# DI2-16 for imc CRONOS-XT

## 16 digital inputs

The digital DI2-16 module enable sampling of digital inputs having TTL/CMOS or 24 V logic levels. The level can be set separately for each group of eight inputs. The groups are jointly isolated from the system.

## Highlights

- Galvanically isolated 4 Bit groups
- Configurable for 5 V or 24 V level (of 8 Bit groups)

CRXT/DI2-16
(Fig. similar)

## imc CRONOS-XT - Maximizes flexible modularity

An imc CRONOS-XT system is composed of a base unit and one or more imc CRONOS-XT modules. The imc click mechanism offers a mechanically strong connection between several imc CRONOS-XT modules. At the same time, the "click" establishes an electrical connection to the system bus and the power supply.

## Overview of available variants

| Order Code | Signal connections | power consumption | weight | housing | article no. |
|---|---|---|---|---|---|
| CRXT/DI2-16 | DSUB-15 | | 0.7 kg | XT1 | 11100029 |

## Dimensions
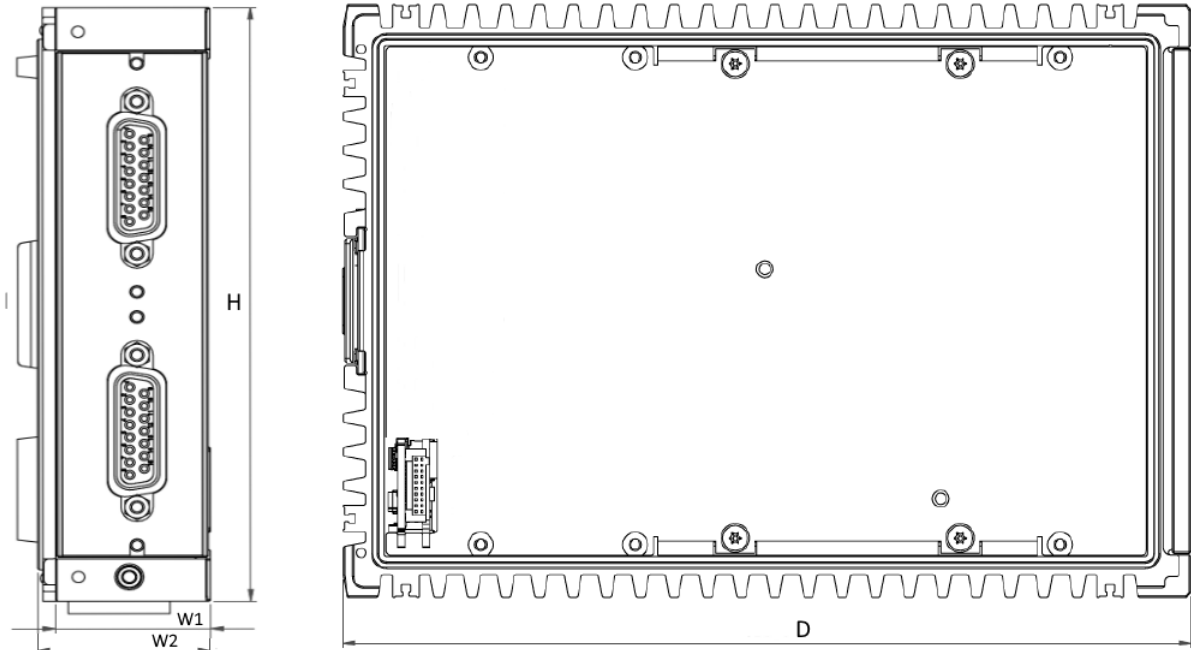


*Shown in standard operating orientation: housing type XT1*

| Housing type: | XT1 | XT2 | XT3 | XT4 | Remarks |
|---|---|---|---|---|---|
| W: Width in mm | 30.5 | 61 | 91.5 | 116.9 | W1: modular spacing (effective stacking width) |
| | 34 | 64.5 | 95 | 120.4 | W2: complete width |
| H: Height in mm | 130 | | | | |
| D: Depth in mm | 186.5 | | | | |

## Sealing, IP rating and environmental specs

A single CRXT slice cannot achieve an IP protection level at first because it is functionally open at the side. The specified specifications are always only valid for a complete in a controlled environment clicked (closed) CRXT system. Only after it has been combined with a CRXT base unit (plus power module), CRXT slices if applicable, and the final handles to form a CRXT system can an evaluation be made. The specification for shock, vibration and IP degree of protection applicable to the entire device is then derived from the weakest specification of the CRXT slices used in this combination. They assume that the individual CRXT slices are each mounted in conjunction with the additional stabilizing interconnect brackets (included in the standard accessories supplied).

According to IEC 60529 the Ingress Protection (IP) rating refer to protection classes provided by a housing, the protection of the electrical parts within the housing shell. If all functionally accessible contacts of the sockets are also to be protected, the corresponding plugs must be connected to all sockets. In many cases, a protective cover can also be used alternatively on unused sockets.

## Included accessories

| Sealing Caps and mounting accessories | | article no. |
|---|---|---|
| 2x ACC/CAP-DSUB-15-IP67 | sealing Cap IP67 for DSUB-15 sockets | 13500342 |
| CRXT/BRACKET-CON | interconnect brackets, intended for increased stability; set of 2 units for top and bottom side | 11100040 |

| Documents |
|---|
| device certificate |
| Getting started with imc CRONOS-XT (one copy per delivery) |

## Optional accessories

| DSUB-15 plug (solder) IP67 | | |
|---|---|---|
| CRXT/DSUB15M-IP67 | IP67 DSUB-15 plug male | 11100073 |

| DSUB-15 plug (IP65) | | |
|---|---|---|
| ACC/DSUBM-DI4-8-IP65 | IP65 DSUB-15 plug with screw terminals for digital inputs | 13500221 |

| Dust protection | | |
|---|---|---|
| ACC/CAP-DSUB-15 | dust protection cap for DSUB-15 | 13500339 |

| Miscellaneous | | |
|---|---|---|
| CRXT/BRACKET-CON-BOT | interconnect bracket with mounting option (180°) for the bottom side of the CRXT module | 11100084 |
| ACC/DSUBM-LOCKING-BOLT-L | extended length locking bolts (2 pcs) | 13500327 |
| For the slices with DSUB-15 sockets, the sealed terminal plugs ACC/DSUBM-xxx-IP65 must be used - regardless of the sealing properties: The simple standard plug (ACC/DSUBM-xxx without suffix [-IP65]) have shorter locking screws and therefore cannot be fixed to CRXT slices. However, they can be retrofitted with the long bolts. With long bolts: only for CRXT, with short standard bolts: only for CRFX, CRC, C-SERIES etc. | | |

# Technical Specs - DI2-16

| Parameter | Value typ. | min. / max. | Remarks |
|---|---|---|---|
| Channels | 16 | | groups of 4 Bit with common ground reference, galvanic isolation between groups |
| Input voltage level | TTL<br>24 V | | configurable globally for 8 Bit at DSUB using the "LEVEL" pin:<br>"LEVEL": Jumper to "LCOM"<br>"LEVEL": unconnected |
| Max input voltage | 5.5 V<br>30 V | | TTL mode<br>24 V mode |
| Input configuration | differential | | groups of 4 Bit<br>galvanic isolation between groups of 4 Bit |
| Isolation strength | ±150 V | | to system ground (housing, CHASSIS, PE) and between groups of 4 Bit (tested ±200 V) |
| Switching time<br>    HIGH-LOW<br>    LOW-HIGH | <br>34 µs<br>3 µs | <br>130 µs<br>30 µs | edge detection;<br>over entire temperature range |
| Additional system delay | typ. 400 µs ±100 µs | | delay from input transition to changing state available in imc Online FAMOS |
| Input current | | max. 500 µA | |
| Switching threshold<br>    TTL (5 V)<br>    24 V | <br>$V_{Lmax} = 0.8$ V<br>$V_{Lmax} = 5.0$ V | <br>$V_{Hmin} = 2.0$ V<br>$V_{Hmin} = 8.0$ V | |
| Internal supply voltage, available at user pin "HCOM" | 5 V max. 100 mA | | isolated<br>reference ground of both "HCOM" and "LEVEL" is "LCOM" |
| Terminal connection | DSUB-15 / 8 Bit | | ACC/DSUBM-DI4-8 |

# Contact imc

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## imc ACADEMY - Training center

The safe handling of measurement devices requires a good knowledge of the system. At our training center, experienced specialists are here to share their knowledge.

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