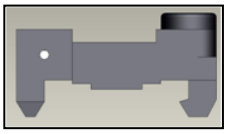
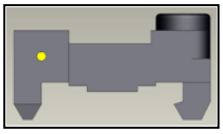
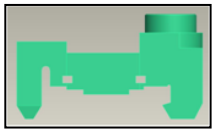
Bill Recycle Module

Functional Description

▶Sensor Type

No.	Sensor	Part Name
1		Emitting Light Rank A (White)
		Receiving Light Rank A (White)
2		Emitting Light Rank B (Red)
		Receiving Light Rank B (Red)
3		Emitting Light Rank C (Yellow)
		Receiving Light Rank C (Yellow)
4		Emitting Light Double Detection Sensor
		Receiving Light Double Detection Sensor
5		All-in-one (Hook Type)
6		All-in-one (Screw Type)

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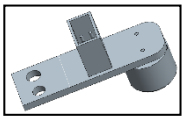
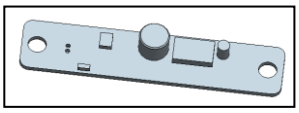
7		Ultrasound (Emitting Section)
		Ultrasound (Receiving Section)

▶Function of Sensor

	No	Name	Function	Rank	Type
BMU	1	TS001	Detecting Replenishment Control Pass/Monitoring TG001 Motivation and Run	B	Separation Type
	2	TS002	Monitoring TG003 Motivation and Run	B	
	3	TS003	Monitoring TG007 Motivation and Run (BRM32,35)	B	
	4	TS004	Separation Standards Sensor of RC13(Large), Monitoring Run	B	
	5	TS005	Separation Standards Sensor of RC12(Large), Monitoring Run	B	
	6	TS006	Separation Standards Sensor of RC11(Large), Monitoring Run	B	
	7	TS007	RJC Separation Standards Sensor, Monitoring Run	B	
	8	TS008	Detection of Double Bill Count		Ultrasound
	9	TS010	Reserved		Separation Type
	10	TS011	Separation standards sensor of RC13,14(Small), Monitoring Run	B	
	11	TS012	Detect the jam on IF Transport Section-5, 6	C	
	12	TS013	Reserved (Detect the jam on IF Transport Section-5 to meet CEN)		
	13	TS014	Detect the jam on IF Transport Section-4	B	
	14	TS015	Detect the jam on IF Transport Section-2, 3	C	
	15	TS016	Reserved (Detecting the jam on IF Transport Section-2 to meet CEN)		

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	No	Name	Function	Rank	Type
	16	TS017	Detecting the jam on IF Transport Section-1	C	
	17	TS025	Reserved (Detecting Interface-1 to meet CEN)		
	18	TS026	Reserved (Detecting Interface-2 to meet CEN)		
	19	TS090	TM006 Encoder Sensor (Velocity Control)		
	20	TS050	Detecting Proper Position of TG002 3way 0˚		All-in-one Type
	21	TS051	Detecting Proper Position of TG002 3way 120˚		
	22	TS052	Detecting Proper Position of TG003 3way 0˚		
	23	TS053	Detecting Proper Position of TG003 3way 120˚		
	24	TS054	Detecting Proper Position of TG004 3way 0˚		
	25	TS055	Detecting Proper Position of TG004 3way 120˚		
	26	TS056	TM001 Encoder Sensor (Velocity Control)		
	27	TS057	TM004 Encoder Sensor (Velocity Control)		
	28	TS058	TM002 Encoder Sensor (Velocity Control)		
	29	TS059	TM003 Encoder Sensor (Velocity Control)		
	30	TS060	TG003 Transfer Control Sensor		
	31	TS061	TM005 Encoder Sensor (Velocity Control)		
	32	TS062	BMU Mounting or Demounting Sensor		
	33	TS091	Detecting Open of Option Transport path		
	34	TS063	BMU Interlock Detection Sensor		Cherry

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	No	Name	Function	Rank	Type
BC	1	TS801 A	Motivation of Deposit/Withdrawal and Detecting Skew	B	Separation Type
	2	TS801 B	Motivation of Deposit/Withdrawal and Detecting Skew	B	
	3	TS802 A	Motivation of Deposit Storage	B	
	4	TS802 B	Motivation of Deposit Storage	B	
	5	TS803	Detecting BC Open		All-in-one Type

	No	Name	Function	Rank	Type
CSM	1	TS601	Detecting the inputted bills	B	Separation Type-
	2	TS602	Detecting Bill Collection of Reject Section	C	
	3	TS603	Detecting Bill Collection of Stack Section	C	
	4	TS604	Detecting Bill Collection of Stack Section	C	
	5	TS605	Detecting Bill Collection of Stack Section (The use of this function is undecided)	C	
	6	TS606	Detecting the Inputted Bills	B	
	7	TS608	Detecting the Normal Bills	A	
	8	TS609	Detecting the Normal Bills	A	
	9	TS610	Reserved		
	10	TS611	Reserved		
	11	TS612	Detecting the Normal Bills	A	
	12	TS613	Detecting the Normal Bills	A	
	13	TS615	Detecting the Normal Bills	A	
	14	TS618	Monitor the transportation at Stack Section	B	
	15	TS619	Monitor the transportation at Reject Section	B	
	16	TS621	Separation Control (left)	A	
	17	TS622	Separation Control (right)	A	
	18	TS650	Velocity Control of Separation Motor		All-in-one Type
	19	TS651	Reserved		

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	20	TS652	Reserved		
	21	TS656	Feed Roller Status Control		
	22	TS658	Detecting the Shutter Open		
	23	TS659	Detecting the Shutter Close		
	24	TS661	Velocity Control of Stack Wheel, Proper Positioning		
	25	TS068	Detecting CSM Open		

	No	Name	Function	Rank	Type
BMD	1	TS032	Separation Standards Sensor of RC31,32 (small), Monitoring Run	C	Separation Type
	2	TS033	Detecting the Remained bill on Transport IF section of Center-1, Monitoring Run	C	
	3	TS036	Separation Standards Sensor of RC33,34(Small), Monitoring Run	C	
	4	TS037	Detecting the Remained bill on Transport IF section of Center-2, Monitoring Run	C	
	5	TS3106	Detecting the remained bill on RC31 IF	C	
	6	TS3206	Detecting the remained bill on RC32 IF	C	
	7	TS3306	Detecting the remained bill on RC33 IF	C	
	8	TS070	Detecting TM020 Stepped-out		
	9	TS071	Detecting TM021 Stepped-out		All-in-one Type
	10	TS072	Detecting TM022 Stepped-out		
	11	TS073	Detecting TM023 Stepped-out		
	12	TS074	Detecting TM024 Stepped-out		
	13	TS075	Detecting TM025 Stepped-out		
	14	TS077	I LINK-31 Proper Positioning Sensor (ON)		

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	15	TS079	I LINK-32 Proper Positioning Sensor (ON)		
	16	TS081	Detecting Mounting or Demounting for Small RBU-31		
	17	TS085	Detect Mounting or Demounting for BMD		
	18	TS086	BMD Interlock Detection Sensor		Cherry

	No	Name	Function	Rank	Type
RC	1	TSxx01	Separation Control	B	Separation Type
	2	TSxx02	Separation Control	B	
	3	TSxx03	Monitoring Stack Control/Detection of Naught	C	
	4	TSxx04	Monitoring Detection of Naught	C	
	5	TSxx05	Managing the number of bill & Monitoring RC Pass (Slim CST)	A	
	6	TSxx06	Managing the number of bill & Monitoring RC Pass (Small CST)		
	7	TSxx07	Feed Roller Status Monitoring (DPC Exclusion)		All-in-one Type
	8	TSxx08	Separation Pressure Control		
	9	TSxx11	Full Monitor		
	10	TSxx12	Bottom Monitor		
	11	TSxx13	Monitoring Stack Roller’s Stepping Back		
	12	TSxx14	Front Plate Control		
	13	TSxx15	Near End Monitor		

	No	Name	Function	Rank	Type
RJC	1	TS901	Separation Control	B	Separation Type
	2	TS902	Separation Control	B	
	3	TS903	Monitoring Stack Control/Detection of Naught	C	

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	4	TS904	Monitoring Detection of Naught	C	
	5	TS905	Managing the number of bill & Monitoring RC Pass	A	
	6	TS907	Feed Roller Status Monitoring		All-in-one Type
	7	TS908	Separation Pressure Control		
	8	TS911	Full Monitor		
	9	TS912	Bottom Monitor		
	10	TS913	Monitoring Stack Roller's Stepping Back		
	11	TS914	Front Plate Control		
	12	TS915	Near End Monitor		

▶ Name & Function of Actuator

No	Name	Description	Type
1	TG002	3way Motor(TM012) , CSM Deposit	Stop Motor
2	TG003	3way Motor (TM013) , CSM Dispense	
3	TG004	3way Motor (TM014) , RJC	
4	TG001	Rotary Solenoid, CSM Reject	Rotary Solenoid
5	TG005	Rotary Solenoid, CSM Dispense	
6	TG006	Rotary Solenoid, RC3	
7	TG007	Rotary Solenoid, Option	
8	TG008	Rotary Solenoid, RC2	
9	TG009	Rotary Solenoid, Center-1	
10	TG010	Rotary Solenoid, RC1	
11	TG011	Rotary Solenoid, Center-2	
12	TG016	Rotary Solenoid, RC31	
13	TG017	Rotary Solenoid, RC32	
14	TG022	Rotary Solenoid, RC33	
15	TG023	Rotary Solenoid, RC34	
16	TG031	Linear Solenoid, Interface-2 Transfer	Linear Solenoid
17	TG033	Linear Solenoid, Interface-4 Transfer	
18	TM001	Transport Motor 1 (Front Section)	BLDC
19	TM002	Transport Motor 2 (BC, Front Section)	
20	TM003	Transport Motor 3 (Middle, Rear Section)	
21	TM004	Transport Motor 4 (CSM Reject Section)	

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22	TM005	Transport Motor 5 (Option Transport Section)	
23	TM006	Transport Motor 6 (RJC Transport Section)	
24	TM012	TG002 (3way) Control Motor	Stop Motor
25	TM013	TG003 (3way) Control Motor	
26	TM014	TG004 (3way) Control Motor	
27	TM020	Transport Motor 20 (RBU11 Transport)	
28	TM021	Transport Motor 21 (RBU21 Transport)	
29	TM022	Transport Motor 22 (RBU31 Transport)	
30	TM023	Transport Motor 23 (RBU12 Transport)	
31	TM024	Transport Motor 24 (RBU22 Transport)	
32	TM025	Transport Motor 25 (RBU32 Transport)	

	No	Name	Description	Type
CSM	1	TM601	Separation Motor	BLDC
	2	TM603	Stack Motor	Geard
	3	TM606	Stack Shutter Motor	Step Motor
RC	1	TMxx01	Separation Motor	BLDC
	2	TMxx02	PP Motor	Geard
OVF	1	TM901	Separation Motor	BLDC
	2	TM902	PP Motor	Geard

▶Sensor Layout

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