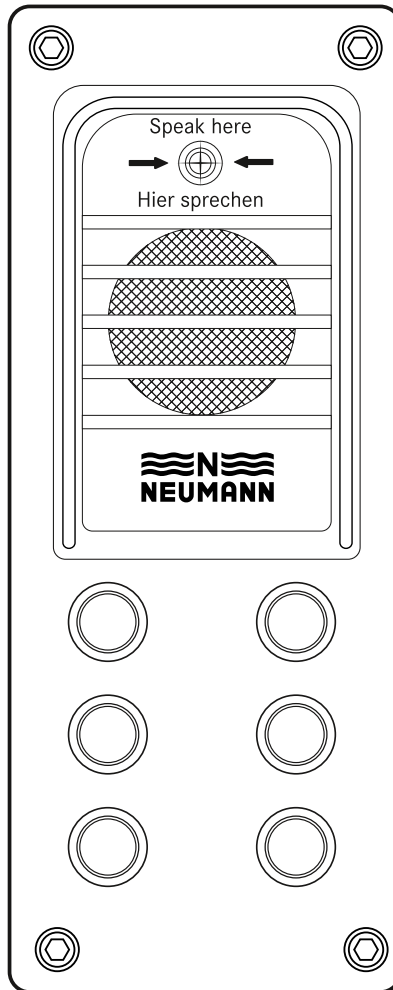


DS-22 WFDK IP

Weatherproof digital compact call station



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**
- **Dynamic built-in loudspeaker**
- **Integrated electret microphone**
- **6 illuminated push-to-talk buttons**
- **Can be extended by up to four Add-on housings, each with six or twelve illuminated push-to-talk buttons, each for one line**
- **Switchable volume reduction, e.g. for night use**
- **Optional expandability with headset, foot switch or microphone**
- **Integrated connection for monitoring or announcement loudspeaker**
- **EL operation with own additional loudspeaker as standard; volume configurable**
- **Potential-free relay contact for connecting 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**
- **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 WFDK IP weatherproof digital compact call station is used in intercom systems in the DS-22 decentralised communication system. It enables direct voice connections with other call stations and loudspeaker announcements outdoors and in rooms with harsh or noisy environments, e.g. in heavy industry operations or railway engineering areas.

The DS-22 WFDK IP weatherproof digital compact call station has 6 illuminated push-buttons with 6 lines and is available in the housing colours pure orange RAL 2004 and golden yellow RAL 1004.

With a WFDK Add-on housing connected, it is possible to expand the DS-22 WFDK IP weatherproof digital compact call station by an additional 12 illuminated push buttons with 12 additional lines, per WFDK Add-on housing connected. Up to four WFDK Add-on housings can be connected to a DS-22 WFDK IP weatherproof digital compact call station. This allows a DS-22 WFDK IP weatherproof digital compact call station to be fully equipped with a maximum of 54 buttons.

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

The DS-22 WFDK IP weatherproof digital compact call station already has an integrated 7W Class-D monitoring or paging amplifier in 8 Ω technology as standard.

Technical data		
Art. no.	1 958 3 DS-22 WFDK IP 6 Lines golden yellow (RAL 1004) 1 959 4 DS-22 WFDK IP 6 Lines pure orange (RAL 2004) 1 978 5 DS-22 WFDK IP Add-on housing 12 Lines golden yellow (RAL1004) 1 979 6 DS-22 WFDK IP Add-on housing 12 Lines pure orange (RAL 2004)	
Mechanical data		
Weight	call station Approx. 2,3kg	Add-on housing Approx. 2.5kg
Housing dimensions (HxWxD)	250mm x 100mm x 195mm	
Housing colour	Pure orange (RAL 2004) / golden yellow (RAL1004)	
Material	Polyester, glass fibre reinforced	
Number of talk keys	3-6	6 per Add-on housing 6-12-18-24-30 12 per Add-on housing 12-24-36-48-60
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 6001 816 5	DS-22 WFDK IP Add-on housing with dummy plate golden yellow (RAL1004) for flanging under a DS-22 WFDK IP call station or a DS-22 WFDR IP Add-on housing
229 6001 817 6	DS-22 WFDK IP Add-on housing with blind plate pure orange (RAL 2004) for flanging under a DS-22 WFDK IP call station or a DS-22 WFDK IP Add-on housing
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
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
1 952 7	Pedestal golden yellow RAL 1004 for call stations with 100mm width
1 953 8	Pedestal pure orange RAL 2004 for call stations with 100mm width
1 925 7	Add-on housing with closed cover golden yellow RAL 1004
1 926 8	Add-on housing with closed cover pure orange RAL 2004
1 965 1	Intermediate flange for mounting 2 units side by side on a pedestal
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
919 1250 011 9	Replacement battery

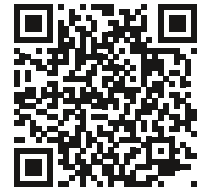
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Neumann Elektronik system overview



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