# 01 / Identity and input architecture

HIMA

# F3238

## Input Module

### Input function

F3238 evaluates eight inputs from NAMUR proximity switches or contacts equipped with a resistor network. HIMA identifies short-circuit and open-circuit diagnostics for this initiator-input design. The HIQuad product classification includes SIL 3 capability, while the achieved safety function still depends on the configured system, approved revision and field loop.

**Field switch**
NAMUR or resistor network

>

**F3238**
Eight input channels

>

**HIQuad system**
Configured safety evaluation

### Applicability

F3238 is an eight-channel initiator input module. Intrinsic-safety values apply to the certified circuit arrangement and its external capacitance/inductance conditions; module identification alone does not establish a complete safety-loop approval.

# 02 / Supply circuits and environmental limits

| Property | Verified circuit relationship |
|---|---|
| Platform | HIQuad |
| Input channels | 8 |
| Input sources | NAMUR proximity switches; contacts with resistor network |
| Line diagnostics | Short-circuit and open-circuit monitoring |
| Safety capability | SIL 3 in the applicable approved system |
| UB1 supply | 24 V DC, −15%/+20% |
| UB2 supply | 5 V DC, ±10% |

## Supply separation

The IECEx circuit specification gives a 24 V DC supply circuit UB1 with −15%/+20% tolerance and a separate 5 V DC UB2 supply with ±10% tolerance. The certified ambient range is 0–60 °C. These supply values belong to the module circuits and must not be confused with the intrinsically safe field-loop output limits.

# 03 / Intrinsic-safety design boundaries

| Property | Certified circuit limit |
| --- | --- |
| Certified ambient range | 0–60 °C |
| Intrinsic-safety Uo | 9.9 V |
| Intrinsic-safety Io | 15 mA |
| Intrinsic-safety Po | 38 mW |

## External-circuit assessment

The intrinsically safe control circuits have Uo 9.9 V, Io 15 mA and Po 38 mW. Permitted external capacitance and inductance depend on the gas or dust group and whether both are considered together; the higher separate maxima cannot simply be combined. Certified switches or contacts may be located in hazardous areas from Zone 0 when the complete installation meets the applicable approval conditions.

## What supply circuits are specified for F3238?

UB1 is 24 V DC with −15%/+20% tolerance, and UB2 is 5 V DC with ±10% tolerance.

# 04 / Signal integration and diagnostics

| Application | Engineering relationship |
| --- | --- |
| NAMUR switching signals | Evaluate suitable proximity-switch states through the approved initiator-input circuit. |
| Resistor-network contacts | Use contacts with the required network so that signal states and line faults can be distinguished. |
| Hazardous-area field loops | Connect certified field devices using entity parameters and wiring conditions appropriate to the location. |
| Safety-system maintenance | Retain the module revision, channel assignments and validated safety application during replacement. |

## How many input channels does F3238 have?

F3238 has eight initiator input channels.

## Can separate capacitance and inductance maxima be combined for F3238?

No. The certificate specifies separate and mixed-consideration limits. Select the correct group and combined condition for the complete loop.

# 05 / Technical handover and references

## Does F3238 by itself establish a SIL 3 safety function?

No. Module capability is part of an approved system. The configured logic, revision, field devices and application validation determine the complete safety function.

## Reference basis

HIMA HIQuad technical product overview; IECEx TUR 18.0006 Issue 2, attachment Revision 02.

Apter Power technical summary; not a manufacturer-issued manual. Apply the original instructions for the actual installation.

## Related industrial automation products

Navigation only; no substitution or compatibility claim.

**HIMA F6706**

**HIMA F-PWR 02**

**HIMA F-PWR 01**

## Discuss your installed configuration

Send the full unit marking and connection details.

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