



- CERTIFICATION:** These male to female type 491 – Inline Swivel Coupling Components meet the requirements of IECEx/ATEX for Exd I ExdIIc, Exe I, ExeIIc and Exd installations, and are suitable for fitment into or onto suitably threaded entries in Exd equipment as part of the equipments overall apparatus certification.
- SPECIFICATION:** In accordance with IEC/EN60079-0, IEC/EN60079-1 IEC/EN60079-7, IEC/EN60079-31
- TESTS:** These male to female type 491 – Inline Swivel Coupling Components meet with the requirements of IEC / EN 60079-0, IEC/EN 60079-1, IEC/EN60079-7, IEC/EN60079-31
- MATERIAL:** These Inline Swivel Coupling Components may be manufactured from any of the metallic materials listed in drawing number 3015.
FINISH: The Inline Swivel Coupling Components may be plated to a maximum thickness of 0.008mm. The wall thickness between the thread major diameter and the adaptor external hexagon shall be at least 1.5 mm thick.
- GAUGING & THREADS:** The threads shown in drawing 3016 may be used. The threads can be of the same shape and form on each end of the adaptor or alternatively, the threads size and form may be different. In which case, the bore relating to the smallest male thread size shall apply and the hexagon size relating to the larger thread size applies. There shall be no more than one step size difference between the threads
- STAMPING:** Components in Brass, Stainless Steel and Steel to be stamped in the following manner:-
Format:
HAWKE 491/Thread Sizes/ Exd I Mb Exe I Mb ExdIIcGb I ExeIIc Gb, Extb IIIC Db (-60°C to +100°C)* See note 8 for temperature details IP66
SIRA11ATEX1347U IECExSIR11.0152U IM2 /I2GD year of manufacture OL7 0NA UK 1180
Example: Groups I and II:- Brass, Nickel Plated Brass and Stainless Steel only
HAWKE 491/M25/M25 / Exd I Mb Exe I Mb ExdIIc Gb Exellc Gb Extb IIIC Db (-60°C to +100°C)* See note 8 for temperature details IP66
SIRA11ATEX1347U IECExSIR11.0152U IM2 /I2GD 11 OL7 0NA UK 1180
Note: - The EPL's may be omitted from the product marking and added to the packaging. The Exe marking for Group I or II may also be omitted if not required.
Aluminium Inline Swivel Couplings and M16 male threaded couplings are to contain Group II marking details only with no reference to Group I
- Additional sealing methods may be required to ensure the IP rating of the equipment is maintained when using these Inline Swivel Coupling Components.
- O RING** (Pimseal or equivalent Silicone 70 Shore, Temp range -60°C to +200°C)
O Ring – Silicon 70 -60°C to +100°C

	Male Thread	Female Thread	Female entry thread length	Male entry thread length Metric	Max Bore Diameter	Flameproof Swivel Diameter	Flameproof Swivel Length	Hexagon A/F Size Swivel	A/C Size Swivel	Hexagon Width Swivel	Hexagon A/F Size Sleeve	A/C Size Sleeve	Hexagon Width Sleeve	O-Ring	Internal Snap Ring	Overall Length
	B	C	D	E	F	G	H	I	J	K	L	M	N			U
GROUP II ONLY	M16 x 1.5	M16 x 1.5	16	15	11	22	25	30	32.5	4	36	39.5	6	19.5 I/D x 1.5	RBM0220	62.5
GROUP II ONLY	1/2NPT	1/2NPT	18	22.5	14.3	22	25	30	32.5	4	36	39.5	6	19.5 I/D x 1.5	RBM0220	65.5
	M20 x 1.5	M20 x 1.5	16	15	14.3	22	25	30	32.5	4	36	39.5	6	19.5 I/D x 1.5	RBM0220	62.5
	3/4NPT	3/4NPT	18	22.8	20.2	22	25	30	32.5	4	36	39.5	6	19.5 I/D x 1.5	RBM0220	67.5
	M25 x 1.5	M25 x 1.5	16	15	20.2	35	25	46	50.5	6	46	50.5	6	32.5 I/D x 1.5	RBM0350	64.5
	1NPT	1NPT	22	27.65	26.5	35	25	46	50.5	6	46	50.5	6	32.5 I/D x 1.5	RBM0350	70.5
	M32 x 1.5	M32 x 1.5	16	15	26.5	35	25	46	50.5	6	46	50.5	6	32.5 I/D x 1.5	RBM0350	64.5
	1 1/4NPT	1 1/4NPT	22	28.27	32.5	35	25	46	50.5	6	46	50.5	6	32.5 I/D x 1.5	RBM0350	72.5
	M40 x 1.5	M40 x 1.5	16	15	32.5	55	25	65	70.8	6	65	70.8	6	52.5 I/D x 1.5	RBM0550	66.5
	1 1/2 NPT	1 1/2 NPT	22	28.69	44.5	55	25	65	70.8	6	65	70.8	6	52.5 I/D x 1.5	RBM0550	72.5
	M50 x 1.5	M50 x 1.5	16	15	44.5	55	25	65	70.8	6	65	70.8	6	52.5 I/D x 1.5	RBM0550	66.5
	2NPT	2NPT	22	29.53	56.3	55	25	65	70.8	6	65	70.8	6	52.5 I/D x 1.5	RBM0550	77.5
	M63 x 1.5	M63 x 1.5	16	15	56.3	80	25	95	104	8	95	104	10	76.5 I/D x 2.0	RBM0800	71.5
	2 1/2 NPT	2 1/2 NPT	26	43.46	65.3	80	25	95	104	8	95	104	10	76.5 I/D x 2.0	RBM0800	81.5
	M75 x 1.5	M75 x 1.5	16	15	68.3	80	25	95	104	8	95	104	10	76.5 I/D x 2.0	RBM0800	71.5
	3 NPT	3 NPT	26	45.15	68.3	80	25	95	104	8	95	104	10	76.5 I/D x 2.0	RBM0800	81.5

A3 THIS IS A CAD DRAWING AND MUST BE EDITED AT SOURCE

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REMOVE ALL BURRS AND SHARP EDGES USING MINIMUM CHAMFER OR RADIUS. PARTICULARLY REMOVE ALL BURRS FROM START AND FINISH OF THREADS

3RD ANGLE PROJECTION

DO NOT SCALE IF IN DOUBT ASK

GENERAL TOLERANCES
LINEAR ± 0.15mm
ANGULAR ± 0°30'

UNLESS OTHERWISE STATED

REV	DESCRIPTION	DATE	BY	CHKD
1	1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2" and 3" BORE DIMENSIONS INCREASED COLUMN F	22/05/13	HC/G13/044	C
2	RECESS AND 30 DEGREE CHAMFER ADDED TO ELBOW	14/08/12	AD	B
3	FIRST ISSUE	09/01/11		A
4	MODIFICATION	DATE/SIG	DCN	ISSUE

DRN AD

CHD AJT

DATE 09/01/11

UNITS mm

TITLE
INLINE SWIVEL COUPLING

DRG. No.
491

SCALE ??? SHEET 1 OF 1