IWFB MANUAL

1. DESCRIPTION

Fire panel IWFB is one component of the new ICAS IQ *wireless* system. IQ System is an intelligent radio system, which works at 868 MHz frequency band. The IQ System is created by various kind of IQ components, which provides to the customer complete and very flexible RF fire alarm system. All components of the IQ system use a special RF communication protocol. This protocol handles building small or large size, smart installations, depending directly on the user requirements.

Fire button IWFB serves as small panel, which has a function of manual call point. After alarm button is pressed the RF loop indicates fire alarm. The IWFB can be configured in system without μCU-IQ panel. RF communication is based on "P2P" topology, but for cases where is need to reach longer RF distance it is possible to switch IWFB as a message repeater. RF communication based on "STAR" topology is used in installation of IWFB in systems with μCU-IQ panel. This topology does not support the "Message Repeater mode" of IWFB – here needs to be IQ repeater.

The Fire Button is powered with 3 lithium battery and can operate 10 years. It is equipped with fire push button, one user pushbutton, internal siren and user LED indication.

2. FUNCTION

After power supply on IWFB starts with reset beep indication. After reset is done initialization of the RF module and of the indication. The IWFB has to be configured according to ICAS IQ Wireless System Configuration manual first, after that the information about RF system loop is stored in internal EEPROM.

The press of the pushbutton Fire transmits the RF message "F" and runs fire alarm in the local loop of the system. The module internal siren starts beeping. To switch off the fire alarm condition use the Reset key and put the Fire button back to normal state. RF module transmits the RF message "S". The internal siren indication stopped. The Fire Button IWFB is equipped also with test of the battery. When IWFB detects low battery transmits the message "B".

The Fire Button communicates with other nodes directly ("P2P" topology) so all nodes have to be installed in RF radio range. In some installations the IWFB can be switched into "Message Repeater mode", where repeats all system loop IQ messages which IWFB receives from other nodes. This is not possible in the system with μCU-IQ, where the control panel itself is repeater. In this system installation is need to use IQ repeater.

In installation of the IWFB with μCU-IQ, fire message "F" gets control panel first and then μCU-IQ transmits the "F" message to other nodes in the system. Using IWFB decrements total number of nodes in local loop (for example to the loop where is used one μCU-IQ and one IWFB can be connected only 31 other IQ components.). It is very important to install all assigned IQ components in the μCU-IQ radio-range in the system with control panel μCU-IQ.

3. APPLICATION DIAGRAM

"SIMPLE SYSTEM WITH CHOR-IQ SMOKE DETECTORS"

up to 32 components
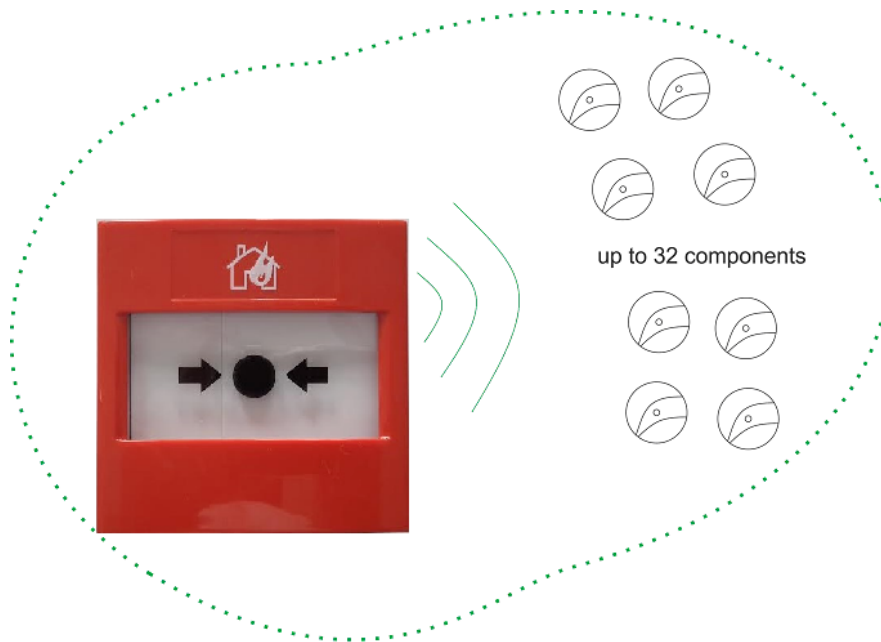
"SIMPLE SYSTEM WITH μCU-IQ, IWFB AND CHOR-IQ SMOKE DETECTORS"

up to 31 components
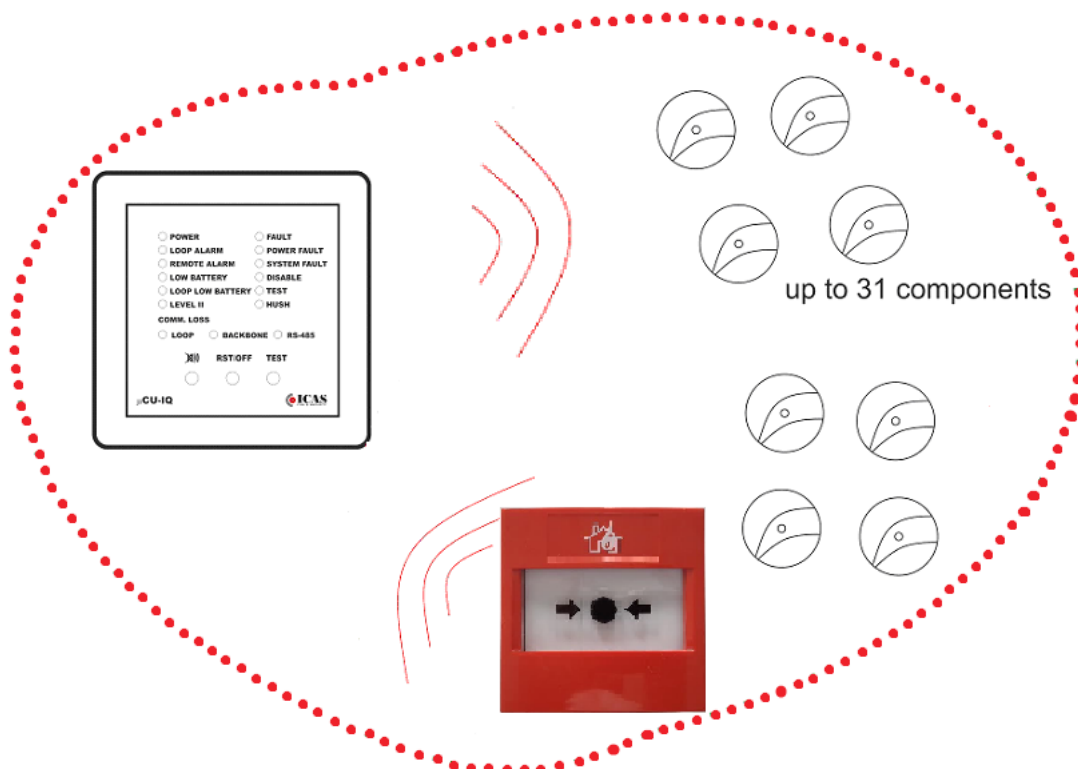
4. INSTALLATION

IWFB is intended to be installed directly on the wall. Please install the IWFB unit at least 0.5m from fuse box or other electrical appliances. Be aware that EMC can harm the Fire Button. Remove the top cover of the IWFB button. Use 2 screws to mount IWFB on the wall. Turn on the power of IWFB with jumper J1 ont top of the PCB. Now follow instructions in IQ Wireless System Configuration manual then Put the top cover of IWFB back.

5. INDICATION

D3	Blinking	Test is on in the local loop (RF message "T" has been transmitted/received)
	OFF	Test is off in the loop

6. BUTTON FUNCTION

Right button TL2 pressing is indicated and confirmed by beep of the siren.

FIRE SET	Fire	Transmits message "F" / Fire alarm local loop / internal siren beeping
FIRE RESET	Stop	Transmits message "S" / Fire alarm local loop is stopped / internal siren is off
TL2 button pressure	"Message Repeater mode" ON 1 beeps of siren	Message Repeater mode ON – RED LED ON + YELLOW blinking
TL2 button (Long pressure)	"Message Repeater mode" OFF 3 beeps of siren	Message Repeater mode OFF – RED LED OFF + YELLOW blinking
TL2 button (Long pressure)	Configuration mode 5 beeps of siren, then 1 short and 1 long beep of Siren	Transmits message "L" / Configuration of the loop LED YELLOW blinking – 1 fast and 1 slow
TL2 button (Long pressure)	Delete from the loop 5 beeps of siren then → 4x 1 short and 1 long beep of Siren → 1 long beep of Siren	Transmits message "D" / delete the IWHB from the loop, Indication RED LED → YELLOW blinking

7. Technical specification

POWER SUPPLY

Power supply:	3x 3.6V / 1,2Ah Lithium Battery
Operating voltage:	3 V
Power consumption:	<3 μA

RF DETECTION LOOP

RF operation frequency:	868 MHz
RF modulation:	GFSK modulation
Number of nodes in local loop:	32
RF range in free space:	100m

MECHANICAL SPECIFICATION

Plastic box material:	Polycarbonate
Colour:	RED
Size:	86mm x 86mm x 60mm
Weight:	220 g
IP-Class:	IP55 (after installation)
Temperature:	-10 to +50 °C
Humidity:	95% RH

Appendix 2
ICAS IQ wireless system configuration
 / CONFIGURATION / DELETING from the Local LOOP or System LOOP/ Creating the wireless STAR loop configuration / Zone