TTE Loop Length Calculator
(for IRIS and SIMPO Addressable Fire Alarm Panels)

Start

ATTENTION: *The calculations are applicable for copper cables only. The calculated length and cross section of the cable concern one loop of the system.*

1. Please, enter the number of used devices in the system according their type:

Detectors		Modules		Accessories		Sounders	Sound Level HIGH	Sound Level LOW
T110	4	MIO22 (IS) (2 in/ 2 out)	3	MINP	0	WS	0	0
T110 IS	0	MIO22 (IS) (outputs)	0	MISO*	0	WS IS	0	0
S130	92	MIO04 (IS) (4 outputs)	3	MC-D	0	WSOU	0	0
S130 IS	0	MIO40 (IS) (4 inputs)	0	FRI**	0	WSOU IS	0	0
M140	0	MC-Z (IS) (loop power)	0	FRL***	0	WSST	0	0
M140 IS	4	MC-Z (IS) (ext. power)	0			WSST IS	0	0
MCP150 (IP67)	0	MOUT (IS)	0			BSOU	0	0
MCP150 IS (IP67)	0	MOUT-240 (IS)	2			BSOU IS	0	15
GAS Det. (ext. power)	0					BSST	0	0
						BSST IS	0	8

Tone Type: 27

27 is the main tone type.

* Isolator Module
** Remote indicator - SensoIRIS fire detectors
*** Remore indicator - SensoMAG fire detectors (connected to MC-D)
Note: The devices MISO and FRI and FRL do not have addresses in the fire system.

Addressed Devices: 131 **Consumption, mA:** 204.2 Calculate

Messages for troubles:

2. Calculating the loop length according the cable cross section.

Please, enter the cross section of the used cable to calculate the maximal loop length: 1 mm² X

Case 1: *The loop is broken at the beginning and is powered only by one side.*	1646.75	m
Case 2: *The loop is not interrupted or it is broken in the middle.*	3293.51	m

Calculate

3. Calculating the cable cross section according the loop length.

Please, enter the maximal loop length to calculate the cross section of the used cable: 750 m X

Case 1: *The loop is broken at the beginning and is powered only by one side.*	0.45	mm²
Case 2: *The loop is not interrupted or it is broken in the middle.*	0.22	mm²

Calculate

How to work with TTE Loop Length Calculator

1. Press the "Start" button - in the input data felds are set automatically values by default.

2. Enter the total number of detectors for one loop sorted by type. Include also the detectors mounted on sounders BSOU (IS) and BSST (IS).

3. Enter the number of the sounders sorted according the set sound level in the panel menus:
   - In the column "HIGH" enter the number of the sounders with set HIGH sound level in the panel*.
   - In the column "LOW" enter the number of the sounders with set LOW sound level in the panel*.
   - Tone type is set automaticaly to 27 - this is the main tone type for the system. You can change it with other tone type from 1 to 32.
   (*Note: The tone types are described in details in the installation manuals of the sounders SensoIRIS series.*)

* Note: The sound level is set individually for every sounder in the panel menus.

4. Enter the total number of modules for one loop sorted by type.

5. Enter the total number of accessories for one loop sorted by type.

6. Press the "Calculate" button tc calculate the total consumption in the loop.

7. Calculate the maximum loop length according the cross section of the used cable:
   - Enter the cable cross section in sq.mm.
   - Press the "Calculate" button in the field.

Use the "X" button to clear the calculated values in the fields before starting a new calculation.

8. Calculate the optimum cable cross section according the maximal loop length:
   - Enter the loop length in meters.
   - Press the "Calculate" button in the field.

Use the "X" button to clear the calculated values in the fields before starting a new calculation.

Cilpas garumu aprēķina pēc formulas, ko sniedzis TELETEK iekārtas ražotājs
Maksimālais cilpas Nr.4. garums, izmantojot JE-E FE180/E30 1x2x1.0+1.0 kabeli, ir 1646,75m
Faktiskais cilpas garums ir 850 m

NIK
"NIK" SIA
LIELVĀRDES IELĀ, 107-24, RĪGA, LV-1011
TĀLR./FAKSS 67 281244, m.t. 29511472
nik-signalizacija@inbox.lv, REĢ. NR.-40103041505

			77/2023/IR
PASŪTĪTĀJS:	Pārtikas drošības, dzīvnieku veselības un vides zinātniskais institūts „BIOR" Reģ. Nr. 90009235333		STADIJA: TP
BŪVOBJEKTS:	Pārtikas drošības, dzīvnieku veselības un vides zinātniskais institūts „BIOR", Lejupes iela 3, Rīga, LV-1076		LAPAS NR.: UATS-17.
			LAPU SKAITS: 18.
			MĒROGS: BM
RASĒJUMS:	Ugunsgrēka signalizācijas sistēma Cilpas garuma aprēķins. Cilpa Nr. 4.		FORMĀTS: A3
			ARHĪVA NR.: UATS 77/2023-17
			DATUMS: 15.09.2023.
DAĻAS VAD.	A.OZOLS		AIZVIETO
IZSTRĀDĀJA	A. MEĻNIKS		LAPAS CAUREJOŠ. NR.