



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA0000246
Revision No:
2

This is to certify:

that the **Programmable Controller**

with type designation(s)
FL1F-... Series

issued to

IDEC Corporation
Osaka City, Osaka Pref., Japan

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

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

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

Issued at **Høvik** on **2024-09-09**

for **DNV**

This Certificate is valid until **2028-02-29**.

DNV local unit: **Japan CMC**

Approval Engineer: **Jens Dietrich**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

IDEC SmartRelay (Base Module)

FL1F-H12SCD	8DI(4AI)/4DQ
FL1F-H12RCA	8DI/4DQ
FL1F-B12RCA	8DI/4DQ
FL1F-H12RCE	8DI(4AI)/4DQ
FL1F-B12RCE	8DI(4AI)/4DQ
FL1F-H12RCC	8DI/4DQ
FL1F-B12RCC	8DI/4DQ

IDEC SmartRelay (Expansion Module):

FL1F-M08B1S2	24 V DC	4 DI/4 DO
FL1F-M08D2R2	24 V AC/DC	4 DI/4 DO relays
FL1F-M08B2R2	12/24 V DC	4 DI/4 DO relays
FL1F-M08C2R2	115/230 V AC/DC	4 DI/4 DO relays
FL1F-J2B2	12/24 V DC	Inputs: 2 AI
FL1F-J2BR2	12/24 V DC	Inputs: 2 x PT100/PT1000
FL1F-K2BM2	24 V DC	Outputs: 2 AO

IDEC SmartRelay Text Display:

FL1F-RD1 24 V AC, 12/24 VDC.

Place of Production

Siemens Industrial Automation Products Ltd.,
Chengdu City, Sichuan Province
P.R. of China

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

*IDEC Smart Relays fulfil the EMC requirements for A (General Power Distribution Zone) Exception: FL1F series except FL1F-RD1 may be used in B (bridge and deck zones).

Type Approval documentation

See ANNEX

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

- manufacturer name
- type designation
- serial number.

Periodical assessment

The assessment is done in connection with TAA00001AS

END OF CERTIFICATE



Job ID: **262.1-029567-2**
Certificate no.: **TAA0000246**
Revision No: **2**

ANNEX
Type Approval documentation

(hidden)

ML to SIEMENS TAA00001AS

Documentation in folder 262.1-004235.

Data sheet IDEC SmartRelay FL1F, EP1562-2, 2019-

TA Assessment Report issued by DNV CMC Japan, 2024-02-14.