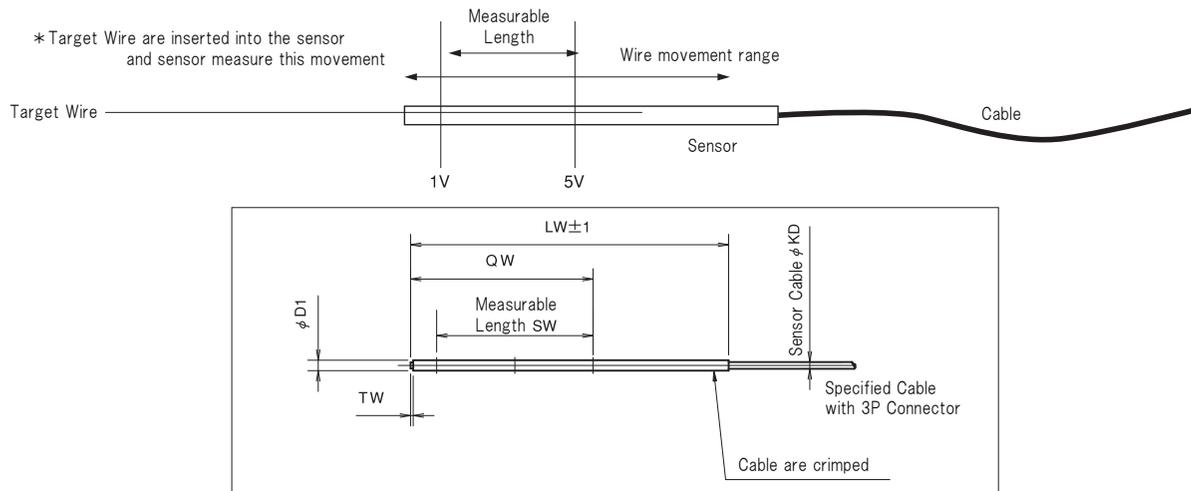


## WIRE IN PULSE CODER



No.	TYPE	LW(L=mm)	QW(mm)	SW(M=mm)	TW(mm)	D1(φmm)	KD(φmm)	Cable Length (m)	Remarks
1	WP20-012	31	17	12	0.5~1.0	2	1.3	2	It have crimping mark for cable fixing
2	WP20-030	61	35	30	0.5~1.0	2	1.3	2	It have crimping mark for cable fixing

## TARGET WIRE

No.	TYPE	Q(L=mm)	D2(mm)
1	WP20-012	80	0.2
2	WP20-030	100	0.2

# P-ROD (PUSH ROD PULSE CODER)

## PUSH ROD PULSE CODER Mini PUSH ROD PULSE CODER

## Spring type displacement sensor

Durability is more than 10million !!

Very small push rod !!

measure displacement  
and conduction



**CLP80-020**

Outer Diameter :  $\Phi 8\text{mm}$   
Product Length :  $102,5\text{mm}+38,5\text{mm}$  (Moving rod)  
Measurable Length :  $20\text{mm}$  ( Stroke  $24\text{mm}$ )  
Operating Temperature :  $-10\sim 70^{\circ}\text{C}$   
(no dew condensation)

Linearity : 1.5%/FS以下 ( $23\pm 5^{\circ}\text{C}$ )  
Measurable pressure : 1.7N or less  
Response Frequency : 16Hz



**CLP35-008**

Outer Diameter :  $\Phi 3,5\text{mm}$   
Product Length :  $60\text{mm}+18,5\text{mm}$  (Moving rod)  
Measurable Length :  $8\text{mm}$  ( Stroke  $10\text{mm}$ )  
Operating Temperature :  $-10\sim 70^{\circ}\text{C}$  (Sensor and amplifier)  
Measurable pressure : 0.5N or less

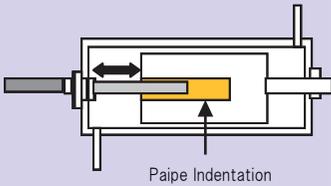


**MINI PUSH ROD  
PULSE CODER**

Outer Diameter :  $\Phi 1,5\text{mm}$   
Measurable Stroke :  $\sim 3\text{mm}$

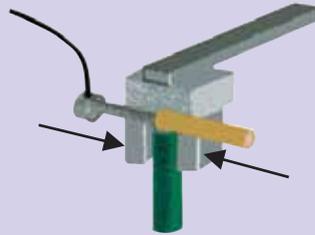
You can measure several situation which you can't recognize in past !!

## LINEAR PULSE CODER



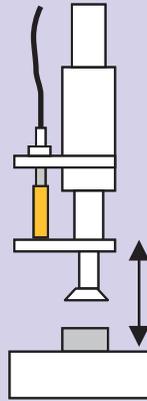
Hydraulic pneumatic cylinder position measurement

## LINEAR PULSE CODER



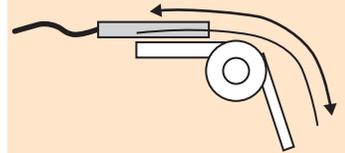
Handling equipment position measurement

## LINEAR PULSE CODER



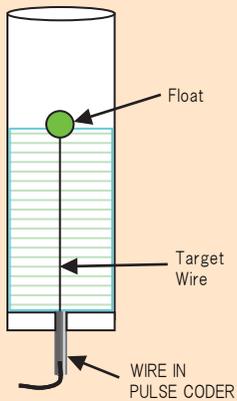
Small actuator position measurement

## WIRE IN PULSE CODER



Flexibility Robot Position Measurement

## WIRE IN PULSE CODER



Fluid Level Measurement

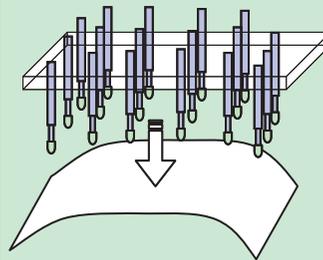
## WIRE IN PULSE CODER

### LEVEX GLOBE



Finger operation measurement

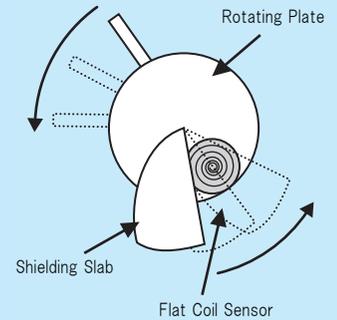
## PUSH ROD PULSE CODER



Curve surface position measurement

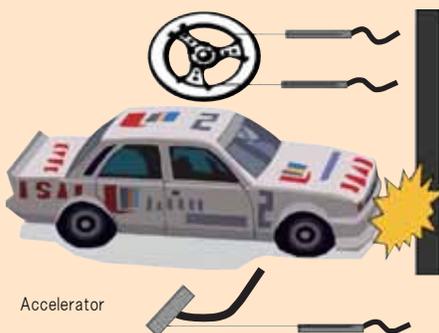
## FLAT PULSE CODER PROX.

※Special Order



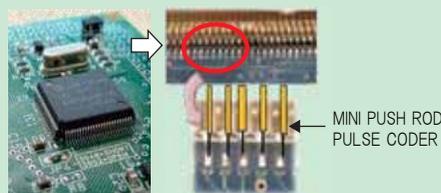
Angle detection

## WIRE IN PULSE CODER



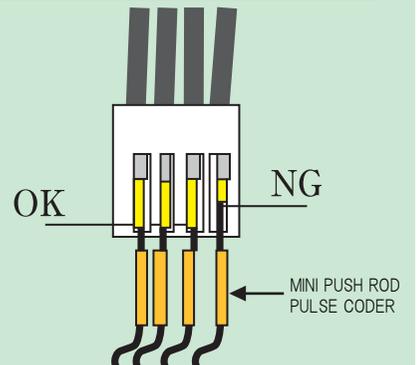
Crash Test

## MINI PUSH ROD PULSE CODER



Soldering amount detecting

## MINI PUSH ROD PULSE CODER



Connector pin position measurement

# Specification

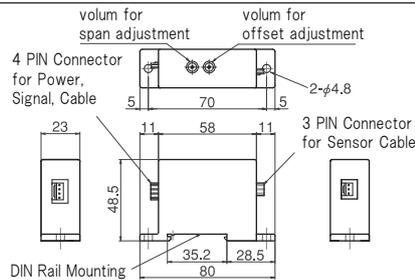
## Specification of Sensor

	LP15	LP20	LP40	WP20
Sensor Rod Dia. (mm)	1.5	2	4	2
Target	Material	Brass Pipe (C2700)		SUS304 Wire
	Outside Diameter (mm)	$\phi 3(-0.01,-0.05)$	$\phi 4(-0.01,-0.05)$	$\phi 0.2$
	Inside Diameter (mm)	$\phi 2(\pm 0.03)$	$\phi 3(\pm 0.03)$	—
Measurable Length (mm)	14	5	10	12
	—	—	16	30
	—	—	25	—
	—	—	40	—
Linearity	*2 $\pm 1\%$ /FS or less			*2 $\pm 2\%$ /FS or less
*1 Temperature Influence	1%/FS or less (0 ~ 60°C)			2%/FS or less (0 ~ 60°C)
Operating Temperature	-20°C ~ 80°C			
Lead Cable	Length : 2m, Dia. 3.4mm ( with specified 3pin connector )			Length : 2m, Dia. :1.3mm ( with specified 3pin connector )
Protection Class	IP64			
Pressure Resistant	Oil Pressure Resistant : 21 MPa resultson's record			
Magnetic Field Resistant	0.2T ( Tesla )			

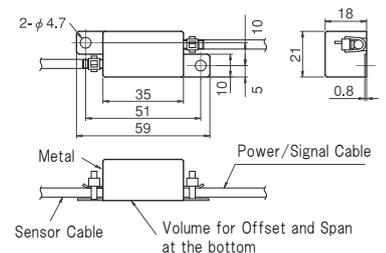
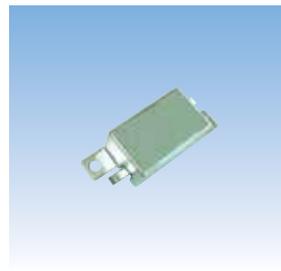
※1) Temperature Influence is the middle point of measurement range ※2) Output error from ideal Line

## Amplifier

### Standard Amplifier / Type: CV05



### Sub Standard Amplifier / Type: CVS5



## Specification of Amplifier

	CV05	CVS5
Power Supply	DC 12V~24V $\pm 10\%$	DC 9V~16V $\pm 10\%$
Current Consumption	40mA or less	
Signal Output Voltage	Analogue output 1 ~ 5V (Current output 4 ~ 20 mA is also possible as special order)	
Resolution	Approx. 1/2000 of the entire measurement area	
Response Frequency	4kHz	
Operating Temperature	-20°C ~ 80°C	
* Temperature Influence	0.025% of FS/C以下 (0~60°C)	
Attached Cable	Specified Cable 2m (4PIN connector, $\phi 4$ mm) Color: Brown/Power V+, Black/Power GND, Orange/Signal GND, Blue/Signal V+	
Diameter	W23mm×D58mm×H48.5mm	W21mm×D35mm×H18mm

※) Temperature Influence is the middle point of measurement range