2/6 NRO 002/D
IP Outdoor Intercom Station

Features and Functions

- **Robust IP outdoor intercom station for use in harsh industrial environments**
- **Degree of protection IP66**
- **Glass-fiber reinforced polyester**
- **Ethernet interface with PoE power supply**
- **Up to 3 momentary rocker switches**
- **Designed for use with industrial gloves**
- **LCD display for displaying status information and user guidance**
- **Potential-free relay contact**

The weather-proof IP outdoor (harsh environment) intercom stations of the NRO 002/D series are part of the INTRON-D *plus* communication and public address system from INDUSTRONIC. They are especially designed for areas with dirt and dust and can be easily integrated into existing network environments.

You can use an optional 30-W booster amplifier to activate an external speaker. Based on project or specification needs, you can connect a flashing warning beacon and/or a foot switch. The intercom station is supplied via Power over Ethernet (PoE) according to IEEE 802.3bt or IEEE 802.3at.

Other Features	• Continuously adjustable speaker volume and microphone sensitivity
	• Noise-compensating microphone with dynamic compression

Accessories Available	• 30 W booster amplifier (type 30 NABA 001) at intercom station type x NRO 002/DB
	• 100 V additional loudspeaker at intercom station type x NRO 002/DB
	• Flashing warning beacon 5 J, 24 VDC
	• Foot switch
	• Acoustic hood
	• Free-standing mounting post

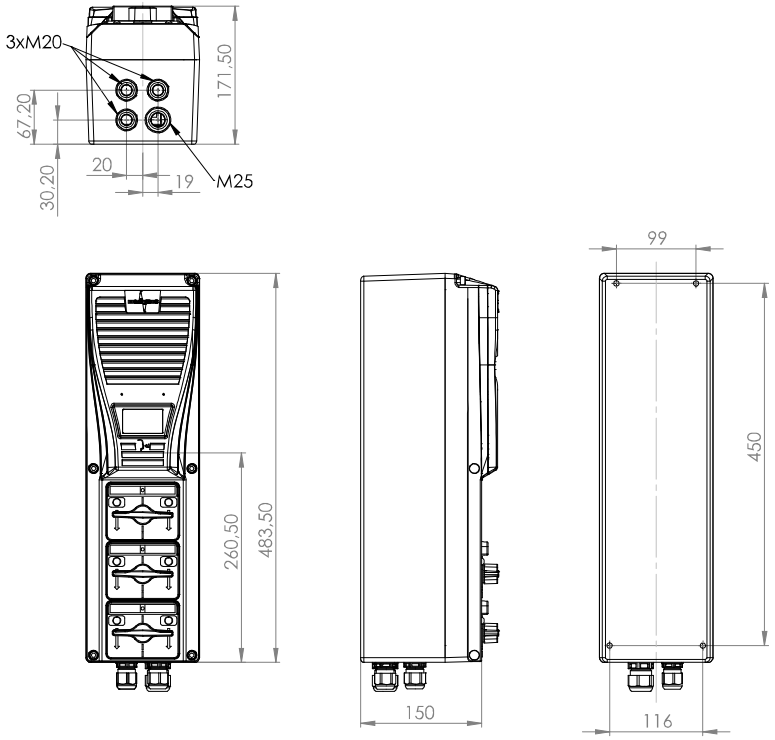

Fig. 1: Dimensional drawing 6 NRO 002/D

Mechanical Data	• Width x height x depth	141 mm x 484 mm x 171 mm (5.6" x 19" x 6.8")
	• Cable glands	3 x M20 (cable diameter: 5 mm to 13 mm (0.2" to 0.5")) 1 x M25 (cable diameter: 8 mm to 17 mm (0.3" to 0.7"))
	• Weight	Approx. 6 kg (approx. 13.2 lbs)
	• Color	RAL 2004 (Pure Orange)

Electrical Data	• Power supply power device (PD)	PoE acc. to IEEE 802.3at (50 V to 57 V), max. 10 W power consumption
	• Power supply power device (PD) with booster amplifier and/or flashing warning beacon	PoE acc. to IEEE 802.3bt (52 V to 57 V), max. 58 W power consumption
	• Max. sound pressure level (distance 30 cm (12"))	115 dB
	• Frequency range	200 Hz to 16,000 Hz (+/-3 dB)
	• Loudspeaker	15 W / 8 Ohms
	• Output power booster amplifier	30 W / 330 Ohms
	• Relay contact (change-over)	1 A, 60 VDC, 60 W (resistive load)

Network Requirements	• Power over Ethernet (PoE)
	• Power output power source equipment (PSE)
	• Min. 30 W at IEEE 802.at
	• With booster amplifier and/or flashing warning beacon: min. 68 W at IEEE 802.3bt
	• IPv4 network
	• Support of UDP, SCTP, RTP and RTCP protocols
	• Ouality of Service (QoS)
	• Ideal latency value: < 20 ms (max. 50 ms)
	• Jitter: max. 10 ms
	• 10Base-T/100Base-TX Ethernet (IEEE 802.3), 100 MBit/s recommended
	• 200 kBit/s basic bandwidth and 200 kBit/s per active audio channel

Interfaces	• 1 x RJ45 port 10/100 MBit/s (LAN + PoE)
	• 1 x 2-pin, plug-in screw terminal for 100 V booster amplifier, 0.2 mm^2 to 2.5 mm^2 nominal cross section (AWG 24 to AWG 13)
	• 1 x 3-pin, plug-in screw terminal for input/foot switch, 0.2 mm^2 to 2.5 mm^2 nominal cross section (AWG 24 to AWG 13)
	• 1 x 5-pin, plug-in screw terminal for potential-free relay contact/flashing warning beacon, 0.2 mm^2 to 2.5 mm^2 nominal cross section (AWG 24 to AWG 13)
	• 1 x Mini USB service port

Environmental Requirements and Standards	• Ambient temperature during operation	-40 °C to +70 °C (-40 °F to +158 °F)
	• Relative humidity (non-condensing)	Max. 95 %
	• Degree of protection	IP66
	• Max. ambient noise level	110 dB
	• EMC	IEC/EN 61000-6-2 IEC/EN 61000-6-4

Type Overview

No. Rocker Switches	Booster Amplifier	Type	Type Number
1	-	2 NRO 002/D	302-071-200/D
	x	2 NRO 002/DB	302-071-200/DB
3	-	6 NRO 002/D	302-071-600/D
	x	6 NRO 002/DB	302-071-600/DB

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