

### 3.4.3 Indicators

The following figure shows the LED indicators for the module.

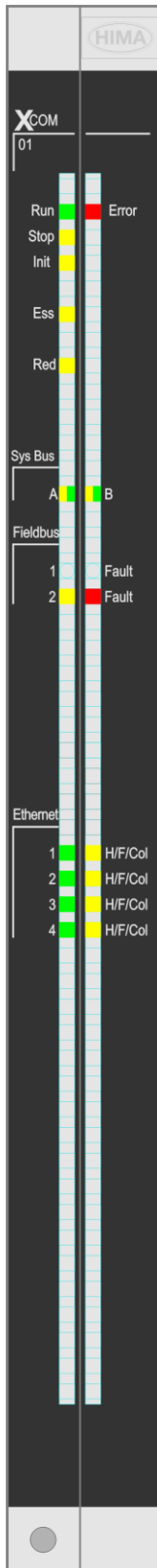


Figure 3: Indicators

The LEDs indicate the operating state of the communication module.

The LEDs on the module are divided into three groups:

- Module status indicators (Run, Error, Stop, Init)
- System bus indicators (A, B)
- Fieldbus indicators (1, 2, Fault)
- Communication indicators (Ethernet)

When the supply voltage is switched on, a LED test is performed and all LEDs are briefly lit.

#### Definition of blinking frequencies

The following table defines the blinking frequencies of the LEDs:

Name	Blinking frequencies
Blinking1	Long (approx. 600 ms) on, long (approx. 600 ms) off
Blinking2	Short (approx. 200 ms) on, short (approx. 200 ms) off, short (approx. 200 ms) on, long (approx. 600 ms) off
Blinking-x	Ethernet communication: Blinking synchronously with data transfer

Table 8: Blinking Frequencies of LEDs

#### 3.4.4 Module Status Indicators

These LEDs are located on the front plate, on the upper part of the module.

LED	Color	Status	Description
Run	Green	On	Module in RUN, normal operation
		Blinking1	Module state: STOP/OS_DOWNLOAD or OPERATE (only with processor modules)
		Off	Module not in RUN, observe the other status LEDs
Error	Red	On/Blinking1	Internal module faults detected by self-tests, e.g., hardware or voltage supply. Fault while loading the operating system
		Off	Normal operation
Stop	Yellow	On	Module state: STOP / VALID CONFIGURATION
		Blinking1	Module state: STOP / INVALID CONFIGURATION or STOP / OS_DOWNLOAD
		Off	Module not in STOP, observe the other status LEDs
Init	Yellow	On	Module state: INIT
		Blinking1	Module state: LOCKED or STOP / LOADING OS
		Off	Module state: neither INIT nor LOCKED, observe the other status LEDs

Table 9: Module Status Indicators

### 3.4.5 Redundancy indicators

The LEDs are located below the module status indicators.

LED	Color	Status	Description
Ess	Yellow	On	At least one non-redundant fieldbus protocol is configured.
		Blinking1	A fieldbus protocol configured for redundant operation is not operating redundantly.
		Off	<ul style="list-style-type: none"> <li>▪ All fieldbus protocols configured for redundant operation are operating redundantly.</li> <li>▪ No non-redundant fieldbus protocols are running.</li> </ul>
Red	Yellow	On	All fieldbus protocols configured for redundant operation are operating redundantly to the partner module.
		Blinking1	<ul style="list-style-type: none"> <li>▪ Synchronization</li> <li>▪ The redundant partner of at least one redundant fieldbus protocol is missing.</li> </ul>
		Off	No redundant fieldbus protocol is configured.

Table 10: Redundancy Indicators

### 3.4.6 System Bus Indicators

The system bus LEDs are labeled Sys Bus.

LED	Color	Status	Description
A	Green	On	Physical and logical connection to the system bus module in slot 1.
		Blinking1	No physical connection to the system bus module in slot 1.
	Yellow	Blinking1	The physical connection to the system bus module in slot 1 has been established. No connection to a (redundant) processor module running in system operation.
B	Green	On	Physical and logical connection to the system bus module in slot 2.
		Blinking1	No physical connection to the system bus module in slot 2.
	Yellow	Blinking1	The physical connection to the system bus module in slot 2 has been established. No connection to a (redundant) processor module running in system operation.
A+B	Off	Off	Neither physical nor logical connection to the system bus modules in slot 1 and slot 2.

Table 11: System Bus Indicators

## 3.4.7 Fieldbus Indicators

The fieldbus LEDs are labeled Fieldbus.

LED	Color	Status	Description
1, 2	Yellow	On	Fieldbus operating
		Off	No activity, fieldbus not operating
Fault	Red	Blinking1	Fieldbus fault of the bus (e.g., the slave is not present or faulty response), depending on the fieldbus protocol (minimum blinking duration 5 s).
		Off	No fieldbus faults

Table 12: Fieldbus Indicators

## 3.4.8 Ethernet Indicators

The Ethernet LEDs are labeled Ethernet.

LED	Color	Status	Description
Eth 1...4	Green	On	Communication partner connected No communication detected on interface
		Blinking-x	Communication detected on interface.
		Blinking1	IP address conflict detected All Ethernet LEDs are blinking
		Off	No communication partner connected
H/F/Col 1...4	Yellow	On	Full duplex operation on Ethernet line <i>F</i>
		Blinking-x	Collisions detected on Ethernet line <i>Col</i>
		Blinking1	IP address conflict detected All Ethernet LEDs are blinking
		Off	Half duplex operation on Ethernet line <i>H</i>

Table 13: Ethernet Indicators

### 3.5 Product Data

General	
Supply voltage	24 VDC, -15 %...+20 %, $r_p \leq 5$ %, SELV, PELV
Current input	min. 0.25 A max. 0.46 A
Operating temperature	0 °C...+60 °C
Storage temperature	-40 °C...+85 °C
Humidity	max. 95 % relative humidity, non-condensing
Type of protection	IP20
Dimensions (H x W x D) in mm	310 x 29.2 x 230
Weight	approx. 1.3 kg

Table 14: Product Data

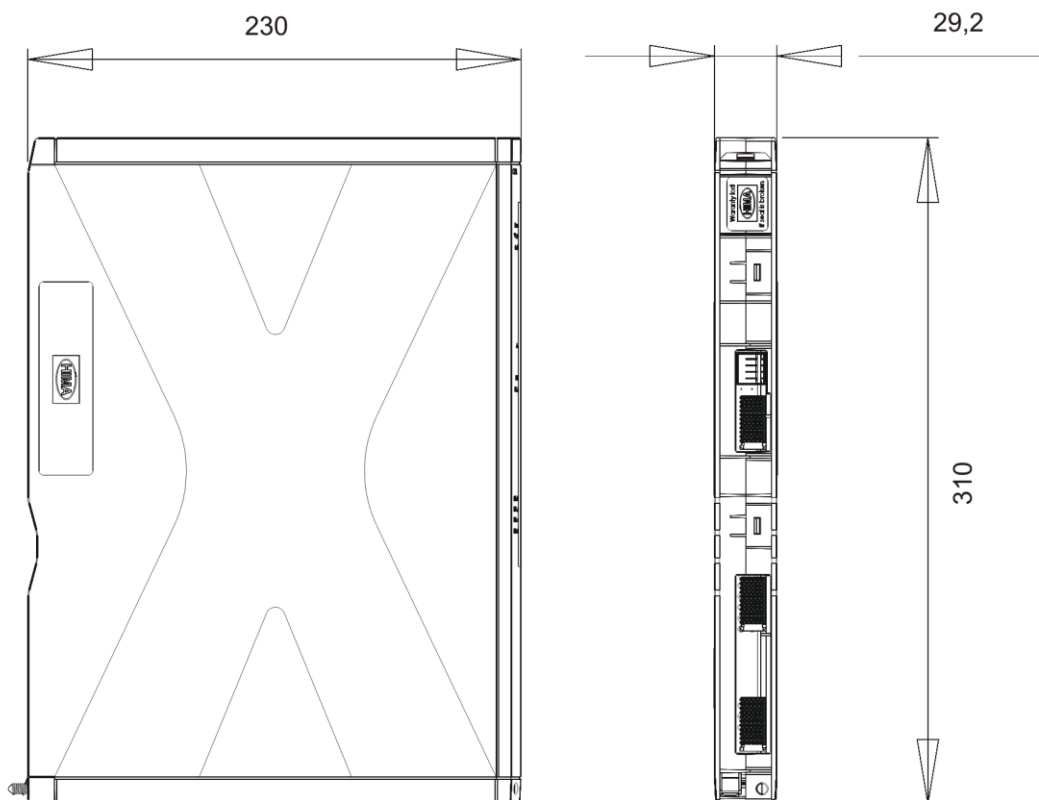


Figure 4: Views