

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Miscellaneous**

with type designation(s)
Electronic Signal Converter SYSTEMPAK

Issued to
Azbil Corporation
Fujisawa, Kanagawa Pref., Japan

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature	B
Humidity	B
Vibration	A
EMC	B*
Enclosure	Required protection according to the Rules shall be provided upon installation on board.

*** See limitations on page 3**

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2015-10-30**

DNV GL local station: **Yokohama**

Approval Engineer: **Ståle Sneen**

for **DNV GL**

Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-002988-5**
Certificate No: **TAA000005W**

Product description

Azbil Corporation Electronic Signal Converter SYSTEPAK including the following units:

Model No.	Description	Standard Specification	Remarks
File			
J-SFR10	Rack Mounting Type File	SS2-2300-0020	

Rack Mounting (File) Type

Digital Module

J-SMV90/95	Millivolt conversion module	SS2-2320-0150	
J-STC90/95	Thermocouple conversion module	SS2-2320-0250	
J-SRV90/95	Resistance temperature device conversion module	SS2-2320-0350	
J-SMS90	Monitor switch module	SS2-2320-0450	
J-SPT90/95	Potentiometer conversion module	SS2-2320-0550	
J-SAZ90	Integrator module	SS2-2320-0650	
J-SFV90	Frequency conversion module	SS2-2320-0750	
J-SCM90/95	Single input arithmetic relay module	SS2-2320-0850	
J-SCM92/97	Dual input arithmetic relay module	SS2-2320-0950	

Analogue Module

J-SSD60/65	Isolator module	SS2-2300-0350	
J-SOV60	Isolator module for output	SS2-2300-0360	
J-SMS60	Monitor switch module	SS2-2300-0450	
J-STH60	Through-card module	SS2-2300-0650	
J-STH61	Analog input through-card module	SS2-2300-0660	

Single Case Type

Digital Module

J-SMP90/95	Millivolt conversion module	SS2-2330-0150	
J-STP90/95	Thermocouple conversion module	SS2-2330-0250	
J-SRP90/95	Resistance temperature device conversion module	SS2-2330-0350	
J-SSP90	Monitor switch module	SS2-2330-0450	
J-SVP90/95	Potentiometer conversion module	SS2-2330-0550	
J-SAP90	Integrator module	SS2-2330-0650	
J-SFP90	Frequency conversion module	SS2-2330-0750	
J-SCP90/95	Single input arithmetic relay module	SS2-2330-0850	
J-SCP92/97	Dual input arithmetic relay module	SS2-2330-0950	

Analogue Module

J-SIP60/65	Isolator module	SS2-2310-0350	
J-SSP60	Monitor switch module	SS2-2310-0450	
J-SSP65	Monitor switch module	SS2-2310-0460	Rev.2

Place of manufacture

Azbil Corporation Isehara Factory
54 Suzukawa, Isehara-shi,
Kanagawa-ken, Japan 259-1195

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Limitations

Shielded cables shall be used for external connections to each unit.

All units shall be installed inside a metallic enclosure as specified by the manufacturer.

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE