 10.20       | 35 | 15     | 13       | 20.0 | 16.0 | 17.5  | 16.0 |
| CMG14        | CMG14LH      | M14X2.00    | M14X2.00    | 19       | 14.25       | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |
| CMG14C       | CMG14CLH     | M14X1.50    | M14X1.50    | 19       | 14.25       | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |
| CMG16        | CMG16LH      | M16X2.00    | M16X2.00    | 19       | 16.25       | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |

## CMG / 1 - SERIES DIN STANDARD BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 212A42, Hardened Zinc plated white & blue passivate (silver/clear).

**Inner Safety Clip:** Spring Steel.

**Outer Clip:** Spring Steel.

**Seal:** Neoprene.

### Specification

ELV & RoHS Compliant.

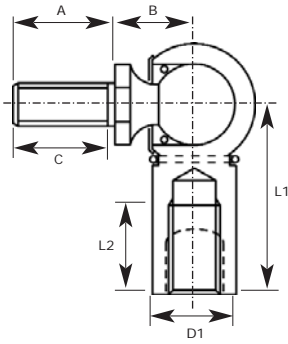


## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | BODY FLATS | L1 | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|--------------|--------------|-------------|-------------|----------|------------|----|--------|----------|------|------|-------|------|
| CMG5/1       | CMG5/1LH     | M5X0.80     | M5X0.80     | 8        | 7          | 22 | 10     | 7        | 10.2 | 9.0  | 7.7   | 8.0  |
| CMG6/1       | CMG6/1LH     | M6X1.00     | M6X1.00     | 10       | 9          | 25 | 11     | 8        | 12.5 | 11.0 | 10.0  | 10.0 |
| CMG8/1       | CMG8/1LH     | M8X1.25     | M8X1.25     | 13       | 11         | 30 | 14     | 11       | 16.5 | 13.0 | 14.0  | 13.0 |
| CMG10/1      | CMG10/1LH    | M10X1.50    | M10X1.50    | 16       | 13         | 35 | 15     | 13       | 20.0 | 16.0 | 17.5  | 16.0 |
| CMG14/1      | CMG14/1LH    | M14X2.00    | M14X2.00    | 19       | 19         | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |
| CMG14C/1     | CMG14C/1LH   | M14X1.50    | M14X1.50    | 19       | 19         | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |
| CMG16/1      | CMG16/1LH    | M16X2.00    | M16X2.00    | 19       | -          | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |

**Note:** \* Counter Bore depth is 2mm

## CMG / 2 - SERIES DIN STANDARD BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 212A42, Hardened Zinc plated white & blue passivate (silver/clear).

**Inner Safety Clip:** Spring Steel.

**Outer Clip:** Spring Steel.

**Seal:** Neoprene.

### Specification

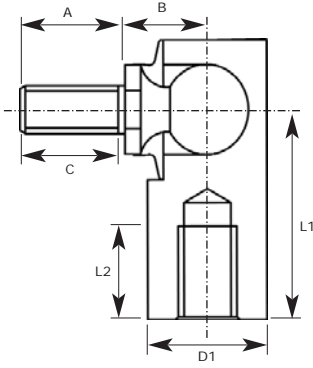
ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | BODY FLATS | L1 | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|--------------|--------------|-------------|-------------|----------|------------|----|--------|----------|------|------|-------|------|
| CMG5/2       | CMG5/2LH     | M5X0.80     | M5X0.80     | 8        | 7          | 22 | 10     | 7        | 10.2 | 9.0  | 7.7   | 8.0  |
| CMG6/2       | CMG6/2LH     | M6X1.00     | M6X1.00     | 10       | 9          | 25 | 11     | 8        | 12.5 | 11.0 | 10.0  | 10.0 |
| CMG8/2       | CMG8/2LH     | M8X1.25     | M8X1.25     | 13       | 11         | 30 | 14     | 11       | 16.5 | 13.0 | 14.0  | 13.0 |
| CMG10/2      | CMG10/2LH    | M10X1.50    | M10X1.50    | 16       | 13         | 35 | 15     | 13       | 20.0 | 16.0 | 17.5  | 16.0 |
| CMG14/2      | CMG14/2LH    | M14X2.00    | M14X2.00    | 19       | 19         | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |
| CMG14C/2     | CMG14C/2LH   | M14X1.50    | M14X1.50    | 19       | 19         | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |
| CMG16/2      | CMG16/2LH    | M16X2.00    | M16X2.00    | 19       | -          | 45 | 21     | 16       | 28.0 | 20.0 | 25.5  | 22.0 |

## DMG - SERIES SWAGED RETAINED BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 230M07PB, Case Hardened Zinc plated white & blue passivate (silver/clear).

**Seal:** Neoprene.

### Specification

ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1   | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|--------------|--------------|-------------|-------------|----------|------|--------|----------|------|------|-------|------|
| DMG6         | DMG6LH       | M6X1.00     | M6X1.00     | 8.8      | 24.6 | 13.5   | 10       | 14.0 | 11.8 | 11.9  | 11.0 |
| DMG6/1       | DMG6/1LH     | M6X1.00     | M6X1.00     | 8.8      | 30.7 | 14.0   | 10       | 14.3 | 12.5 | 11.9  | 11.0 |
| DMG6/2       | DMG6/2LH     | Blank 6mm   | M6X1.00     | 7.7      | 30.7 | 16.0   | 10       | 14.3 | 11.8 | 11.9  | 11.0 |
| DMG8         | DMG8LH       | M8X1.25     | M8X1.25     | 10.3     | 28.6 | 15.0   | 11       | 18.0 | 13.6 | 15.6  | 13.0 |
| DMG8/1       | DMG8/1LH     | M8X1.25     | M8X1.25     | 10.3     | 28.6 | 15.0   | 13       | 20.0 | 16.1 | 17.6  | 13.0 |
| DMG10        | DMG10LH      | M10X1.50    | M10X1.50    | 12.4     | 35.0 | 20.6   | 13       | 22.0 | 18.0 | 19.6  | 16.0 |

## DIG - SERIES SWAGED RETAINED BALL JOINTS

## IMPERIAL

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1    | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|--------------|--------------|-------------|-------------|----------|-------|--------|----------|-------|-------|-------|-------|
| DIG250       | DIG250LH     | 1/4 UNF     | 1/4 UNF     | 0.347    | 0.969 | 0.531  | 0.375    | 0.562 | 0.466 | 0.468 | 0.437 |
| DIG250/1     | DIG250/1LH   | 1/4 BSF     | M6x1.0      | 0.347    | 0.969 | 0.531  | 0.375    | 0.551 | 0.466 | 0.450 | 0.437 |
| DIG250/2     | DIG250/2LH   | 1/4 BSF     | 1/4 BSF     | 0.347    | 0.969 | 0.531  | 0.375    | 0.562 | 0.466 | 0.468 | 0.437 |
| DIG312       | DIG312LH     | 5/16 UNF    | 5/16 UNF    | 0.405    | 1.125 | 0.594  | 0.437    | 0.688 | 0.517 | 0.588 | 0.500 |
| DIG312/1     | DIG312/1LH   | 5/16 UNF    | 5/16 UNF    | 0.405    | 2.187 | 1.535  | 0.437    | 0.688 | 0.517 | 0.588 | 0.500 |
| DIG375       | DIG375LH     | 3/8 UNF     | 3/8 UNF     | 0.488    | 1.375 | 0.812  | 0.500    | 0.875 | 0.683 | 0.775 | 0.625 |
| DIG375/1     | DIG375/1LH   | 3/8 UNF     | 3/8 UNF     | 0.488    | 1.375 | 0.812  | 0.500    | 0.437 | 0.683 | 0.337 | 0.625 |
| DIG375/2     | DIG375/2LH   | 3/8 UNF     | 3/8 UNF     | 0.488    | 1.375 | 0.812  | 0.500    | 0.630 | 0.683 | 0.530 | 0.625 |
| DIG375/3     | DIG375/3LH   | 3/8 UNF     | 3/8 UNF     | 0.488    | 1.375 | 0.812  | 0.500    | 0.590 | 0.683 | 0.490 | 0.625 |

## FMG - SERIES SPRING RETAINED BALL JOINTS

### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

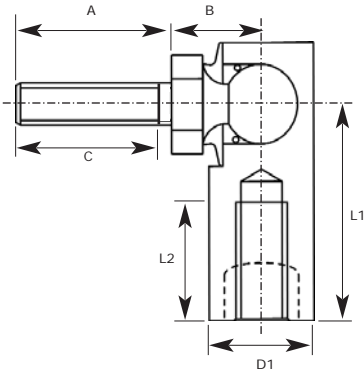
**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Seal:** Neoprene.

**Spring:** Spring Steel.

### Specification

ELV & RoHS Compliant.



## METRIC

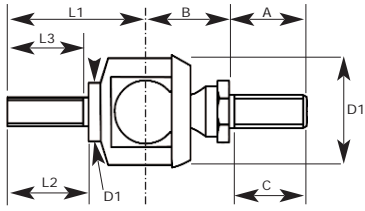
| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1   | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|--------------|--------------|-------------|-------------|----------|------|--------|----------|-------|-------|-------|-------|
| FMG5         | FMG5LH       | M5X0.80     | M5X0.80     | 7.75     | 24.6 | 12.7   | 10.00    | 14.30 | 11.90 | 12.0  | 11.11 |
| FMG6         | FMG6LH       | M6X1.00     | M6X1.00     | 7.75     | 24.6 | 12.7   | 10.00    | 14.30 | 11.90 | 12.0  | 11.11 |
| FMG6/1       | FMG6/1LH     | M6X1.00     | M6X1.00     | 7.75     | 19.2 | 7.3    | 10.00    | 14.30 | 11.90 | 12.0  | 11.11 |
| FMG8         | FMG8LH       | M8X1.25     | M8X1.25     | 8.74     | 28.4 | 14.2   | 13.00    | 17.45 | 13.50 | 15.0  | 12.70 |
| FMG8/1       | FMG8/1LH     | M8X1.25     | M8X1.25     | 8.74     | 41.0 | 25.0   | 13.00    | 17.45 | 13.50 | 15.0  | 12.70 |
| FMG8/2       | FMG8/2LH     | M8X1.25     | M8X1.25     | 8.74     | 28.4 | 14.2   | 13.00    | 11.50 | 13.50 | 9.0   | 12.70 |
| FMG8/3       | FMG8/3LH     | M8X1.25     | M6X1.00     | 8.74     | 28.4 | 14.2   | 10.00    | 12.70 | 13.50 | 10.0  | 12.70 |
| FMG10        | FMG10LH      | M10X1.50    | M10X1.50    | 10.59    | 35.0 | 19.0   | 13.00    | 22.23 | 17.45 | 20.0  | 15.88 |
| FMG10/1      | FMG10/1LH    | M8X1.25     | M10X1.50    | 10.59    | 35.0 | 19.0   | 13.00    | 22.23 | 17.45 | 20.0  | 15.88 |
| FMG10/2      | FMG10/2LH    | M8X1.25     | M10X1.50    | 10.59    | 35.0 | 19.0   | 13.00    | 12.00 | 17.45 | 9.5   | 15.88 |
| FMG10/4      | FMG10/4LH    | M12X1.25    | M10X1.50    | 10.59    | 35.0 | 19.0   | 15.88    | 18.00 | 17.45 | 15.5  | 15.88 |
| FMG12        | FMG12LH      | M12X1.75    | M12X1.75    | 14.10    | 49.2 | 25.4   | 17.00    | 28.60 | 22.20 | 26.0  | 19.05 |
| FMG12/1      | FMG12/1LH    | M12X1.75    | M10X1.50    | 14.10    | 49.2 | 25.4   | 17.00    | 28.60 | 22.20 | 26.0  | 19.05 |

## FIG - SERIES SPRING RETAINED BALL JOINTS

## IMPERIAL

| R/H PART NO. | L/H PART NO. | BODY THREAD    | STUD THREAD | BALL DIA | L1    | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|--------------|--------------|----------------|-------------|----------|-------|--------|----------|-------|-------|-------|-------|
| FIG250       | FIG250LH     | 1/4 UNF        | 1/4 UNF     | 0.306    | 0.969 | 0.500  | 0.375    | 0.562 | 0.469 | 0.370 | 0.437 |
| FIG312       | FIG312LH     | 5/16 UNF       | 5/16 UNF    | 0.344    | 1.125 | 0.562  | 0.437    | 0.687 | 0.531 | 0.580 | 0.500 |
| FIG312/1     | FIG312/1LH   | BLANK<br>0.312 | 5/16 UNF    | 0.344    | 1.125 | 0.562  | 0.437    | 0.687 | 0.531 | 0.580 | 0.500 |
| FIG312/2     | FIG312/2LH   | 5/16 UNF       | 5/16 UNF    | 0.344    | 1.120 | 0.562  | 0.437    | 0.687 | 0.531 | 0.580 | 0.500 |
| FIG375       | FIG375LH     | 3/8 UNF        | 3/8 UNF     | 0.416    | 1.375 | 0.750  | 0.500    | 0.875 | 0.687 | 0.770 | 0.625 |
| FIG375/1     | FIG375/1LH   | 3/8 UNF        | 3/8 UNF     | 0.416    | 1.772 | 1.181  | 0.500    | 0.787 | 0.866 | 0.680 | 0.625 |
| FIG375/2     | FIG375/2LH   | 3/8 BSF        | 3/8 UNF     | 0.416    | 1.375 | 0.750  | 0.500    | 0.787 | 0.866 | 0.680 | 0.625 |
| FIG375/3     | FIG375/3LH   | 3/8 UNF        | 3/8 UNF     | 0.416    | 1.375 | 0.750  | 0.500    | 0.620 | 0.688 | 0.520 | 0.625 |
| FIG375/4     | FIG375/4LH   | 7/16 UNF       | 3/8 UNF     | 0.416    | 1.375 | 0.750  | 0.500    | 0.620 | 0.688 | 0.520 | 0.625 |
| FIG437/1     | FIG437/1LH   | 7/16-28UNEF    | 7/16-20UNF  | 0.416    | 1.125 | 0.750  | 0.625    | 0.875 | 0.687 | 0.770 | 0.625 |
| FIG500       | FIG500LH     | 1/2 UNF        | 1/2 UNF     | 0.555    | 1.937 | 1.000  | 0.625    | 1.125 | 0.875 | 1.000 | 0.750 |

## ILMMG - SERIES INLINE MALE - MALE BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Liner:** Nylon 6.

**Seal:** Neoprene.

### Specification

ELV & RoHS Compliant.



## METRIC

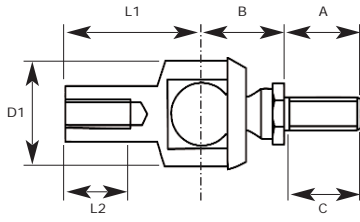
| PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1   | L2 MIN | L3 MIN | STUD A/F | A    | B    | C MIN | D1   |
|----------|-------------|-------------|----------|------|--------|--------|----------|------|------|-------|------|
| ILMMG6   | M6X1.00     | M6X1.00     | 10       | 26.5 | 12.5   | 8      | 5        | 12.5 | 11.0 | 10.0  | 14.8 |
| ILMMG8   | M8X1.25     | M8X1.25     | 13       | 32.5 | 16.5   | 11     | 7        | 16.5 | 13.0 | 13.5  | 19.3 |
| ILMMG10  | M10X1.50    | M10X1.50    | 16       | 39.0 | 20.0   | 13     | 8        | 20.0 | 16.0 | 15.0  | 24.0 |

## ILIMG - SERIES INLINE MALE - MALE BALL JOINTS

## IMPERIAL

| PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1    | L2    | L3 MIN | STUD A/F | A     | B     | C MIN | D1    |
|----------|-------------|-------------|----------|-------|-------|--------|----------|-------|-------|-------|-------|
| ILIMG250 | 1/4 UNF     | 1/4 UNF     | 0.394    | 1.040 | 0.492 | 0.394  | 0.315    | 0.492 | 0.433 | 0.394 | 0.394 |
| ILIMG312 | 5/16 UNF    | 5/16 UNF    | 0.512    | 1.280 | 0.650 | 0.531  | 0.433    | 0.650 | 0.513 | 0.531 | 0.513 |
| ILIMG375 | 3/8 UNF     | 3/8 UNF     | 0.630    | 1.535 | 0.787 | 0.590  | 0.550    | 0.787 | 0.630 | 0.590 | 0.630 |

## ILMFG - SERIES INLINE FEMALE - MALE BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Liner:** Nylon 6.

**Seal:** Neoprene.

### Specification

ELV & RoHS Compliant.



## METRIC

| PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1   | L2 MIN | STUD A/F | A    | B    | C MIN | D1   |
|----------|-------------|-------------|----------|------|--------|----------|------|------|-------|------|
| ILMFG6   | M6X1.00     | M6X1.00     | 10       | 25.0 | 11.5   | 8        | 12.5 | 11.0 | 10.0  | 14.8 |
| ILMFG8   | M8X1.25     | M8X1.25     | 13       | 30.0 | 14.0   | 11       | 16.5 | 13.0 | 13.5  | 19.3 |
| ILMFG8/1 | M8X1.25     | M8X1.25     | 13       | 30.0 | 14.0   | 11       | 33.0 | 13.0 | 30.0  | 19.3 |
| ILMFG10  | M10X1.25    | M10X1.25    | 16       | 35.0 | 15.5   | 13       | 20.0 | 16.0 | 16.0  | 24.0 |

## ILIFG - SERIES INLINE FEMALE - MALE BALL JOINTS

## IMPERIAL

| PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1    | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|----------|-------------|-------------|----------|-------|--------|----------|-------|-------|-------|-------|
| ILIFG250 | 1/4 UNF     | 1/4 UNF     | 0.394    | 0.948 | 0.450  | 0.315    | 0.492 | 0.433 | 0.394 | 0.582 |
| ILIFG312 | 5/16 UNF    | 5/16 UNF    | 0.512    | 1.180 | 0.550  | 0.433    | 0.650 | 0.513 | 0.512 | 0.760 |
| ILIFG375 | 3/8 UNF     | 3/8 UNF     | 0.630    | 1.375 | 0.610  | 0.512    | 0.787 | 0.630 | 0.630 | 0.945 |



## IMG SERIES INLINE FEMALE - MALE BALL JOINTS

### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

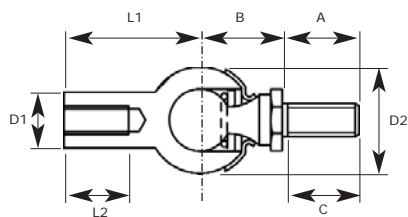
**Ball Stud:** 212A42 induction hardened, Zinc plated white & blue passivate (silver/clear).

**Clip:** Spring Steel.

**Seal:** Neoprene.

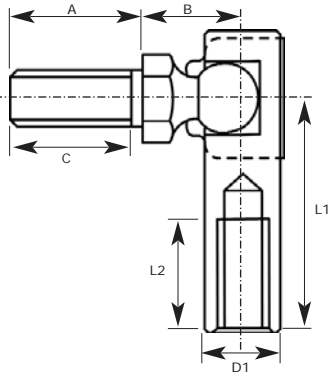
### Specification

ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1 | L2 MIN | STUD A/F | A    | B    | C MIN | D1   | D2   |
|--------------|--------------|-------------|-------------|----------|----|--------|----------|------|------|-------|------|------|
| IMG5         | IMG5LH       | M5X0.80     | M5X0.80     | 8        | 22 | 10.2   | 7        | 10.2 | 9.0  | 8.0   | 8.0  | 12.8 |
| IMG6         | IMG6LH       | M6X1.00     | M6X1.00     | 10       | 25 | 11.5   | 8        | 12.5 | 11.0 | 10.0  | 10.0 | 14.8 |
| IMG8         | IMG8LH       | M8X1.25     | M8X1.25     | 13       | 30 | 14.0   | 11       | 16.5 | 13.0 | 14.0  | 13.0 | 19.3 |
| IMG10        | IMG10LH      | M10X1.50    | M10X1.50    | 16       | 35 | 15.5   | 13       | 20.0 | 16.0 | 17.5  | 16.0 | 24.0 |
| IMG12        | IMG12LH      | M12X1.75    | M12X1.75    | 16       | 35 | 15.5   | 13       | 20.0 | 16.0 | 17.5  | 16.0 | 24.0 |
| IMG14        | IMG14LH      | M14X1.50    | M14X1.50    | 19       | 45 | 21.5   | 19       | 28.0 | 20.0 | 25.5  | 22.0 | 30.0 |
| IMG14/1      | IMG14/1LH    | M14X2.00    | M14X2.00    | 19       | 45 | 21.5   | 19       | 28.0 | 20.0 | 25.5  | 22.0 | 30.0 |



## PM - SERIES CLIP RETAINED BALL JOINTS

### Materials

**Body:** 230M07PB hardened, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 230M07PB hardened, Zinc plated white & blue passivate (silver/clear).

**Clip:** CS 70 Carbon Steel.

### Specification

ELV & RoHS Compliant.



## METRIC

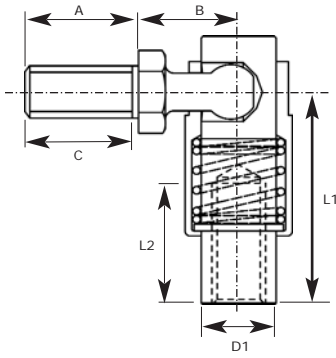
| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1 | L2 MIN | STUD A/F | A    | B     | C MIN | D1   |
|--------------|--------------|-------------|-------------|----------|----|--------|----------|------|-------|-------|------|
| PM4          | PM4LH        | M4X0.70     | M4X0.70     | 4.75     | 17 | 10     | 7        | 8.0  | 7.25  | 6.0   | 6.0  |
| PM5          | PM5LH        | M5X0.80     | M5X0.80     | 6.35     | 22 | 12     | 8        | 11.0 | 10.63 | 9.0   | 8.0  |
| PM5/1        | PM5/1LH      | M5X0.80     | M5X0.80     | 6.35     | 22 | 12     | 8        | 14.0 | 10.63 | 12.0  | 8.0  |
| PM6          | PM6LH        | M6X1.00     | M6X1.00     | 6.35     | 25 | 14     | 8        | 14.0 | 10.63 | 12.0  | 8.0  |
| PM6/1        | PM6/1LH      | M6X1.00     | M6X1.00     | 6.35     | 25 | 14     | 8        | 11.0 | 10.63 | 9.0   | 8.0  |
| PM8          | PM8LH        | M8X1.25     | M8X1.25     | 8.00     | 22 | 12     | 11       | 14.0 | 13.35 | 12.0  | 10.0 |

## IMPERIAL

## PI - SERIES CLIP RETAINED BALL JOINTS

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1    | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|--------------|--------------|-------------|-------------|----------|-------|--------|----------|-------|-------|-------|-------|
| PI187        | PI187LH      | 10-32 UNF   | 10-32 UNF   | 0.250    | 0.875 | 0.484  | 0.312    | 0.437 | 0.420 | 0.337 | 0.312 |
| PI187/1      | PI187/1LH    | 10-32 UNF   | 1/4 UNF     | 0.250    | 0.875 | 0.484  | 0.312    | 0.562 | 0.420 | 0.462 | 0.312 |
| PI187/2      | PI187/2LH    | 10-32 UNF   | 10-32 UNF   | 0.250    | 0.970 | 0.531  | 0.312    | 0.438 | 0.420 | 0.375 | 0.312 |
| PI187/3      | PI187/3LH    | 10-32 UNF   | M6 X 1.0    | 0.250    | 0.875 | 0.484  | 0.312    | 0.551 | 0.420 | 0.489 | 0.312 |
| PI187/4      | PI187/4LH    | 0.080 dia   | N/A         | N/A      | 0.719 | 0.390  | N/A      | N/A   | N/A   | N/A   | 0.312 |
| PI187/5      | PI187/5LH    | 0.074 dia   | N/A         | N/A      | 0.875 | 0.250  | N/A      | N/A   | N/A   | N/A   | 0.312 |
| PI250        | PI250LH      | 1/4 UNF     | 1/4 UNF     | 0.250    | 0.970 | 0.531  | 0.312    | 0.562 | 0.420 | 0.460 | 0.312 |
| PI250/1      | PI250/1LH    | 1/4 UNF     | 10-32 UNF   | 0.250    | 0.970 | 0.531  | 0.312    | 0.437 | 0.420 | 0.330 | 0.312 |
| PI250/2      | PI250/2LH    | 0.228 dia   | 1/4 UNF     | 0.250    | 0.970 | 0.500  | 0.312    | 0.562 | 0.420 | 0.460 | 0.312 |
| PI250/3      | PI250/3LH    | 10-32 UNF   | 10-32 UNF   | 0.250    | 0.875 | 0.484  | 0.312    | 0.438 | 0.420 | 0.390 | 0.312 |
| PI312        | PI312LH      | 5/16 UNF    | 5/16 UNF    | 0.312    | 0.875 | 0.484  | 0.437    | 0.562 | 0.537 | 0.460 | 0.394 |

## QM - SERIES QUICK RELEASE BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Ball Stud:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Shield:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Spring:** 302S 26 Stainless Steel.

### Specification

ELV & RoHS Compliant.



## METRIC

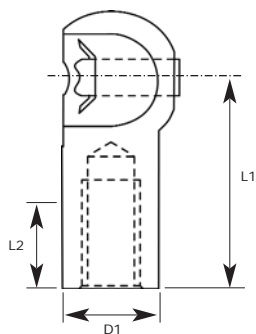
| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA. | LENGTH L1 | LENGTH L2 | STUD A/F | A    | B    | C    | D1   |
|--------------|--------------|-------------|-------------|-----------|-----------|-----------|----------|------|------|------|------|
| QM5          | QM5LH        | M5X0.80     | M5X0.80     | 6.4       | 23.0      | 11.1      | 8        | 11.1 | 11.9 | 9.0  | 7.9  |
| QM6          | QM6LH        | M6X1.00     | M6X1.00     | 7.9       | 24.6      | 13.0      | 10       | 14.3 | 12.6 | 12.8 | 9.4  |
| QM6/1        | QM6/1LH      | M6X1.00     | M6X1.00     | 7.9       | 24.6      | 13.0      | 10       | 14.3 | 12.7 | 12.8 | 9.4  |
| QM6/2        | QM6/2LH      | M6X1.00     | M6X1.00     | 7.9       | 24.6      | 13.0      | 10       | 11.0 | 12.7 | 9.5  | 9.4  |
| QM6/3        | QM6/3LH      | 10-32 UNF   | M6X1.00     | 7.9       | 24.6      | 13.0      | 10       | 14.3 | 12.7 | 12.8 | 9.4  |
| QM6/4SS      | QM6/4SSLH    | M6X1.00     | M6X1.00     | 7.9       | 24.6      | 13.0      | 10       | 14.3 | 12.7 | 12.8 | 9.4  |
| QM8          | QM8LH        | M8X1.25     | M8X1.25     | 8.6       | 31.7      | 14.3      | 11       | 17.5 | 15.2 | 15.5 | 11.1 |
| QM8/1        | QM8/1LH      | M8X1.25     | M6X1.00     | 8.6       | 31.7      | 14.3      | 11       | 17.5 | 15.2 | 16.0 | 11.1 |
| QM8/2        | QM8/2LH      | M8X1.25     | M8X1.25     | 8.6       | 31.7      | 14.3      | 11       | 11.0 | 15.2 | 9.0  | 11.1 |
| QM8/3        | QM8/3LH      | M8X1.25     | M8X1.25     | 8.6       | 31.7      | 14.3      | 11       | 10.0 | 15.2 | 8.0  | 11.1 |
| QM8/4SS      | QM8/4SSLH    | M8X1.25     | M6X1.00     | 8.6       | 31.7      | 14.3      | 11       | 17.5 | 15.2 | 15.5 | 11.1 |
| QM10         | QM10LH       | M10X1.50    | M10X1.50    | 10.7      | 39.7      | 27.0      | 13       | 22.2 | 19.8 | 20.0 | 14.1 |

## QI - SERIES QUICK RELEASE BALL JOINTS

## IMPERIAL

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA | L1    | L2 MIN | STUD A/F | A     | B     | C MIN | D1    |
|--------------|--------------|-------------|-------------|----------|-------|--------|----------|-------|-------|-------|-------|
| QI187        | QI187LH      | 10-32 UNF   | 10-32 UNF   | 0.250    | 0.906 | 0.437  | 0.312    | 0.437 | 0.468 | 0.330 | 0.310 |
| QI187/2      | QI187LH      | 10-32 UNF   | 1/4" UNF    | 0.250    | 0.906 | 0.437  | 0.312    | 0.562 | 0.417 | 0.500 | 0.310 |
| QI187/3      | QI187LH      | 10-32 UNF   | M5 x 0.8    | 0.250    | 0.906 | 0.437  | 0.315    | 0.437 | 0.468 | 0.375 | 0.310 |
| QI187/4      | QI187LH      | 10-32 UNF   | 1/4" UNF    | 0.250    | 0.906 | 0.437  | 0.312    | 0.562 | 0.468 | 0.500 | 0.310 |
| QI187/5      | QI187LH      | 10-32 UNF   | M6 x 1.0    | 0.250    | 0.906 | 0.437  | 0.315    | 0.551 | 0.421 | 0.490 | 0.310 |
| QI250        | QI250LH      | 1/4" UNF    | 1/4" UNF    | 0.311    | 0.969 | 0.500  | 0.375    | 0.562 | 0.500 | 0.490 | 0.370 |
| QI250/1      | QI250/1LH    | 10-32 UNF   | 1/4" UNF    | 0.311    | 0.969 | 0.500  | 0.375    | 0.562 | 0.500 | 0.500 | 0.370 |
| QI250/2      | QI250/2LH    | 1/4" UNF    | M6 x 1.0    | 0.311    | 0.969 | 0.500  | 0.394    | 0.562 | 0.500 | 0.500 | 0.370 |
| QI250/3      | QI250/3LH    | 1/4" UNF    | 1/4" UNF    | 0.311    | 0.969 | 0.500  | 0.375    | 0.562 | 0.500 | 0.500 | 0.370 |
| QI250/4      | QI250/4LH    | 1/4" BSF    | 1/4" BSF    | 0.311    | 0.969 | 0.500  | 0.375    | 0.562 | 0.500 | 0.500 | 0.370 |
| QI250/5      | QI250/5LH    | 1/4" UNF    | 5/16" UNF   | 0.311    | 0.969 | 0.500  | 0.375    | 0.882 | 0.500 | 0.820 | 0.370 |
| QI250/6      | QI250/6LH    | 1/4" UNF    | 1/4" UNF    | 0.311    | 0.969 | 0.500  | 0.375    | 0.875 | 0.500 | 0.812 | 0.370 |
| QI312        | QI312LH      | 5/16" UNF   | 5/16" UNF   | 0.339    | 1.250 | 0.562  | 0.437    | 0.687 | 0.594 | 0.580 | 0.439 |
| QI312/1      | QI312/1LH    | 5/16" BSF   | 5/16" BSF   | 0.339    | 1.250 | 0.562  | 0.437    | 0.687 | 0.594 | 0.625 | 0.439 |
| QI312/2      | QI312/2LH    | 1/4" UNF    | 5/16" UNF   | 0.339    | 1.250 | 0.562  | 0.437    | 0.882 | 0.594 | 0.820 | 0.439 |
| QI312/3      | QI312/3LH    | 5/16" UNF   | 5/16" UNF   | 0.339    | 1.250 | 0.562  | 0.437    | 0.882 | 0.594 | 0.820 | 0.439 |
| QI312/4      | QI312/4LH    | 10-32 UNF   | 5/16" UNF   | 0.339    | 1.250 | 0.562  | 0.437    | 0.882 | 0.594 | 0.820 | 0.439 |
| QI375        | QI375LH      | 3/8" UNF    | 3/8" UNF    | 0.421    | 1.562 | 1.062  | 0.500    | 0.875 | 0.719 | 0.770 | 0.556 |

## TM - SERIES DIN STANDARD BALL JOINTS



### Materials

**Body:** 230M07PB, Zinc plated white & blue passivate (silver/clear).

**Clip:** CS70 Spring Steel harden & austemper RC 40-45 Deltatone & Deltaseal black.

### Specification

ELV & RoHS Compliant.



## METRIC

| R/H PART NO. | L/H PART NO. | BODY THREAD | STUD THREAD | BALL DIA. | L1   | L2   | A/F | A   | B   | C   | D1   | D2   |
|--------------|--------------|-------------|-------------|-----------|------|------|-----|-----|-----|-----|------|------|
| TM10-M6      | TML10-M6     | M6X1.00     | M6X1.00     | 10.0      | 19.0 | 5.5  | N/A | N/A | N/A | N/A | 10.0 | 16.5 |
| TM10-M6/1    | TML10-M6/1   | M6X1.00     | M6X1.00     | 10.0      | 25.0 | 11.5 | N/A | N/A | N/A | N/A | 10.0 | 16.5 |
| TM10-M8      | TML10-M8     | M8X1.25     | M8X1.25     | 10.0      | 19.0 | 5.5  | N/A | N/A | N/A | N/A | 10.0 | 16.5 |
| TM10-M8/1    | TML10-M8/1   | M8X1.25     | M8X1.25     | 10.0      | 25.0 | 11.5 | N/A | N/A | N/A | N/A | 10.0 | 16.5 |
| TM13-M6      | TML13-M6     | M6X1.00     | M6X1.00     | 13.0      | 22.0 | 6.0  | N/A | N/A | N/A | N/A | 13.0 | 20.0 |
| TM13-M6/1    | TML13-M6/1   | M6X1.00     | M6X1.00     | 13.0      | 30.0 | 14.0 | N/A | N/A | N/A | N/A | 13.0 | 20.0 |
| TM13-M8      | TML13-M8     | M8X1.25     | M8X1.25     | 13.0      | 22.0 | 6.0  | N/A | N/A | N/A | N/A | 13.0 | 20.0 |
| TM13-M8/1    | TML13-M8/1   | M8X1.25     | M8X1.25     | 13.0      | 30.0 | 14.0 | N/A | N/A | N/A | N/A | 13.0 | 20.0 |