

FC SERIES ROOT EXTRACTOR

DATA SHEET

PRD

The FC SERIES Root Extractors convert differential pressure signal into a signal proportional to flow rate. The root extractor type PRD is equipped with power supply terminals for a differential pressure transmitter.

SPECIFICATIONS

Input signal and input resistance:

1 to 5V DC (basic current 1 μ A)
4 to 20mA DC (250 Ω)

Allowance: $\pm 0.5\%$ of full Span
(at output signal of 10% or higher)
 $\pm 0.25\%$ available upon request

Repeatability: $\pm 0.1\%$ of full span or better

Output signal: 1 to 5V DC

Remark. A low-flow-rate cutoff point is settable optionally within a range from 5 to 15% of output.

Output resistance:

0.5 Ω or less

Settable range of output cutoff point:

Approx. 5 to 15%
(in terms of flow rate)

Response time: Apprx. 0.6 sec

(for 90% setting when a fixed filter is used on the output side)

0.6 to 9 sec variable

(primary delay time constant) when an adjustable filter is used on the output side

Power supply for transmitter:

Output voltage: 24V DC
(power supply voltage:
AC power supply)

Power supply: 24V DC (20 to 30V DC)
or 24V $\pm 1\frac{3}{10}\%$ 50/60 Hz

Power consumption:

Approx. 2W (24V DC)
Approx. 5 VA
(24V AC: with power supply for transmitter)

Approx. 3VA
(24V AC: without power supply for transmitter)

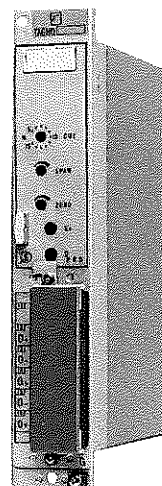
Ambient temperature:

0 to 45°C

Ambient humidity:

90% RH or less

Housing: Steel sheet casing



Dimensions (H x W x D):

247 x 44 x 225 mm

Weight: Approx. 1.4kg

(with power supply for transmitter)

Approx. 0.9kg

(without power supply for transmitter)

Finish color: Casing Silver

(melamine resin, baked)

Terminal cover

. . . . Gray

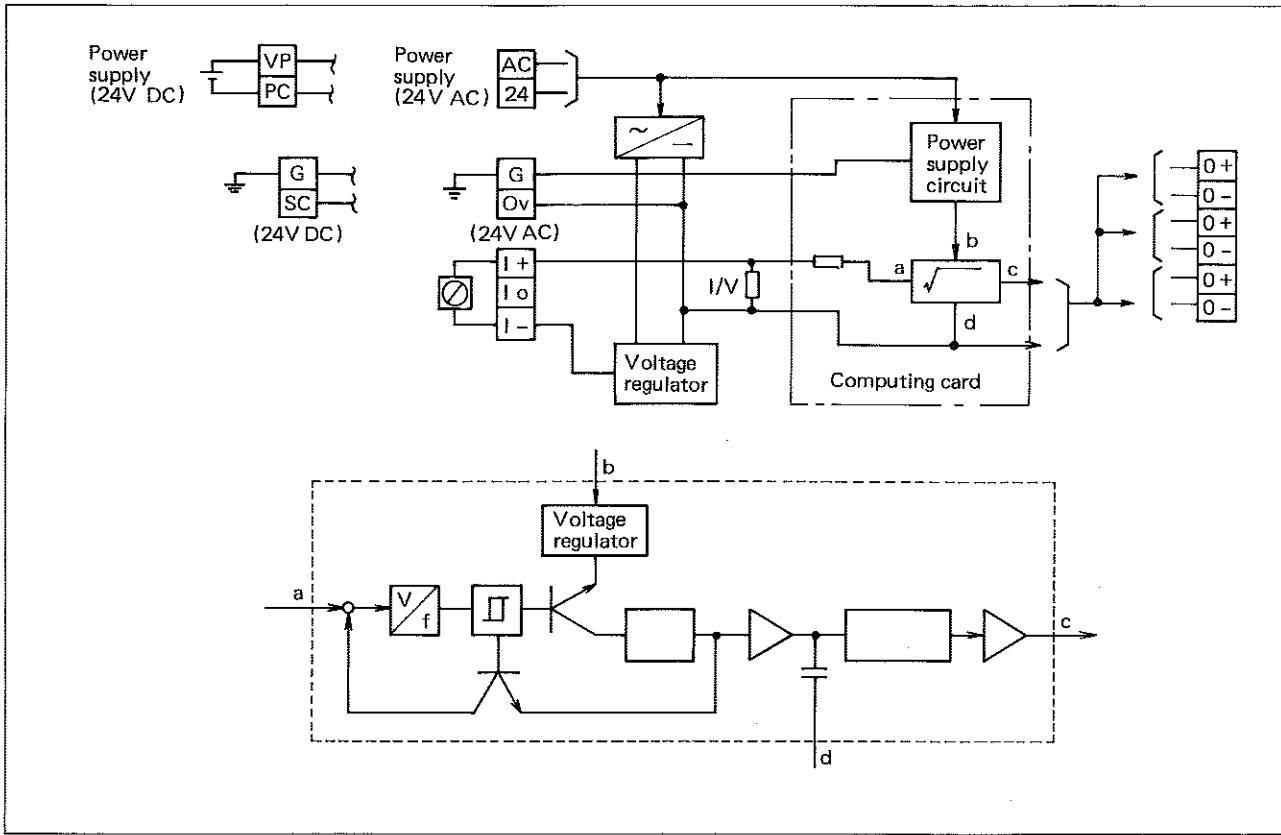
(Synthetic resin molding)

Mounting: Rack mount

Scope of delivery:

Root extractor

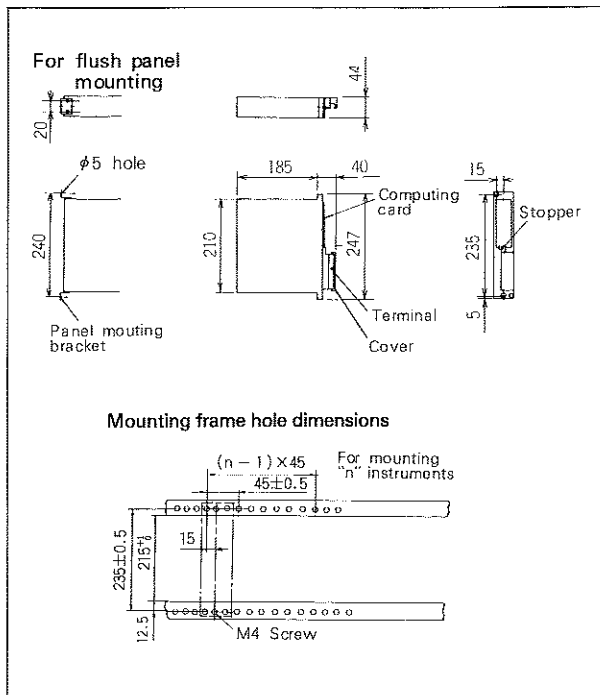
BASIC CIRCUIT DIAGRAM



CODE SYMBOLS

1	2	3	4	5	6	7	8	9	10	11	12	13	Description
P	R	D											
				0	0	5							Application
1													General (with power supply for transmitter), rated for 24 V AC only
3													General (without power supply for transmitter)
7													General (for 1 to 5V input)
													Filter
F													Adjustable filter
Y													Fixed filter
													Allowance
								1					Allowance $\pm 0.5\%$
								* 2					Allowance $\pm 0.25\%$
													Power supply
												1	DC 24 V
												7	24V AC 50/60Hz

OUTLINE DIAGRAM (Unit:mm)



ORDERING INFORMATION

1. Name of instrument
2. Code symbols
3. Specifications for input
4. Specifications for instrument (type of filter, allowance, etc.)
5. Other items and requirements

CONNECTION DIAGRAM

