

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

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

Start

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

Detectors		Modules		Accessories		Sounders		Sound Level		Tone Type	
								HIGH	LOW		27 is the main tone type.
T110	8	MIO22 (IS) (2 In/ 2 out)	3	MINP	0	WS	0	0	0	26	
T110 IS	0	MIO22 (IS) (outputs)	0	MISO+	0	WS IS	0	0	0		
S130	105	MIO04 (IS) (4 outputs)	0	MC-D	0	WSOU	0	0	0		
S130 IS	0	MIO40 (IS) (4 inputs)	0	FRI**	0	WSOU IS	0	0	0		
M140	0	MC-Z (IS) (loop power)	0	FRL***	0	WSST	0	0	0		
M140 IS	9	MC-Z (IS) (ext. power)	0								
MCP150 (IP67)	0	MOUT (IS)	0								
MCP150 IS (IP67)	0	MOUT-240 (IS)	0								
* Isolator Module											
** Remote indicator - SensorRIS fire detectors											
*** Remove indicator - SensorMAG fire detectors (connected to MC-D)											
Note: The devices MISO and FRI and FRL do not have addresses in the fire system.											
GAS Det. (ext. power)	0										

Addressed Devices: 153

Consumption, mA: 206.46

Calculate

Messages for troubles:

Cilpas garumu aprēķina pēc formulas, ko sniedzis TELETEK iekārtas ražotājs
Maksimālais cilpas Nr.1. garums, izmantojot JE-E FE180/E30 1x2x1.0+1.0 kabeli, ir 1612,85 m
Faktiskais cilpas garums ir 870 m

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

Case 1: The loop is broken at the beginning and is powered only by one side.

1612.85 m

Case 2: The loop is not interrupted or it is broken in the middle.

3225.71 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:

870 m

Case 1: The loop is broken at the beginning and is powered only by one side.

0.53 mm²

Case 2: The loop is not interrupted or it is broken in the middle.

0.26 mm²

Calculate

How to work with TTE Loop Length Calculator

1. Press the "Start" button - in the input data fields 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 automatically 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 SensorRIS 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 to 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.

NIK "NIK" SIA LELVAĀRDES IELĀ, 107-24, RĪGA, LV-1011 TĀLR./FAKSS 67 281244, m.l. 29611472 nik-signalizacija@inbox.lv, REĢ. NR. 40103041505 nik-signalizacija@inbox.lv, REĢ. NR. 40103041505		77/2023/IR	
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DAĻAS VAD. A.OZOLS		AIZVĒITO	
IZSTRĀDĀJA A.MELNIKS		LAPAS CAUREJOŠ. NR.	

