

DIGITAL TEMPERATURE CONTROLLER



FEATURES

- Thermocouple/RTD/DC1~5V/DC4~20mA programmable inputs
- PID control + Overshoot Fuzzy with Autotuning
- Selectable alarm type: absolute, deviation, and zone
- Dustproof and waterproof protection
- Digital communication with Modbus
- HBA for single phase
- Heating/cooling dual control outputs

1. MODEL:

PFT Model and Suffix Code →

MODEL.

PFT Model and Suffix Code →

4	—	5	6	7	—	8	9	10	11	12	13	14
4												
4												
5												
6												
7												
9												
			</									

Note 1 : When Form C relay is selected, control output 2 is not available.

DIGITAL TEMPERATURE CONTROLLER

Alarm Code Table

01	High absolute alarm	05	High deviation alarm	09	Low deviation alarm with hold	12	High/low range absolute alarm *1
02	Low absolute alarm	06	Low deviation alarm	10	High/low deviation alarm with hold	13	High/low range deviation alarm *1
03	High absolute alarm with hold	07	High/low deviation alarm	11	High/low range deviation alarm *1 (AH/AL individual action)	14	High heater break alarm *2
04	Low absolute alarm with hold	08	High deviation alarm with hold			15	Low heater break alarm *2

* 1 : Number 12 to 15 is available only for alarm output 1 (P-AL) type

* 2 : Heater break alarm is allocated to alarm output 1 (P-AL)

2. Specification

(I) Input

Input signal	Thermocouple: J, K, R, B, S, T, E, N, PLII RTD: Pt100 Voltage, Current: 1~5V DC, 4~20mA DC (with 250Ω)
Input accuracy	Thermocouple: ±0.5%FS ±digital ±1°C with the exception of R Thermocouple, 0~400°C: ±1%FS ±1 digital ±1°C B Thermocouple, 0~500°C: ±5%FS ±1 digital ±1°C RTD, Vdc, mAdc: ±0.5%FS ±1 digital
CJC accuracy (23 ±5°C)	±1°C
Sampling time	0.5sec

Input Range Table

Input Signal	Input Range °C	Input Range °F
TC K type	0~1200	32~2192
TC J type	0~800	32~1472
TC E type	-199~800	-328~1472
TC T type	-199~400	-328~752
TC R type	0~1600	32~2912
TC S type	0~1600	32~2912
TC B type	0~1800	32~3272
TC N type	0~1300	32~2372
TC PL II type	0~1300	32~2372
Pt100	-150~850	-238~1562
1-5Vdc	Scaling Range : -1999~9999	
4-20mAdc	Engineering Units	

(II) Control

Control action	1. PID control (with autotuning and Fuzzy) • Reverse and direct action are available • ON/OFF, P, PI, PID are programmable 2. Heating/cooling dual PID control • Reverse and direct action are available • ON/OFF, P, PI, PID are programmable
Control cycle	0.5sec
Proportional band	0~999.9% (P/2 for dual control)
Integral time	0~3200 sec
Derivative time	0~999.9 sec
Hysteresis width	0~50%FS for ON/OFF action
Anti-reset windup	0~100%FS

(III) Output

C Form Relay	250V AC/30V DC, 3A
A Form Relay	250V AC/30V DC, 3A
SSR/SSC drive (voltage pulse)	15~18V DC at ON/ 0.5V DC or less at OFF Current:60mA or less
4~20mA DC	Load resistance less than 600Ω

(IV) Alarm output

Alarm output	A Form Relay 250V AC/30V DC, 1A
--------------	------------------------------------

(V) General specifications

Power Supply	90~260V AC or 24V AC/24V DC
Operation condition	0~50°C (20~90%RH non-condensed)
Storage condition	0~70°C (20~90%RH non-condensed)

DIGITAL PID TEMPERATURE CONTROLLER

(VI) General specifications (Cont'd)

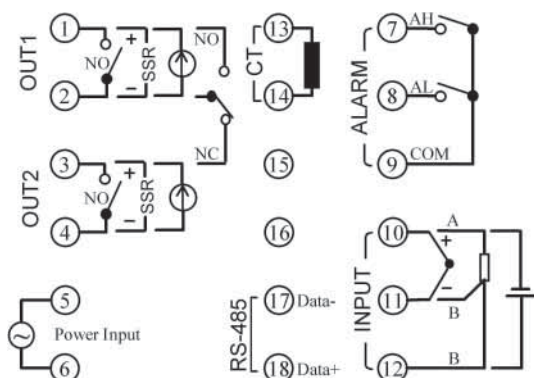
Allowable signal source resistance	Thermocouple: less than 100Ω Voltage: less than 1KΩ
Allowable wiring resistance	RTD: less than 10Ω per wire
Input digital filter	0~900 sec

(VII) Communication

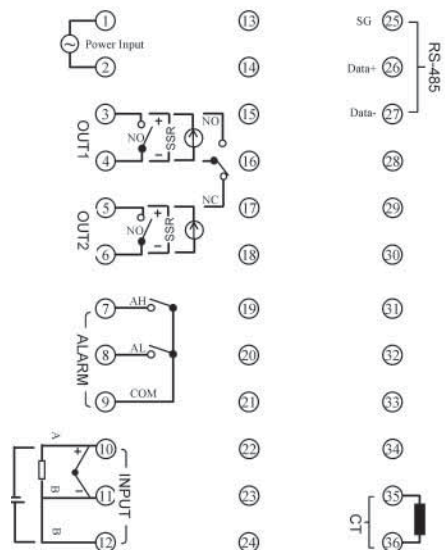
Communication Method	EIA RS-485 (two-wire)
Protocol	Modbus (RTU)
Communication rate	2400, 4800, 9600, 19200bps
Max. connection	30 units

3. Terminal connection

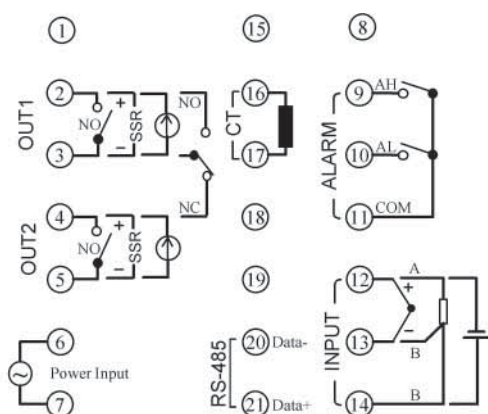
PFT4



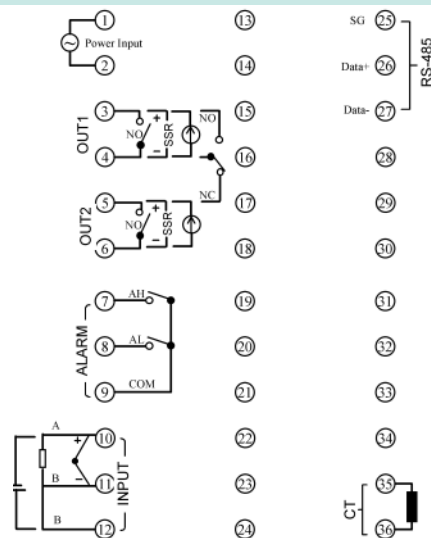
PFT5



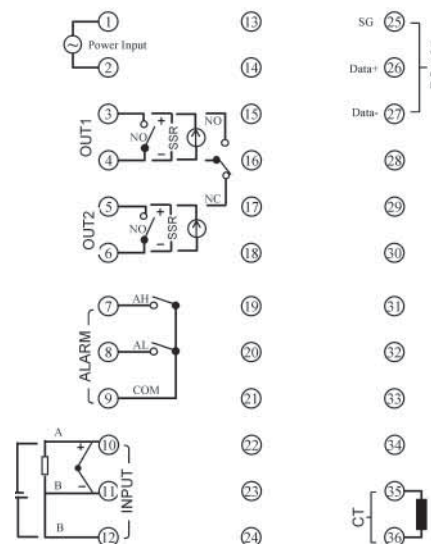
PFT7



PFT6

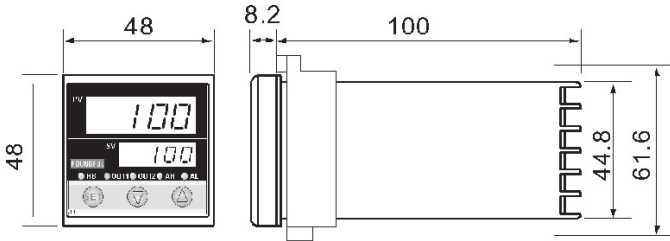
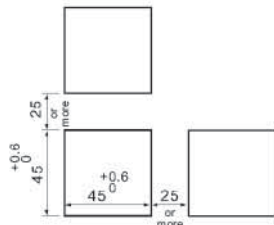
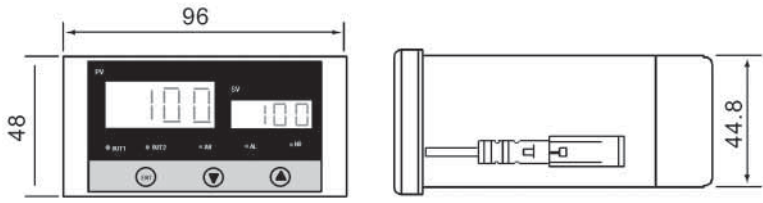
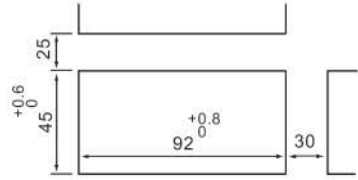
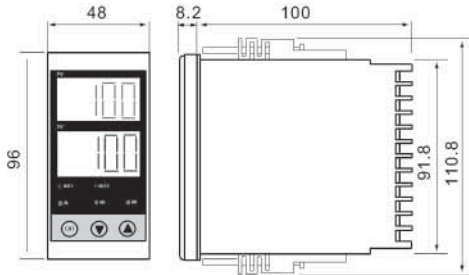
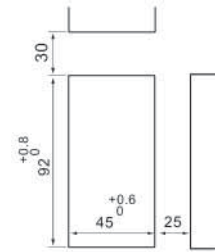
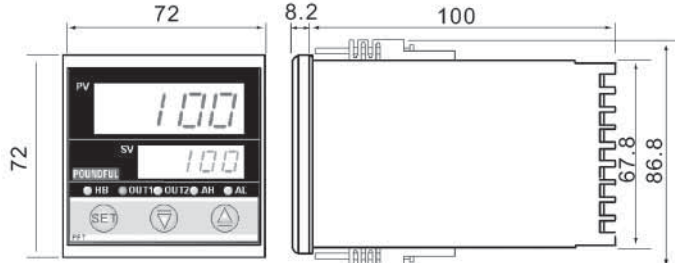
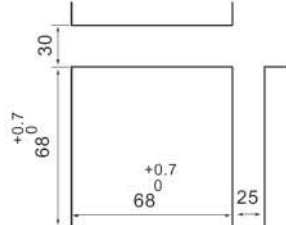
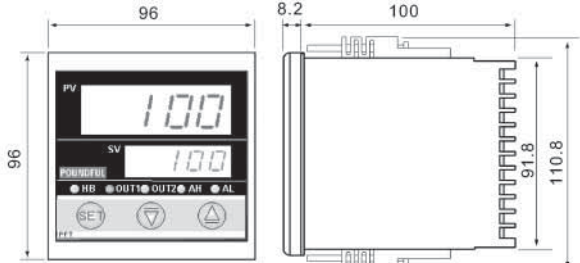
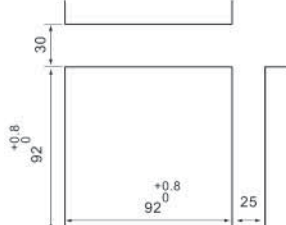


PFT9



DIGITAL TEMPERATURE CONTROLLER

4. Dimensions & Panel Cutout Size (UNIT: mm)

<p>PFT4</p> <p>Dimensions</p> 	<p>Panel cutout size</p> 
<p>PFT5</p> <p>Dimensions</p> 	<p>Panel cutout size</p> 
<p>PFT6</p> <p>Dimensions</p> 	<p>Panel cutout size</p> 
<p>PFT7</p> <p>Dimensions</p> 	<p>Panel cutout size</p> 
<p>PFT9</p> <p>Dimensions</p> 	<p>Panel cutout size</p> 

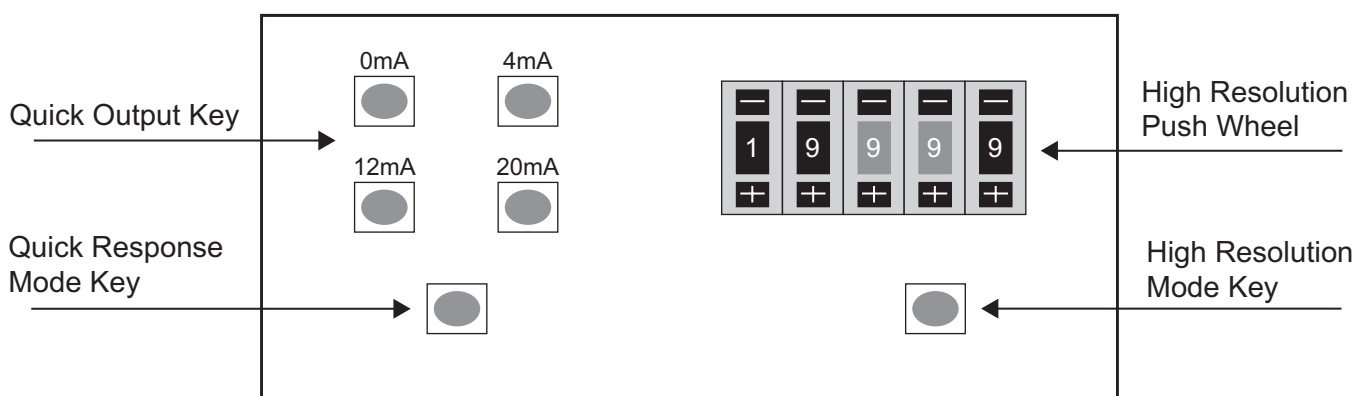
PRECISION DC CURRENT SIMULATOR / CALIBRATOR



FEATURES

- Auxiliary: AC110/220V
- High accuracy 0.03% F.S. ($23\pm5^{\circ}\text{C}$)
- Quick response mode with one touch key for simulation, high resolution mode with push wheel for calibration
- Ripple (Vp-p) $\leq 0.02\%$ F.S.
- Output drive capability $\leq 600\ \Omega$
- Memory type EEPROM
- Dielectric strength : 1.6KVac/1min (power/output)
- Temperature coefficient 100ppm $^{\circ}\text{C}$
- Operating condition: 0~50 $^{\circ}\text{C}$ (20-90% RH non-condensed)
- Storage condition : 0~70 $^{\circ}\text{C}$ (20-90% RH non-condensed)

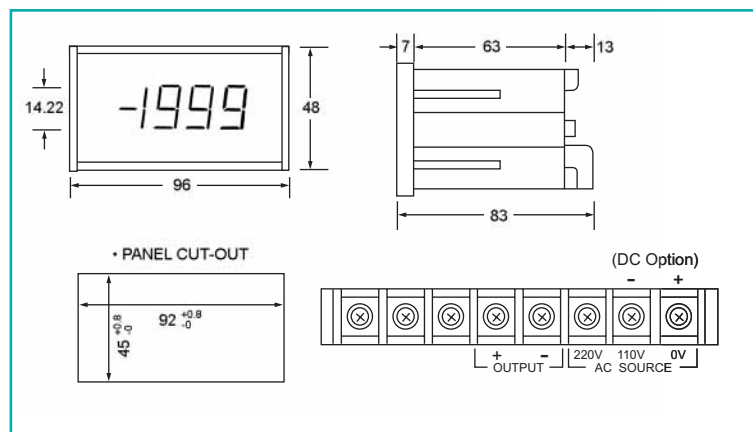
1. MODEL: PF-MDCG



2. Operation

- Quick response mode : Push quick response mode key which will be lit, and select the output needed by quick output key (0mA , 4mA, 8mA, 12mA, 20mA)
- High resolution mode : push high resolution mode key which will be lit, and push the push wheel to obtain the output needed (0-19.999mA)
- EEPROM memory : Remember the last output setting

3. Outside dimension and connection diagram



PROXIMITY SENSOR

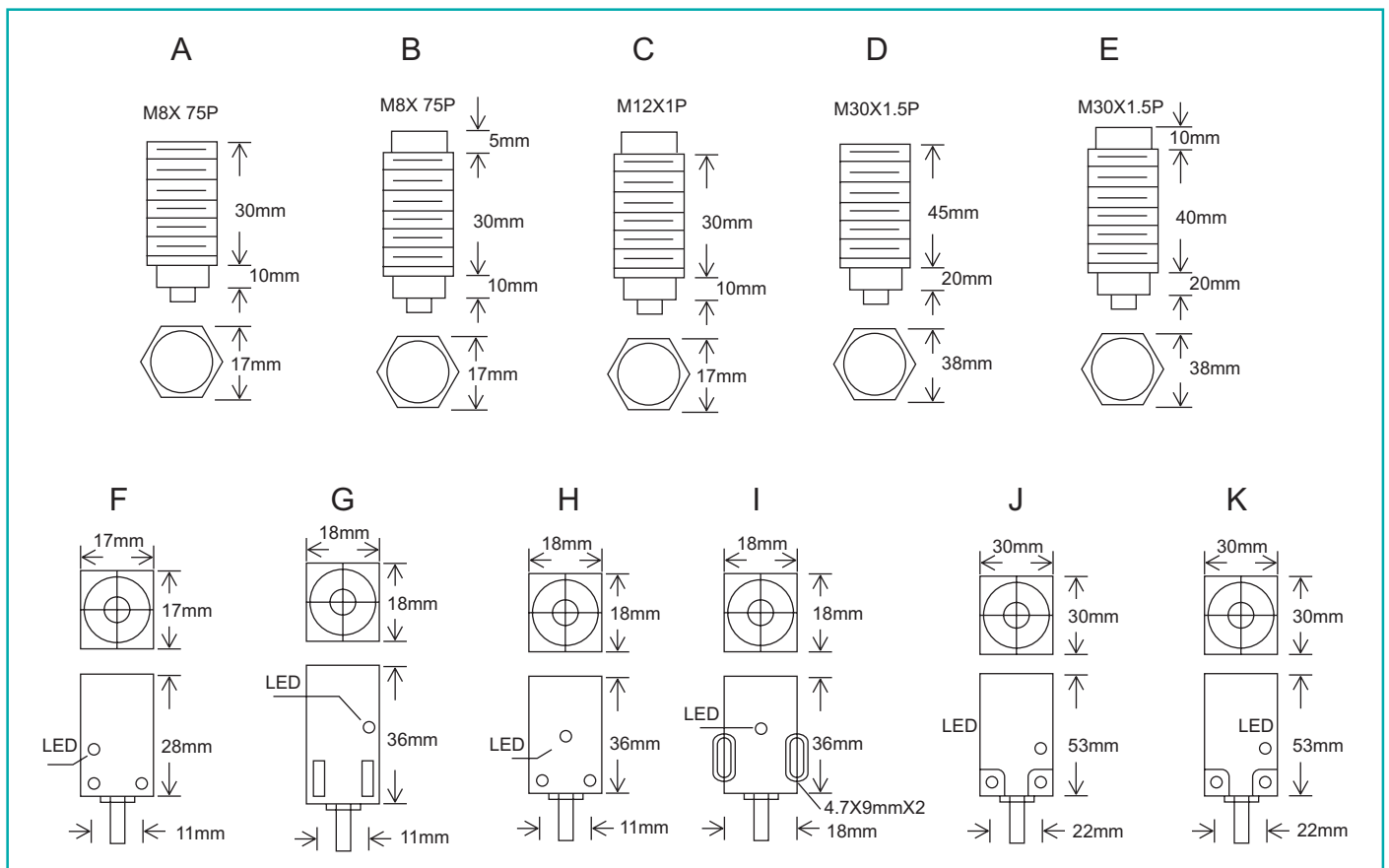


Specification:

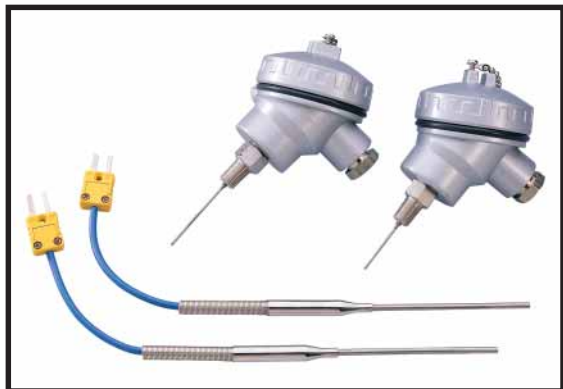
Power	: DC 10-30VDC
Protection	: Reverse Protection
Output indicator	: Red LED
Housing Material	: Brass Nickel Plated
Current Consumption	: 10mA
Operating temperature	: -25~+65°C
Enclosure protection	: IP67

1. MODEL: PFS - PX - [Color] - [Color] - [Color]

NO	Shape	NO	Output	NO	Action	NO	Sensing Distance	Response Hz	Target Steel	Load	Screw	Weight	Dimension
R	Round	N	NPN 3W	E1	NO. ON	01	1mm	1K Hz	8x8x1T	100mA	M8	90g	A
		P	PNP 3W	E2	NO. OFF	02	2mm	1K Hz	8x8x1T	100mA	M8	90g	B
		D	DC 2W			04	4mm	1K Hz	12x12x1T	200mA	M12	100g	C
		R	Specified			10	10mm	400Hz	30x30x1T	200mA	M30	130g	D
						15	15mm	200Hz	30x30x1T	200mA	M30	130g	E
S	Square					04	4mm	300Hz	17x17x1T	200mA		90g	F
								350Hz	17x17x1T	200mA		90g	G
						05	5mm	300Hz	17x17x1T	200mA		90g	H
								400Hz	17x17x1T	200mA		90g	I
						10	10mm	200Hz	17x17x1T	200mA		90g	J
						15	15mm	200Hz	17x17x1T	200mA		90g	K



TEMPERATURE SENSOR



1.MODEL:

PFS - T - [Orange] - [Blue] - [Pink] - [Purple] Example: PFS-TK1-E6.4-E888-DI

2. Input Type

K .J. T. E. N. R. S. B. W. RTD

3. NPT Fitting

- 0 None
- 1 1/8"
- 2 1/4"
- 4 1/2"
- 6 3/4"
- 24 1/4" x 1/2"
- 64 3/4" x 1/2"
- 9 Specified

4. Cold End Termination

- A None required
- B Std cast iron head
- C Std cast aluminum head
- D Miniature cast aluminum head
- E Explosion proof head
- F Assembly with flexible armor leads
- G Assembly with over braid leads
- H Connector

5. Tube Diameter

- 3.2mm
- 4.8mm
- 6.4mm
- 8mm
- 9.5mm
- 12.7mm
- specified

9. Junction Styles

- G welded ground
- I Insulated
- E Exposed junction

8. Element Styles

- S Single
- D Dual
- T Triple

7. Immersion Length

- 168mm
- 888m
- Length specified as customer required

6. Protection Tube

- A DIN 610
- B DIN710
- C SIC
- D SS304
- E SS316
- F INCONEL
- G HASTELLOY
- H TITANIUM

ROTARY ENCODER



FEATURES

- Incremental or absolute
- Response 100KHz
- Phase A, AB, ABZ optional
- Open collector, voltage, Line driver, Push-Pull
- High stability

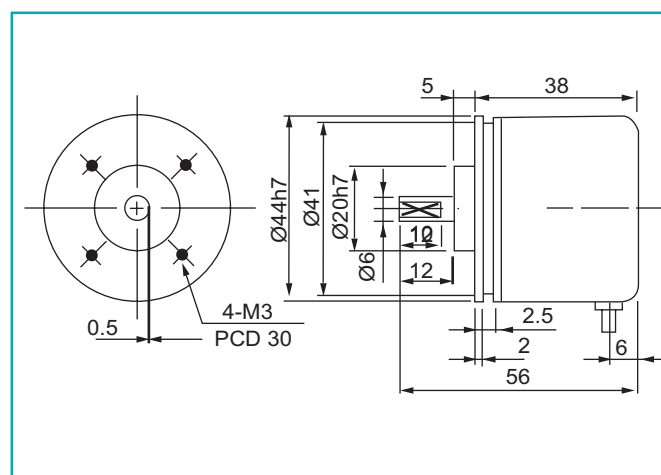
1. MODEL: PFS - RE - [] - [] - [] - []

Pulse per revolution	NO	Output Phase	NO	Output type	NO	Excitation Power
40, 50, 60, 100, 150	1	A	LL	Line driver 5VDC	1	5VDC
200, 250, 300, 360, 400	2	AB	HL	Line drive 8-26VDC	2	8~26VDC
500, 600, 800, 1000	3	ABZ	OC	Open-collector	60mA	
1024, 1200, 2000	4	AB+Z (high phase)	PP	Push-Pull		
2048			VT	Voltage		

2. Specification

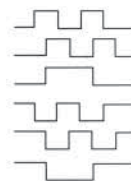
- Pulse /Revolution : 40, 50, 60, 100, 150, 200, 250, 300, 360, 400, 500, 600, 800, 1000, 1024, 1200, 2000, 2048
- Output phase : A, AB, ABZ
- Excitation : 8~26VDC, 5V optional
- Current consumption : 60mA
- Frequency response : 50~100KHz
- Output wave form : Square wave
- Wave Form rise/fall : 2μS,
- Output mode : Voltage, Open collector, Push-Pull, Line Driver
- Operating condition : 0~55°C (20~90%RH non-condensed)
- Storage condition : 0~70°C (20~90%RH non-condensed)
- Enclosure : IP 50 Dust proof
- Shaft diameter : 8mm
- Shaft Loading : Axial 3Kg, Radial : 5 Kg ≤400RPM
Axial 1Kg, Radial : 2 Kg >400RPM
- Starting torque at 25° : 40gf-cm or less
- Max. speed : 6000RPM
- Shock : 20g per 11mS
- Polarity protection : Reverse protection (not with 5V)
- Cable : 4.5Ø, 50cm long
- Weight : Abt 200g

3. Dimension



4. Wiring Diagram

NORMAL			LINE DRIVER		
Color of wire	(pin)	Function	Color of wire	(pin)	Function
Red	1A	+ V	Red	1A	+ V
Black	2B	0V Common	Black	2B	0V Common
White	3C	CH A	Blue	3C	CH A
Green	4D	CH B	Green	4D	CH B
Yellow	5EZ	CH Z	Yellow	5E	CH Z
Shield	-	NC	Violet	6F	\bar{A} CH A (reverse)
			Orange	7G	\bar{B} CH B (reverse)
			Brown	8H	\bar{Z} CH Z (reverse)
			Shield	-	NC



WHEEL SENSOR



1. MODEL: PFS - W - [Color] - [Color] Example: PFS-W-A1-M

A	Single-direction
B	Bi-direction

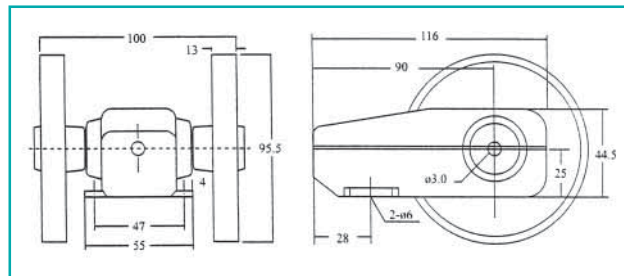
Resolution	
1	1
2	0.1
3	0.01
4	0.001

Y	Yard
M	Meter

2. Specification

Power Source : 12V, 24V DC
 Current Consumption : $\leq 40\text{mA}$
 Response Frequency : 20KHz
 Output Impedance : 4.7K Ω
 Maximum Speed : 120 M/Min.
 Weight : 630g

3. Dimension



Wheel Circle Length:

Meter : 300mm 1%

Yard : 0.3 Yard $\pm 0.1\%$

4. Connection

Red	Black	White	Green	Shield
+	-	A	B	

CURRENT TRANSFORMER



1. MODEL: PFS - CT - [Color] - [Color] / [Color] A

HOLE DIA
35
60
90
110
128

S.C
1
2
5

P.C						
10 x	50 x	125 x	250 x	500 xx	1000 xxx	2500 xxxxx
20 x	60 x	150 x	275 x	600 xx	1200 xxx	3000 xxxxx
30 x	75 x	200 x	300 x	750 xx	1500 xxxx	4000 xxxxx
40 x	100 x	225 x	400 x	800 xxx	2000 xxxx	5000 xxxxx
						6000 xxxxx
						7000 xxxxx
						8000 xxxxx
						9500 xxxxx

x Hole 35 xx Hole 60 xxx Hole 90 xxxx Hole 110 xxxxx Hole 128

S.C: Secondary current

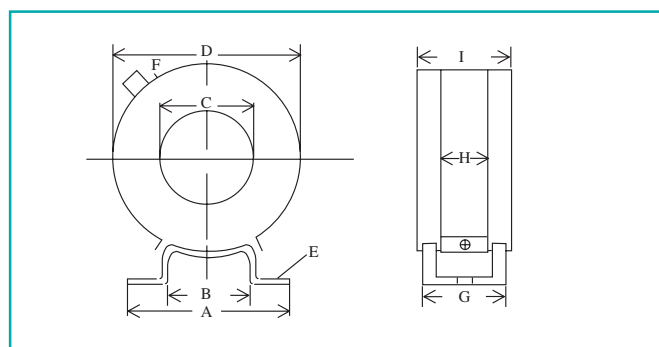
P.C: Primary current

4. Specification

Case : P.P
 Burden : 15VA
 Accuracy : 1.0
 Power strength : 40

Model	A	B	C	D	E	F	G	H	I
CT-35	90	44	35	78	2	13	45	25	53.5
CT-60	103	44	60	102	2	13	45	25	54.5
CT-90	103	60	90	135	2	13	45	25	55.5
CT-110	103	60	110	151	2	13	45	25	55.5
CT-128	103	60	128	183	2	13	45	25	60

Unit: mm



SHUNT SENSOR



Example:
PFS-SHT-150mV/225A

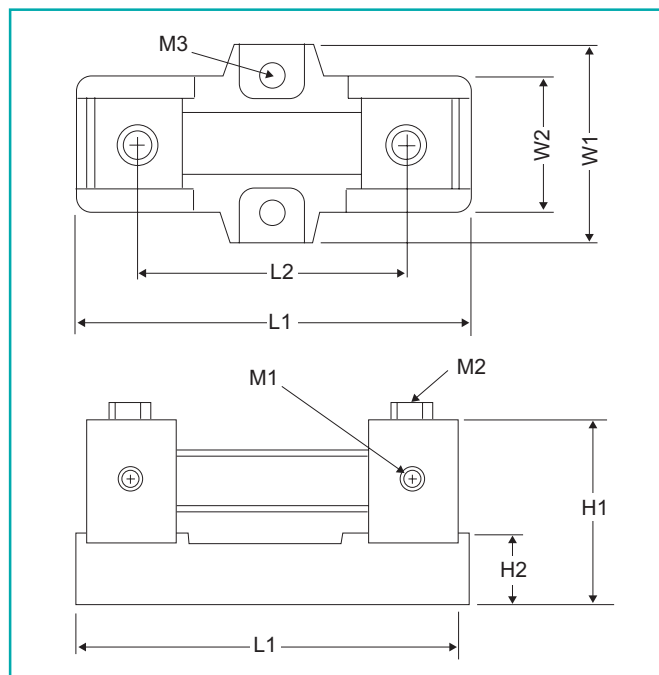
1. MODEL: PFS - SHT - ■ mv / ■ A

S.V mv
50
60
100
200
SPECIFIED

P.C			A		
10	60	150	400	800	
20	70	200	450	900	
30	80	250	500	1000	
40	90	300	600	1200	
50	100	350	700	1500	
SPECIFIED					

S.V : Secondary voltage

P.C : Primary current



TYPE	L1	L2	W1	W2	H1	H2	M3	M1	M2	g
1A~100A	66	45	32	22	34	12	4	3	5	100

60mV or 50mV, Below 100A

LOAD CELL SENSOR



FEATURES

- Tension and/or Compression
- Stainless or Tool steel
- Strain gauge principle
- Excellent repeatability
- High stability

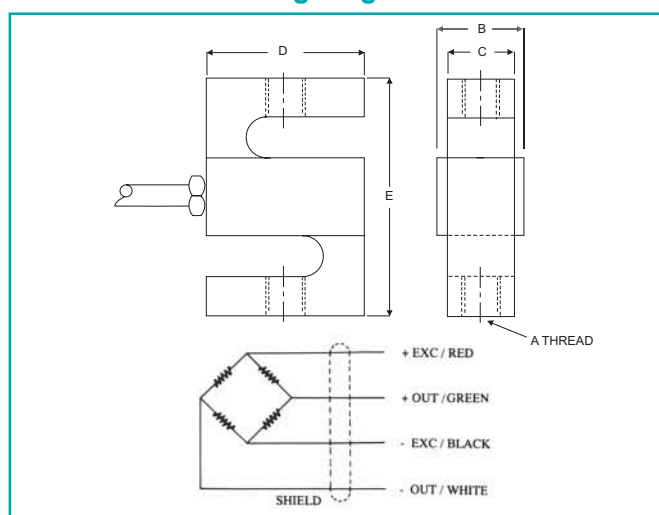
1. MODEL: PFS - LC - X Y

X : Capacity Range
Y : Material S=Stainless Steel
 T=Tool Steel

2. Specification

- Capacity : 100, 250, 500, 1000, 1500, 2000, 2500, 5000 kg
- Rated output : 2mV/V \pm 5%,
- Excitation : 10 VDC recommended
- Input impedance : 350 ohm
- Output impedance : 400 ohm
- Zero balance : 1% of R.O
- Non-linearity hysteresis : \pm 0.02% of R.O repeatability
- Creep at rated capacity : \pm 0.02% of R.O (20 Min)
- Temperature compensated : 0~50°C
- Over load : 1.5 rated
- Material : Stainless or Tool steel
- Operating condition : 0 ~ 55°C (20~90% RH non-condensed)
- Storage condition : 0 ~ 70°C (20~90% RH non-condensed)

3. Dimension & wiring diagram



Capacity	Dimensions					
		A	B	C	D	E
100kg	(mm)	M10x1.50	25.4	19.0	50.8	76.2
250lb	(inch)	3/8-24UNF-2B	0.75	0.50	2.00	3.00
250/500/750kg	(mm)	M12x1.75	25.4	19.0	50.8	76.2
500/750/1K/1.5K lb	(inch)	1/2-20UNF-2B	1.00	0.75	2.00	3.00
1000/1500kg	(mm)	M12x1.75	31.8	25.4	50.8	76.2
2K/2.5K/3K lb	(inch)	1/2-20UNF-2B	1.25	1.00	2.00	3.00
2000/2500/5000kg	(mm)	M18x1.50	31.8	25.4	76.2	108
5K/7.5K/10k lb	(inch)	3/4-16UNF-2B	1.25	1.00	3.00	4.25
15K lb	(inch)	1-14UNF-2B	1.50	1.25	3.94	5.50
20K lb	(inch)	1-1/4-12UNF-2B	2.00	1.94	4.94	7.00

PRESSURE SENSOR



FEATURES

- Ceramic wafer
- Thermal compensation
- Zero span adjustment
- Electromagnetic Compatibility
- High performance

1. MODEL: PFS - P - [] - [] - [] - [] - [] - []

Example: PFS-P-G010-A1A-20B-1

G : Gauge Pressure

A : Absolute Pressure

Range

Pressure Kg/cm ²	-1~0	-1~1.5	-1~5	0~1	0~5	0~10
NO	100	115	150	001	005	010

Pressure Kg/cm ²	0-25	0-60	0-100	0-250	0-400	0-600
NO	025	060	0100	0250	0400	0600

Accuracy

±0.5% F.S
±0.25% F.S

1
2

Wetted Parts

304 Stainless
316 Stainless
Brass
Ptfе

A
B
C
D

Output

2 wire 0-20mA 20
2 wire 4-20mA 21
3 wire 0-5V 30
3 wire 0-10V 31

Electric Connection

DIN 43650- A IP65
FLEX Protecting Cable 1.5M IP68
SHUTTER Type Cable 1.5M IP68

A
B
C

Pressure Connection

1/4"PT 0
1/4"NPT 1
1/2"NPT 2

Sealing Material

• FPM Viton (Fluoro-Elastomer)
• EPDM Ethylene Propylens
• NBR Nitrile Butadiene
• MVQ Silicone Polymer
• CR Chloroprene

A
B
C
D
E

2. SPECIFICATION

- Range : -1~600kg gauge/absolute
- Pressure connection : 1/8" NPT, 1/4"NPT, 1/8"PT
- Pressure limit : 2 x nominal
- Sealing material : FPM, NBR, EPDM, MVQ
- Burst pressure : 3 x nominal
- Input resistance : 10KΩ
- Accuracy : ±0.5% F.S., (±0.25% F.S. optional)
- Response time : 5ms
- Operating temperature : -25~85°C, -25~125°C optional
- Enclosure protection : IP65/Nema 4x (IP68 optional)
- Excitation : 10-32 VDC
- Output : 0-5VDC, 0-10 VDC, 0-20 mA, 4-20mA
- Adjustment : Zero/Span ±15%
- Sensing element : Ceramic wafer
- Housing material : 304 Stainless steel
- Electrical connection : DIN 43650
- Wetted parts : 304 Stainless steel
*316 stainless steel
*brass or ptfе

3. WIRING

Output	Red	Black	White
V	+v	-v	Output
A	+v	-v	N/C

HUMIDITY & TEMPERATURE TRANSMITTER



FEATURES

- Easy installation, duct mounting or wall mounting
- Water resistant plastic mounting case
- High accuracy and fast response
- Long-term stability

1. MODEL: PFS-TRH - [Color] - [X] X = D duct mounting X = W wall mounting

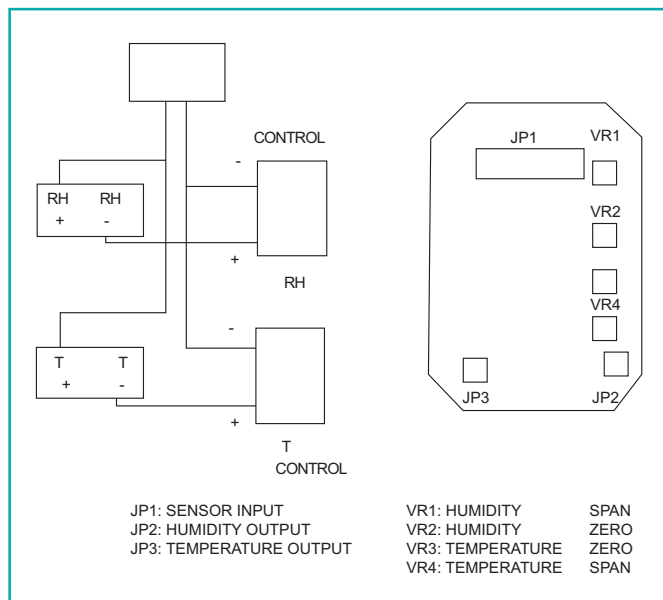
NO	Humidity Sensor	NO	Temp Sensor	NO	Humidity Output	NO	Temperature Output
0	NONE	0	NONE	N	NONE	N	NONE
1	WITH	1	WITH	H	0-10V	H	0-10V
				Q	4~20mA	Q	4~20mA
				R	SPECIFIED	R	SPECIFIED

H: Humidity, T: Temperature

2. Specification

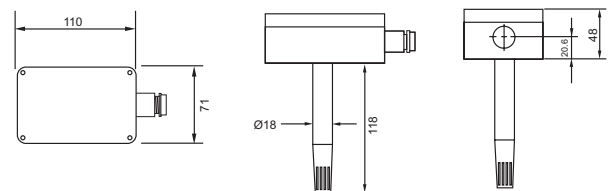
- Aux. power : 2 wire loop (external excitation 9- 40 VDC)
- Sensor element : Temperature: PT100 DIN, IEC751
Humidity: Macro-molecule
- Measurement range : Temperature: -20 ~ + 80°C
Humidity: 0° ~ 100%RH
- Accuracy : Temperature: $\pm 0.4^{\circ}\text{C}$
($23^{\circ}\text{C} \pm 5^{\circ}\text{C}$)
Humidity: $\pm 2.5\%\text{RH}$ (30°~90%RH)
- Analogue output : DC 4~20mA x 2
(Temperature x1, Humidity x 1)
- Output load : 600 Ω (excitation DC24V)
- Housing : Plastic mounting case (water resistant)
- Weight : Abt. 220g
- Operating temperature : -25 ~ +85°C

3. Connection diagram:

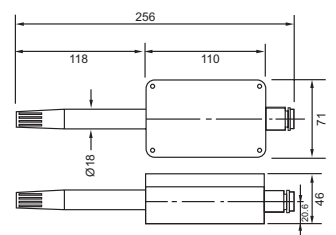


4. Dimension

DUCT MOUNT TYPE

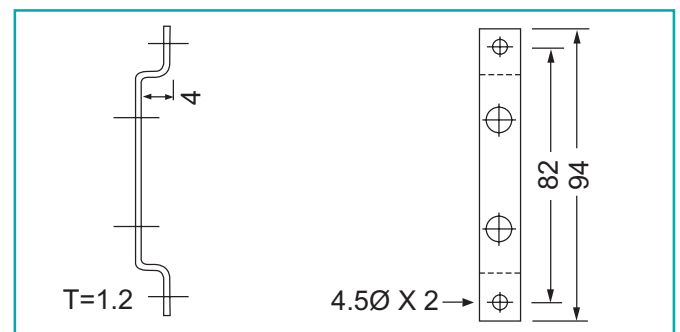


WALL MOUNT TYPE

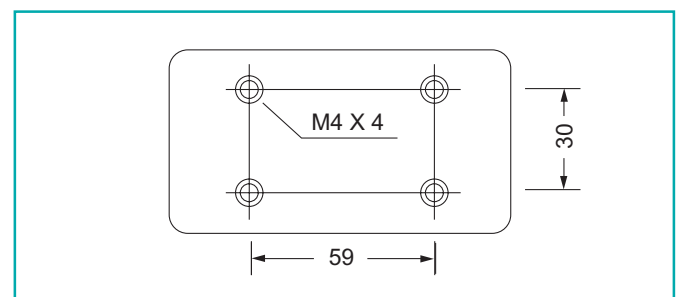


5. Installation

Fix with mounting plate



Fix with screw to case



FLOW SENSOR



FEATURES

- Tefzel® Paddle wheel rotor
- PVC or PP body
- Analog and/or pulse output optional
- DN15 to DN50 pipe size
- Chemical industry application

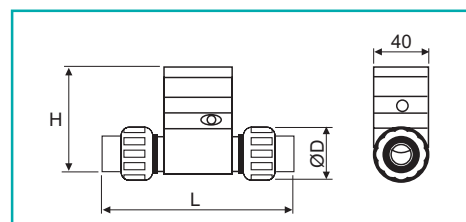
1. MODEL: PFS - F - U - [Color] - [Color] - [Color] - [Color] - X X : See pipe size table

No.	Output 1 Analog	No.	Output 2 Pulse	No.	Body	No.	O-ring	No.	K value input
0	None	0	None	A	PVC	1	NBR	0	None
1	4~20mA	1	Open collector	B	PP	2	EPDM	1	RS232
2	0~5V	9	Specified					2	RS485
9	Specified								

2. Specification

- Wetted parts: Sensor body : PVC or PP
O-ring : NBR or EPDM
Pin : Al₂O₃ / ZrO₂
Rotor : Tefzel
Bearing : Al₂O₃
- Cable : PVC
- Pipe size : DN15~DN50
- Flow range : 0.3m/S to 10m/S
- Range ability : 10:1
- Operating Pressure : 5 Kg/cm²
- Temp. coefficient : 100ppm/°C
- Accuracy : ±0.2% (25°C)
- Linearity : ± 1% F.S
- Repeatability : ± 1% F.S
- Operating condition : 5~55°C (20~90%RH non-condensed)
- Storage condition : 0~70°C (20~90%RH non-condensed)

3. Dimension



Pipe Size	Dimension		
	H	L	ØD
DN15	86	140	41
DN20	88	150	53
DN25	91.3	160	60
DN40	109.6	185	83
DN50	123.4	196.8	110

4. Wiring Diagram

Output		Cable Color					
Out1	Out2	Vs+	Vs-	Out1+	Out1-	Out2+	Shield
1	0	R	B/W	P	G	N	B
2	0	R	B/W	P	G	N	B
0	1	R	B/W	N	N	Y	B
1	1	R	B/W	P	G	Y	B
2	1	R	B/W	P	G	Y	B

R: Red, B/W: Black/White, P: Pink, G: Gray, Y: Yellow, B: Black

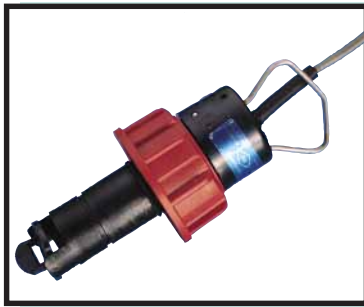
Standard Pipe Size: mm

DN	JIS	ANSI	DIN
15	Ø 18.40	Ø 21.34	Ø 20
20	Ø 26.45	Ø 26.67	Ø 25
25	Ø 32.55	Ø 33.27	Ø 32
40	Ø 48.70	Ø 48.26	Ø 50
50	Ø 60.80	Ø 60.20	Ø 63

Pipe Size Table

No.	Pipe size
1	DN15(1/2") 0-30LPM (STD) ~120LPM (MAX)
2	DN20(3/4") 0-60LPM (STD) ~175LPM (MAX)
3	DN25(1") 0-90LPM (STD) ~306LPM (MAX)
4	DN40(1 1/2") 0-200LPM (STD) ~851LPM (MAX)
5	DN50(2") 0-330LPM (STD) ~1364LPM (MAX)

FLOW SENSOR



FEATURES

- Paddle wheel rotor
- PVDF or PP molded body
- Self-powered flow rate
- DN15 to DN1000 pipes
- Simple insertion
- Easy installation
- Low pressure drop

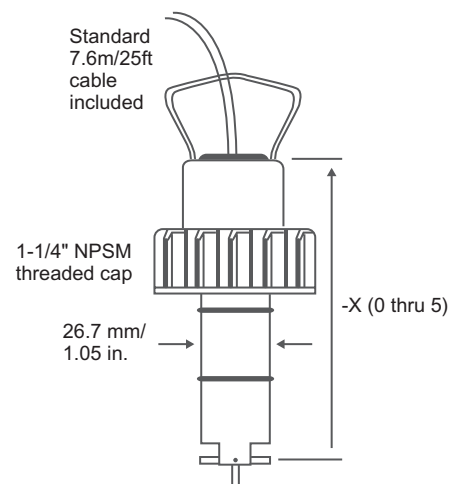
1. MODEL: PFS - F - I - [Color] - [Color] - [Color] - X X : Pipe range table

No.	Body	No.	O-ring	No.	Pin
A	PP	1	FPM-VITON	A	PVDF
B	PVDF	2	EPDM	B	Titanium
C	PVC	3	FPM-Kalrez	C	Hastelloy
D	SS316			D	PVDF

2. Specification

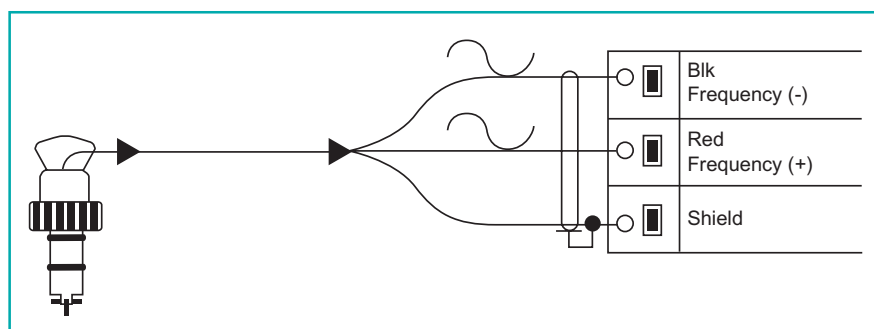
- Wetted parts : Sensor body : Glass filled PP or PVDF
O-ring : FPM-VITON (ST) or EPDM or FPM -Kalrez
Pin : Titanium or Hastelloy-C or PVDF
Rotor : Black PVDF or Natural PVDF
- Cable : 2-conductor twisted pair (22AWG), with shield
- Pipe size : DN 15 - DN1000
- Temp. coefficient : 100ppm/°C
- Linearity : $\pm 1\%$ F.S
- Repeatability : $\pm 1\%$ F.S
- Operating condition : 0 ~ 55°C (20 ~ 90%RH non-condensed)
- Storage condition : 0 ~ 70°C (20 ~ 90%RH non-condensed)

3. Dimension



Pipe Range:
 1/2 to 4 in. -X0 = 104 mm/4.1 in.
 5 to 8 in. -X1 = 137 mm/5.4 in.
 10" and up -X2 = 213 mm/8.4 in.
 1/2 to 4 in. -X3 = 219 mm/8.6 in.
 5 to 8 in. -X4 = 254 mm/10 in.
 10" and up -X5 = 331 mm/ 13 in. } Wet-tap Lengths

4. Wiring Diagram



LVDT SENSOR



1. MODEL: PFS - LVDT - ■ ■

STROKE		SENSOR	
1	± 1mm	A	H LDT
2	± 2mm	B	T GT
3	± 3mm	C	RH
5	± 5mm	R	SPECIFIED
6	± 6mm	Details as PER Request	
10	± 10mm		
15	± 15mm		

DC POWER SUPPLY



FEATURES

- Compact design
- Field excitation power for sensor
- Plug-in 35mm DIN rail.
- High Stability
- Compact design

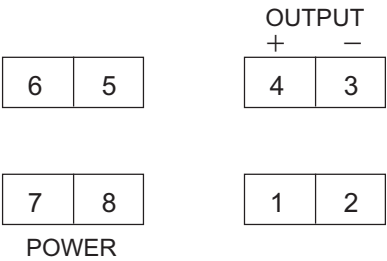
1. MODEL: PF - DPS - ■ ■ ■

NO	Input Power	NO	DC Output
1	AC 110V±20% (50/60Hz)	A	12V 120mA
2	AC 220V±20% (50/60Hz)	B	±12V 120mA
3	AC 380V±20% (50/60Hz)	C	15V 120mA
4	AC 110/220V±20% (50/60Hz)	D	±15V 120mA
5	AC 90~260V	E	24V
6	DC 24V	R	SPECIFIED
7	DC 110V		
8	DC 220V		
9	SPECIFIED		

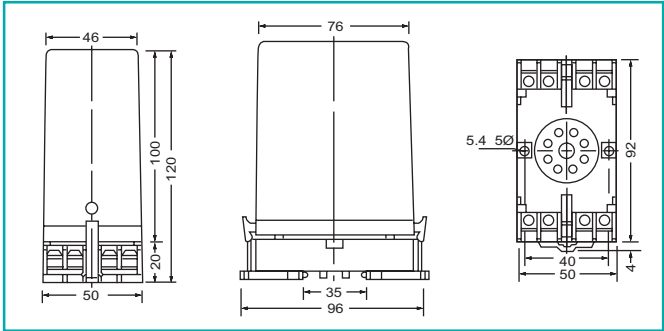
2. Specification

- Accuracy : ±0.1% F.S (23±5°C)
- Output ripple : ±0.1% (P-P)
- Temp. coefficient : 100ppm/°C
- Dielectric Strength : 1.6KVac (input/output)
- Operating condition : 0 ~ 55°C (20~90% RH non-condensed)
- Storage condition : 0 ~ 70°C (20~90% RH non-condensed)
- Construction : Socket /plug-in type with barrier terminals

3. TERMINAL CONNECTION



4. Dimension



LARGE SIZE LED DISPLAY



FEATURES

- High efficiency LED
- LED high 4cm, 6cm, 10cm, 15cm
- Anodized Aluminum frame
- Stability and durability
- Wall mounting, flush, or pendent

1. MODEL: PF- LL - [Color] - [Color] - [Color] - [Color] - [Color]

NO	Input	NO	Side	NO	LED Height	NO	Mounting	NO	Digit	NO	Output	NO	Aux. Power
A	DC	1	Single Side	4	4cm	F	Flush	2	2 Digits	N	None	1	AC 110V/220V(50/60Hz)
B	AC	2	Double Side	6	6cm	P	Pendent	3	3 Digits	1	DC 4~20mA	2	DC 24V
P	Pulse			10	10cm	W	Wall	4	4 Digits	2	DC 1~5V	3	AC 90~260V
R	RS232			15	15cm			5	5 Digits	6	DC 0~10V	9	SPECIFIED
S	RS485			19	SPECIFIED			6	6 Digits	7	RS232		
T	T/C							9	SPECIFIED	8	RS485		
V	BCD									9	SPECIFIED		

*INPUT AND DISPLAY RANGE TO BE SPECIFIED

2. Specification

- Auxiliary power : AC 110/220V (50/60Hz)
Switching AC90~260V
- Accuracy : $\pm 0.1\%$ F.S DC
(23 $\pm 5^{\circ}\text{C}$) $\pm 0.15\%$ F.S AC
- Output ripple : $\pm 0.1\%$ (P-P)
- Temp. coefficient : 100ppm/ $^{\circ}\text{C}$
- Dielectric Strength : 1.6Kvac (input/output)
- Operating condition : 0 ~ 55 $^{\circ}\text{C}$ (20~90% RH non-condensed)
- Storage condition : 0 ~ 70 $^{\circ}\text{C}$ (20~90% RH non-condensed)
- Construction : Socket /plug-in type with barrier terminals

4. Wiring Diagram

1	2	3	4	5	6	7	8	9
IN (HI)		IN (LO)	+	-		220	110	0
			OUTPUT			AC SOURCE		

3. Dimension

Dimension: H x L x D (UNIT : mm)

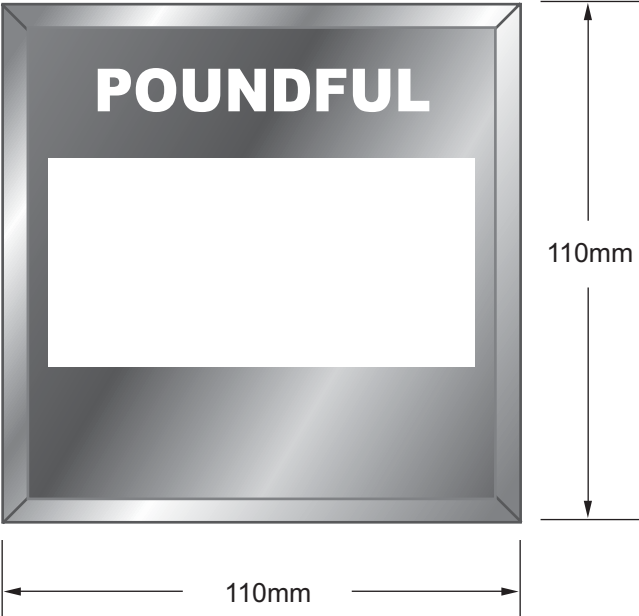
Display Height		2 Digits	3 Digits	4 Digits	5 Digits	6 Digits
4cm	H35xW21	100x188x61	100x188x61	100x188x61	100x188x61	100x188x61
6cm	H57xW32	100x188x61	100x188x61	100x241x61	100x294x61	100x347x61
10cm	H102xW60	155x216x61	155x308x61	155x400x61	155x492x61	155x584x61
*15cm	H150xW90	240x360x60	240x510x61	240x660x61	240x810x61	240x960x61

*15cm is Lamp Type for Outdoor

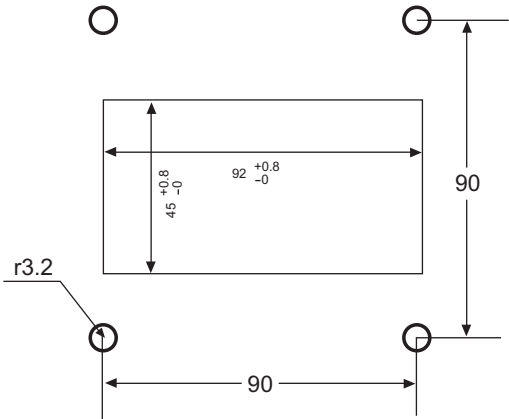
110 X 110 DECORATION BOARD

Model: PF-FPW110

(Wide angle face plate)



PANEL CUT-OUT



Transducer Dimension (unit: mm)

PF-PA3, PF-PAN3, PF-PW , PF-PWH , PF-PWWH ,
PF-PPF, PF-TDI, PF-QDI

