

Ultra Low-Copper Amplifier Housing

Introduction

There are environments that can be hostile to the metal used in the construction of pressure transmitters. All the major manufacturers of these devices offer Stainless Steel housing to combat these environments. Stainless Steel has excellent corrosion resistance; but, has two drawbacks: cost and weight.

Yokogawa Solutions

Yokogawa transmitters are also offered with Stainless Steel housings. Stainless Steel offers the best corrosion resistance. But, what if you need a housing that has corrosion resistance, but not to the level of Stainless Steel? As an alternative, Yokogawa offers a Ultra Low-Copper Aluminum Amplifier Housing with Urethane powder coating. This housing offers very good corrosion resistance, weighs less, and is less expensive than the Stainless Steel Housing.



	Stainless Steel	Ultra- low Copper
Model Code	2	3
Anti- corrosion Characteristics	Excellent	Very Good
Weight (Housing and Covers)	2.2 Kg	0.7 Kg

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Applicable Models

- ⇒ **EJA-E Series:** All models
- ⇒ **EJX-A Series:** All models except the EJX910A and EJX930A.

Stainless Steel Housing (Code 2)

EJA110E-JMS5G-922NN/FF1/D1
EJX110A-JMS5G-922NN/FF1/D1

Ultra Low Copper Aluminum Housing (Code 3)

EJA110E-JMS5G-932NN/FF1/D1
EJX110A-JMS5G-932NN/FF1/D1

Ultra Low-Copper

Yokogawa's Ultra Low-Copper Housing is built to standard AA365. AA365 is an aluminum die casting standard developed for the US auto industry. The standard focuses on high corrosion resistance while maintaining a easily manufactured material that would yield high productivity.

Here is a comparison of aluminum housing used on pressure transmitters on the market.

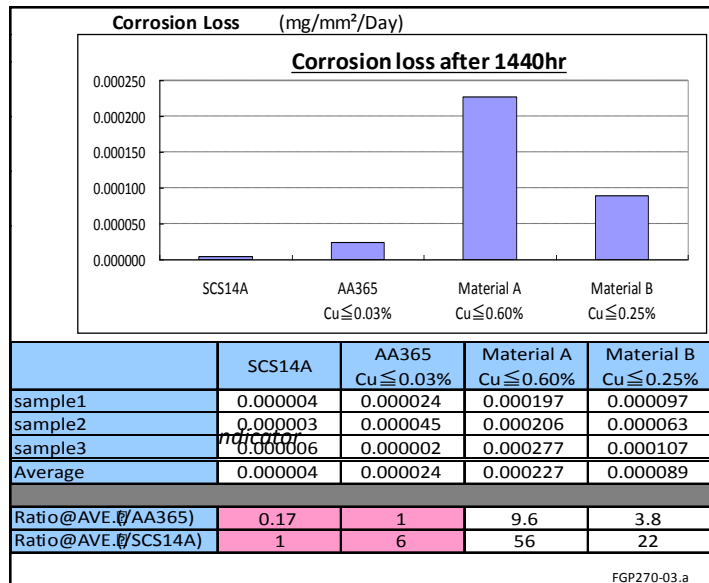
		Cu	Fe
AA365	Al-Si-Mg-Mn	≤0.03%	≤0.15%
Material A	Al-Si-Mg	≤0.60%	≤1.3%
Material B	Al-Si-Mg	≤0.25%	≤0.55%

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Material A is the standard housing of a major competitor
Material B is the low-copper option of a major competitor

Corrosion Resistance Evaluation Test

Yokogawa performed a salt spray test to evaluate corrosion loss of different housing materials on the market. The test was a 5% NaCl



Note: SCS14A is the JIS standard equivalent to CF-8M. CF-8M is cast version of 316 SST.

Conclusion of testing:

- > AA365 Ultra low-copper housing is superior to other Al housing on the market.
- > Corrosion resistance of Stainless Steel is 6 times better than AA365.