

# 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

Ex II 2G

### ATEX Marking DX Series

Ex db eb ib IIC T4 Gb

### ATEX 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	<b>Ex II 2G Ex db eb ib [ib] IIC T4 Gb</b>	Equipment Protection Level
Equipment Category		Temperature Class
Marking		Explosion Group

II	All areas except mining
2G	Gas category zone 1
Ex	Compliant with DIN EN 60079
db	Flameproof enclosure
eb	Increased safety

ib	Intrinsically safe category b
[ib]	Intrinsically safe output
IIC	Most ignitable gas group
T4	Surface temperature <135 °C (<275 °F)
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.



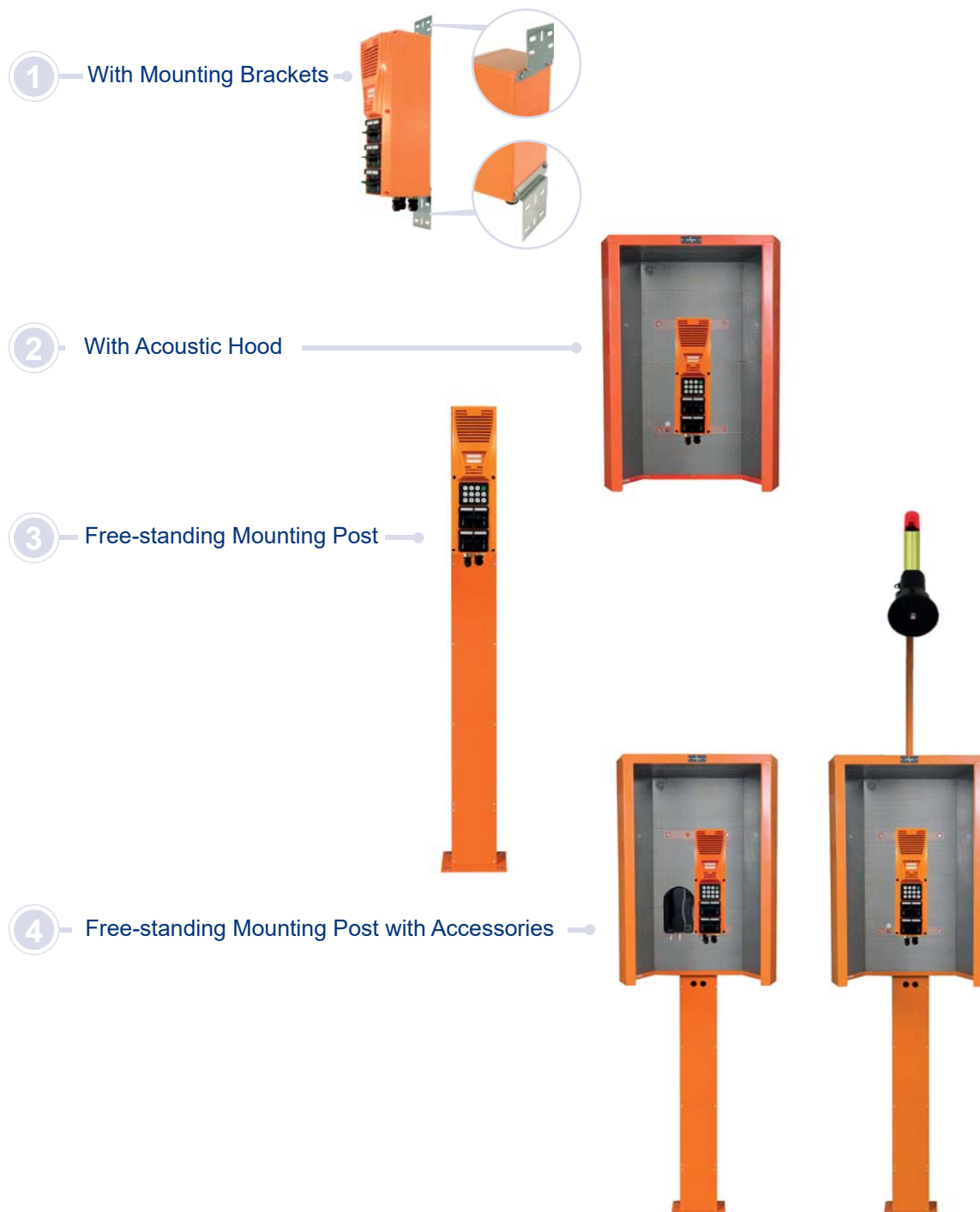
\* For DXE series only

## 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

<b>DX 705</b>	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
<b>W x H x D</b>	141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")
<b>Weight</b>	Approx. 7 kg (approx. 15.43 lbs)
<b>Accessories</b>	See "Accessories for DX/DXE Series" on page 7



4 DX 715

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

## DXE Series with Connector for External Accessories



6 DXE 705

<b>DXE 705</b>	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
<b>W x H x D</b>	141 mm x 484 mm x 171 mm (5.55" x 19.06" x 6.73")
<b>Weight</b>	Approx. 7 kg (approx. 15.43 lbs)
<b>Accessories</b>	See "Accessories for DX/DXE Series" on page 7 and "Accessories for DXE Series Only" on page 9



4 DXE 715

<b>DXE 715</b>	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
<b>W x H x D</b>	141 mm x 484 mm x 171 mm (5.55" x 19".06 x 6.73")
<b>Weight</b>	Approx. 7 kg (approx. 15.43 lbs)
<b>Accessories</b>	See "Accessories for DX/DXE Series" on page 7 and "Accessories for DXE Series Only" on page 9

## Technical Data

<b>Data</b>	• 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)
<b>Electrical Data</b>	• 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 (1 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)
	<b>Environmental Requirements and Standards</b>	• Relative humidity (non-condensing)
• 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



<b>Type</b>	25 DVX 03
<b>Description</b>	100-V internal booster amplifier for installation into explosion-proof (hazardous) intercom stations, 25-W output power
<b>Type number</b>	304-040-400

**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).





<b>Type</b>	CWB-ATEX 48 V or 60 V
<b>Description</b>	Explosion-proof (hazardous) warning beacon for use in Ex zone 1 and 2, degree of protection IP66
<b>Type number</b>	48 V: 070-000-055 60 V: 070-000-041 Various lens colors and other types of warning beacons are available upon request.

 Operating temperature range of the DX/DXE series changes depending on the warning beacon used

## Mechanical Accessories



<b>Type</b>	1 SHX 05
<b>Description</b>	Weather-proof protective hood for use in explosive (hazardous) areas of Ex zone 1 and 2
<b>Type number</b>	070-100-300







<b>Type</b>	2 SSH 15/OG
<b>Description</b>	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
<b>Type number</b>	070-200-100/OG Other types of acoustic hoods are available upon request.






<b>Type</b>	18 DSO 05/OG
<b>Description</b>	Free-standing post for mounting of digital explosion-proof (hazardous area) intercom stations, cable entry at the bottom
<b>Type number</b>	212-342-100



	<b>Type</b> 1 AMW 05
	<b>Description</b> 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
	<b>Type number</b> 212-237-000
	<b>Type</b> 1 AMW 05/AXA
	<b>Description</b> Mounting adaptor to replace the intercom stations of type AXA/..A 501, ..AD 501, incl. fastening material
	<b>Type number</b> 212-237-100
	<b>Type</b> 1 AMW 05/0X3
	<b>Description</b> Mounting adaptor to replace the intercom stations of type DA / DX including the 0x4 series, incl. fastening material
	<b>Type number</b> 212-237-200
	<b>Type</b> Mounting plate DXE + DXH
	<b>Description</b> 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
	<b>Type number</b> 212-237-300

## Accessories for DXE Series Only




	<b>Type</b> 1 FSX 21/Conn
	<b>Description</b> One-pedal explosion-proof (hazardous area) foot switch for Ex zone 1, 2, 21, and 22, degree of protection IP65
	<b>Type number</b> 013-010-004
	<b>Type</b> 1 DXH 01
	<b>Description</b> Explosion-proof (hazardous area) handset with cradle for Ex zone 1 and 2, degree of protection IP66
	<b>Type number</b> 301-432-500
	<b>Type</b> 1 DHUX 01
	<b>Description</b> Explosion-proof (hazardous area) headset with flexible microphone for Ex zone 1 and 2, one cord-mounted Push-to-Talk button
	<b>Type number</b> 301-434-400
	<b>I</b> Operating temperature range of the DXE series changes to -20 °C to +40 °C (-4 °F to +131 °F) when operated with the above



<b>Type</b>	Ex distribution box
<b>Description</b>	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")
<b>Type number</b>	210-101-015



## 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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