



- **Conditioned for extreme environments**
- **Vibration-, impact- and shock-proof**
- **Vandal-proof**
- **Weather resistant: IP65**
- **Remote diagnostics and control**
- **Excellent sound quality (STI = 0,9)**
- **Illuminated display**
- **Built-in high intensity beacon**
- **Available without keypad**



## When performance counts

The Norphononic VoIP telephone provides reliable performance in extreme environments.

The heavy duty aluminium telephone is dust- and waterproof to IP65. It is also impact-, vibration- and shockproof. The Norphononic telephone is also built to withstand exposure to extreme temperatures, humidity and corrosion. It has an illuminated display and a flashing light beacon for use in dark tunnels, or in noisy areas where a ringtone may not be heard. The robust handset, armoured cord and cablecover ensures excellent protection against vandalism.

The Norphononic telephone features advanced VoIP capabilities, including an intuitive remote management function, saving both installation time and maintenance costs. Telephone startup, firmware updates, and system checks, can be done remotely via any standard web browser.

Norphononic telephones are built on open standards and this ensures seamless connectivity with related technology such as PABX, gateways, switches and SCADA systems.

## Applications

Norphononic Heavy Duty VoIP Telephones are sold as standard products but can also be tailored to user needs. Our telephones therefore represent a perfect fit for many different user applications. The telephone unit has specific approval for marine- and railway application, and can also be used for roadside traffic applications (ERT), tunneling, mining and other industries, including:

- Transport (roadside, railway stations, airports)
- Power production and utilities
- Offshore wind power
- Underground mining
- Commercial (stadiums, banking, retail)
- Manufacturing and construction
- Educational & government facilities

## Technical Specifications

**Weather resistance:** Dust and waterproof to IP65

**Heavy duty performance:** Impact-, fall-, vibration- and shock-proof, able to perform in difficult environments

**Operating temperatures:** -25° C to + 65° C

**Relative humidity high:** 93% R.H at 40° C (non condensing)

**Casing material:** Heavy duty aluminium (salt & corrosion resistant)

**Illuminated LCD display:** for status notifications and instructions

**Flashing light:** ideal for noisy areas where a ringtone may not be heard, or for easy location inside dark tunnels etc

**Handset:** Robust handset with armoured stainless steel cord IP65

**Hook-switch:** Magnetic with no mechanical moving parts

**Microphone:** Noise cancelling dynamic mic, proven in noisy areas

**Keypad:** 0-9, \*, # plus two configurable function keys (14 keys total)

**Volume control:** Adjustment keys for speaker volume

**Excellent sound quality:** STI approved to 0.9 (Excellent Sound)

**Ringing volume:** 80 dB(A) in 1m distance

**Color:** Yellow with coated aluminium back/ sides - or special order

**Weight:** 3 kg approx.

**Power supply:** 24V DC input, or Power over Ethernet (PoE)

**Power consumption:** 3,6W nominell, 5W start-up

**Connection:** RJ45 ethernet socket through IP67 plug connector

**Quality of Service (QoS):** ensuring optimal delivery of voice

**Type of Service (ToS):** high throughput and reliability (RFC3168)

**ISDN gateway compliance:** connect any SIP compliant VoIP/ ISDN gateway to call to - and receive - calls from ISDN

**Virtual LAN:** Telephone support 802.1Q VLAN on all network ports, which enables sharing of same physical infrastructure for several logically isolated networks

**SIP** (Session Initiation Protocol) RFC3261

**Inbuilt redundancy:** able to make diversion calls to 2nd PBX

**Self-monitoring and fault check functions:** automatic health-check and fault detection for increased performance. Status can be read by all major SCADA and associated control systems

**Modbus UDP and Modbus TCP protocols:** enabling remote access for status monitoring and control (link status, handset on/off, condition of telephone components, etc)

**SNMP (Simple Network Management Protocol):** for advanced status monitoring and control

**Configuration:** web interface or server based configuration file. Static IP address provisioning or DHCP. Mass configuration available

**Keypad option:** available without a keypad (autodial-on-handset-lift), used to initiate a PABX Hotline or wait for reply

**Accessories:** optional mounting plate, cables and cablecover (coated aluminium) for improved vandal resistance

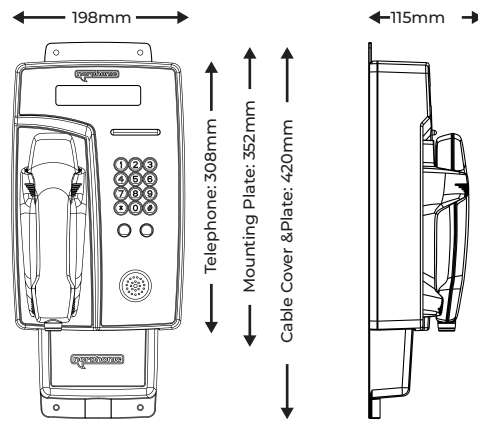
**Remote management:** Available with remote management software, to simplify installation and cut maintenance costs.

## Order Codes

Norphonic Telephone - With Keypad	1020014
Norphonic Telephone - Without Keypad	1020023
<b>Optional accessories:</b>	
Back mounting plate	1020110
Cablecover	1020060
Remote Management Software:	NOR-RMsoft

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## Dimensions



## Approvals

**Degree of protection:** IP65 according to EN 60529 (2001), Ed.2.1

**Speech Transmission Index (STI):** 0.9 delivering excellent sound.

**Shock, vibration and impact immunity** according to:

- IEC 60068-2-27 (2008) Shock proof: 10Gn
- IEC 60068-2-6 (2008), Ed.6.0 Vibration proof
- IEC 60068-2-62 (1991) + A1 (1993) Mechanical impact: 10J
- EN 50102 - IK 09 (1995) Impact proof

**Temperature & humidity immunity** according to:

- IEC 60068-2-1 (2000), Ed.6.0 Low temperature -25° C
- IEC 60068-2-2 (2000), Ed.5.0 High temperature +65° C
- IEC 60068-2-78 (2001), Ed.1.0 High humidity 93% R.H. at +30° C

**Industry-related approvals,** according to:

- EN 50121-4 (2000) Railway Applications
- EN 60945 (2020). Maritime Applications

**European EMC certification** compliant with Directive 1999/5/EC:

- EN 55022 (2010) Radiated Emissions
- EN 55024 (2010) Immunity
- EN 6000-4-2 (2009), Ed.2.0 Electrostatic discharge immunity
- EN 61000-4-3 (2008), Ed.3.1 Radiated immunity
- EN 61000-4-4 (2010), Ed.2.1 Electrical fast transient immunity
- EN 61000-4-5 (2006), Ed.2.0 Surge immunity
- EN 61000-4-6 (2009), Ed.3.0 Conducted disturbances immunity
- EN 61000-4-8 (2010), Ed.2.0 Power magnetic field immunity
- EN 61000-4-9 (2001), Ed.1.1 Pulse magnetic field immunity
- EN 61000-4-11 (2004), Ed.2.0 Power supply failure
- CISPR 16-1-4 (2007) Radiated disturbance immunity

**CE** This product has met EU + European Economic Area (EEA) consumer safety, health and environmental requirements.

**RoHS compliant** - compliant - this product does NOT contain lead, mercury, cadmium, hexavalent chromium, poly-brominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).

**USA - Federal Code Of Regulation (CFR):**

- FCC CFR 47 Part 15 (2013) Telecommunications equipment

**Quality**

All Norphonic equipment and components are produced under strict Quality Management Control and have been approved to ISO9001:2000 (General), ISO14001: 2004 Environmental.

For specific country approvals, please call **+47 55 62 75 20**

Learn more about our Innovations at

[www.norphonic.com](http://www.norphonic.com)

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