

SAFETY COMMUNICATIONS

VICOS CSA

VoIP call point electronics for safety-critical trackside and station communication.

AT A GLANCE

Model	**VICOS CSA**
Type	**VoIP call point electronics**
Dimensions	**114 x 160 x 30 mm**
Weight	**120 g**
Power	**48 VDC, PoE 802.3af**
Connectivity	**Optical fibre (100Base-FX), Ethernet (10/100Base-T)**

Overview

VICOS (Voice over IP Communication System) is a VoIP call point electronic designed for safety-critical trackside and station applications. It supports direct connection over optical fibre or Ethernet, enabling long-distance communication and reuse of existing fibre infrastructure for integration into help points and communication systems across rail environments.

The VICOS CSA is an autonomous call point, powered locally by 48 VDC, by PoE for remote and off-grid sites. It supports flexible deployment across distributed communication architectures, with remote management, configuration and diagnostics handled through NIS tools and SNMP.

Key benefits

01

Long-distance fibre connectivity

Direct connection over single or multi-mode fibre enables long-distance deployment and reuse of existing infrastructure, supporting distances up to 20 km.

02

Flexible power options

Supports local 48 VDC, PoE 802.3af, matching the unit to site power conditions including remote or off-grid locations.

03

Remote management and diagnostics

Monitoring, configuration and software updates are handled remotely via NIS tools, with auto or remote SNMP diagnostics across the deployed estate.

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Features

- Optical fibre connectivity for extended distances
- Dual mode operation: hands-free or handset
- Reassurance messages in 12 languages
- 3 inputs and 3 outputs for surveillance and control
- Remote monitoring, configuration and software downloads via NIS tools
- Auto or remote diagnostics via SNMP
- Integration into TDM or customer-specific enclosures
- SIP signalling (RFC 3261) with optional G.722 and G.729 codecs

Specifications

GENERAL

Model	VICOS CSA
Type	VoIP call point electronics for trackside and station communication
Dimensions	114 x 160 x 30 mm (H x W x D)
Weight	120 g
MTBF	200,000 hours
Service interface	RS232

POWER

Input	48 VDC ±30%, optional wide range ±50%
Remote power	PoE 802.3af
Consumption	Sleep 96 mA, active 1.4 W copper / 1.8 W fibre

ENVIRONMENTAL

Operating temperature	-35°C to +65°C
Storage temperature	-40°C to +90°C
Humidity	0 to 90% non-condensing

INPUTS / OUTPUTS

Digital inputs	3 (optocoupler, 0.5 mA, 1 kV isolation)
Relay outputs	3 (50 VA, 1 A, bistable, changeover, 1 kV isolation)
External inputs	1 to 4 programmable call buttons

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COMMUNICATION	
Signalling	SIP (RFC 3261)
Authentication	Digest MD5
Codecs	Optional G.722 / G.729

CONNECTIVITY	
Fibre	1x LC, 100Base-FX, up to 20 km
Ethernet	1x RJ45, 10/100Base-T, PoE PD

AUDIO	
Audio output	80 to 105 dB @ 30 cm, RASTI 0.85, 2 W rating
Audio input	3.9 kΩ impedance, electret or electrodynamic, phantom power, microphone -50 to -38 dB

PART NUMBERS	
Part number	218322-20000

Applications

Railway stations	**Trackside systems**	**Public transport**	**Remote / off-grid sites**	**Help point systems**

Compliance

Rail: EN 50121-4	**EMC: EN 55022 Class A, EN 55024, EN 61000-6-2 / 6-4**	**Safety: EN 60950-1**	**Vibration: ISO 14837-1**

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