

Digital Explosion-proof Intercom Stations

DX/DXE 7x5 Series



Features and Functions

- For use in explosive (hazardous) areas of Ex zone 1 and 2
- Equipment group and category Ex II 2G
- Temperature range of DX series: -40 °C to +70 °C (-40 °F to +158 °F)
- Degree of protection IP66
- Configurable and programmable user controls: dial keypad and momentary rocker switch
- Designed for use with industrial gloves
- Visual indication of call or busy status via LEDs
- Noise-compensating microphone with dynamic compression
- Adjustable speaker volume and microphone sensitivity
- Potential-free relay contact

The digital explosion-proof (hazardous area) intercom station of the DX/DXE 7x5 series from INDUSTRONIC is used in extreme environments as typically found in the Oil & Gas and the Chemical & Pharmaceutical sector as well as in the Steel industry. The rugged design allows for clear and reliable communication at any time, whether you operate the intercom station in extreme cold or heat, dirt or dust or explosive (hazardous) environments as classified by Ex zone 1 and 2.

The robust two-part housing is made of flame-retardant, glass-fiber reinforced polyester. The electronics inside is installed in a flameproof enclosure and the terminal compartment provides increased safety. The user controls are controlled via intrinsically safe electronics.



Horn Speaker

Clear sound quality in low and high ambient noise environments

Equipment Identification

Free space to apply a device tag

Protected Label

To display the call number or location of intercom station in the plant

Microphone

Noise-compensating microphone with dynamic compression

Equipment Group and Category

II 2G

Ex Marking DX Series

Ex db eb ib IIC T4 Gb

Ex Marking DXE Series

Ex db eb ib [ib] IIC T4 Gb

User Controls

The different modular user controls allow for customization according to customer and project-specific needs at any time. The housing can either be configured with one dial keypad and two momentary rocker switches or with up to three momentary rocker switches.

Industrial Dial Keypad

To enter call numbers; use the * key to speak and the # key to delete the call number entered

Industrial Momentary Rocker Switch

Freely programmable, integrated red LEDs for call and busy signaling, protected labels, designed for use with industrial gloves

Cover Plate

To protect module openings



Equipment Group	II 2G	Ex db eb ib [ib] IIC T4 Gb	Equipment Protection Level
Equipment Category			Temperature Class
Marking			Explosion Group

II	All areas except mining	ib	Intrinsically safe category b
2G	Gas category zone 1	[ib]	Intrinsically safe output
Ex	Compliant with DIN EN 60079	IIC	Most ignitable gas group
db	Flameproof enclosure	T4	Surface temperature <135 °C (<275 °F)
eb	Increased safety	Gb	Gas zone 1

Flexible and Easily Expandable

The intercom stations of the DX/DXE series can be expanded with various external explosion-proof (hazardous) components. An optional 25-W booster amplifier installed in the flameproof enclosure enables the use of an external speaker. Based on project or specification needs, you can connect a flashing warning beacon. Additionally, you can connect a headset or handset - if required also together with a foot switch.



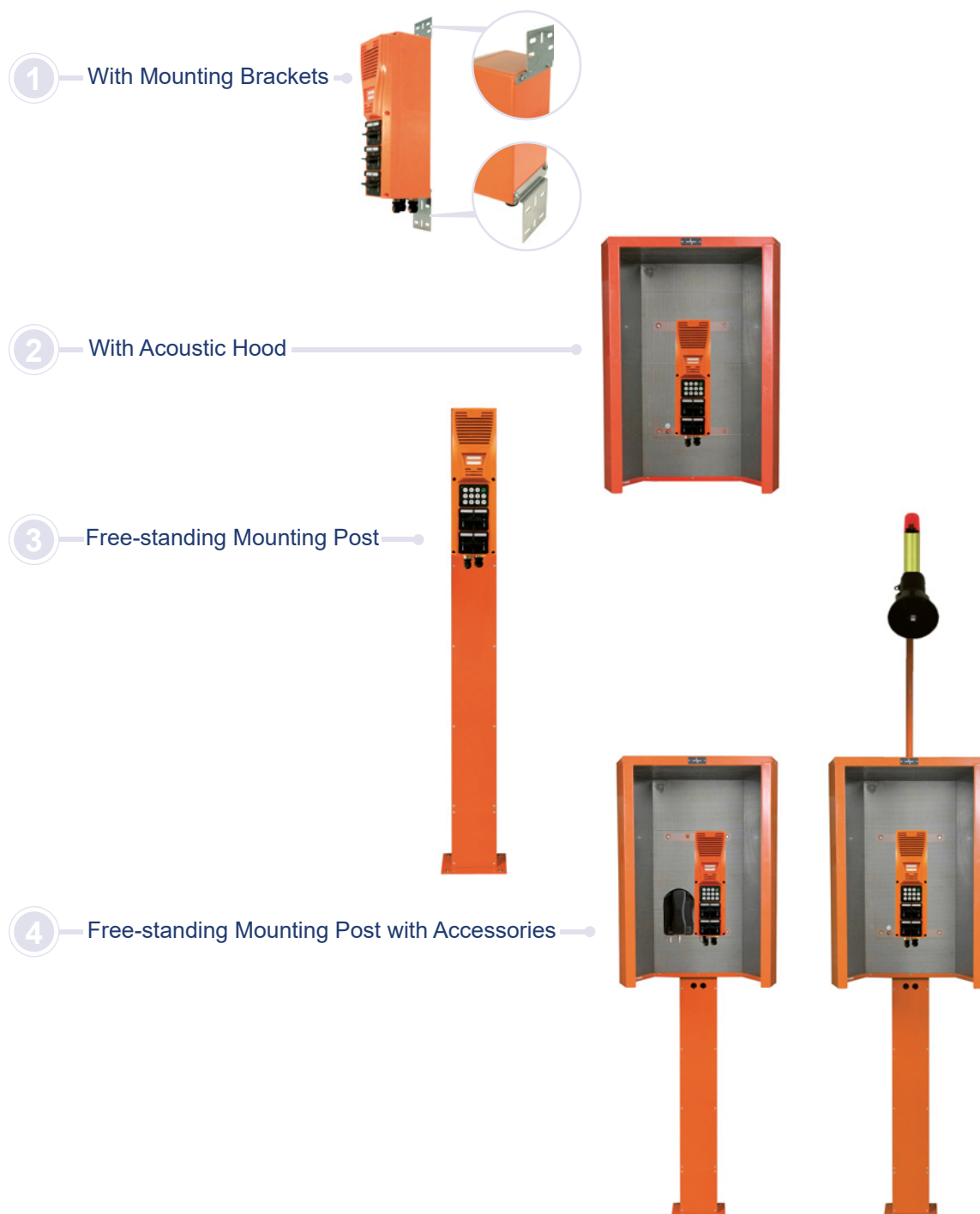
* For DXE series only

Multi-faceted Mounting Options and Robust Mechanical Accessories

To make best use of your intercom station, you can mount it to steel I-beams or to internal and external walls. Using the mounting brackets available in the 1 AMW 05 mounting kit, you can easily mount and ideally align it.

In areas, where you cannot directly mount the intercom station to a wall (e.g. for gates or entrance areas), a free-standing mounting post that is bolted to the ground can be supplied. If required, you can also mount additional acoustic or visual signaling devices to it.

In high ambient noise areas, acoustic hoods provide adequate noise insulation to ensure clear communication at any time.



Illustrations similar

Series Overview

DX Series



6 DX 705

DX 705	Up to three momentary rocker switches, equipment group and category Ex II 2G, degree of protection IP66, marking Ex db eb ib IIC T4 Gb, -40 °C to +70 °C (-40 °F to +158 °F), 42 VDC to 72 VDC
W x H x D	141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")
Weight	Approx. 7 kg (approx. 15.43 lbs)
Accessories	See "Accessories for DX/DXE Series" on page 7



4 DX 715

DX 715	One dial keypad and up to two momentary rocker switches, equipment group and category Ex II 2G, degree of protection IP66, marking Ex db eb ib IIC T4 Gb, -40 °C to +70 °C (-40 °F to +158 °F), 42 VDC to 72 VDC
W x H x D	141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")
Weight	Approx. 7 kg (approx. 15.43 lbs)
Accessories	See "Accessories for DX/DXE Series" on page 7

DXE Series with Connector for External Accessories



6 DXE 705

DXE 705 Up to three momentary rocker switches, connector for one handset, headset, or foot switch, equipment group and category Ex II 2G, degree of protection IP66, marking Ex db eb ib [ib] IIC T4 Gb, -20 °C to +55 °C (-4 °F to +131 °F), 42 VDC to 72 VDC

W x H x D 141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")

Weight Approx. 7 kg (approx. 15.43 lbs)

Accessories See "Accessories for DX/DXE Series" on page 7 and "Accessories for DXE Series Only" on page 10



4 DXE 715

DXE 715 One dial keypad and up to two momentary rocker switches, connector for one handset, headset, or foot switch, equipment group and category Ex II 2G, marking Ex db eb ib [ib] IIC T4 Gb, degree of protection IP66, -20 °C to +55 °C (-4 °F to +131 °F), 42 VDC to 72 VDC

W x H x D 141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")

Weight Approx. 7 kg (approx. 15.43 lbs)

Accessories See "Accessories for DX/DXE Series" on page 7 and "Accessories for DXE Series Only" on page 10

Technical Data

Data	• Width x height x depth	141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")
	• Cable glands	2 x M20 (cable diameter: 4 mm to 13 mm (0.16" to 0.51")) 1 x M25 (cable diameter: 7 mm to 17 mm (0.28" to 0.67"))
	• Weight	Approx. 7 kg (approx. 15.43 lbs)
	• Color	RAL 2004 (Pure Orange)

Electrical Data	• Operating voltage range	42 VDC to 72 VDC
	• Quiescent current consumption	20 mA
	• Max. current consumption	80 mA
	• Sound pressure level (distance of 30 cm (0.98 ft))	106 dB
	• Speaker	15 W / 8 Ohms
	• Relay contact	1 A, 90 VDC, 30 W (resistive load) 0.3 A, 90 VDC (any type of load)

Environmental Requirements and Standards	• Relative humidity (non-condensing)	Max. 95 %
	• Degree of protection	IP66
	• EMC	IEC/EN 61000-6-2 IEC/EN 61000-6-4
	• Certificates	PTB 19 ATEX 2005 X IECEX PTB 19.0026 X
	• Equipment group and category	Ex II 2G

Accessories for DX/DXE Series

Electrical Accessories



Type	2 HDXA 04
Description	Momentary rocker switch with signaling and cover
Type number	201-341-900



Type	25 DVX 03
Description	100-V internal booster amplifier for installation into explosion-proof (hazardous) intercom stations, 25-W output power

Type number	304-040-400
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I Operating temperature range of the DX series changes to -40 °C to +55 °C (-40 °F to +131 °F) when purchased with the above.

I Operating temperature range of the DXE series remains unchanged at -20 °C to +55 °C (-4 °F to +131 °F).



Type	CWB-ATEX 48 V or 60 V
Description	Explosion-proof (hazardous) flashing warning beacon for use in explosive (hazardous) areas of Ex zone 1 and 2, degree of protection IP66

Type number	48 V: 070-000-055 60 V: 070-000-041 Various lens colors and other types of flashing warning beacons are available upon request.
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I Operating temperature range of the DX/DXE series changes depending on the flashing warning beacon used

Mechanical Accessories








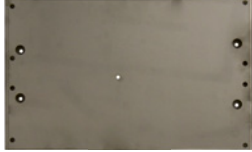

Type	1 SHX 05
Description	Weather-proof protective hood for use in explosive (hazardous) areas of Ex zone 1 and 2

Type number	070-100-300
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Type	2 SSH 15/OG
Description	Acoustic hood made of powder-coated sheet steel for use in explosive (hazardous) areas of Ex zone 1, 2, and 22, flame-retardant insulation, ambient noise reduction of up to 30 dB

Type number	070-200-100/OG Other types of acoustic hoods are available upon request.
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	<p>Type 18 DSO 05/OG</p> <p>Description Free-standing post for mounting of digital explosion-proof (hazardous area) intercom stations, cable entry at the bottom</p> <p>Type number 212-342-100</p>
	<p>Description Mounting pole for installation of additional speaker and flashing warning beacon, Pure Orange (RAL 2004)</p> <p>Type number 212-341-300/OG</p>
	<p>Type 1 AMW 05</p> <p>Description Mounting brackets for wall mounting of explosion-proof (hazardous area) intercom stations or used as mounting adaptor to replace the intercom stations of type 3 AV 17, 3 A 32 or third-party devices, incl. fastening material</p> <p>Type number 212-237-000</p>
	<p>Type 1 AMW 05/AXA</p> <p>Description Mounting adaptor to replace the intercom stations of type AXA/..A 501, ..AD 501, incl. fastening material</p> <p>Type number 212-237-100</p>
	<p>Type 1 AMW 05/0X3</p> <p>Description Mounting adaptor to replace the intercom stations of type DA / DX including the 0x4 series, incl. fastening material</p> <p>Type number 212-237-200</p>
	<p>Type Mounting plate DXE + DXH</p> <p>Description Mounting plate for wall mounting or for mounting one explosion-proof (hazardous area) intercom station and one handset of type 1 DXH 01 inside an acoustic hood of type 2 SSH 15, incl. fastening material</p> <p>Type number 212-237-300</p>
	<p>Type Mounting plate Ex-JB 20 Terminals at DX 7x5</p> <p>Description Mounting plate for wall mounting of a ex-proof junction box with 20 terminals (Type number 210-100-010), incl. fastening material</p> <p>Type number 212-238-100</p>

Accessories for DXE Series Only



Type	1 FSX 21/Conn
Description	One-pedal explosion-proof (hazardous area) foot switch for Ex zone 1, 2, 21, and 22, degree of protection IP65
Type number	013-010-004



Type	1 DXH 01
Description	Explosion-proof (hazardous area) handset with cradle for Ex zone 1 and 2, degree of protection IP66
Type number	301-432-500



Type	1 DHUX 01
Description	Explosion-proof (hazardous area) headset with flexible microphone for Ex zone 1 and 2, one cord-mounted Push-to-Talk button
Type number	301-434-400

I Operating temperature range of the DXE series changes to -20 °C to +40 °C (-4 °F to +131 °F) when operated with the above






Type	Ex distribution box
Description	For intrinsically safe circuits for connection of a headset/handset together with a foot switch, 3 sockets, 8 poles, W x H x D: 122 mm x 120 mm x 90 mm (4.80" x 4.72" x 3.54")
Type number	210-101-015



Type	Ex-proof junction box 20 terminals
Description	To secure unused conductors, with one cable gland M20 (4 mm to 13 mm (0.16" to 0.51")) and M25 (10 mm to 17 mm (0.39" to 0.67")) each, 2 blind plugs M20, W x H x D: 160 mm x 160 mm x 90 mm (6.30" x 6.30" x 3.54"), marking: II 2G Ex e IIC T6 Gb
Type number	210-100-010

Series Overview



DX Series

Type	Type Number				Booster Amplifier*
2 DX 705	301-650-200		1	2	
2 DX 705/25	301-650-200/25		1	2	x
2 DX 715	301-650-201	x	1	1	
2 DX 715/25	301-650-201/25	x	1	1	x
4 DX 705	301-650-400		2	1	
4 DX 705/25	301-650-400/25		2	1	x
4 DX 715	301-650-401	x	2		
4 DX 715/25	301-650-401/25	x	2		x
6 DX 705	301-650-600		3		
6 DX 705/25	301-650-600/25		3		x

* Operating temperature range of the DX intercom stations changes to -40 °C to +55 °C (-40 °F to +131 °F)

Other types of intercom stations are available upon request.

DXE Series

Type	Type Number			Booster Amplifier
4 DXE 715	301-651-401	x	2	
4 DXE 715/25	301-651-401/25	x	2	x
6 DXE 705	301-651-600		3	
6 DXE 705/25	301-651-600/25		3	x

Other types of intercom stations are available upon request.

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