

ERT CALL PILLAR

communication medium: Copper twisted pairs

- Low consumption
- Large range
- Negligible maintenance

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communication medium:
Copper twisted pairs

Emergency Roadside Telephone (ERT) call pillar is an emergency communication device manufactured according to the highest technology standards. Its reliability and endurance guarantee full functionality in the harshest of environments.

It is ergonomically designed and very easy to use (only one big pushbutton), highly visible and easy to spot.



It is produced in both roadside and tunnel version.

roadside version



tunnel version



Connection system:

3 twisted pairs, phantom powered
Twisted pair 1 (pupinized) : audio in / central station call detection
Twisted pair 2 (pupinized): audio out
Twisted pair 3: emergency call signaling to central station
Phantom power supply voltage is applied between pair 1 and 2

Emergency call signaling system (ERT to central station):

Current modulation with one of 16 pre-defined and pre-programmed frequencies

Central station to ERT call detection system:

detection of one of 16 pre-defined and pre-programmed frequencies on line audio input

Technology:

Quartz PLL, MCU controlled

Pillar communication unit

DC electrical specifications:

Parameter	Sym	Min	Typ	Max	Unit
Operating / Temperature range	t_o	-30		+70	°C
Supply voltage	V_{ss}	15		48	VDC
Supply current, standby ($V_{ss} = \max$)	I_{cshi}	0.6	0.8	1	mA
Supply current, standby ($V_{ss} = \min$)	I_{csl0}	1.2	1.5	2.0	mA
Supply current, active ($V_{ss} = \max$)	I_{cahi}	0.9	1.1	1.3	mA
Supply current, active ($V_{ss} = \min$)	I_{calo}	2	2.5	3	mA

AC specifications:

Parameter	Sym	Min	Typ	Max	Unit
Central station call frequency range ^{Note 1, Note 2}	f_c	704		2699	Hz
Audio input level for central station call detection	U_{call}	-44		0	dBm
Max. allowable central station call frequency deviation	f_{cdev}			3	%
Current modulation, ERT call signal	I_{modpp}		1.0		mA
Max ERT call signal frequency deviation ^{Note 3}	I_{Tmod}			0.1	%
Audio frequency response (-3dB)	f_o	300		3300	Hz
Speaker audio output power	P_{out}			0.25	W
Line input level for $P_{out} = \max$	U_{in}		-6		dBm
Line output level (typ) ^{Note 4}	U_{ret}		-3		dBm
Input and output level adjustable ^{Note 1}	R_{adj}		10		dB

Note 1 Calling frequency, input and output gain level are field programmable through programming device (I2C interface), values are internally stored in EEPROM. During programming of any ERT, the system remains fully functional.

Note 2 Calling frequencies detection range: 704 to 2699 Hz in 10% steps (16 freqs)

Note 3 Call frequency detection and generation are Quartz PLL stabilized

Note 4 Typical line output level is measured with 1mV at microphone preamplifier output

Mechanical specifications:

H x W x L: 1625 x 416 x 520 mm - roadside version
1625 x 416 x 520 mm - tunnel version

Emergency call pushbutton type:
PIEZO, hermetically sealed - roadside version
mechanical - tunnel version

Weight: 53 kg - roadside version
4 kg - tunnel version

Certified according to standards:

HRN EN 55022; HRN EN 61000-3-2; HRN EN 61000-3-3;
HRN EN 55024 (HRN EN 6100-4-2; HRN EN 61000-4-3;
HRN EN 61000-4-4; HRN EN 61000-4-5; HRN EN 61000-4-6;
HRN EN 61000-4-11)