

Comparator for analog sensors

DMC-A4A

Process control is possible using an analog sensor.



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

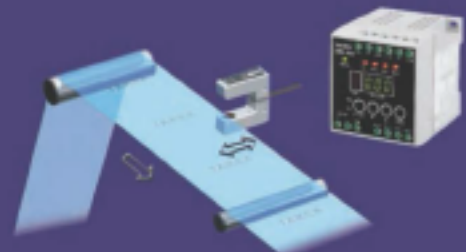
Averaging reduces input noise, stabilizes operation and improves
display intelligibility.

Adjustable hysteresis

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

◆ Applications

- 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±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 × 1, Green × 3, Font size: 8 × 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 _{ON}) / LO ON (L _{ON}) (selectable)
Connection	Terminal block, Tightening torque: 0.3N·m or less
Material	Case: PPE Panel: PET
Mounting method	DIN rail (35 mm) and screw tightening method
Weight	Approx. 130g
Accessories	Instruction manual

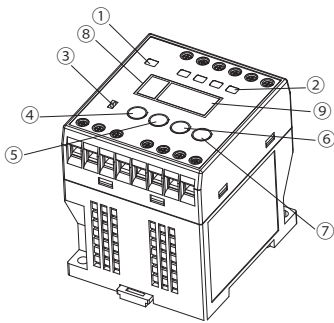
※1 Power supply directly connected

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 ² when tested in X, Y, and Z directions, 3 times for each direction 300m/s ² 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	20MΩ 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 DESCRIPTION



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).

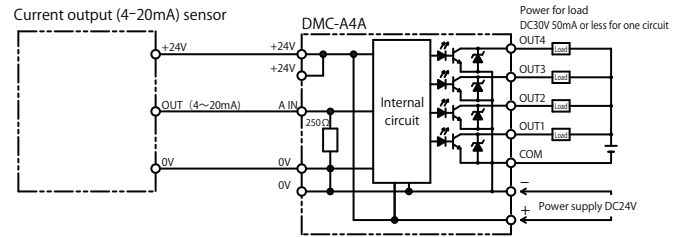
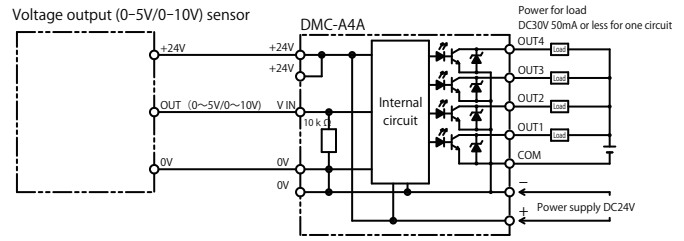


CAUTION

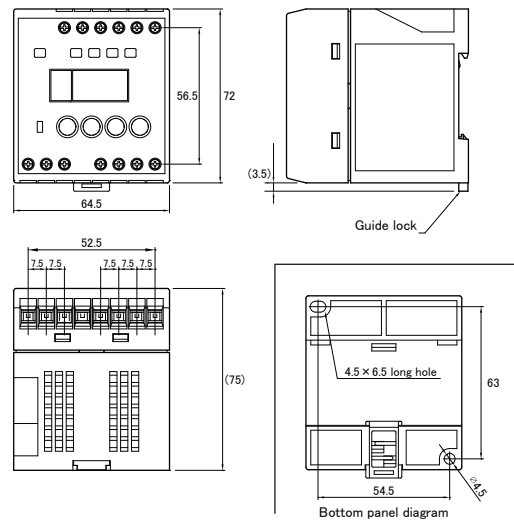
- This product is designed for industrial applications to detect a various kinds of objects. It has no function to prevent disasters, accidents, death or injuries.
- TASHIKA will not held responsible for any damage or loss incurred due to accidents, faulty installation, abuse, misuse, improper maintenance 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 equipment 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.

CONNECTION

Input/Output circuit



DIMENSIONS (Unit : mm)



DUE TO CONTINUOUS PRODUCT IMPROVEMENT, THE DESIGN AND TECHNICAL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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