

JUNCTION BOXES & ENCLOSURES

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety



Without Terminals



Equipped with Terminals

Compliance Data:

ATEX - IEC:

Zone 1 & 2, 21 & 22	ATEX	II 2 GD	IEC	CE
Ex e II; Ex eia IIC; Ex eib IIC	T6 to T5	Ex tD A21	T80°C to T95°C	IP66 – IK10

Operating Temperatures:

-55°C to 60°C (PCe Type)
-40°C to 55°C (CAe Type)



Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 – IK10

Applications:

- Terminal junction boxes to facilitate electrical connections in hazardous areas.
- Designed for use in Zone 1 or 2 areas, where flammable gases or vapors are present either continuously or intermittently.
- Ideal for wet or corrosive atmospheres.
- Petroleum, chemical, refineries and other industrial process facilities.
- Designed for use in Zone 21 or 22 areas where flammable dusts are present either continuously or intermittently.
- Food processing, dairy, brewing, silos and other facilities.

Features:

- Operating temperature:
 - 55°C to +60°C (PCe type)
 - 40°C to +55°C (CAe type).
- For use only with Ex certified terminal blocks.
- Stainless steel hardware.
- Yellow laminated plastic label with black lettering.
- Factory drilled and equipped.

Standard Materials:

- Gray painted grade marine aluminum alloy.
- Stainless steel hardware.

Options:

- For use with equipment other than Ex terminal blocks, see ECEA series enclosures and controls.



PCe Type



CAe Type
Without Terminals



CAe Type
Equipped with Terminals

Catalog Number Logic:

JBEA	XX	XX	XX	XX
Series	Dimensions	Dimensions	Dimensions	Options:
ATEX / IEC Certified:	Length (mm):	Width (mm):	Depth (mm):	D1 = 5 x M20 as per Drilling Detail Table
JB = Junction Box	12 = 120	11 = 110	09 = 95	D2 = 4 x M20 + 1 x M25 as per Drilling Detail Table
E = Increased Safety	17 = 170	20 = 205	13 = 130	D3 = 7 x M20 + 1 x M25 as per Drilling Detail Table
I = Intrinsic Safety	21 = 215	38 = 380	19 = 190	D5 = 7 x M20 + 1 x M25 as per Drilling Detail Table
A = Aluminum	32 = 320			D6 = 12 x M20 + 1 x M32 as per Drilling Detail Table
	42 = 425			D7 = 19 x M20 + 1 x M32 as per Drilling Detail Table
	48 = 480			D8 = 27 x M20 + 1 x M40 as per Drilling Detail Table
				P-- = Unarmored Cable
				A-- = Armored Cable
				L-- = Lead Sheath Armored Cable
				E = Earth Continuity Brass Plate
				# = Customized Enclosure

#: 6 Digit number will be assigned at time of order placement.

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22

Ex II 2 GD

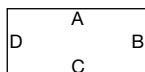
ATEX / IEC

IP66 – IK10

Ordering Information:

Factory Drilled Ex e II Aluminum Junction Boxes Fitted with:

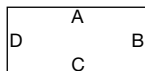
One horizontal symmetrical zinc plated rail.
For use with Ex terminals only (not supplied).
Yellow laminated plastic label with black lettering.
Internal earth terminal.
M5 external earth screw.
Cable glands and plugs ordered separately.



Type	Dimensions L x W x D (mm)	Rail Length Maximum (mm)	A	Clearance Holes B	Per Side C	D	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number
PCe1	120 x 110 x 95	62	1 x M20	1 x M20	2 x M20	1 x M20	1	2.2	JBEA 121109 D1	096031
PCe2	170 x 110 x 95	112	–	1 x M20	2 x M20 1 x M25	1 x M20	1.3	2.7	JBEA 171109 D2	096032
PCe3	230 x 110 x 95	172	–	2 x M20	3 x M20 1 x M25	2 x M20	1.6	5.2	JBEA 231109 D3	096033

Factory Drilled Exe II Aluminum Junction Boxes for Instrumentation Applications Fitted with:

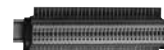
Yellow laminated plastic label with black lettering.
Set of two insulated side supports (096115).
One horizontal symmetrical zinc plated rail.
For use with Ex terminals only (not supplied).
Also available for use with copper bar 12 x 2 mm or 12 x 4 mm.
Cable glands and plugs ordered separately.
M8 external earth crossing terminal.



Type	Dimensions L x W x D (mm)	Cable	Rail Length Maximum (mm)	Threaded Holes Side C	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number
CAe1	215 x 205 x 130	7 Pairs	105	1 x M25 7 x M20	4	13	JBEA 212013 D5	096026
CAe2	320 x 205 x 130	12 Pairs	206	1 x M32 12 x M20	5	23	JBEA 322013 D6	096027
CAe3	425 x 205 x 130	19 Pairs	310	1 x M32 19 x M20	6	33	JBEA 422013 D7	096028
CAe5	480 x 380 x 190	27 Pairs	315	1 x M40 27 x M20	11	53	JBEA 483819 D8	096029

Factory Assembled Ex Terminal Block for Junction Boxes Shown Above:

Screwed/Screwed Terminal Block Fitted with Continuity Shield.



For Junction Boxes	Cable	Terminals 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Weight (kg)	Volume (dm ³)	Catalog Number
215 x 205 x 130	7 Pairs	14	7	0.3	0.5	096039
320 x 205 x 130	12 Pairs	24	12	0.4	1.1	096041
425 x 205 x 130	19 Pairs	38	19	0.5	1.3	096043
480 x 380 x 190	27 Pairs	54	27	0.6	1.7	096044

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 – IK10

Ordering Information – Continued:

Factory Drilled and Equipped with Terminals Ex e II Aluminum
Junction Boxes for Instrumentation Applications with Unarmored
Cables Fitted with:

Horizontal beige terminal block.

Copper bar with cable clamps or continuity shields.

Yellow laminated plastic label with black lettering.

M16 to M50 threaded entries.

Cable glands and plugs ordered separately.

Unarmored cables



Type	For Cable U1000 R02V	Terminal Block 0.5/2.5 mm ² Qty.	Earth Terminal 0.5/2.5 mm ² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm ² Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07G1.5	7	1	1	5	M20	3	JBEA 212013 P01
CAe1	12G1.5	12	1	1	8	M25	6	JBEA 212013 P02
CAe2	19G1.5	19	1	1	11	M25	9	JBEA 322013 P03
CAe2	24G1.5	24	1	1	14	M32	12	JBEA 322013 P04
CAe2	27G1.5	27	1	1	15	M32	13	JBEA 322013 P05
CAe3	37G1.5	37	1	1	20	M32	18	JBEA 422013 P06
CAe1	07G2.5	7	1	1	5	M20	3	JBEA 212013 P07
CAe1	12G2.5	12	1	1	8	M25	6	JBEA 212013 P08
CAe2	19G2.5	19	1	1	11	M32	9	JBEA 322013 P09
CAe2	24G2.5	24	1	1	14	M32	12	JBEA 322013 P10
CAe2	27G2.5	27	1	1	15	M32	13	JBEA 322013 P11
CAe3	37G2.5	37	1	1	20	M40	18	JBEA 422013 P12

Type	For Cable EGSF	Terminal Block 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	14	7	M20	7	JBEA 212013 P21
CAe1	07IT05	21	7	M20	7	JBEA 212013 P22
CAe2	12IP05	24	12	M25	12	JBEA 322013 P23
CAe2	12IT05	36	12	M25	12	JBEA 322013 P24
CAe3	19IP05	38	19	M32	19	JBEA 422013 P25
CAe5	27IP05	54	27	M32	27	JBEA 483819 P26
CAe1	07IP09	14	7	M25	7	JBEA 212013 P27
CAe1	07IT09	21	7	M25	7	JBEA 212013 P28
CAe2	12IP09	24	12	M32	12	JBEA 322013 P29
CAe2	12IT09	36	12	M32	12	JBEA 322013 P30
CAe3	19IP09	38	19	M32	19	JBEA 422013 P31
CAe5	27IP09	54	27	M40	27	JBEA 483819 P32

Type	For Cable EISF	Terminal Block 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	15	8	M25	7	JBEA 212013 P41
CAe1	07IT05	22	8	M32	7	JBEA 212013 P42
CAe2	12IP05	25	13	M32	12	JBEA 322013 P43
CAe2	12IT05	37	13	M32	12	JBEA 322013 P44
CAe3	19IP05	39	20	M40	19	JBEA 422013 P45
CAe5	27IP05	55	28	M40	27	JBEA 483819 P46
CAe1	07IP09	15	8	M32	7	JBEA 212013 P47
CAe1	07IT09	22	8	M32	7	JBEA 212013 P48
CAe2	12IP09	25	13	M40	12	JBEA 322013 P49
CAe2	12IT09	37	13	M40	12	JBEA 322013 P50
CAe3	19IP09	29	20	M50	19	JBEA 422013 P51
CAe5	27IP09	55	28	M50	27	JBEA 483819 P52

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22

II 2 GD

ATEX / IEC

IP66 – IK10

Ordering Information – Continued:

Factory Drilled and Equipped with Terminals Ex e II Aluminum Junction Boxes for Instrumentation Applications with Armored Cables Fitted with:

Horizontal beige terminal block.

Copper bar with cable clamps or continuity shields.

Yellow laminated plastic label with black lettering.

Earth continuity brass plate.

M8 external earth crossing terminal. M20 to M50 threaded entries.

Cable glands and plugs ordered separately.

Armored cables



Type	For Cable U1000 RVFV	Terminal Block 0.5/2.5 mm ² Qty.	Earth Terminal 0.5/2.5 mm ² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm ² Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07G1.5	7	1	1	5	M20	3	JBEA 212013 A01
CAe1	12G1.5	12	1	1	8	M20	6	JBEA 212013 A02
CAe2	19G1.5	19	1	1	11	M25	9	JBEA 322013 A03
CAe2	24G1.5	24	1	1	14	M25	12	JBEA 322013 A04
CAe2	27G1.5	27	1	1	15	M25	13	JBEA 322013 A05
CAe3	37G1.5	37	1	1	20	M32	18	JBEA 422013 A06
CAe1	07G2.5	7	1	1	5	M20	3	JBEA 212013 A07
CAe1	12G2.5	12	1	1	8	M25	6	JBEA 212013 A08
CAe2	19G2.5	19	1	1	11	M25	9	JBEA 322013 A09
CAe2	24G2.5	24	1	1	14	M32	12	JBEA 322013 A10
CAe2	27G2.5	27	1	1	15	M32	13	JBEA 322013 A11
CAe3	37G2.5	37	1	1	20	M32	18	JBEA 422013 A12

Type	For Cable EGFA	Terminal Block 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	14	7	M20	7	JBEA 212013 A21
CAe1	07IT05	21	7	M20	7	JBEA 212013 A22
CAe2	12IP05	24	12	M25	12	JBEA 322013 A23
CAe2	12IT05	36	12	M25	12	JBEA 322013 A24
CAe3	19IP05	38	19	M25	19	JBEA 422013 A25
CAe5	27IP05	54	27	M32	27	JBEA 483819 A26
CAe1	07IP09	14	7	M25	7	JBEA 212013 A27
CAe1	07IT09	21	7	M25	7	JBEA 212013 A28
CAe2	12IP09	24	12	M25	12	JBEA 322013 A29
CAe2	12IT09	36	12	M32	12	JBEA 322013 A30
CAe3	19IP09	38	19	M32	19	JBEA 422013 A31
CAe5	27IP09	54	27	M40	27	JBEA 483819 A32

Type	For Cable EIFA	Terminal Block 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	15	8	M25	7	JBEA 212013 A41
CAe1	07IT05	22	8	M25	7	JBEA 212013 A42
CAe2	12IP05	25	13	M32	12	JBEA 322013 A43
CAe2	12IT05	37	13	M32	12	JBEA 322013 A44
CAe3	19IP05	39	20	M32	19	JBEA 422013 A45
CAe5	27IP05	55	28	M40	27	JBEA 483819 A46
CAe1	07IP09	15	8	M32	7	JBEA 212013 A47
CAe1	07IT09	22	8	M32	7	JBEA 212013 A48
CAe2	12IP09	25	13	M40	12	JBEA 322013 A49
CAe2	12IT09	37	13	M40	12	JBEA 322013 A50
CAe3	19IP09	39	20	M40	19	JBEA 422013 A51
CAe5	27IP09	55	28	M50	27	JBEA 483819 A52

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 – IK10

Ordering Information – Continued:

Factory Drilled and Equipped with Terminals Ex e II Aluminum Junction Boxes for Instrumentation Applications with Lead Sheath Armored Cables

Fitted with:

Horizontal beige terminal block.

Copper bar with cable clamps or continuity shields.

Yellow laminated plastic label with black lettering.

Earth continuity brass plate.

M8 external earth crossing terminal. M20 to M50 threaded entries.

Cable glands and plugs ordered separately.

Armored cables



With lead sheath



Type	For Cable U1000 RGPFV	Terminal Block 0.5/2.5 mm ² Qty.	Earth Terminal 0.5/2.5 mm ² Qty.	Copper Bar 10 x 3 mm Qty.	Cable Clamp 0.5/2.5 mm ² Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07 x 1.5	7	1	1	5	M20	3	JBEA 212013 L01
CAe1	12 x 1.5	12	1	1	8	M25	6	JBEA 212013 L02
CAe2	19 x 1.5	19	1	1	11	M25	9	JBEA 322013 L03
CAe2	24 x 1.5	24	1	1	14	M32	12	JBEA 322013 L04
CAe2	27 x 1.5	27	1	1	15	M32	13	JBEA 322013 L05
CAe3	37 x 1.5	37	1	1	20	M32	18	JBEA 422013 L06
CAe1	07 x 2.5	7	1	1	5	M20	3	JBEA 212013 L07
CAe1	12 x 2.5	12	1	1	8	M25	6	JBEA 212013 L08
CAe2	19 x 2.5	19	1	1	11	M32	9	JBEA 322013 L09
CAe2	24 x 2.5	24	1	1	14	M32	12	JBEA 322013 L10
CAe2	27 x 2.5	27	1	1	15	M32	13	JBEA 322013 L11
CAe3	37 x 2.5	37	1	1	20	M40	18	JBEA 422013 L12

Type	For Cable EGPF	Terminal Block 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	14	7	M20	7	JBEA 212013 L21
CAe1	07IT05	21	7	M20	7	JBEA 212013 L22
CAe2	12IP05	24	12	M25	12	JBEA 322013 L23
CAe2	12IT05	36	12	M25	12	JBEA 322013 L24
CAe3	19IP05	38	19	M25	19	JBEA 422013 L25
CAe5	27IP05	54	27	M32	27	JBEA 483819 L26
CAe1	07IP09	14	7	M25	7	JBEA 212013 L27
CAe1	07IT09	21	7	M25	7	JBEA 212013 L28
CAe2	12IP09	24	12	M32	12	JBEA 322013 L29
CAe2	12IT09	36	12	M32	12	JBEA 322013 L30
CAe3	19IP09	38	19	M40	19	JBEA 422013 L31
CAe5	27IP09	54	27	M40	27	JBEA 483819 L32

Type	For Cable EIPF	Terminal Block 0.5/2.5 mm ² Qty.	Continuity Shield Qty.	Multi-cable Cable Entry Qty. 1	Single Cable Entries M20 Qty.	Catalog Number
CAe1	07IP05	15	8	M25	7	JBEA 212013 L41
CAe1	07IT05	22	8	M32	7	JBEA 212013 L42
CAe2	12IP05	25	13	M32	12	JBEA 322013 L43
CAe2	12IT05	37	13	M32	12	JBEA 322013 L44
CAe3	19IP05	39	20	M40	19	JBEA 422013 L45
CAe5	27IP05	55	28	M50	27	JBEA 483819 L46
CAe1	07IP09	15	8	M32	7	JBEA 212013 L47
CAe1	07IT09	22	8	M32	7	JBEA 212013 L48
CAe2	12IP09	25	13	M40	12	JBEA 322013 L49
CAe2	12IT09	37	13	M40	12	JBEA 322013 L50
CAe3	19IP09	39	20	M50	19	JBEA 422013 L51
CAe5	27IP09	55	28	M50	27	JBEA 483819 L52

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

Zone 1 & 2 – 21 & 22

II 2 GD

ATEX / IEC

IP66 – IK10

Technical Data:

Defining maximum terminal block quantity according to power dissipation:

Junction boxes used for instrumentation applications have very low current levels. Therefore there is no risk of overheating whatever the number of terminals inside the box.

For applications other than instrumentation, the following tables allow you to define your junction box depending on the number of terminals and the maximum authorized current being carried.

T Rating: T6		Type		
		PCe1	PCe2	PCe3
		120 x 110 x 95 mm	170 x 110 x 95 mm	120 x 230 x 95 mm
2.5 mm ²	Qty. I max.	12 15 A	22 13 A	33 12 A
4 mm ²	Qty. I max.	10 20 A	18 19 A	28 16 A
6 mm ²	Qty. I max.	7 32 A	14 27 A	21 24 A
10 mm ²	Qty. I max.	4 50 A	6 50 A	8 50 A

T Rating: T6 @ Ta +40°C T5 @ Ta +55°C		Type			
		CAe1	CAe2	CAe3	CAe5
		215 x 205 x 130 mm	320 x 205 x 130 mm	425 x 205 x 130 mm	480 x 380 x 190 mm
2.5 mm ²	Qty. I max.	20 16 A	21 16 A	23 16 A	38 16 A
4 mm ²	Qty. I max.	19 20 A	20 20 A	23 20 A	38 20 A
6 mm ²	Qty. I max.	12 32 A	13 32 A	14 32 A	23 32 A
10 mm ²	Qty. I max.	10 40 A	11 40 A	18 32 A	30 32 A
16 mm ²	Qty. I max.	8 28 A	10 27 A	13 25 A	22 26 A
25 mm ²	Qty. I max.	8 67 A	8 73 A	10 69 A	20 60 A
35 mm ²	Qty. I max.	8 79 A	8 86 A	10 80 A	12 100 A

For other terminal block configurations, please consult our guide G0002 available online at: www.egsatx.com

Compliances:

Hazardous Area	Gas	Dust
Certification Type	PCe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 II 2 G	CE 0081 II 2 D
Symbol of Protection ATEX	Ex e II Ex eia IIC Ex eib IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6	NA
Surface Temperature	NA	T80°C
Ambient Temperature	-55°C to +60°C	
CE Declaration of Conformity	50221	
ATEX Certificate	LCIE 00 ATEX 6047	
IEC Certificate	LCIE Ex 00.017	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

Hazardous Area	Gas	Dust
Certification Type	CAe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 II 2 G	CE 0081 II 2 D
Symbol of Protection ATEX	Ex e II Ex eia IIC Ex eib IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 for Ta ≤ +40°C T5 for +40°C ≤ Ta ≤ +55°C	NA
Surface Temperature	NA	T80°C to T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50235	
ATEX Certificate	LCIE 02 ATEX 6248X	
IECEx Certificate	IECEx LCI 04.0016X	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact resistance (shock)	IK10	

Standards:

Ex Standards	EN / IEC 60079-0; 60079-7; 60079-11; 61241-0; 61241-1; 61241-11
Product Standards	–
EMC Standards	–
Other Standards	EN / IEC 60529 (IP); 62262 (IK)

Junction Boxes & Enclosures

JBEA Series: Pre-drilled Aluminum Junction Boxes – Increased Safety

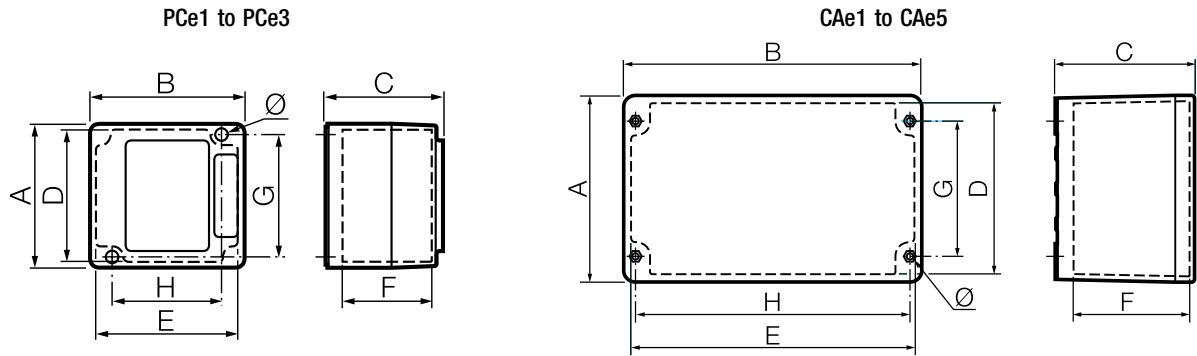
Zone 1 & 2 – 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 – IK10

Dimensions (mm):



Type	External Dimensions			Internal Dimensions			Fixings			
	A	B	C	D	E	F	G	H	Thick	Ø
PCe1	110	120	95	100	110	70	94	84	20	5
PCe2	110	170	95	100	160	70	94	134	20	5
PCe3	110	230	95	100	220	70	94	194	20	5
CAe1	205	215	130	190	200	105	146	186	10	7
CAe2	205	320	130	190	305	105	146	290	10	7
CAe3	205	425	130	190	410	105	146	398	10	7
CAe5	480	380	190	378	279	132	385	285	13	7