

# COMPONENTS FOR MISFEED SENSORS

## COMPONENTS FOR MISFEED SENSORS



Product name	CONTACT TYPE MISFEED SENSOR UNITS	CONTACT TYPE MISFEED SENSOR UNITS	MICROSWITCH MISFEED SENSOR UNITS	
Catalog No.	MFSF	MFL	SMA	—HOLE FEED TYPE—
Page	628	629	631	633



Product name	PHOTOELECTRIC MISFEED SENSOR UNITS	BRACKETS FOR SENSORS		BRACKETS FOR SENSORS		MISFEED SENSOR UNITS	
Catalog No.	MFG	MGA	SNB	SNB-D	SNBA	SNBA-D	OKJS
Page	635	637	637	637	638	638	638

# CONTACT TYPE MISFEED SENSOR UNITS

RoHS MFSF

① Case  
② Sensor pin  
③ Spring  
④ Plug  
⑤ Lead wire length=300

① M POM resin  
② M SKD61  
③ M SWP-A  
④ M Brass  
⑤ 48 ~ 52HRC

L	Catalog No.	B	P	Base unit price
		0.1mm increments		1 ~ 4 pieces
23	MFSF	8	0.4 ~ 1.5	Quotation
25		10		
28		13		

Order **Catalog No.** — **B** — **P**  
MFSF — 10 — P1.0

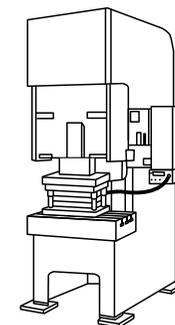
Days to Ship **Quotation**

Price **Quotation**

Alterations **Catalog No.** — **B(BC)** — **P** — **(LHC-LX)**  
MFSF — BC6 — P0.8 — LHC-LX

Alteration	Code	Spec.	1Code
	BC	B dimension change $0 \leq BC < B$ 1mm increments ⚠ Standard L is shortened by (B-BC).	Quotation
	LHC	Addition of groove for lead wire in case	
	LX	Change of lead wire length from 300mm to 600mm	

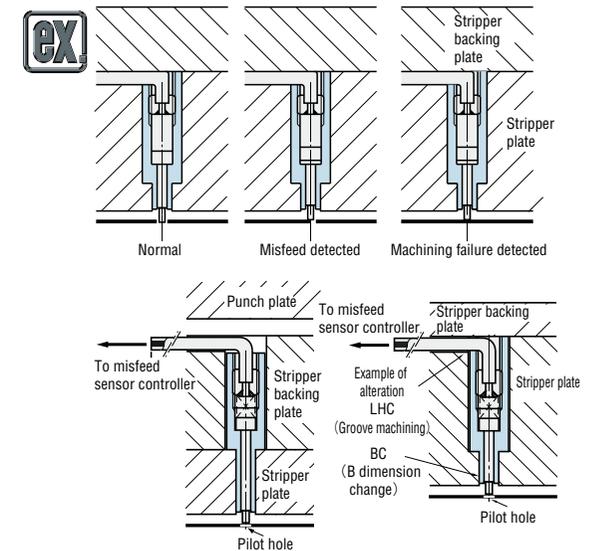
## How to connect



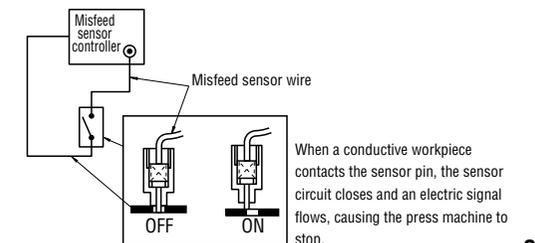
Connect the misfeed sensor lead wires to the sensor input terminals (contact type) of the misfeed sensor controller.

## Features

- Because the sensor pin is light, the sensing point is not shifted by pin vibrations even during high speed operation, ensuring stable sensing.
- When the workpiece contacts the sensor pin due to misfeed, the sensor circuit closes and an electric signal flows. Connect the lead wire to the contact sensing terminal of the misfeed sensor controller. (This unit can be used for conductive workpieces only.)
- Compared with other misfeed sensors, this sensor unit can reduce the total cost because the sensor structure is simple and the mounting hole can be made easily.
- Unlike microswitch or photoelectric misfeed sensors that react to movement of the pilot punch, the contact type misfeed sensor MFSF reacts just when it contacts the workpiece, allowing the press machine to stop promptly.

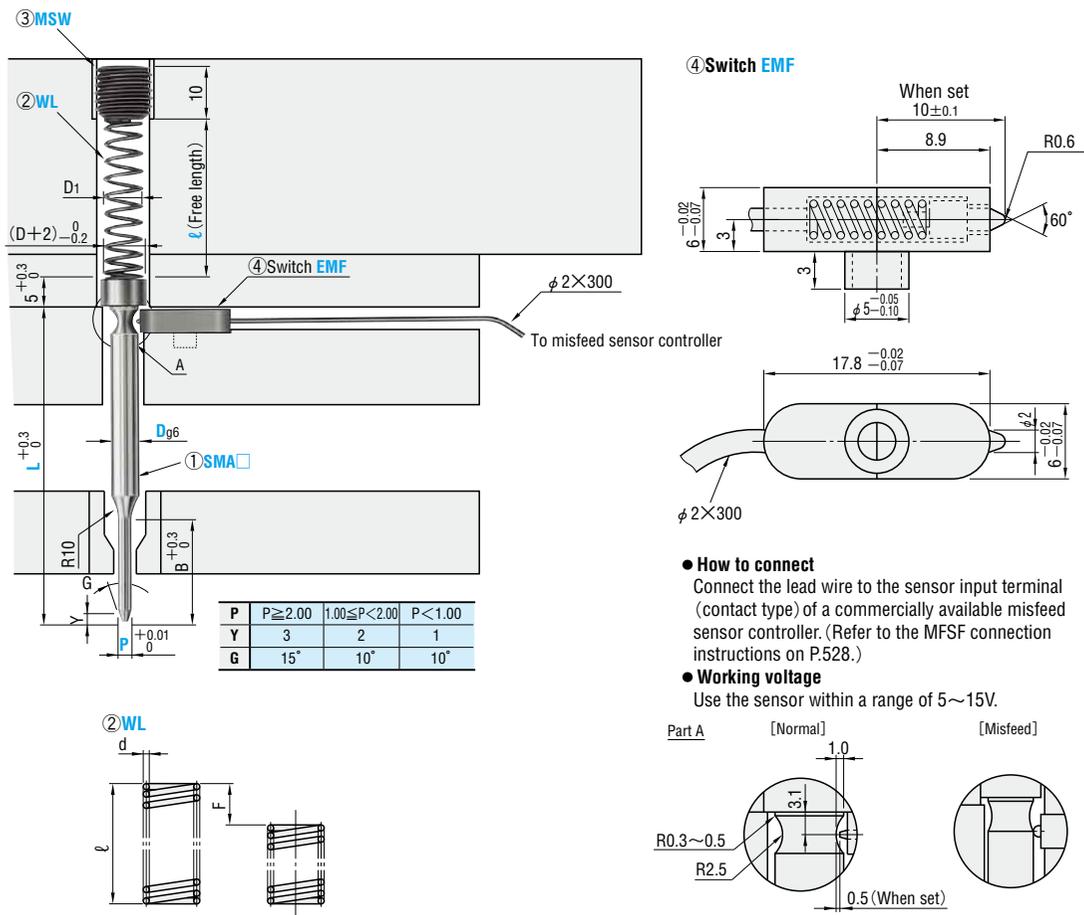


- Install the sensor onto the stripper plate by light press fit or bonding.
- ⚠ If the sensor is installed onto the lower die, care should be taken to prevent potential malfunctions caused by oil or metallic dust.



# CONTACT TYPE MISFEED SENSOR UNITS

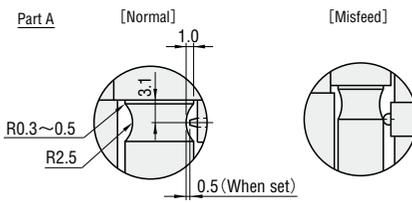
RoHS



	P ≥ 2.00	1.00 ≤ P < 2.00	P < 1.00
Y	3	2	1
G	15°	10°	10°

**How to connect**  
Connect the lead wire to the sensor input terminal (contact type) of a commercially available misfeed sensor controller. (Refer to the MFSF connection instructions on P.528.)

**Working voltage**  
Use the sensor within a range of 5~15V.



Part No.	Name	Catalog No.	Material	Part No.	Name	Catalog No.	Material
①	Misfeed pin	SMAS SMAL SMAX	Equivalent to SKD11 60 ~ 63HRC	③	Screw plug	MSW	P.819
②	Spring for misfeed pin	WL	P.1401	④	Switch	EMF	Polycarbonate

WL Spring constant 1N/mm {0.1kgf/mm}

①	WL Spring constant 1N/mm {0.1kgf/mm}										
	Type	ℓ	d	max.F	d	max.F	d	max.F	d	max.F	d
② WL	25	0.65	10	0.65	10	0.75	10	0.9	10	0.9	10
	30	0.7	12	0.7	12	0.8	12	0.9	12	0.9	12
	35	0.7	14	0.7	14	0.8	14	0.9	14	0.9	14
	40	0.7	16	0.7	16	0.8	16	0.9	16	0.9	16
	45	0.75	18	0.75	18	0.85	18	1.0	18	1.0	18
	50	0.75	20	0.75	20	0.85	20	1.0	20	1.0	20
	55	0.75	22	0.75	22	0.85	22	1.0	22	1.0	22
	60	0.8	24	0.8	24	0.9	24	1.0	24	1.0	24
	65	0.8	26	0.8	26	0.9	26	1.1	26	1.1	26
	70	0.85	28	0.85	28	1.0	28	1.1	28	1.1	28
③ MSW	M8×P1.25		M10×P1.5		M10×P1.5		M12×P1.5		M14×P1.5		

Spring load (N) = Spring constant (N/mm) × deflection F (mm) (N) = kgf × 9.80665

## ① Misfeed pin

B	Catalog No.		L							P	Base unit price	Volume discount unit price			
	Type	D	4	5	6	7	8	9	10	0.01mm increments	1~4 pieces	5~9	10~19	20~50	
10	SMAS	4	50	60	70	80				1.00~3.97					
		5	50	60	70	80	90	100		2.00~4.97					
		6	50	60	70	80	90	100		2.00~5.97					
15	SMAL	4	60	70	80					1.00~3.97					
		5	60	70	80	90	100			2.00~4.97					
		6	60	70	80	90	100			3.00~7.97					
21	SMAX	10	60	70	80	90	100	110		3.00~9.97					
4		60	70	80					1.20~3.97						
5		60	70	80	90	100			2.00~4.97						
27	SMAX	6	60	70	80	90	100			2.00~5.97					
8		70	80	90	100				3.00~7.97						
32	SMAX	7	70	80	90	100	110			3.00~9.97					
8		70	80	90	100	110			3.00~9.97						

Order **Catalog No.** - L - P  
SMAS 6 - 80 - P3.00

Days to Ship **Quotation**

Alterations **Catalog No.** - L(LC) - P(PC) - (BC·HC·NTC·PKC)  
SMAS 8 - LC79 - PC2.50

Alteration	Code	Spec.	1Code
	PC	Tip diameter change PC ≥ P <sub>min</sub> ≥ 0.50 0.01mm increments	Quotation
	BC	Tip length change Y + 2 ≤ BC ≤ Bmax. BC ≤ L(LC) - 30 0.1mm increments	Quotation
	LC	L dimension change (B) + 30 ≤ LC < L 0.1mm increments If difference between L dimension and tip length is 30 or less, tip length is adjusted to L - 30.	Quotation

Alteration	Code	Spec.	1Code
	HC	Head diameter change D ≤ HC < D + 2 0.1mm increments	Quotation
	NTC	Elimination of tip taper	Quotation
	PKC	Tip diameter tolerance p + 0.01 → + 0.005 change	Quotation

## ②③④ Sensor units

Catalog No.	Type	D	Type	ℓ	Base unit price	Volume discount unit price			
					1~4 sets	5~9	10~19	20~50	
MFL	WL	4	25 30 35 40 45 50 55 60 65 70						
		5							
		6							
		8							
		10							

Order **Catalog No.** - ②Type · ℓ  
MFL 6 - WL 60

Days to Ship **Quotation**

## ④ Component parts (individual parts)

Part No.	Name	Catalog No.	Base unit price	Volume discount unit price		
			1~4 pieces	5~9	10~19	20~50
④	Switch	EMF		Quotation		

Order **Catalog No.**  
EMF

Days to Ship **Quotation**

Refer to the corresponding pages for details of the following components.

Part No.	Name	Catalog No.	Page
②	Spring for misfeed pin	WL	P.1401
③	Screw plug	MSW	P.819

COMPONENTS FOR MISFEED SENSORS

# MICROSWITCH MISFEED SENSOR UNITS

## —GROOVE FEED TYPE—

① The groove feed type requires machining of a groove on the punch plate for installing the relation pin ④.

RoHS

**③ MSW**  
**② WL**  
**④ RSPIN**  
**① SMA□**  
**⑤ Microswitch (Z-15GD55-B)**  
**⑥ Protective cover AP-Z**

P	P ≥ 2.00	1.00 ≤ P < 2.00	P < 1.00
Y	3	2	1
G	15°	10°	10°

Part No.	Name	Catalog No.	Material	Part No.	Name	Catalog No.	Material
①	Misfeed pin	SMAS SMAL SMAX	M Equivalent to SKD11 H 60~63HRC	④	Relation pin	RSPIN	M SK4 S Black oxide (Fe <sub>3</sub> O <sub>4</sub> )
②	Spring for misfeed pin	WL	P.1401	⑤	Microswitch	Z-15GD55-B	Made by OMRON
③	Screw plug	MSW	P.819	⑥	Protective cover	AP-Z	Made by OMRON

		WL Spring constant 1N/mm (0.1kgf/mm)										⑤ Microswitch (Z-15GD55-B)
		D4		D5		D6		D8		D10		
Type	φ D <sub>1</sub>	ℓ	d	max.F	d	max.F	d	max.F	d	max.F	d	
② WL	25	0.65	10	0.65	10	0.75	10	0.9	10	0.9	10	0.9
	30	0.7	12	0.7	12	0.8	12	0.9	12	0.9	12	0.9
	35	0.7	14	0.7	14	0.8	14	0.9	14	0.9	14	0.9
	40	0.7	16	0.7	16	0.8	16	0.9	16	0.9	16	0.9
	45	0.75	18	0.75	18	0.85	18	1.0	18	1.0	18	1.0
	50	0.75	20	0.75	20	0.85	20	1.0	20	1.0	20	1.0
	55	0.75	22	0.75	22	0.85	22	1.0	22	1.0	22	1.0
③ MSW	60	0.8	24	0.8	24	0.9	24	1.0	24	1.0	24	1.0
	65	0.8	26	0.8	26	0.9	26	1.1	26	1.1	26	1.1
	70	0.85	28	0.85	28	1.0	28	1.1	28	1.1	28	1.1

• Operation force OF 540g  
 • Return force RF: Min.114g  
 • Movement before operation PT: Max. 1.8mm  
 • Movement after operation OT: Min. 1.6mm  
 • Movement differential (hysteresis) MD: Max. 0.06mm  
 • Operating position OP: 21.5±0.5mm  
 • Service temperature range: -15 ~ 80°C

Spring load (N)=Spring constant (N/mm) × deflection F (mm) (N)=kgf × 9.80665

### ① Misfeed pin

B	Catalog No.		L					P	Base unit price	Volume discount unit price		
	Type	D	4	5	6	7	8	8	1~4 pieces	5~9	10~19	20~50
10	SMAS	4	50	60	70	80		1.00~3.97				
		5	50	60	70	80	90	100	2.00~4.97			
		6	50	60	70	80	90	100	2.00~5.97			
15	SMAL	8	50	60	70	80	90	100	3.00~7.97			
		4	60	70	80				1.00~3.97			
		5	60	70	80	90	100		2.00~4.97			
21	SMAX	6	60	70	80	90	100		2.00~5.97			
		8	60	70	80	90	100		3.00~7.97			
		10	60	70	80	90	100	110	3.00~9.97			

Order **Catalog No.** — L — P  
 SMAS 6 — 80 — P3.00

Days to Ship **Quotation**

Alterations **Catalog No.** — L(LC) — P(PC) — (BC-HC-NTC-PKC)  
 SMAS 8 — LC79 — PC2.50

Alteration	Code	Spec.	1Code
PC	PC	Tip diameter change PC ≥ Pmin. ≥ 0.50 0.01mm increments	Quotation
BC	BC	Tip length change Y+2 ≤ BC ≤ Bmax. BC ≤ L(LC) - 30 0.1mm increments	Quotation
LC	LC	L dimension change 0.1mm increments * If difference between L dimension and tip length is 30 or less, tip length is adjusted to L-30.	Quotation

Alteration	Code	Spec.	1Code
HC	HC	Head diameter change D ≤ HC < D+2 0.1mm increments	Quotation
NTC	NTC	Elimination of tip taper	Quotation
PKC	PKC	Tip diameter tolerance change p +0.01 → +0.005	Quotation

### ② Sensor units (②③④⑤⑥)

Catalog No.		②		Base unit price	Volume discount unit price		
Type	D	Type	ℓ	1~4 sets	5~9	10~19	20~50
MFD	4	WL	25				
	5		30				
	6		35				
	8		45				
	10		55	65	70		

Order **Catalog No.** — ② Type-ℓ  
 MFD 6 — WL 60

Days to Ship **Quotation**

### ③ Component parts (Individual parts)

Part No.	Name	Catalog No.	Base unit price	Volume discount unit price		
			1~4 pieces	5~9	10~19	20~50
④	Relation pin	RSPIN				
⑤	Microswitch	Z-15GD55-B				
⑥	Protective cover	AP-Z				

Part No.	Name	Catalog No.	Page
②	Spring for misfeed pin	WL	P.1401
③	Screw plug	MSW	P.819

Order **Catalog No.** Z-15GD55-B

Days to Ship **Quotation**

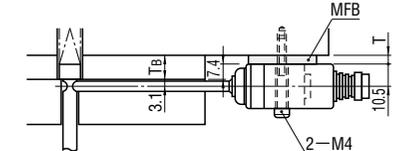
**Microswitch mounting plates** RoHS **MFB** 2-φ4.5

Material: S45C, Black oxide (Fe<sub>3</sub>O<sub>4</sub>)

Catalog No.		Base unit price	Volume discount unit price		
Type	T	1~4 pieces	5~9	10~19	20~50
MFB	2.6				
	5.6				
	8.2				
	8.6				
	11.2				
	12.6				
	14.2				

Standard for selecting thickness (T) of microswitch mounting plate

• The plate thickness must be decided assuming the use of a protective cover.



Backing plate thickness (T <sub>B</sub> )	Mounting plate thickness (T)
10	2.6
13	5.6
16	8.6
20	12.6

• MFB8.2, 11.2, 14.2 and 18.2 are specifications available for side hole types (P.633).

COMPONENTS FOR MISFEED SENSORS



# PHOTOELECTRIC MISFEED SENSOR UNITS

**① Misfeed pin**

P	P $\geq$ 2.00	P<2.00
Y	3	2
G	15°	10°

**② Switch bar GSB**

**③ Spring WL**

**④ Screw plug GM**

**⑤ Photoelectric device EE-SX670** RoHS

**⑥ Connector EE-1001** How to use P.636

**Detection position characteristic**

Final stage Tr ON	When shading: ON
Light beam	Light beam
Final stage Tr OFF	Light beam

Distance d (mm): 1.0, 2.0, 3.0, 4.0, 5.0

[Normal operation] The sensor receives light from the light emitting unit and remains OFF.

[Misfeed] When a workpiece misfeed occurs, the switch bar is pushed up and blocks the light from light emitting unit, causing the sensor to turn ON.

Part No.	Name	Catalog No.	Material	Part No.	Name	Catalog No.	Material
①	Misfeed pin	MGAS MGAL MGAX	Equivalent to SKD11 60~63HRC	④	Screw plug	GM	S45C 34~43HRC
②	Switch bar	GSB	SK4 Black oxide	⑤	Photoelectric element	EE-SX670	Made by OMRON Output: OFF when receiving light
③	Spring for misfeed pin	WL	P.1401	⑥	Connector	EE-1001	Made by OMRON

D	ℓ	③ WL Spring constant 1N/mm (0.1kgf/mm)														D <sub>1</sub>	M×P	φ D <sub>2</sub>								
		WL25		WL30		WL35		WL40		WL45		WL50		WL55					WL60		WL65		WL70			
		d	max.F	d	max.F	d	max.F	d	max.F	d	max.F	d	max.F	d	max.F	d	max.F	d	max.F	d	max.F	d	max.F			
5																								10		7
6		0.65	10	0.7	12	0.7	14	0.7	16	0.75	18	0.75	20	0.75	22	0.8	24	0.8	26	0.85	28			10		8
8																								12	1.5	10
10																								14		12

Spring load (N) = Spring constant (N/mm) × deflection F (mm) {N} = kgf × 9.80665

## ① Misfeed pin

B	Catalog No.		L						P	Base unit price	Volume discount unit price			
	Type	D	5	6	7	8	9	10	0.01mm increments	1~4 pieces	5~9	10~19	20~50	
10	MGAS	5	50	60	70	80	90	100	2.00~4.97					
15		6	50	60	70	80	90	100	2.00~5.97					
		8	50	60	70	80	90	100	3.00~7.97					
15	MGAL	5	60	70	80	90	100	2.00~4.97						
21		6	60	70	80	90	100	2.00~5.97						
		8	60	70	80	90	100	3.00~7.97						
		10	60	70	80	90	100	110	3.00~9.97					
27	MGAX	5	60	70	80	90	100	2.00~4.97						
		6	60	70	80	90	100	2.00~5.97						
32		8	70	80	90	100	3.00~7.97							
		10	70	80	90	100	110	3.00~9.97						

Alterations Catalog No. — L(C) — P(C) — (BC·HC·NTC·PKC)  
MGAS 6 — LC65.0 — P4.97

Alteration	Code	Spec.	1Code
	PC	Tip diameter change PC $\geq$ P <sub>min.</sub> 0.01mm increments	Quotation
	BC	Tip length change Y+2 $\leq$ BC $\leq$ Bmax. BC $\leq$ L(C) - 30 0.1mm increments	Quotation
	LC	L dimension change 0.1mm increments If difference between L dimension and tip length is 30 or less, tip length is adjusted to L-30.	Quotation

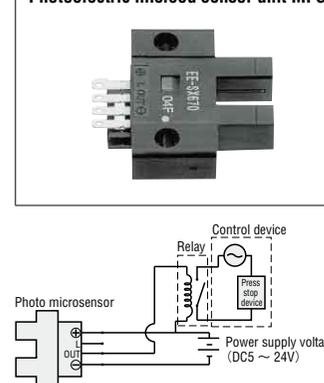
Order Catalog No. — L — P  
MGAS 6 — 70 — P4.97

Days to Ship **Quotation**

## Sensor units (②③④⑤⑥)

Catalog No.		③					Base unit price	Volume discount unit price		
Type	D	Type	ℓ			1~4 sets	5~9	10~19	20~50	
MFG	5	WL	25	30	35	40	45			
	6		50	55	60	65	70			
	8									
	10									

### Photoelectric misfeed sensor unit MFG



- Instructions for proper use**
- Be sure to use a relay with a current consumption of 100mA or less for the output.
  - Keep the sensor unit away from high voltage lines and power lines wherever possible. Otherwise induction may cause the unit to malfunction, resulting in machine damage.
  - If there are devices generating high surges (motors, welders and other spark-generating devices), be sure to connect a surge absorber in the surge source.
  - Because the sensor is a photoelectric device, it may be affected by reflected external light. Avoid installing in environments where such light is present wherever possible.
  - Because the photoelectric microsensor is activated by light, keep the light emitting and receiving faces clean by wiping them with a dry cloth.
  - To attach the photo microsensor, use M3.0 screws and control the tightening torque to 5.5kg·cm or less.
  - Be sure to use an EE-1001 connector.

## Component parts (individual parts)

Part No.	Name	Misfeed pin ①	Catalog No.		Base unit price	Volume discount unit price		
			Type	D <sub>2</sub> ·M	1~4 pieces	5~9	10~19	20~50
②	Switch bar	D 5	GSB	7				
		D 6		8				
		D 8		10				
		D10		12				
④	Screw plug	D 5	GM	10				
		D 6		12				
		D 8		14				
		D10						
⑤	Photoelectric element	—	EE-SX670					
⑥	Connector	—	EE-1001					

Order Catalog No. — EE-SX670

Days to Ship **Quotation**

For details of spring for misfeed pin WL (③), refer to P.1401.

# BRACKETS FOR SENSORS

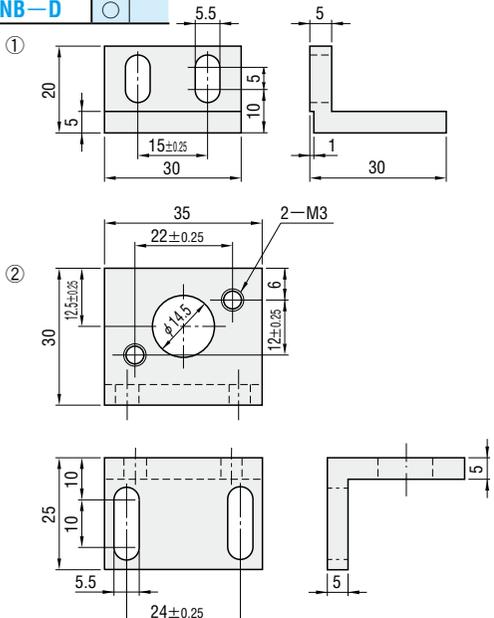
# MISFEED SENSOR UNITS

— CONTACT TYPE —



RoHS

Catalog No.	①	②
SNB	○	○
SNB-D	○	○



①  $20 \times 30$  (Hole:  $15 \pm 0.25$ ,  $5.5$ ,  $5$ ,  $10 \pm 0.5$ )

②  $30 \times 30$  (Hole:  $12.5 \pm 0.25$ ,  $22 \pm 0.25$ ,  $6$ ,  $12 \pm 0.25$ ,  $1.5$ ,  $2-M3$ )

③  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

④  $30 \times 30$  (Hole:  $7.8$ ,  $5.5$ ,  $10 \pm 0.5$ )

⑤  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑥  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑦  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑧  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑨  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑩  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑪  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑫  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑬  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑭  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑮  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑯  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑰  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑱  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑲  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑳  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

㉑  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

㉒  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

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㊾  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

㊿  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

Ⓜ SS400

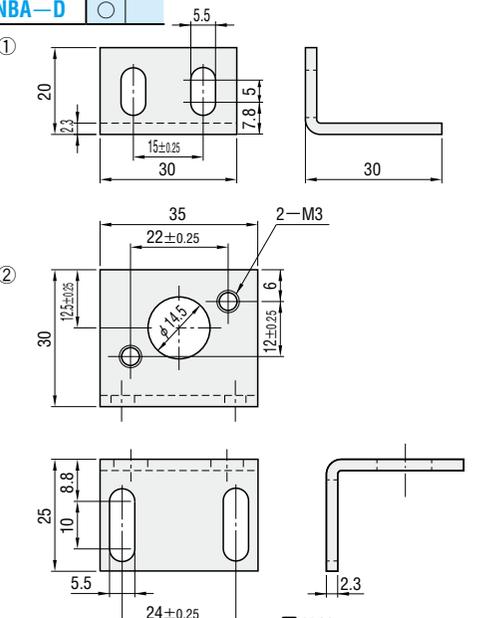
Ⓜ 4 pcs. of CB5-20

Ⓜ For SNB-D, 2 pcs. of CB5-20 are attached.



RoHS

Catalog No.	①	②
SNBA	○	○
SNBA-D	○	○



①  $20 \times 30$  (Hole:  $15 \pm 0.25$ ,  $5.5$ ,  $5$ ,  $10 \pm 0.5$ )

②  $30 \times 30$  (Hole:  $12.5 \pm 0.25$ ,  $22 \pm 0.25$ ,  $6$ ,  $12 \pm 0.25$ ,  $1.5$ ,  $2-M3$ )

③  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

④  $30 \times 30$  (Hole:  $7.8$ ,  $5.5$ ,  $10 \pm 0.5$ )

⑤  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑥  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑦  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑧  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑨  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑩  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑪  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑫  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑬  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑭  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑮  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑯  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑰  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑱  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑲  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

⑳  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

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㊾  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

㊿  $25 \times 24 \pm 0.25$  (Hole:  $10$ ,  $5.5$ ,  $10$ )

Ⓜ SPCC

Ⓜ Bright chromate

Ⓜ 4 pcs. of CB5-20

Ⓜ For SNBA-D, 2 pcs. of CB5-20 are attached.

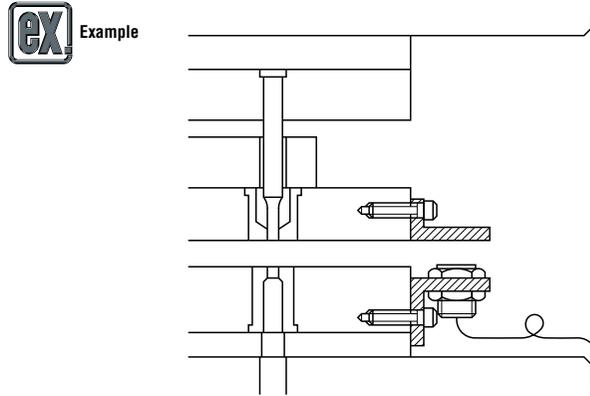
**Order** **Catalog No.** SNB

**Days to Ship** **Quotation**

**Price**

Catalog No.	Base unit price	Volume discount unit price			
		1~4 sets	5~9	10~19	20~50
SNB					
SNB-D					
SNBA					
SNBA-D					

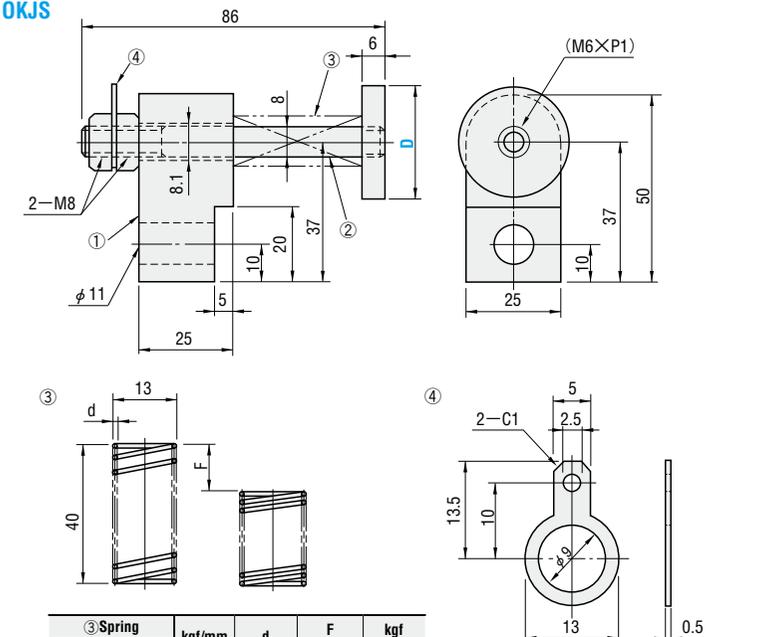
Quotation





RoHS

**OKJS**



① PF (phenol resin)

② S45C

③ Black oxide (Fe<sub>3</sub>O<sub>4</sub>)

④ SWP-A

⑤ SPCC

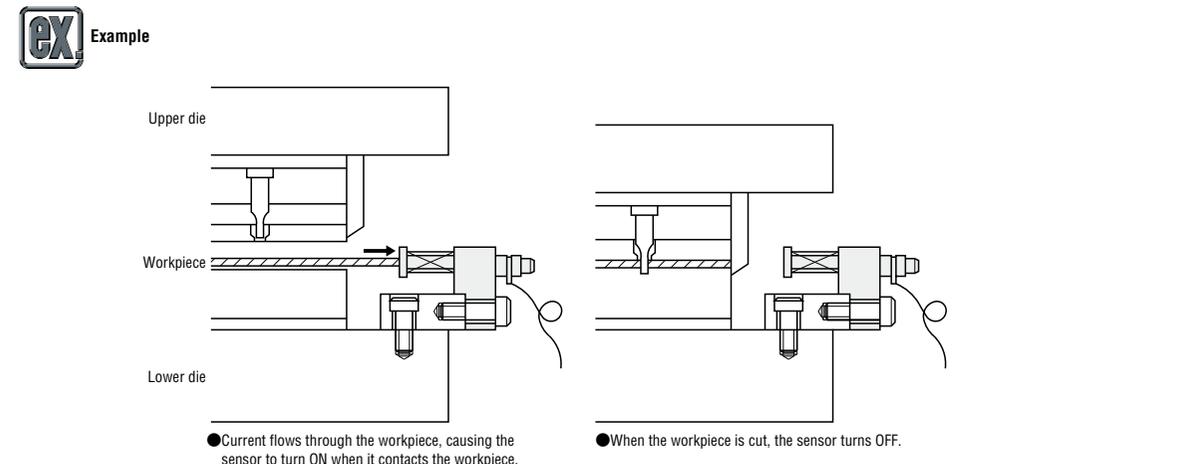
⑥ M8 nut

Ⓜ Bolts (M10) for mounting the unit are not included.

③ Spring		kgf/mm	d	F max.	kgf max.
Type	D-L				
WF	13-40	0.05	1.0	18	0.9
WL	13-40	0.1	1.1	16	1.6
WM	13-40	0.3	1.4	14	4.2

Spring load (kgf) = Spring constant (kgf/mm) × Deflection F (mm)  
(N) = kgf × 9.80665

Catalog No.		③ Spring	Base unit price	Volume discount unit price			Order	Catalog No.	③ Spring
Type	D		1~4 pieces	5~9	10~19	20~50		OKJS 16	
OKJS	16 20 30	WF WL WM	Quotation			Days to Ship Quotation			



COMPONENTS FOR MISFEED SENSORS