

## DIR-110N TANK SIDE INDICATOR

### GENERAL

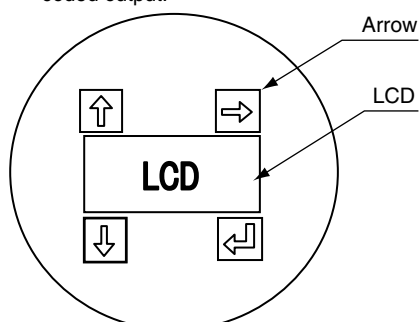
**DIR-110N** is a tank side indicator for tank gauges. Explosion proof construction is available for use in hazardous area. DIR-110N is connected to Tokyo Keiso's intelligent type tank top servo operated tank gauges FW-9000N series. It indicates liquid level, temperature and other operation status. Necessary data for tank management can be observed at tank side for easy operation and maintenance. Besides, such indication functions, analog re-output of level or temp. data in the form of 4 to 20mA DC and maximum 4 points relay output can be additionally provided for host computer or DCS and for control of relevant instruments around tanks.

The magnet sensors shown as the arrows on the indicator can manipulate locally FW-9000N and set various parameters.

### STANDARD SPECIFICATION

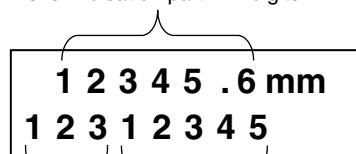
#### • CONNECTABLE TRANSMITTER

: Servo operated tank gauge  
FW-9000N series made by Tokyo Keiso  
Co., Ltd. which has standard serial data  
coded output.



#### • DETAILS OF LCD PRESENTATION

Level indication part in 7 digits



Status indication  
part in 3 digits

Data indication part  
in 5 digits

• INDICATION ACCURACY : Equal to tank gauge accuracy

• ADDITIONAL FUNCTION :

1) 4 to 20mA analog output

(Provided for DIR-111N□ and DIR-113N□)

Receiving digital data from the tank gauge, the indicator transmits level data or temperature data as analog current signals 4 to 20 mA after converting digital into analog. The power supply unit is integrated into the indicator. No additional 24 V DC is needed.



Selection of output data : Either level or temperature  
data is selectable.

Conversion accuracy :  $\pm 0.5\%$  of full scale

Number of outputs : 2

Max. load : 550Ω

#### 2) Relay output

(Provided for DIR-112N□ and DIR-113N□)

The indicator outputs 4 relay contact signals. These contact signals can be controlled through tank gauges via remote data communication. The contact signals are utilized for various services such as alarms and sequential control of valves, etc.

#### Output

No. of contact : Max. 4 points

Contact : SPDT (1a 1b)

Capacity : 3A 250VAC, 3A 30VDC  
(Resistance load)

#### • CONSTRUCTION

: Flameproof enclosure

TIIS: IICT6, RIIS certificate No.T14585

#### • POWER SUPPLY

: AC100 to 240V, 50/60Hz

#### • CABLE ENTRY

: Max. 4 pieces Nominal dia. 1/2 to 1  
inch.

Only 1/2 inch is available at one place.  
G (=PF) or NPT (F)

#### • CABLE TERMINATION

: Plug type terminal connection  
(Terminal No. to be referred to ap-  
proval drawing)

#### • POWER CONSUMPTION

: 20VA

#### • AMB. TEMP

:  $-20$  to  $55^{\circ}\text{C}$

#### • INSTALLATION

: Onto 2 inches pipe

#### • HOUSING MATERIAL

: Aluminum casting

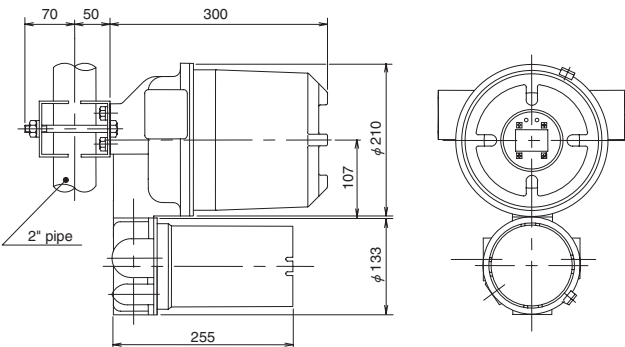
#### • MASS

: 11kg

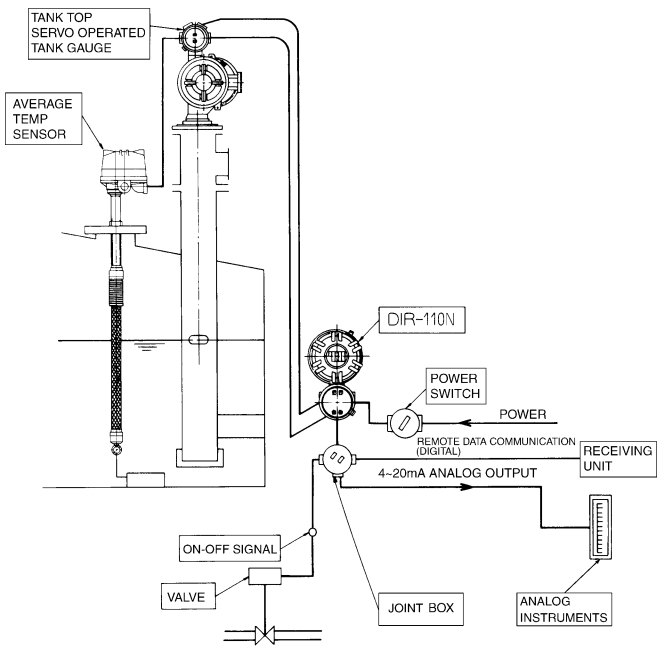
MODEL CODE

Model code		Description
DIR-11		
Additional function	0	Indication only
	1	4 to 20mA output
	2	Relay input-output
	3	4 to 20mA and relay input-output
Construction	NW	Weather proof
	NE	Explosion proof

DIMENSION



APPLICATION



ORDERING INFORMATION

Specify following items for your inquiry or ordering.

Model code	DIR-11□□
Cable entry	<input type="checkbox"/> G Screw <input type="checkbox"/> NPT Screw
Cable glands	<input type="checkbox"/> to be included <input type="checkbox"/> to be excluded -----> Cable diameter ____mm
Tank gauge	<input type="checkbox"/> FW-9000N
4 to 20mA Output	<input type="checkbox"/> Level data <input type="checkbox"/> Temperature data
4 to 20mA Span setting	4 mA = ____ <input type="checkbox"/> mm <input type="checkbox"/> °C 20 mA = ____ <input type="checkbox"/> mm <input type="checkbox"/> °C
Number of input-output points of relay contact	Output ____ points    Input ____ points
Specify others if required	

\* Specification is subject to change without notice.

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