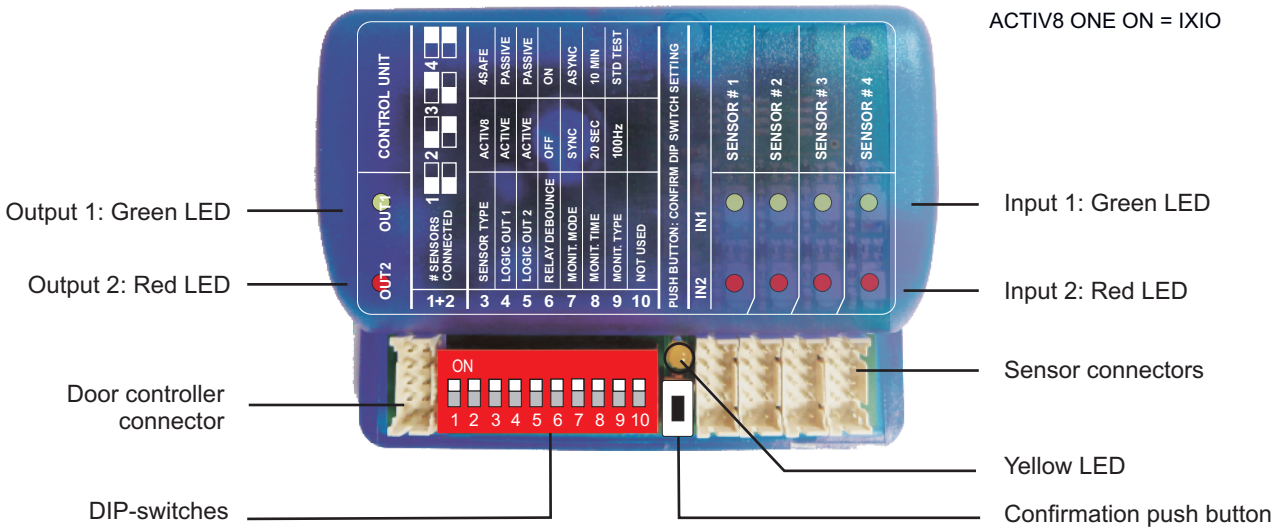
MULTI-SENSOR HUB

Hub for 4SAFE and ACTIV8 ONE ON / IXIO

DESCRIPTION



LED SIGNAL

GREEN ON — Output 1 Input 1

RED ON — Output 2 Input 2

LED switches ON during detection — Active mode

LED switches OFF during detection — Passive mode

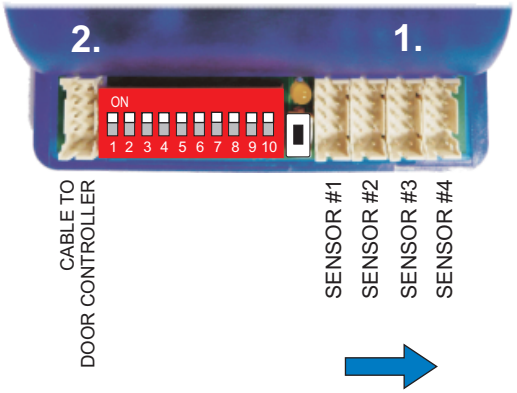
YELLOW flashing — Awaiting confirmation DIP-switch setting

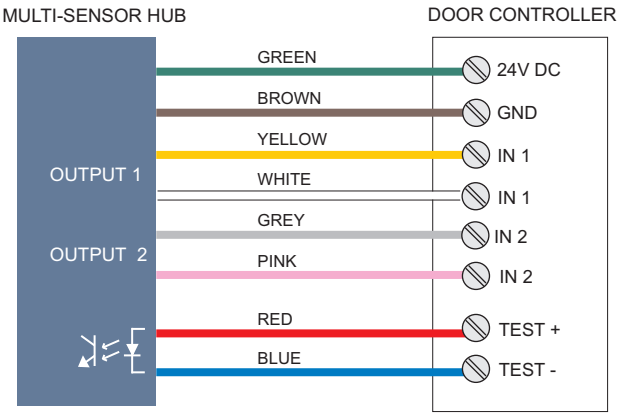
TECHNICAL SPECIFICATIONS

Max. load current:	2 A
Supply voltage:	12 V DC - 24 V DC +10% (min. 16 V DC @ max. load current)
Output to door controller:	2 galvanical isolated outputs (OPTOFET; U_{MAX}= 42 V DC; I_{MAX}= 100 mA) maximum output power dissipation: 200 mW off-state leakage current: 10 µA on-state maximum resistance: 20 Ohms
Monitoring input from door controller:	1 galvanical isolated input (Optocoupler; max 30 V DC (6 mA)); voltage threshold: logic high: >10 V DC (2 mA); logic low: <1 V DC
Input from each sensor:	2 non-isolated inputs
Monitoring output to each sensor:	1 non-isolated output (U_{OUT}= U_{SUPPLY}; I_{MAX}= 50 mA)
Monitoring response time:	from 200µs to 50ms (depending on sensors & hub setting)
LEDs:	red & green for status display of each connected sensor red & green for hub output status display orange for DIP-switch status change display
Norm conformity:	Electromagnetic compatibility (EMC) according to 2004/108/EEC EN ISO 13849-1:2006 Performance Level "c", CAT 2 EN 62061:2005 SIL 2
Temperature range:	from -25° to +60° (for indoor use only)
Dimensions:	70 mm (L) x 55 mm (H) x 25 mm (D)
Housing material:	ABS (translucent blue)
Length of sensor cables:	2.70 m
Length of power cable:	2.60 m
Lifetime:	designed for minimum 10 years

Specifications are subject to changes without prior notice.
For more information concerning the monitoring cycle, see application note on monitoring by voltage.

WIRING



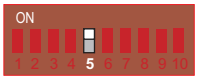
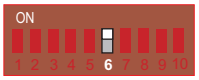


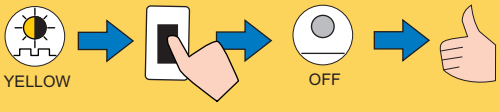
1. Connect the sensors (from 1 to 4) to the sensor connectors starting from the left using the cables that have connectors on both ends.

Attention! Never use the 4SAFE power cable to connect the Hub to the door controller.

2. Connect the cable with only one connector from the Hub to the door controller (see wiring diagram).

DIP-SWITCH SETTINGS

1 **2**	Number of sensors connected to the Hub	1 sensor	2 sensors	3 sensors	4 sensors
3	Type of sensor connected to the Hub		ON 4SAFE OFF ACTIV8 ONE IXIO	Only one type of sensor can be connected simultaneously. Do not mix sensor types.
4	Logic Output 1		ON Passive OFF Active	Check the output logic on the connected sensors. The output logic has to be the same on the Hub and on all connected sensors (see LED-signal).
5	Logic Output 2		ON Passive OFF Active	Check the output logic on the connected sensors. The output logic has to be the same on the Hub and on all connected sensors (see LED-signal).
6	Relay debounce avoids the bouncing of the relay contact during a monitoring request		ON ON OFF OFF	Recommended when the monitoring input is connected to a relay output on the door controller. Set to OFF for a faster response time.
7	Monitoring mode The monitoring has to be active on all connected sensors!		ON Asynchronous OFF Synchronous	The Hub sends a monitoring request to all connected sensors every x seconds (according to DIP 8 setting), independent of the door controller. When the door controller sends a monitoring request to the Hub, it answers immediately giving the result of the last monitoring cycle. The Hub sends a monitoring request to all connected sensors only when the door controller sends a monitoring request to the Hub. The response time on monitoring request is dependent on response time of the connected sensors.
8	Monitoring cycle time in asynchronous mode		ON 10 min OFF 20 sec	The Hub sends a monitoring request to all connected sensors every 10 minutes (only in asynchronous mode). The Hub sends a monitoring request to all connected sensors every 20 seconds (only in asynchronous mode).
9	Monitoring type		ON Standard voltage monitoring OFF Signal output 100 Hz	Most frequently used type of monitoring using test input. Only if your door controller is compatible with this type of monitoring.
10	Not used			



After changing one or more DIP-switch settings, the yellow LED flashes. Confirm the new setting(s) by pushing the push button until the LED switches off. The setting is confirmed.

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