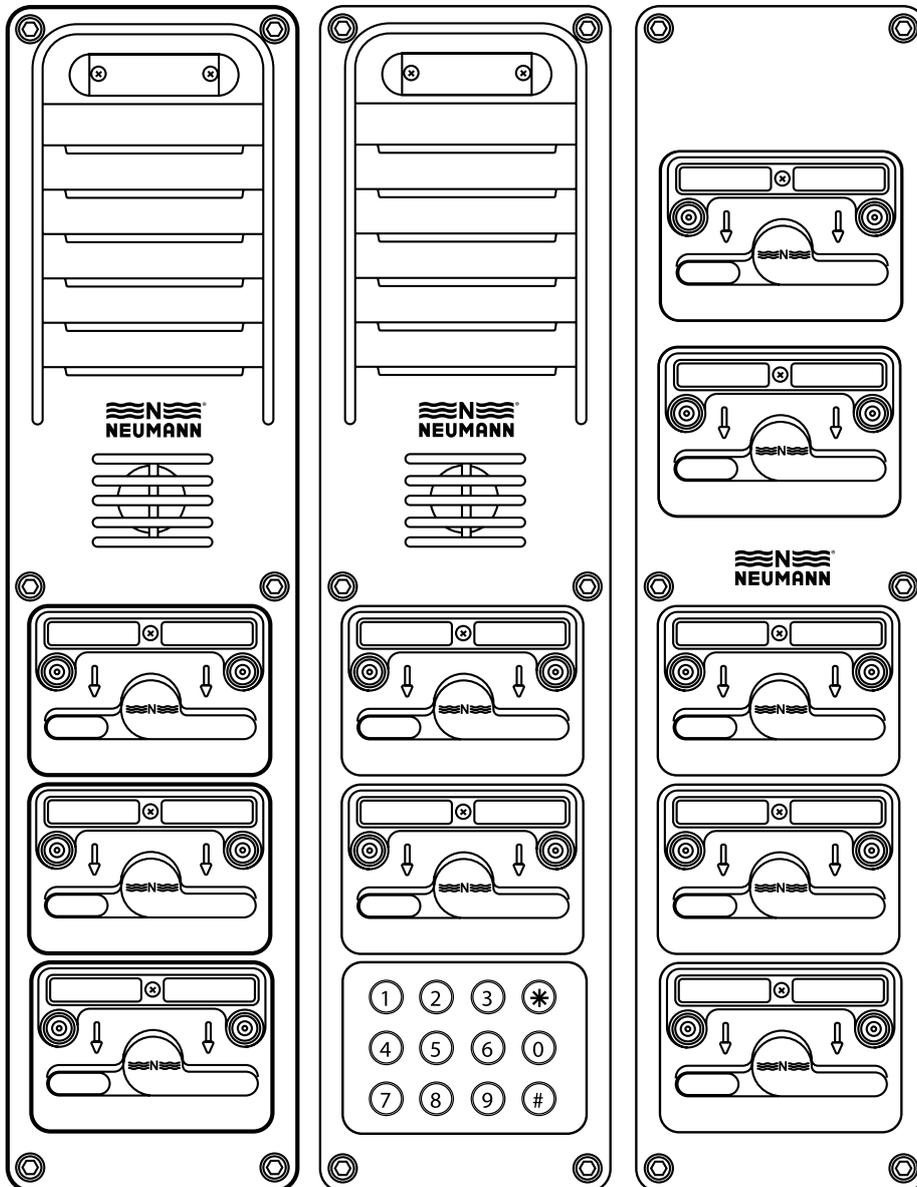


DS-22 WFD IP

Weatherproof digital call station (120mm width)

- DS 22**
- SPI-22 on board**
- Dual use**
Native SIP or WU/EL Neumann protocol
- Web interface**
- Software PLC**
- optional dial pad**
- 30W / 100Volt additional amplifier**
- 8Ω**
Broadband loudspeaker
- + more**



Proven Neumann Elektronik quality

- Full compatibility with DS-22 system / SPI-22 platform
- Remotely configurable and remotely monitorable
- Configuration via WEB interface
- Dual use - Native SIP protocol / terminal or WL/EL Neumann protocol selectable
- Half / full duplex compatibility
- Software PLC
- Direct voice connections via key-controlled line selection
- High speech intelligibility (up to 22kHz bandwidth - depending on codec selection)
- Low and high volume control (12dB level reduction)
- Integrated voice memory
- Free key assignment as WL target keys or for local functions
- Integrated Class-D 7W amplifier for horn loudspeakers for best speech intelligibility with wide frequency range
- Integrated Class-D 7W amplifier for on/off mode or monitoring loudspeaker in standard technology with 8Ω loudspeakers
- One Ethernet interface and one service interface
- Line keys can be freely assigned with destinations
- Indication of status messages, such as call and busy signalling, by means of LEDs

- **Cyclic acoustic test for microphone and loudspeaker monitoring**
- **Fault management via IoT MQTT interface**
- **Adjustable and monitored electret microphone with electronic noise compensation and dynamic compression**
- **Dust- and water-resistant glass-fibre reinforced polyester housing**
- **Horn loudspeaker**
- **Integrated electret microphone**
- **Up to three freely inscribable double toggle speech buttons with opto-couplers, each for two lines**
- **Expandable by up to four Add-on housings, each with five freely inscribable double toggle speech buttons with opto-couplers, each for two lines**
- **Switchable volume reduction, e.g. for night operation**
- **Optional expandability with headset, foot switch or microphone**
- **Integrated connection for monitoring or announcement loudspeaker**
- **Dialling function with or without keypad**
- **EL mode with own additional loudspeaker as standard; volume configurable**
- **Potential-free relay contact for connection of a flashing light for visual signalling or a signal horn for acoustic signalling**
- **PoE phantom or PoE spare pairs power supply**
- **Optional mains node power supply or weatherproof local power supply DC 48V available**

- **DR-Intercom and crossing barrier station as integrated special functions for railway applications**
- **Disconnection of the auxiliary loudspeaker after the first WL response as a standard feature**
- **With and without integrated 30W Class-D auxiliary amplifier in 100V technology**
- **Loudspeaker impedance monitoring of the 30W Class-D auxiliary amplifier**
- **Optional impedance measurement at the 100V connection of the 30W Class-D amplifier**
- **Temperature-controlled power limitation of the 30W Class-D auxiliary amplifier.**
- **Setting of 100V loudspeaker volume internally**
- **Optional range extenders available**
- **Adjustment of microphone level and loudspeaker volume internally**
- **Connections and cable glands for additional components, e.g. loudspeaker and controlled powered flashing beacon for visual signalling or controlled powered horn for audible signalling, as standard**
- **Mounting of the call station after lifting off the housing cover through four mounting holes in the basic housing**

The DS-22 WFD IP weatherproof digital call station is used in intercom systems in the DS-22 decentralised communication system. It enables direct speech connections with other call stations and loudspeaker announcements outdoors and in rooms with a rough or noisy environment, e.g. in factories in heavy industry or in areas of railway engineering.

In the DS-22 decentralised communication system, two variants of the DS-22 WFD IP weatherproof digital call station are available with a dial keypad. Alternatively, the 12 keys of the dial keypad in the DS-22 system can be used as freely configurable line keys, but without optical indication.

Due to its integrated DR-Intercom and crossing barrier station functions, the DS-22 WFD IP weatherproof digital call station is ideally suited for use in railway applications. These functions facilitate communication between railway operators and allow road users to communicate with railway operators of manually controlled gated level crossings.

The DS-22 WFD IP weatherproof digital call stations described here have one to three double-toggle buttons for up to six lines, or two double-toggle buttons (two lines and two buttons for dialling control) and dialling keypad, and are available in the housing colour pure orange RAL 2004.

With a WFD Add-on housing connected, it is possible to expand the DS-22 WFD IP weatherproof digital call station by an additional 5 double toggle buttons with 10 additional lines, per WFD Add-on housing connected. Up to 4 WFD Add-on housings can be connected to a DS-22 WFD IP weatherproof digital call station. This allows a DS-22 WFD IP weatherproof digital call station to be fully equipped with a maximum of 46 buttons.

The DS-22 WFD IP weatherproof digital call station is connected to the DS-22 network via standard network cables. The standard power supply of the DS-22 WFD IP call station is PoE, a DC 48V power supply from the network node is optionally possible.

The DS-22 WFD IP call station already has an integrated 7W D-class monitoring or paging amplifier in 8 Ω technology as standard, and in addition, depending on the delivery variant, partly already has an integrated 30W D-class additional amplifier in 100V technology. Call stations which do not have an integrated 30W Class-D additional amplifier at delivery are prepared for built-in and connection of a 30W Class-D additional amplifier with the L.-No. 221 6001 666 0, see accessories.

Here, however, the connection type must be urgently considered, see Installation. Both additional amplifiers can operate a local loudspeaker circuit (LC).

Technical data		
Art. no.	1 663 6 DS-22 WFD IP 6 Lines PoE 1 664 7 DS-22 WFD IP 4 Lines PoE 1 665 8 DS-22 WFD IP 2 Lines PoE 1 666 9 DS-22 WFD IP 6 Lines PoE 30W amplifier 1 667 0 DS-22 WFD IP 4 Lines PoE 30W amplifier 1 668 1 DS-22 WFD IP 2 Lines PoE 30W amplifier 1 669 2 DS-22 WFD IP 4 Lines PoE 1 670 4 DS-22 WFD IP 4 Lines PoE dial keypad 30W amplifier 1 620 9 DS-6/DS-22 WFD IP Add-on housing 10-fold digital	
Mechanical data		
Weight	1 6xx x call station Approx. 5.5kg	1 620 9 Add-on housing Approx. 4kg
Housing dimensions (HxWxD)	500mm x 120mm x 180mm	
Housing colour	Pure orange (RAL 2004)	
Material	Polyester, glass fibre reinforced	
Number of talk keys	4-6	10 per Add-on housing 10-20-30-40 (depending on number of enclosures)
Electrical data		
Nominal power consumption (without expansion stages)	20W	
Maximum power consumption (including all expansion stages)	90W	
Frequency range	100Hz to 22kHz (depending on the set codec)	
Connectivity		
PoE (without expansion stages)	PoE phantom call station power supply via the Ethernet interface two-pair with PoE Class 4 according to IEEE 802.3at during operation with a maximum of 2 Add-on housing	
PoE (including all expansion stages)	PoE spare pairs call station power supply via the Ethernet interface four-pair with PoE Class 8 according to IEEE 802.3bt for operation with more than 2 Add-on housing to full extension	
Mains node supply (without expansion stages)	For locations without PoE call station power supply, optional DC 48V mains node power supply via 60W trunking power supply unit	
Mains node supply (including all expansion stages)	For locations without PoE call station power supply, optional DC 48V mains node supply via 150W mounting rail power supply unit	
Local supply (without expansion stages)	For locations without PoE call station power supply, optional local power supply DC 48V by 60W external weatherproof power supply module	
Local supply (including all expansion stages)	For locations without PoE call station power supply, optional local power supply DC 48V by 150W external weatherproof power supply module	
Mains supply		
Ethernet interfaces	1 (IEEE 802.3u)	
Service interfaces	1	
Transmission protocol	Neumann DS-22 IP	
Environmental conditions		
Temperature range	-20°C to +55°C / 70°C	
Protection class according to DIN 60529, resp. IEC 60529	IP66	

Accessories	
949 1412 172 0	Carrier rail power supply AC 230V / DC 48V 60W for mains node supply
949 1412 173 1	Carrier rail power supply AC 230V / DC 48V 150W for mains node supply
229 8601 666 6	External power supply module in weatherproof housing AC 230V / DC 48V 60W for local power supply of DS-22 units
229 8701 666 7	External power supply module in weatherproof housing AC 230V / DC 48V 60W for local power supply of DS-22 units
919 1116 097 4	PoE injector according to IEEE802.3at (30W) for rail mounting in the mains node (Attention! Power supply unit 949 1412 172 0 required for power supply)
919 1116 098 5	PoE injector according to IEEE802.3bt (90W) for rail mounting in the mains node (Attention! Power supply unit 949 1412 173 1 required for power supply)
919 1116 724 1	24-port switch Class 4 with 600W and 4 additional SFP ports for fibre optic modules for 19" mounting in the network node For this purpose: 919 1116 726 3 licences per unit 919 1116 725 2 SFP module fibre optic multimode
919 1116 759 9	8-port switch with 4 ports PoE Class 8 for rail mounting in the network node
223 7001 175 8	Retrofit kit for additional devices headset, microphone and foot switch with 8-pin M12 round connector, consisting of exchangeable back panel, printed circuit board assemblies with connection cable
223 7101 175 9	Retrofit kit for additional devices monitoring loudspeaker, relay contact with additional component supply DC 24V/15W with 8-pole M12 round plug connector, consisting of exchangeable back panel, and connection cable
999 1980 088 1	T-piece for connecting 2 additional devices to an 8-pole M12 round connector
223 7201 175 0	Headset with PTT button integrated in the line and 8-pin M12 circular connector
223 7301 175 1	External handheld microphone with PTT button and 8-pin M12 circular connector
223 7401 175 2	External foot switch with 8-pin M12 round connector
221 6001 666 0	30W Class-D auxiliary amplifier
229 8001 666 0	DS-22 module for tool-free connection of installation cables
229 8101 666 1	DS-22 module for connecting installation cables with LSA+ fastening
229 8301 666 3	DS-22 module UTP extender for range extension to 500m and power supply via PoE
229 8401 666 4	DS-22 module fibre optic single-mode pair for range extension to 10km with fibre optic interface: SC
229 8501 666 5	DS-22 module fibre optic multi-mode pair for range extension to 4km with fibre optic interface: SC
1 950 5	Pedestal pure orange (RAL 2004) for call station with 120mm width
649 0109 031 3	Weatherproof sound-absorbing bonnet for outdoor use
649 0109 004 3	Sound-absorbing bonnet for indoor use
212 3408 261 9	Protective cover RAL 2004 small, V2A Dimensions: 600mm x 300mm x 250mm
979 4413 561 9	Hexagon spanner SW5 for hexagon socket screws on the housing cover
229 0501 560 0	Mounting kit with mounting holes for call stations of width 100mm, including 2 mounting brackets and 4 hexagonal screws V2A M6 x 18mm for mounting on the call station
222 1601560 5	Key insert instead of a dial keypad
212 1831 193 1	Blind insert
223 0101 681 4	Dial keypad
221 6001 666 0	30W Class-D auxiliary amplifier 100V
919 1250 011 9	Replacement battery

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Neumann Elektronik system overview



<https://neumann-elektronik.com/system-overview>



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