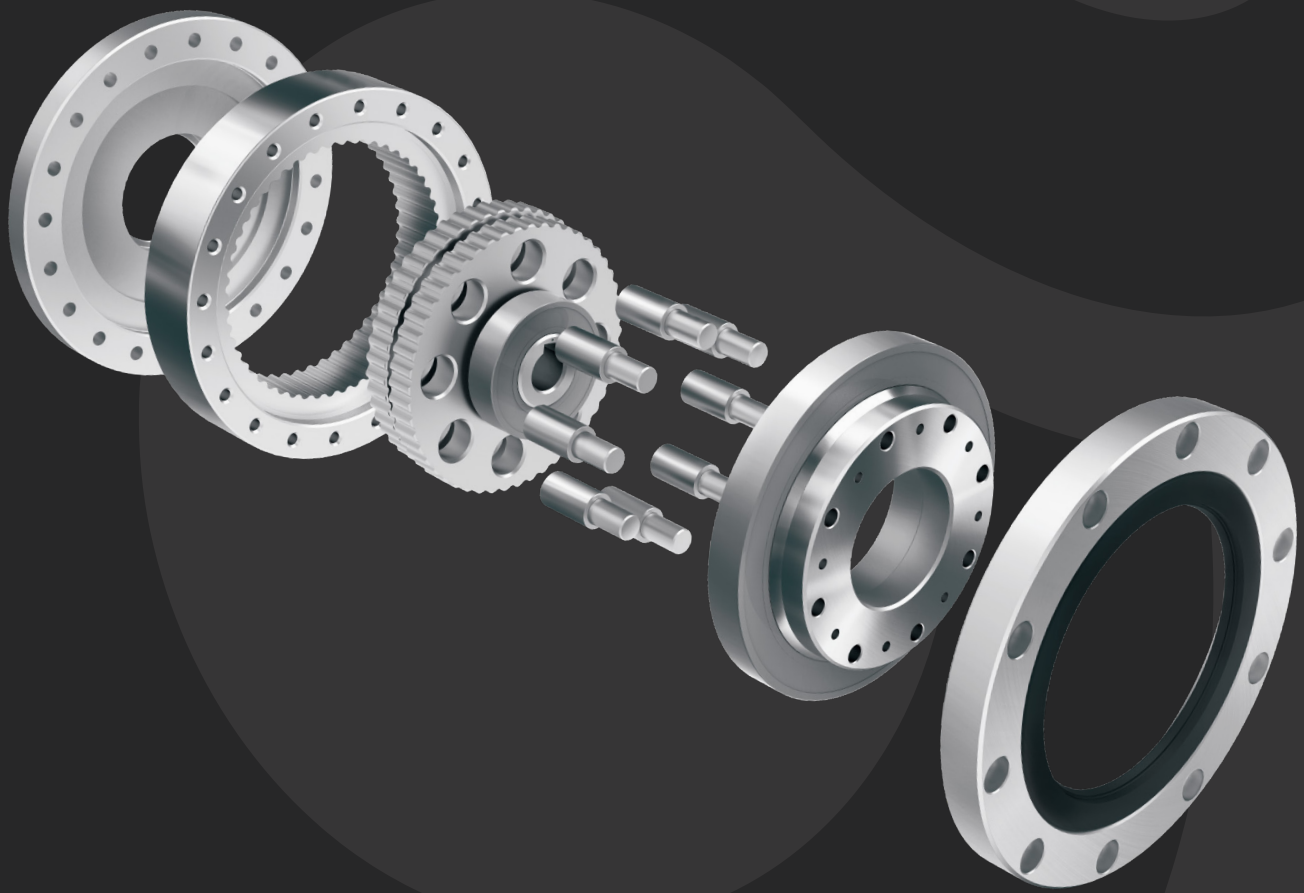
BSR

Bon Speed Reducer

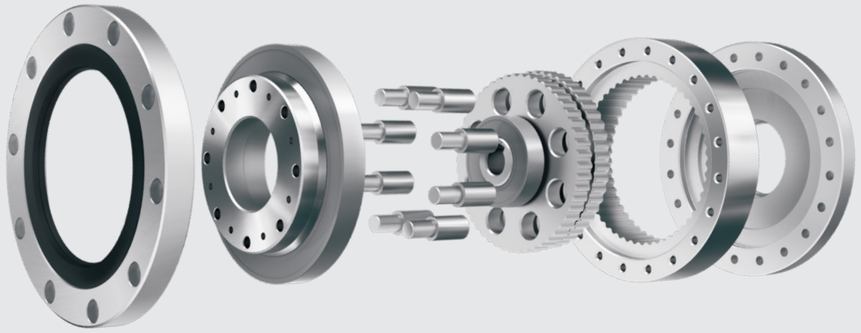
—

Cycloid Gear Design
High Durability
Customized Service



BON SYSTEMS

www.bonspeedreducer.com



What is **BSR**?

BSR(Bon Speed Reducer) Series is a cycloid gear-based reducer developed at Bonsystems Co., Ltd.
BSR system provides high durability and torque while being very cost-effective.
Our design allows us to optimize the production process by reducing the number of components, enabling mass production within a short time.

Our products are highly customizable, suitable for various industrial applications.
Our independent gear form design enables a high precision rate in a single gear stage. We provide the freedom to select reduction ratio and frame size while remaining compact, lightweight, and economical.

Bonsystems Co., Ltd.

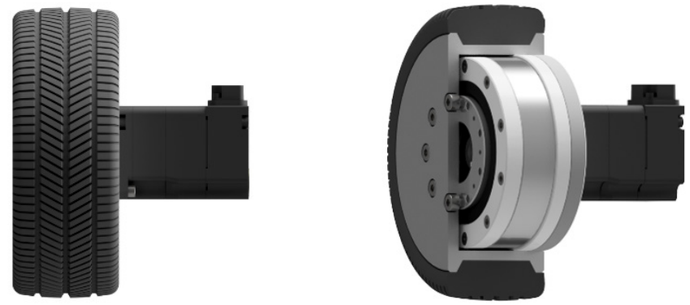
5 -15, Gamgye-ro 156beon-gil, Buk-myeon,
Uichang-gu, Changwon-si,
Gyeongsangnam-do, Repubilc of Korea (51112)

Tel. +82-55-296-9615
Web. www.bonspeedreducer.com
E-mail. bsr@bonsystems.kr

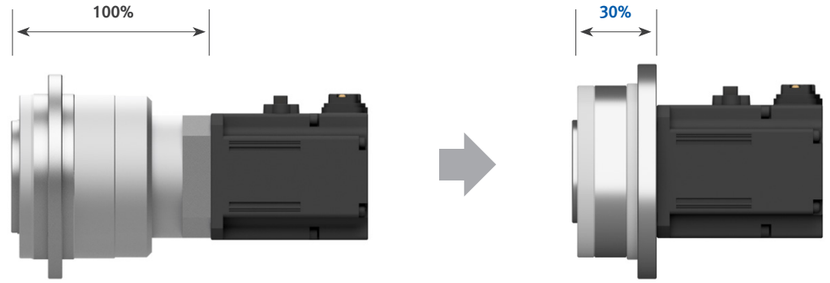
Strength of **BSR**

Price	Customization	Torque / Long life	Delivery
			
Reducing cost by mass production	Customization using our own design program	High durability and torque by cycloid gear technology Higher rigidity than other gear shapes	Short lead time by optimization of production process

Application example and effects



BSR applicated inside wheels



Space efficient BSR

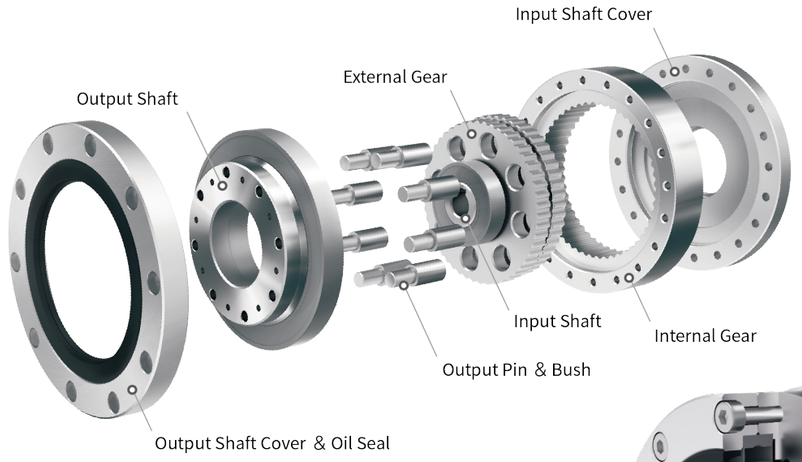
Bon Speed Reducer

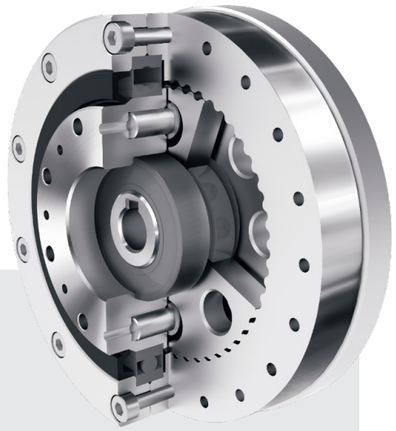
1 Durability
Less gear wear,
Long use

2 High torque
Powerful operation
in high torque

3 Compact
Customized size,
Volume saving

Model Code





BSR □□□ – □□□ – □

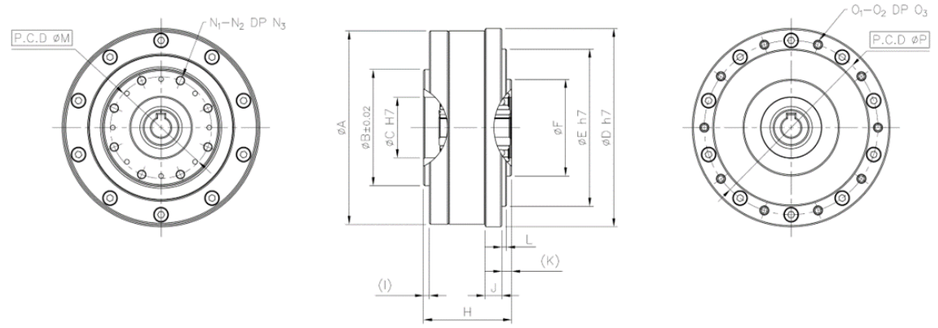
Gearbox size	Reduction ratio	Input shaft option

K : Keyhole(default) / H : Hollow

BSR SERIES Performance

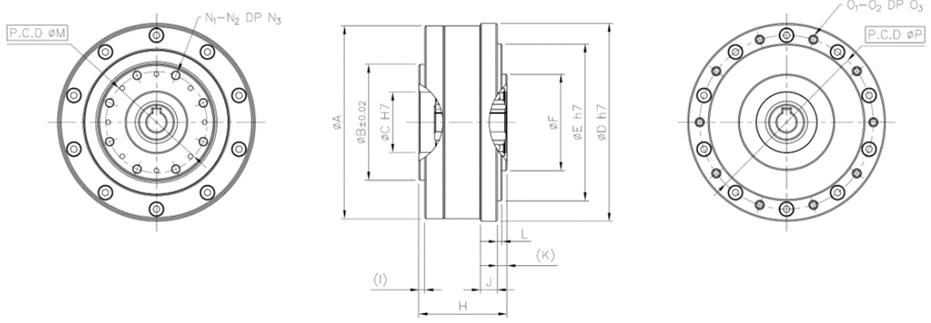
Model No.	Reduction ratio	Allowable rated torque Nm	Maximum instantaneous torque Nm	Efficiency %	Backlash arcmin	Lost motion arcmin	Allowable average rotational speed rpm	Maximum rotational speed rpm	Recommended motor capacity W
BSR050	49	7	21	70% or more	5~10	5~10	2000	3000	50
	59								
BSR070	49	25	75	70% or more	3~7	3~7	2000	3000	100
BSR080	49	30	90	70% or more	3~7	3~7	2000	3000	200
	50								
	99	32	96	70% or more	3~7	3~7			
BSR110	49	65	195	70% or more	2~5	2~5	2000	3000	400
	159	70	210	60% or more	1~3	1~3			

BSR SERIES Dimension



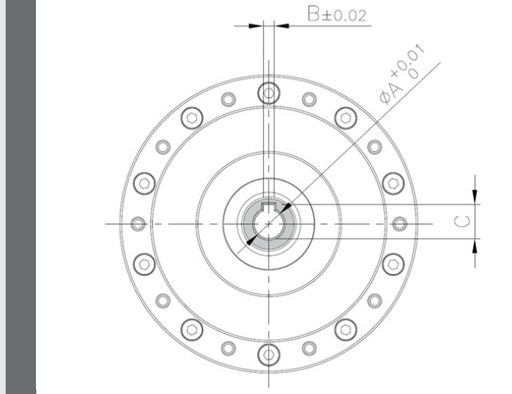
Model / Dimension	BSR050	BSR060	BSR070	BSR080	BSR090	BSR100	BSR110	BSR120	BSR135	BSR145	BSR160	BSR170
ØA	52	60	71	80	90	100	110	120	135	145	160	170
ØB±0.02	30	35	44	48	54	64	73	78	84	93	103	108
ØC(H7)	15	16	25	25	26	34	38	40	43	48	55	62
ØD(h7)	54	62	73	82	92	102	112	122	137	147	162	172
ØE(h7)	30	40	55	65	70	75	85	95	100	110	125	135
ØF	–	–	36	40	45	50	60	70	67	80	95	105
H	28	30.5	34.5	36.5	40.5	44.5	44.5	46.5	59	62	66.5	70.5
(I)	1	1.5	2	2.45	2.5	2.5	2.5	2.5	2.5	2.5	3	3
J	5.5	5	8	7	8	8	10	10	11	11	14	14
(K)	2	2.5	3	4.05	4	5	4	4	4	4	4	4
L	–	–	1.5	2	2	2	2	2	2	2	2	2
PCD ØM	28	28	38	42	48	54	60	65	70	80	90	95
N_1	8	8	8	8	8	8	8	8	8	8	8	8
N_2	M3	M3	M4	M4	M4	M5	M5	M5	M6	M6	M6	M8
N_3	7	6	7	7	8	10	10	10	12	12	15	19
O_1	8	8	10	10	10	10	10	10	10	10	10	10
O_2	M2	M3	M3	M3	M4	M4	M4	M5	M5	M6	M6	M6
O_3	12	13	18	18	21	22	23	22.5	30	31.5	31.5	33.5
PCD ØP	48	54	64	72	80	91	101	108	121	130	145	155

BSR SERIES Dimension

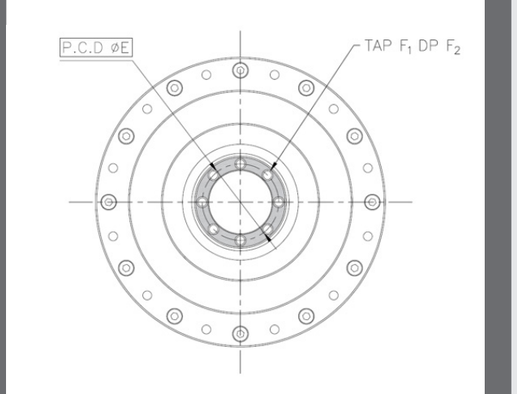


Model / Dimension	BSR180	BSR190	BSR200	BSR220	BSR240	BSR250	BSR270	BSR280	BSR290	BSR330	BSR350
ØA	180	190	200	220	240	250	270	280	290	330	350
ØB±0.02	118	128	138	148	158	168	178	188	198	218	238
ØC(H7)	66	70	75	82	90	95	100	100	110	120	130
ØD(h7)	182	192	202	222	242	252	272	282	292	332	352
ØE(h7)	145	155	165	185	195	200	210	215	220	260	290
ØF	115	125	135	155	170	175	180	185	190	210	230
H	72.5	77.5	77.5	86.5	93	96	99	105	107	116	122
(I)	3	3	3	4	4	4	5	5	5	6	6
J	14	15	15	15	20	20	20	20	22	23	25
(K)	4	4	4	4	4	4	4	4	4	4	4
L	2	2	2	2	2	2	2	2	2	2	2
PCD ØM	100	110	120	130	135	140	145	150	155	190	210
N_1	8	8	8	8	8	8	8	8	8	8	8
N_2	M8	M8	M10	M10	M10	M10	M10	M10	M10	M15	M15
N_3	19	25	25	27	27	27	30	30	30	30	32
O_1	10	10	10	10	10	10	10	10	10	10	10
O_2	M6	M8	M8	M8	M10	M10	M12	M12	M12	M12	M12
O_3	35.5	36.5	36.5	43.5	45	45	45	50	55	56	70
PCD ØP	165	175	185	203	220	230	245	255	265	300	325

BSR SERIES Input Shaft Option

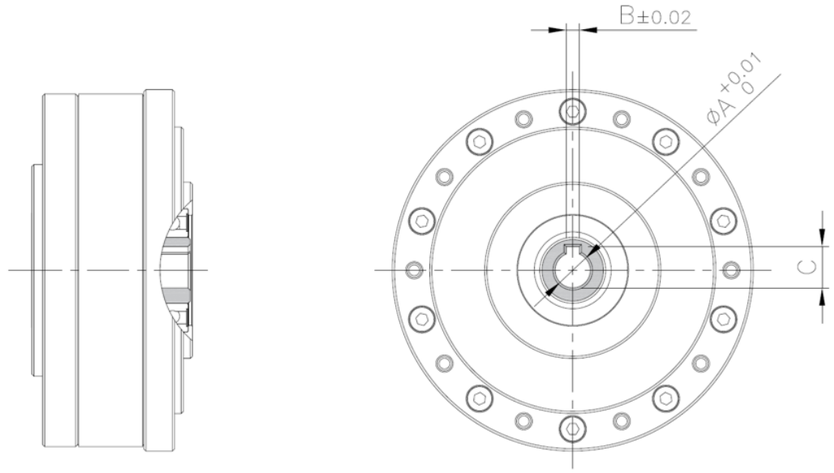


Input Keyhole Type



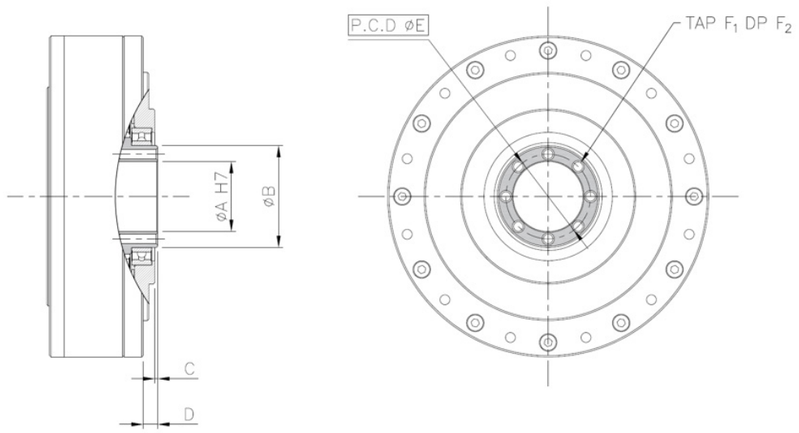
Input Hollow Type

BSR SERIES Input Keyhole Type



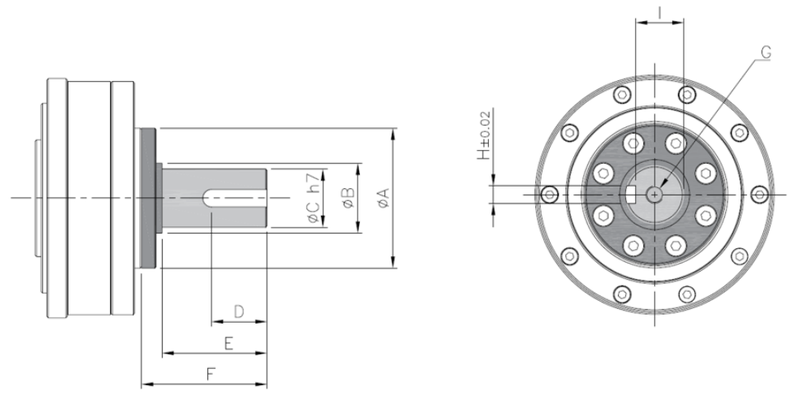
Model / Dimension	ØA	B±0.02	C
BSR□□□-□□□-K	Customize		

BSR SERIES Input Hollow Type



Model \ Dimension	ØA H7	ØB	C	D	ØE	F1	F2
BSR110-□□□-H	Ø14 (M4)	Ø25	Customize				
BSR120-□□□-H	Ø18 (M4)	Ø30					
BSR135-□□□-H	Ø18 (M4)	Ø30					
BSR145-□□□-H	Ø21 (M5)	Ø35					
BSR160-□□□-H	Ø26 (M5)	Ø40					
BSR170-□□□-H	Ø29 (M6)	Ø45					
BSR180-□□□-H	Ø34 (M6)	Ø50					
BSR190-□□□-H	Ø35 (M8)	Ø55					
BSR200-□□□-H	Ø40 (M8)	Ø60					
BSR220-□□□-H	Ø43 (M8)	Ø65					
BSR240-□□□-H	Ø45 (M10)	Ø70					
BSR250-□□□-H	Ø45 (M10)	Ø70					
BSR270-□□□-H	Ø50 (M10)	Ø75					
BSR280-□□□-H	Ø55 (M10)	Ø80					
BSR290-□□□-H	Ø55 (M12)	Ø85					
BSR330-□□□-H	Ø63 (M12)	Ø95					
BSR350-□□□-H	Ø75 (M12)	Ø105					

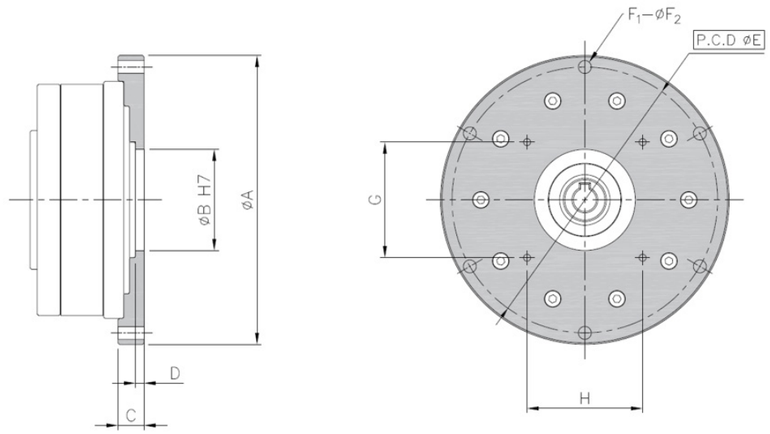
BSR SERIES Output Shaft Option



Model \ Dimension	ØA	ØB	ØC h7	D	E	F	G	H±0.02	I
BSR□□□-□□□-□	Customize								

BSR SERIES Motor Attachment

*Customization available to your motor model.



Model \ Dimension	ØA	ØB H7	C	D	PCD ØE	F1	ØF2	G	H
BSR□□□-□□□-□	Customize								

Production Range

*Marked cells for 1 stage gear. The other options can be applied in 2 stage gear.

Dimension \ Reduction ratio	19	29	39	49	59	69	79	89	99	109	119	129	139	149	159	169	179	189	199	209	219	229	239	249	259	269	279	289	299	→
BSR050	•	•	•	•	•																									
BSR060	•	•	•	•	•	•																								
BSR070	•	•	•	•	•	•	•																							
BSR080		•	•	•	•	•	•	•	•																					
BSR090		•	•	•	•	•	•	•	•																					
BSR100		•	•	•	•	•	•	•	•	•	•																			
BSR110			•	•	•	•	•	•	•	•	•	•																		
BSR120			•	•	•	•	•	•	•	•	•	•	•																	
BSR135				•	•	•	•	•	•	•	•	•	•	•	•															
BSR145				•	•	•	•	•	•	•	•	•	•	•	•	•														
BSR160				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•												
BSR170					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•										
BSR180					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
BSR190						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•									
BSR200						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
BSR220						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
BSR240							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BSR250							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BSR270							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BSR280								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BSR290								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BSR330										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BSR350											•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
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Bonsystems Co., Ltd.

5-15, Gamgye-ro 156beon-gil, Buk-myeon, Uichang-gu,
Changwon-si, Gyeongsangnam-do, Republic of Korea (51112)

Headquarters

Tel. +82-55-296-9615
Fax. +82-55-551-1561
E-mail. bsr@bonsystems.kr

R&D Center

Tel. +82-55-296-9307
Fax. +82-55-551-1561
E-mail. bonsystems@bonsystems.kr