

## AS7510 Joint System

Coupling, ferrules and sleeve with elastomeric seals

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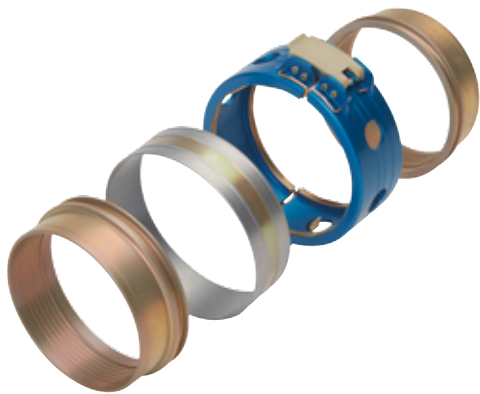


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## Eaton's fluid flexible joint products have an estimated 2 billion cumulative flight hours without a reported field failure when properly installed.



Our highly reliable products do much more than deliver superior performance — they also help customers meet changing regulations.

Eaton originally designed fluid flexible joints in the early 2000s to comply with the Federal Aviation Administration's updated Federal Aviation Regulation regarding fuel tank safety. Eaton's products are certified compliant with FAA regulations requiring high-current flexible joint systems (FAR 23.954, 25.901, 25.954 and 25.981) and include multiple design features that comply with FAR 25.981 for fuel tank ignition prevention.

Designed for aircraft and engine fluid systems, the AS7510 flexible joint system connects adjacent low-pressure fluid tubes by enclosing a sleeve, O-rings, and fixed-cavity ferrules. This effectively creates a pressure seal and an electrical continuity path to the sleeve and each of the adjacent ferrules.

Each flexible joint system consists of a coupling, two ferrules, a sleeve and two O-ring seals. The system is designed for ducting tube sizes 0.5" to 4.0" and operates within the temperature range of -65 to +265°F (-53 to 129°C) at 130 psi (896 kPa). Eaton's products are the basis for the AS7510 specification initially released in 2017.

### Features:

- Fuel ignition prevention and structural redundancies compliant with FAR 25.981
- Qualified for various aircraft system loads: shear, tension and dynamic (see AS7510 for specifics)
- Lightweight, flexible coupling is ideal for aerospace fuel systems
- Allows four degrees of angulation per joint
- No installation tooling required
- Lightning qualified

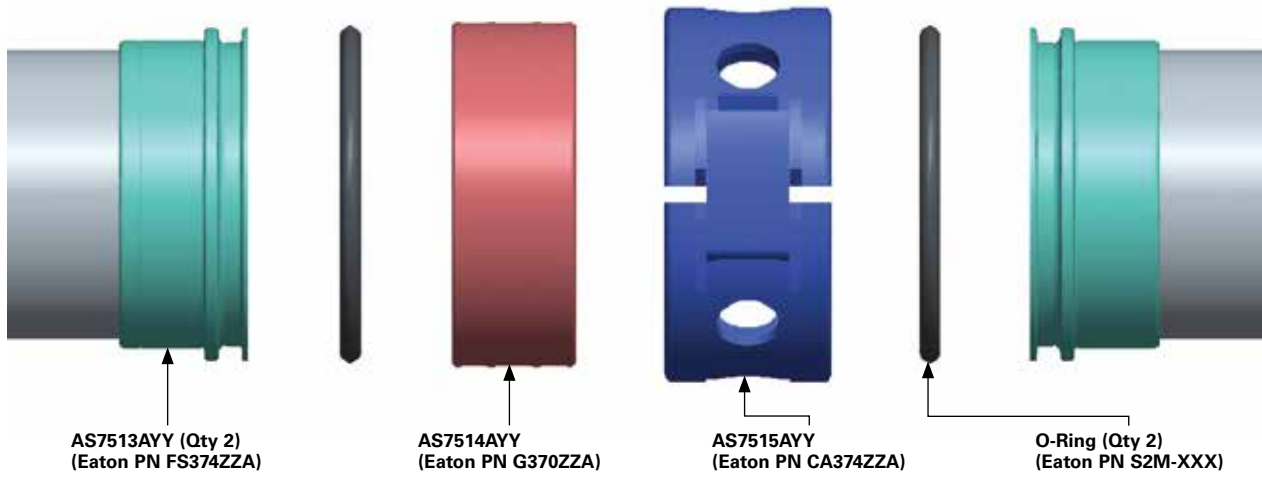
### Materials:

- Couplings: Aluminum 2024
- Ferrules: Aluminum 2024
- Sleeves: Aluminum 2024
- O-ring seals: Consult AS7511
- For specific material call out, refer to AS751X part specifications

Eaton designs and manufactures products similar in style to the AS7510 and offers additional sizes, materials and features not covered by AS7510. To learn more about our product offerings, please contact an Eaton representative.

# EATON

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**Component weight, Lbs Max (Ref)**

AS751X Size code "YY"	Duct size inches ref	Eaton PN "ZZ"	Envelope diameter inches (max)	AS7513 Ferrule, swage*	AS7514 Sleeve	AS7515 Coupling	AS568 O-ring size dash No. "XXX"
08	0.500	05	1.85	0.01	.004	.050	015
10	0.625	06	1.98	0.01	.005	.053	017
12	0.750	07	2.16	0.02	.007	.062	117
16	1.000	10	2.45	0.02	.010	.076	215
20	1.250	12	2.70	0.03	.011	.084	218
24	1.500	15	2.98	0.03	.013	.098	222
28	1.750	17	3.24	0.04	.015	.114	224
32	2.000	20	3.52	0.04	.018	.131	226
36	2.250	22	3.77	0.05	.020	.142	228
40	2.500	25	4.03	0.06	.024	.155	230
48	3.000	30	4.55	0.07	.030	.205	234
56	3.500	35	5.09	0.08	.042	.250	238
64	4.000	40	5.61	0.11	.053	.284	242

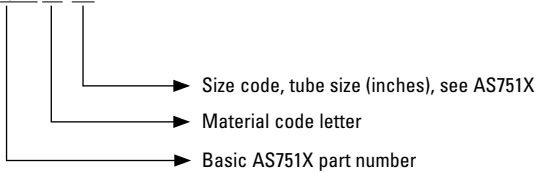
Values are derived from S751X documents for a AS7513 ferrule, AS7514 sleeve, AS7515 coupling and AS7511 for O-ring dash numbers  
\*Also available as butt welded ferrules, AS7516.

**Basic ordering instructions:**

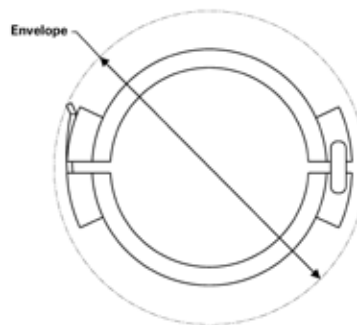
**Example:** AS7513A32 flanges/swage, AS7514A32 sleeve, AS7515A32 coupling, and applicable O-ring.

**Example if ordering Eaton PNs:** FS37420A ferrules, swage, G37020A sleeve, CA37420A coupling, and S2M-226 (M= Material).

**AS751X A DD**



Consult the corresponding AS751X component documentation



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For more information about Eaton's AS7510 related products and other related joint system products, please contact an Eaton representative.

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