



HYBRID INDICATING TOTALIZER 224

Analog or Pulse Input / Retransmission / Communication

FEATURES

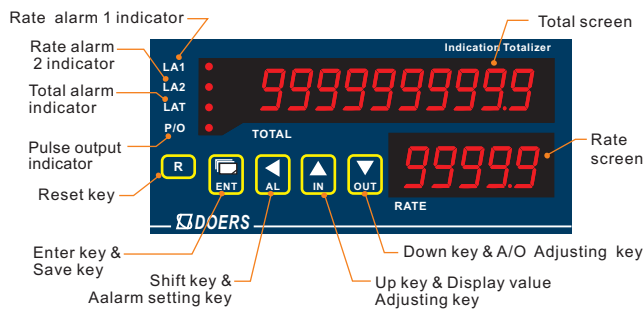
- HIGH BRIGHTNESS 0.4" LED ;
RATE OF DISPLAY RANGE : 0 ~ 99999
- RATE / TOTAL DECIMAL POINT SELECTABLE
- TIME PARAMETERS PROGRAMMABLE
(1 or 60 or 3600 sec)
- TOTAL SCALE PROGRAMMABLE
(0.0001 ~ 9.9999)
- PULSE INPUT RANGE : 0.001 ~ 100KHz
- ACCURACY :
ANALOG INPUT $\pm 0.1\% \text{F.S.} \pm 1 \text{ DIGIT}$
PULSE INPUT $\pm 0.003\% \text{F.S.}$
- RESET FOR TOTAL BY EXTERNAL CONTROL INPUT
- 2 ALARMS FOR RATE / 2 ALARM FOR TOTAL
(Alarm 1 programmable) PULSE OUTPUT /
ANALOG OUTPUT (15 bit resolution)
OPTIONAL (The above options can exist
together)
- HIGH STABILITY , NON-FLAMMABLE CASE
(PC) , HIGH SAFETY
- CE APPROVAL



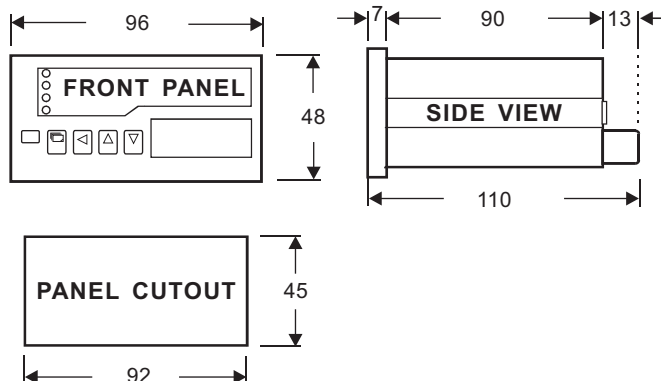
SPECIFICATIONS

| | |
|--------------------------|--|
| Display Screen | High brightness red LED 10.16mm (0.4") |
| Display Range | Rate : 0 ~ 19999 Total : 0 ~ 9999999999 |
| Zero Adjustment | Rate : 0 ~ 99999 |
| Analog Sampling Time | 16 cycles / sec |
| Pulse Sampling Time | 10 cycles / sec ($\geq 10\text{Hz}$) f cycles / sec ($\leq 10\text{Hz}$) |
| Over Range Indication | doFL / ioFL or -doFL / -ioFL |
| Polarity Indication | Automatic with "-" indication |
| Parameters Setting | Push buttons |
| Back Up Memory | EEPROM |
| Analog output resolution | 15 bit |
| Output response time | $\leq 250 \text{ msec}$ (0 ~ 90%) |
| Output capability | Voltage output : $\leq 20\text{mA}$ Current output : $\leq 10\text{V}$ |
| Communication | RS-485 Modbus RTU mode |
| Band rate | 19200 / 9600 / 4800 / 2400 bps |
| Input Impedence | Voltage : $\geq 2\text{V}$ for $20\text{K}\Omega / \text{V}$ $\leq 2\text{V}$ for $\geq 200\text{M}\Omega$ Current : $\geq 0.2\text{A}$ at 100mV $\leq 0.2\text{A}$ at 1V |
| Alarm Action | Rate : " \geq (Hi) on" or " \leq (Lo) on" Total : " \geq (Hi) on" |
| Alarm Run Delay Time | 0 ~ 99 sec |
| Relay Contact | AC 277V / 7A ; DC 30V / 7A |
| Surge Test | 1.5KVac / 1min (Input / Power) |
| Power Supply | AC / DC 100 ~ 240V DC 12 / 24 / 30 ~ 90V |
| Power Consumption | 8.5VA (All functions output) |
| Temperature Coefficient | 100ppm / $^{\circ}\text{C}$ (0 ~ 60 $^{\circ}\text{C}$) |
| Operating Temperature | 0 ~ 60 $^{\circ}\text{C}$ |
| Operating Humidity | 20 ~ 90% RH (non-condensing) |
| Storage Temperature | -10 ~ 70 $^{\circ}\text{C}$ |
| Storage Humidity | 20 ~ 90% RH (non-condensing) |

FRONT PANEL & KEY FUNCTIONS



DIMENSION (mm)



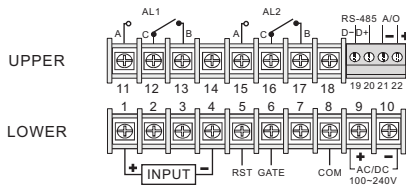
MODEL SELECTIONS

| ITEMS | CODE | SPECIFICATIONS | | | | |
|--|------------|-------------------------------------|-----|-----------------------------|------------------------|---------------------|
| ① MODEL | 224 | Hybrid Indicating Totalizer | | | | |
| ② OUTPUT (Retransmission) | A | None (Not required) | | D | Pulse (Open collector) | |
| | B | 4 ~ 20mA DC | | E | Pulse & 4 ~ 20 mA DC | |
| | C | RS-485 Communication | | S | To be specified | |
| ③ INPUT | - 0 | 4 ~ 20mA DC (without Excitation) | - 2 | 1 ~ 5V DC | - 6 | Contact |
| | | | - 3 | NPN | - 7 | Pick-up 50mV ~ 1.5V |
| | - 1 | 4 ~ 20mA DC (with Excitation) | - 4 | PNP | - 8 | Pick-up 0.5 ~ 1.5V |
| | | | - 5 | DC 24Vp | - 9 | To be specified |
| ④ ALARM FUNCTION | 0 | None (Not required) | 2 | 2-SPDT (AL1 / AL2) | 4 | To be specified |
| | 1 | 1-SPDT (AL1) | 3 | 3-SPST-NO (AL1 / AL2 / ALT) | | |
| ⑤ REMOTE FUNCTION (Digital Input) | 0 | None (Not required) | 2 | Remote hold | 4 | To be specified |
| | 1 | Remote reset | 3 | Remote reset / hold | | |
| ⑥ POWER SUPPLY | - A | AC 100 ~ 240V | | | | |
| | - B | DC 24V | | | | |
| | - C | To be specified | | | | |

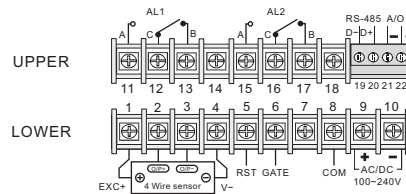
WIRING CONNECTIONS

■ 2 ALARMS FOR RATE

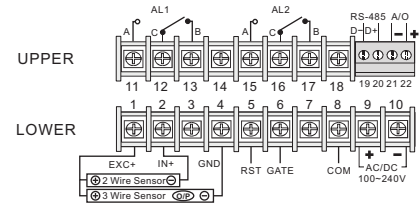
- Voltage , Current (DC)



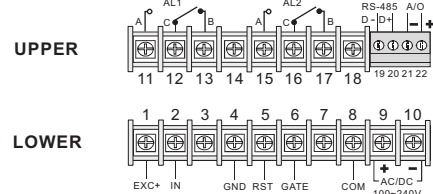
- 4 Sensor



- 2 / 3 Wire Sensor

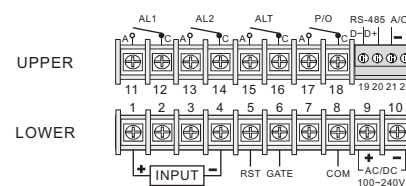


- Pulse / Mechanical Contact / Magnetic (pick Up)

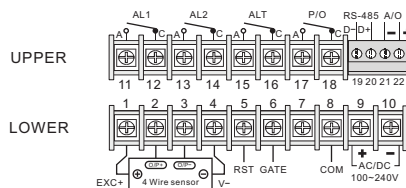


■ 2 ALARMS FOR RATE / 1 ALARM FOR TOTAL / PULSE OUTPUT FOR TOTAL

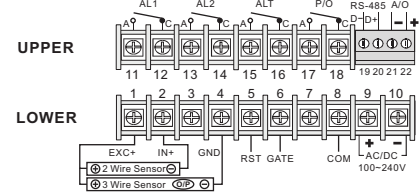
- Voltage , Current (DC)



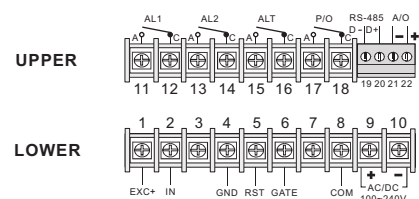
- 4 Sensor



- 2 / 3 Wire Sensor



- Pulse / Mechanical Contact / Magnetic (pick Up)



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The specifications are subject to change without prior notice.

