

07-51 Junction boxes

Ex e GRP junction boxes for zone 1/21



- Robust
- Functional
- Engineered to order

Polyester distribution boxes have been of great advantage in many industrial plants. They offer safe protection even when they are exposed to extreme environmental conditions, aggressive chemical media or high mechanical stress. The narrow sides within the enclosure hold threaded bushings for the fixing of terminal rails or mounting panels. The enclosure is mounted by means of insulated screws outside of the lid sealing gasket. These black high-quality explosion-proofed enclosures are used in hazardous areas by inflammable dust (Zone 21 and 22). The fundamental prerequisites of the “protection through enclosure“ protection class are fulfilled with the heating up calculation as per the accompanying sheet and a separate IP protection test. EC model test certification was issued in 2000 by the nominated body IBExU.

Option

External feet of high-quality stainless steel

Components

Rail-mounted terminals, terminal markers, cable glands, mounting panels, rails, type labels, labels

Installation instructions

The installer must make sure that the enclosure used is suitable for the corresponding field of application. This means that the marking must correspond to the classification of the Ex area. Also must the temperature class of the distribution box meet the respective requirements.

Explosion Protection

IP distribution box	black 07-5178-.../...
Ex e distribution box	black 07-5103-.../...
Ex i distribution box	black 07-5105-.../...
Marking ATEX / UKEX	Ⓜ II 2G Ex eb IIA, IIB, IIC T6, T5 Gb Ⓜ II 2G Ex ia/ib IIA, IIB, IIC T6, T5 Gb Ⓜ II 2D Ex tb IIIC T80 °C, T95 °C Db IP 66 Ⓜ II 2D Ex ia/ib IIIC T80 °C, T95 °C Db
Certification	PTB 08 ATEX 1064X Zone 1/21 and 2/22
Marking IECEx	Ex eb IIA, IIB, IIC T6, T5 Gb Ex ia/ib IIA, IIB, IIC T6, T5 Gb Ex tb IIIC T80 °C, T95 °C Db IP 66 Ex ia/ib IIIC T80 °C, T95 °C Db
Certification	Zone 1/21 and 2/ 22 PTB 09.0009X
IP distribution box	grey 07-5177-.../...
Ex e distribution box	grey 07-5106-.../...
Ex i distribution box	grey 07-5107-.../...
Marking ATEX / UKEX	Ⓜ II 2G Ex eb IIA, IIB, IIC T6, T5 Gb Ⓜ II 2G Ex ia/ib IIA, IIB, IIC T6, T5 Gb
Certification	Zone 1/21 PTB 08 ATEX 1064X
Marking IECEx	Ex eb IIA, IIB, IIC T6, T5 Gb Ex ia/ib IIA, IIB, IIC T6, T5 Gb
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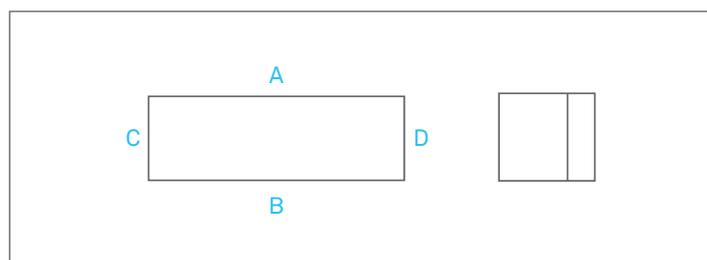
Other approvals and certificates, see www.bartec.com

Technical data

Ambient temperature ranges	-20 °C (-55 °C) to +40 °C at T6 -20 °C (-55 °C) to +55 °C at T5 (special temperature ranges on request)
Material	glass-fibre reinforced polyester, EN 60079-0, halogen-free black surface resistance < 10 ⁹ Ω grey surface resistance > 10 ¹² Ω
Colour	black: RAL 9005 grey: RAL 7000/RAL 7001
Lid screws	stainless steel, captive cross-head (+ -) (other models on request)
Standard seals	Silicone (dark grey color) -55 °C to +100 °C optional: EPDM (black color) -20 °C to +95 °C
Mechanical resistance	impact energy 7 Nm (EN/IEC 60079-0)
Protection class	IP 66 EN/IEC 60529
Rated voltage	max. 1 100 V
Rated maximum current	please refer to Operating Instructions Document, page 4–10



Orientation



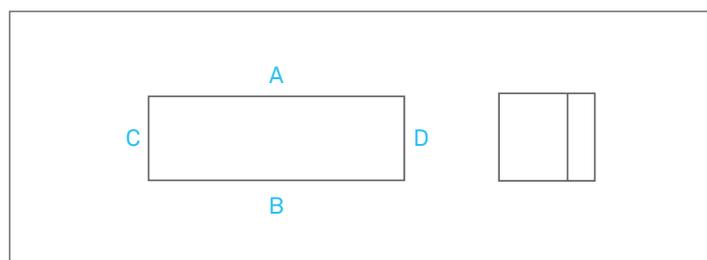
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IP distribution box	black	07-5178-.../...
IP distribution box	grey	07-5177-.../...
Ex e distribution box	black	07-5103-.../...
Ex e distribution box	grey	07-5106-.../...
Ex i distribution box	black	07-5105-.../...
Ex i distribution box	grey	07-5107-.../...

Rail-mounted terminal components/maximum number

Polyester distribution boxes Article no.	Mini-terminal 07-9702-....		AKZ4 03-7112-0006		WDU 2.5 03-7111-0012		WDU 2.5 bl 03-7111-0012		WDU 4 03-7112-0015	
	Mounting rail	Terminals per rail	Mounting rail	Terminals per rail	Mounting rail	Terminals per rail	Mounting rail	Terminals per rail	Mounting rail	Terminals per rail
07-■■■■■-0800/7555	1	6	1	8	-	-	-	-	-	-
07-■■■■■-1100/7555	1	8	1	13	-	-	-	-	-	-
07-■■■■■-1600/7555	1	12	1	21	-	-	-	-	-	-
07-■■■■■-1900/7555	1	16	1	26	-	-	-	-	-	-
07-■■■■■-2300/7550	1	19	1	32	-	-	-	-	-	-
07-■■■■■-1221/2090	2	8	1	14	1	16	1	16	1	14
07-■■■■■-1221/2012	2	8	1	14	1	16	1	16	1	14
07-■■■■■-2201/2090	2	17	1	30	1	35	1	35	1	30
07-■■■■■-1601/6012	-	-	2	18	1	24	1	23	1	20
07-■■■■■-1601/6090	-	-	2	18	1	24	1	23	1	20
07-■■■■■-2601/6090	-	-	2	34	1	43	1	42	1	34
07-■■■■■-3601/6090	-	-	-	-	1	60	1	62	1	50
07-■■■■■-2552/5012	-	-	-	-	2	43	3	42	2	35
07-■■■■■-2552/5016	-	-	-	-	2	43	3	42	2	35
07-■■■■■-4002/5012	-	-	-	-	2	67	3	70	2	56
07-■■■■■-4002/5016	-	-	-	-	2	67	3	70	2	56
07-■■■■■-4004/0512	-	-	-	-	3	67	5	70	3	56
07-■■■■■-4004/0516	-	-	-	-	3	67	5	70	3	56
07-■■■■■-6002/5012	-	-	-	-	2	108	2	110	1	91

Orientation



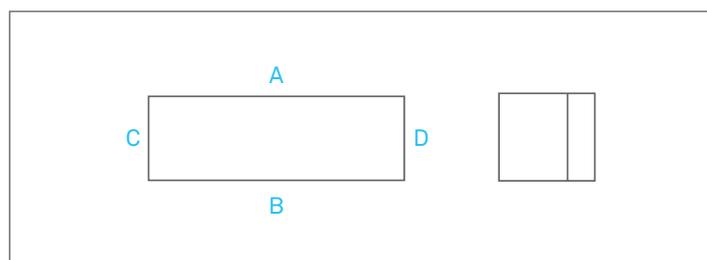
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Ex e distribution box	black	07-5103-..../....
Ex e distribution box	grey	07-5106-..../....
Ex i distribution box	black	07-5105-..../....
Ex i distribution box	grey	07-5107-..../....

Cable glands/maximum number

Article no.	Side	M12 x 1.5	M16 x 1.5	M20 x 1.5	M20 x 1.5 extended	M25 x 1.5	M25 x 1.5 extended	M32 x 1.5	M40 x 1.5	M50 x 1.5	M63 x 1.5
07-■■■■■-0800/7555	A/B	4	2	2	2	1	1	-	-	-	-
	C/D	1	1	-	-	-	-	-	-	-	-
07-■■■■■-1100/7555	A/B	6	4	3	3	2	2	-	-	-	-
	C/D	1	1	-	-	-	-	-	-	-	-
07-■■■■■-1600/7555	A/B	12	6	5	4	4	3	-	-	-	-
	C/D	1	1	-	-	-	-	-	-	-	-
07-■■■■■-1900/7555	A/B	15	8	6	5	5	4	-	-	-	-
	C/D	1	1	-	-	-	-	-	-	-	-
07-■■■■■-1221/2090	A/B	13	9	5	5	4	3	2	1	1	-
	C/D	4	4	2	2	2	1	1	1	-	-
07-■■■■■-1221/2012	A/B	13	9	5	5	4	3	2	1	1	-
	C/D	4	4	2	2	2	1	1	1	-	-
07-■■■■■-2201/2090	A/B	28	18	12	11	10	5	3	3	2	-
	C/D	4	4	2	2	2	1	1	1	-	-
07-■■■■■-1601/6090	A/B	18	14	8	8	6	4	2	2	1	-
	C/D	8	8	5	4	4	2	2	1	-	-
07-■■■■■-1601/6012	A/B	18	14	8	8	6	4	2	1	1	-
	C/D	8	8	5	4	4	2	2	1	-	-
07-■■■■■-2601/6090	A/B	33	26	17	14	12	7	4	3	3	-
	C/D	8	8	5	4	4	2	2	1	-	-
07-■■■■■-3601/6090	A/B	48	38	24	20	18	10	6	5	4	-
	C/D	8	8	5	4	4	2	2	1	-	-
07-■■■■■-2002/5012	A/B	24	16	10	9	7	4	3	2	2	-
	C/D	12	12	10	8	8	4	3	2	2	2
07-■■■■■-2552/5012	A/B	53	34	23	20	18	9	7	4	3	2
	C/D	12	12	10	8	8	4	3	2	2	2
07-■■■■■-2552/5016	A/B	53	34	23	20	18	9	7	4	3	2
	C/D	12	12	10	8	8	4	3	2	2	2
07-■■■■■-4002/5012	A/B	88	58	38	35	30	17	13	6	5	4
	C/D	12	12	10	8	8	4	3	2	2	2
07-■■■■■-4002/5016	A/B	88	58	38	35	30	17	13	6	5	4
	C/D	12	12	10	8	8	4	3	2	2	2
07-■■■■■-4004/0512	A/B	88	58	38	35	30	17	13	6	5	4
	C/D	26	20	16	14	10	6	4	2	4	3
07-■■■■■-4004/0516	A/B	135	89	58	53	46	26	20	9	7	4
	C/D	42	38	34	30	24	8	5	3	6	4
07-■■■■■-6002/5012	A/B	130	84	56	52	46	24	18	10	6	4
	C/D	12	12	10	8	8	4	3	2	2	2

Orientation



The table on this page applies to the following polyester distribution boxes:

IP distribution box	black	07-5178-..../....
IP distribution box	grey	07-5177-..../....
Ex e distribution box	black	07-5103-..../....
Ex e distribution box	grey	07-5106-..../....
Ex i distribution box	black	07-5105-..../....
Ex i distribution box	grey	07-5107-..../....

External dimensions, earth bars, mounting panels

Polyester enclosure Article no.	External dimensions in mm			Earth bars				Mounting panel
	Width	Height	Depth	Type	Order no.	Type	Order no.	Order no.
07-■■■■■-0800/7555	80	75	55	MK 2	05-0012-0006	-	-	05-2105-0002
07-■■■■■-1100/7555	110	75	55	MK 2	05-0012-0006	-	-	05-2105-0003
07-■■■■■-1600/7555	160	75	55	MK 2	05-0012-0006	-	-	05-2105-0004
07-■■■■■-1900/7555	190	75	55	MK 2	05-0012-0006	-	-	05-2105-0005
07-■■■■■-1221/2090	122	120	90	QS 3	05-0012-0091	LS 4	05-0012-0100	05-0105-0100
07-■■■■■-1221/2012	122	120	120	QS 3	05-0012-0091	LS 4	05-0012-0100	05-0105-0100
07-■■■■■-2201/2090	220	120	90	QS 3	05-0012-0091	LS 9	05-0012-0101	05-0105-0101
07-■■■■■-1601/6012	160	160	90	QS 5	05-0012-0092	LS 5	05-0012-0010	05-0105-0103
07-■■■■■-1601/6090	160	160	120	QS 5	05-0012-0092	LS 5	05-0012-0010	05-0105-0103
07-■■■■■-2601/6090	260	160	90	QS 5	05-0012-0092	LS 11	05-0012-0102	05-0105-0104
07-■■■■■-3601/6090	360	160	90	QS 5	05-0012-0092	LS 16	05-0012-0103	05-0105-0105
07-■■■■■-2552/5012	255	250	120	QS 9	05-0012-0096	LS 11	05-0012-0105	05-0105-0113
07-■■■■■-2552/5016	255	250	160	QS 9	05-0012-0096	LS 11	05-0012-0105	05-0105-0113
07-■■■■■-4002/5012	400	250	120	QS 9	05-0012-0096	LS 18	05-0012-0016	05-0105-0114
07-■■■■■-4002/5016	400	250	160	QS 9	05-0012-0096	LS 18	05-0012-0016	05-0105-0114
07-■■■■■-4004/0512	400	405	120	QS 15	05-0012-0097	LS 18	05-0012-0016	05-0105-0117
07-■■■■■-4004/0516	400	405	120	QS 15	05-0012-0097	LS 18	05-0012-0016	05-0105-0117
07-■■■■■-6002/5012	600	250	120	QS 9	05-0012-0096	LS 28	05-0012-0106	05-0105-0199