

Process control is possible using an analog sensor.



## ◆ Applications

Supports both voltage and current inputs.  
Equipped with a 24 VDC sensor power supply.

Analog input from sensor convertible to  
four ON/OFF outputs

Using a single analog sensor easily realizes a system setup of liquid  
level monitoring.

Supports both voltage and current types of  
analog input

Analog output sensor of 4-20 mA, 0-5 V, 0-10 V can be used.

Simple, button entry of settings

Setting increments of 10 mV or 0.01 mA are available.

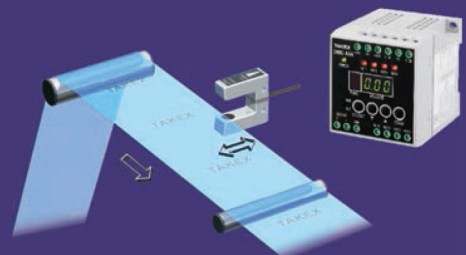
Analog input averaging from 1 Hz to 200 Hz

Averaging reduces input noise, stabilizes operation and improves  
display intelligibility.

Adjustable hysteresis

Hysteresis on each output is individually adjustable to avoid chat-  
tering around the threshold

- Drift control using an analog sensor for edge detection



※ Intended for use with the TAKEX model US-U30AN sensor

- Monitoring of upper/lower fluid levels in pipes



※ Intended for use with the TAKEX model USA-S1AN sensor

## SPECIFICATION

Model	DMC-A4A
Power supply	DC24V $\pm$ 10%
Current consumption	40mA or less
A/D conversion method	Sequential comparison system 10bit (1024)
Measurement range (input mode)	DC 0 to 5V/0 to 10V/0 to 20mA (selectable)
Display resolution	DC 0 to 5V : 0.01V/0 to 10V : 0.01V/0 to 20mA : 0.1mA
Output mode	NPN open collector output, Rating: 50mA (DC30V) or less, 4 outputs
Sensor power supply	DC24V (200mA or less) ※1
Indication method	3 digits, 0 to 5V : 0.00 to 5.50/0 to 10V : 0.00 to 11.0/0 to 20mA : 0.00 to 22.0
Indication size	7 segments, Red $\times$ 1, Green $\times$ 3, Font size: 8 $\times$ 4 mm
Sampling speed	2000 times/sec
Averaging	1 to 200 counts (selectable)
Output delay	On delay/Off delay (1 to 999msec, selectable)
Operation mode	HI ON (H <sub>on</sub> ) / LO ON (L <sub>on</sub> ) (selectable)
Connection	Terminal block, Tightening torque: 0.3N $\cdot$ m or less
Material	Case: PPE Panel: PET
Mounting method	DIN rail (35 mm) and screw tightening method
Weight	Approx. 130g
Accessories	Instruction manual

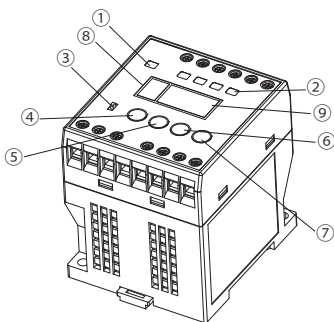
※1 Power supply directly connected

## ENVIRONMENTAL SPECIFICATION

Ambient temperature	-10 to +55°C (non-freezing)
Ambient humidity	35 to 85%RH (non-condensing)
Vibration	When mounting directly When mounting to DIN 10 to 55Hz when tested with double amplitude of 0.75mm in X, Y, and Z directions, 2 hours for each direction ※2
Shock	When mounting directly When mounting to DIN 500m/s <sup>2</sup> when tested in X, Y, and Z directions, 3 times for each direction 300m/s <sup>2</sup> when tested in X, Y, and Z directions, 3 times for each direction
Dielectric tolerance	1000VAC for 1 minute between whole live part and case
Insulation resistance	20M $\Omega$ or more when tested with 500VDC megger

※2 When mounting to the DIN rail, attach the stopper (end unit) to the product.  
End unit (option) model : FA7EU

## PANEL DISCRIPTION



No.	Name	Functions/Operations
①	POWER Power indicator	Turns on when the power is supplied.
②	OUT1~OUT4 Operation indicator	Turns on when the output is ON.
③	RUN/SET Mode switch	Selects between RUN and SET modes.
④	SELECT Select button	Selects setting mode and menu.
⑤	▼ Scroll down button	Changes the selected menu items.
⑥	▲ Scroll up button	Changes the selected menu items.
⑦	TEACH Teaching button	Sets the threshold.
⑧	FUNC. Display (7 segments red)	Indicates the setting menu or output No.
⑨	MEASURE Display (7 segments green)	Indicates the threshold (SET mode) or the input level (RUN mode).



CAUTION

- This product is designed for industrial applications to detect a various kinds of objects. It has no function to prevent disasters, accidents, death or injuries.
- Takex will not held responsible for any damage or loss incurred due to accidents, faulty installation, abuse, misuse, improper maintenance or acts of God including lightning surge.
- This product can't be used as a safety equipment to protect human body.
- This product is designed and manufactured for industrial use. It can't be use for usage or equipmennt that requires a high degree of reliability or considerable care or attention to safety.
- Read this instruction manual carefully and use the product properly according to it.
- This instruction manual including the specifications and dimensions may be subject to change without notice.



Takenaka Sensor Group

TAKENAKA ELECTRONIC INDUSTRIAL CO.,LTD.

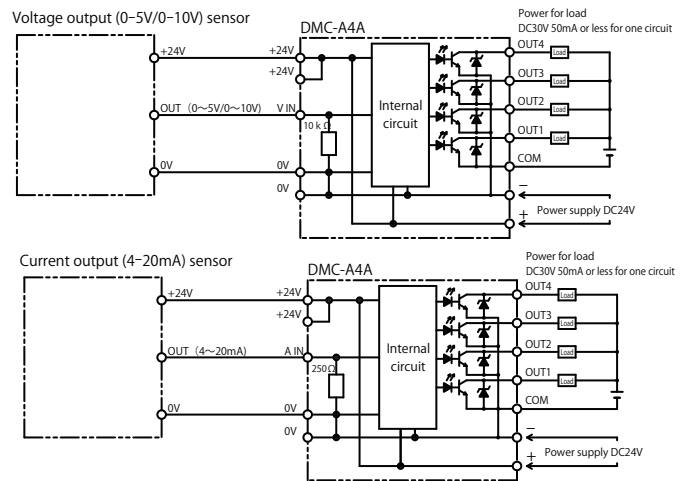
20-1 Shinomiya Narano-cho, Yamashina, Kyoto 607-8032 Japan

Tel: +81-75-581-7111 Fax: +81-75-581-7118

URL : <http://www.takex-elec.co.jp> email : [info-ex@takex-elec.co.jp](mailto:info-ex@takex-elec.co.jp)

## CONNECTION

### Input/Output circuit



## DIMENSIONS (Unit : mm)

