



DX/DXE 7x5 Series

DIGITAL EX-PROOF INTERCOM STATION

FOR USE IN EXPLOSIVE (HAZARDOUS) AREAS OF ZONE 1 AND 2

They are 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 reliable communication at any time, whether you operate the intercom station in explosive (hazardous) environments as classified by Zone 1 and 2 or under extreme conditions like cold, heat, dirt or dust.

Its connectivity and health status is constantly monitored, logged and flexibly notified system-internally and to third-party systems.

- Housing made of flame-retardant glass-fiber reinforced polyester
- Operating temperature range DX series: -40 °C up to +70 °C (-40 °F up to +158 °F)
- Degree of protection IP66
- User controls: dial keypad and momentary rocker switch, also for use with industrial gloves
- Visual indication of call or busy status via LEDs on each individual button
- INTRON-X system-enabled adaptive echo cancellation for full-duplex hands-free communication
- Noise-compensating microphone with dynamic compression
- Permanent monitoring of internal electronics, microphone and connections status
- Potential-free relay contact for flashing warning beacons or control functions
- 25-W booster amplifier for connection of external speakers



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

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, protective 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
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



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Subject to technical modifications - Doc: no. PDT-301-650-000 • V05 • EN • 23.05.2025

FLEXIBLY 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.



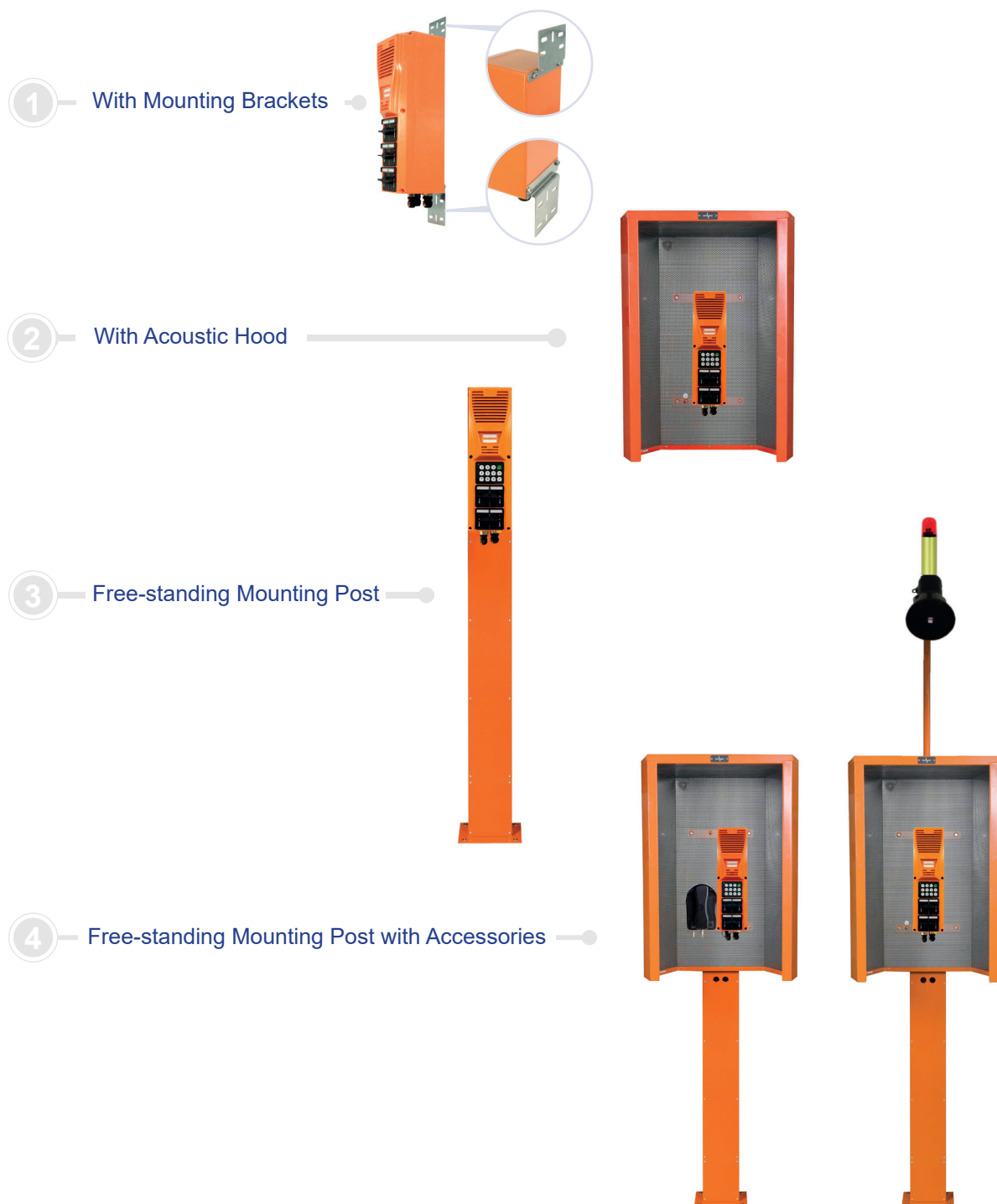
* For DXE series only

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 V DC to 72 V DC

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", 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 V DC to 72 V DC

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", 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 V DC to 72 V DC

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", page 7 and "Accessories for DXE Series Only", page 9



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, degree of protection IP66, marking Ex db eb ib [ib] IIC T4 Gb, -20 °C to +55 °C (-4 °F to +131 °F), 42 V DC to 72 V DC
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", page 7, and "Accessories for DXE Series Only", page 9

TECHNICAL DATA

MECHANICAL 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	Pure Orange (RAL 2004)

ELECTRICAL DATA

Operating voltage range	42 V DC to 72 V DC
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 V DC, 30 W (resistive load) 0.3 A, 90 V DC (any type of load)
Additional amplifier (optional)	Output 100 V / 25 W Voltage range 48 V DC to 72 V DC, max. 700 mA

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
Equipment group and category	Ex II 2G

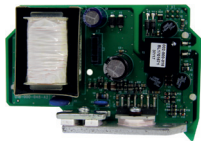
APPROVALS

ATEX	PTB 19 ATEX 2005 X
IEC	IECEx PTB 19.0026 X
China	CCC 2021312310000301 (DX 7x5) CCC 2021312310000302 (DXE 7x5)
North America	LabTest Certification 15027-1S
India	PESO A/P/HQ/MH/104/7928 (P580410)



ACCESSORIES FOR DX/DXE SERIES

ELECTRICAL ACCESSORIES



Type	25 DVX 03
Description	100-V internal booster amplifier for the use in explosion-proof (hazardous) intercom stations of the type DX(E) 7x5/25, 25-W output power
Type Number	304-040-400

-  Operating temperature range of the DX series changes to -40 °C to +55 °C (-40 °F to +131 °F)
-  Operating temperature range of the DXE series remains unchanged at -20 °C to +55 °C (-4 °F to +131 °F)



Type	DSP 15 25W series
Description	For intercom stations with internal booster amplifier



Type	CWB-ATEX 48 V or 60 V, 6161 IECEx 48 V or 60 V
Description	Explosion-proof (hazardous) flashing warning beacon for use in Ex zone 1 and 2, degree of protection IP66
Type number	CWB-ATEX: 48 V: 070-000-111, 60 V: 070-000-112 6161 IECEx: 48 V: 070-000-099, 60 V: 070-000-030 Various lens colors and other types of flashing warning beacons are available upon request.

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



Type	BExBG05D-P 48 VDC, BExBG21D-P 48 VDC
Description	Explosion-proof flashing warning beacon 48 V DC, marine grade aluminium housing, flash energy: 5 Joule / 21 Joule, flash rate: 1 Hz, degree of protection IP66 and IP67
Type number	BExBG05D-P 48 VDC: 070-000-085 BExBG21D-P 48 VDC: 070-000-086 Various lens colors and other types of flashing warning beacons are available upon request.

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



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

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



Type	2 SSH 16/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	070-200-200/OG Other types of acoustic hoods are available upon request.



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



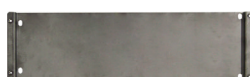
Description	Mounting pole for installation of additional speaker and flashing warning beacon, Pure Orange (RAL 2004)
Type number	212-341-300/OG



Type	1 AMW 05
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
Type number	212-237-000



Type	1 AMW 05/AXA
Description	Mounting adaptor to replace the intercom stations of type AXA/..A 501, ..AD 501, incl. fastening material
Type number	212-237-100



Type	1 AMW 05/0X3
Description	Mounting adaptor to replace the intercom stations of type DA / DX including the 0x4 series, incl. fastening material
Type number	212-237-200



Type	Mounting plate DXE + DXH
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 16, incl. fastening material
Type number	212-237-300



Type	Mounting plate Ex-JB 20 Terminals at DX 7x5
Description	Mounting plate for wall mounting of an explosion-proof junction box with 20 terminals (type number 210-100-010), incl. fastening material
Type number	212-238-100

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	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: 120 mm x 120 mm x 90 mm (4.80" x 4.80" x 3.54")
Type number	210-101-015



Type	Explosion-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 CHART

DX SERIES

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

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

Other types of intercom stations are available upon request.

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