



## GENERAL

**ALIAPANEL** The ARC1000 Series Paperless Recorder features the most advanced technology.

It highlights in various channels, complete function, easy operation, high accuracy, low consumption and high performance, overcoming the disadvantages of old paperless recorder of limited channels and large occupancy if several recorders are to be installed.

## FEATURES

- DIN (288 \* 288 mm), 800 \* 600 Pixels, TFT truecolor (LCD)
- 500 MB built-in memory card, support long-term data record
- Common input signal: mA, include VDC, T/C, RTD, Hz etc.
- High Accuracy +/-0.15% of Reading
- Max. 24 points relay output, Max. 8 points 4-20 mA output, Max. 6 points 24 VDC output
- Can receive input signals of Max. 48 channels
- 24 VDC Aux. power supply, 2-wire system
- Display / Record Single-point, Multi-point, Trend, Totalizer and Bargraph
- Records can be saved in USB memory & SD card and transferred to PC
- Ethernet communication, RS485 / RS232 function



## STANDARD SPECIFICATION

- Number of Inputs : 1-48 channels
- Input : T/C (K, S, B, E, J, N, T, R, N, etc.)  
: RTD, CU50, CU53, BA1, BA2  
: DCA (4-20 mA, 0-10 mA, 0-20 mA)  
: DCV (0-5 V, 1-5 V, 0-10 V, 20 mV, 100 mV)  
: Frequency (1 Hz-5 kHz) (4-24 VDC)  
: Resistance (0-175 Ω, 0-400 Ω)
- Accuracy : +/-0.15% of Span
- Response Time : 50 ms
- Alarm Types : High & Low alarm, Incr.& Decr. alarm
- Output : 4-20 mA \* 8 points (Max. ), load 800 Ω  
: Relay, 3 A / 250 V \* 24 points (Maximum)  
: 24 VDC, 60 mA \* 6 points (Maximum)
- Decimal Point : 2 Digits to the most
- Storage Memory : 500 MB (on board)
- Cycling Mode : Newest Data overwrites oldest data
- Recording Data Shift : USB memory (16 GB) / SD Card (16 GB)
- Display Update Rate : 1 s
- Keypad : 12 Keys (Page, Left, Right, Up, Down, Enter)  
for programming and display control
- Parameter Storage : Operation parameters are stored by EEPROM for more than 10 years
- Display : 10.4" color-screen LCD  
Trend & Bargraph : Vertical / Horizontal  
Digital : 4-1/2 Digits programmable  
Engineer Unit : 66 different engineering units  
Parameter Protection : Password entry (6 Digits)
- Logging Rate : 1-1800 Seconds Per Data
- Recording Capability : 144 Hours (48 Points, 1 Data/Second)  
: 355 Years (8 Point, 1 Data/5 Hours)
- PC Software : Windows 2000 / XP / Vista / 7 / 8  
Display : Trend, Numerical, Circular, Alarm, Bargraph  
Totalizer  
Convert Function : Saved as excel files
- Protection Class : IP65
- Weight : Max. 7.5 kg
- Dimensions : 288 mm (W) \* 288 mm (H) \* 254 mm (D)
- Ambient Temperature : -10~60 °C
- Ambient Humidity : 10-85% RH (5-40 °C)
- Power Supply : 85-260 VAC, 50/60 Hz
- Vibration Test : 10-60 Hz , 10 m/s<sup>2</sup> for 3 hours
- Power Consumption : ≤20 W
- Communication : RS232 / RS485 (MODBUS protocol)  
Ethernet



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ARC1000V1.2.3.r1.A4.en

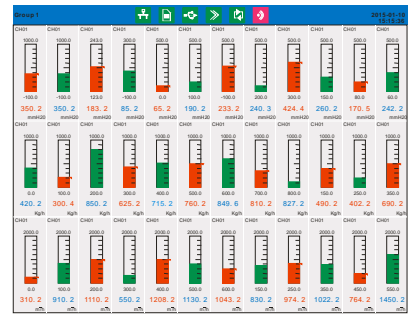
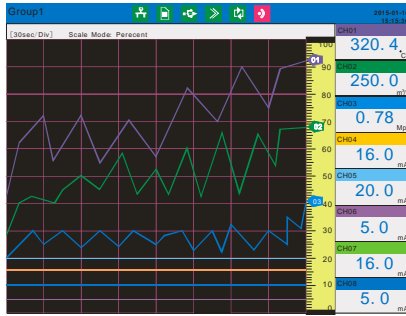
FUNCTIONS



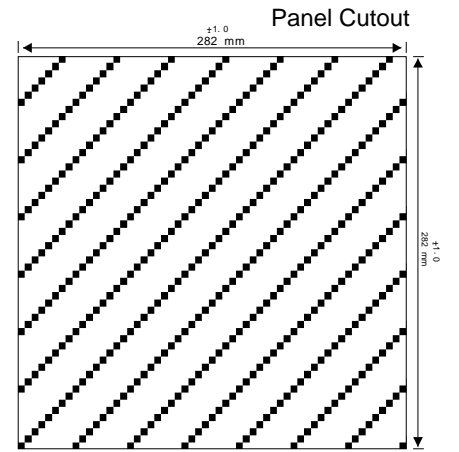
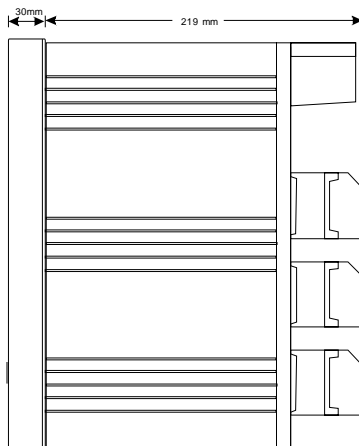
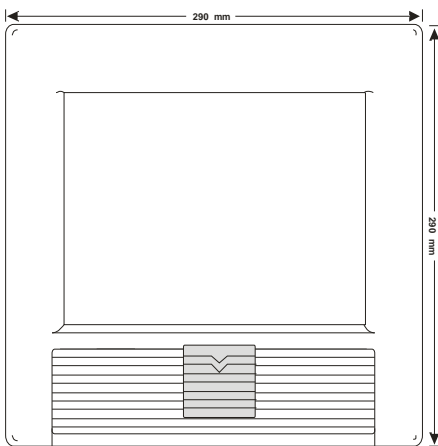
USB / SD Slot

Key Setting

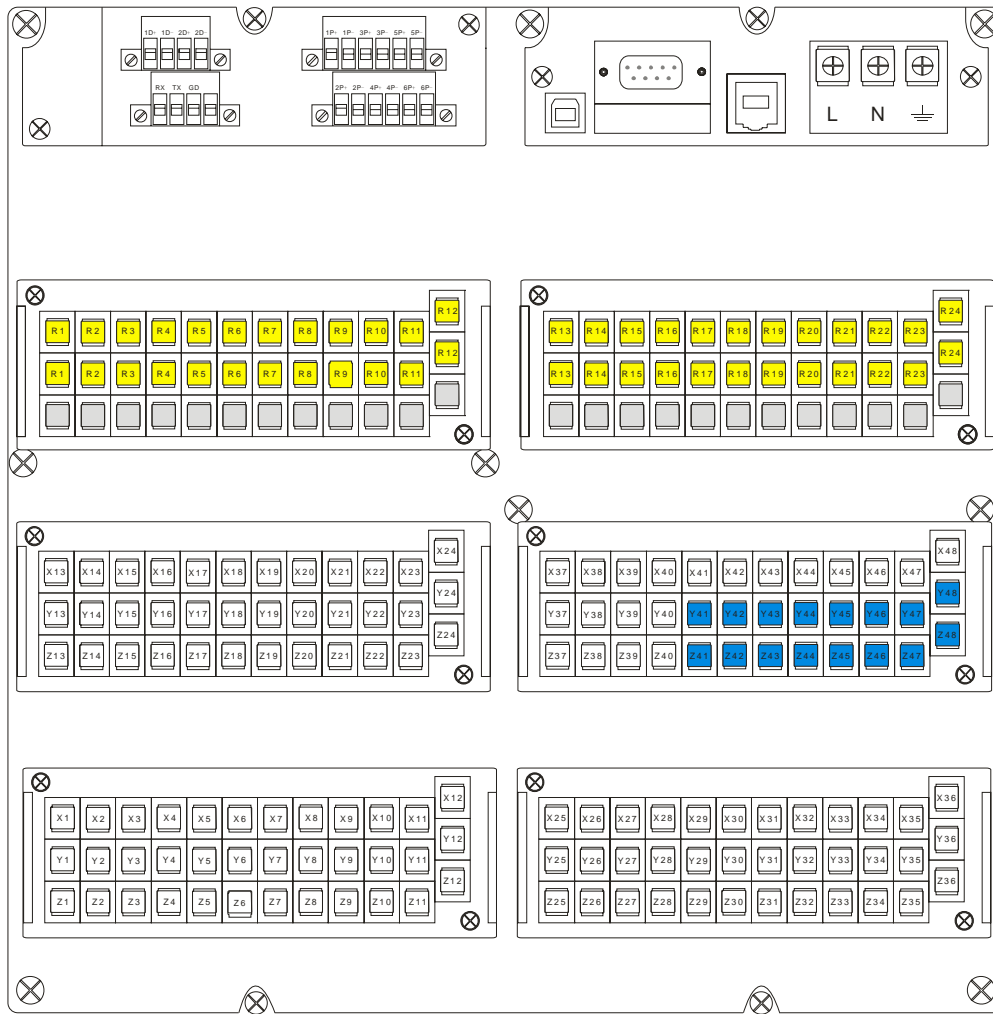
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30.2	33.2	35.2	38.2
Σ6521.22	t/h Σ6021.22	t/h Σ6421.22	t/h Σ6621.22
Ch05	Ch06	Ch07	Ch08
33.2	31.2	34.2	40.2
Σ1521.22	L/h Σ4021.22	L/h Σ2521.22	L/h Σ1221.22
Ch09	Ch10	Ch11	Ch12
12.2	11.2	13.2	14.2
Σ2021.22	kg/h Σ1111.22	kg/h Σ2111.22	kg/h Σ3221.22
Ch13	Ch14	Ch15	Ch16
10.2	12.3	31.2	14.2
Σ1101.22	bar Σ1221.22	bar Σ6111.22	bar Σ1451.22
Ch17	Ch18	Ch19	Ch20
14.7	10.1	99.2	83.2
Σ7411.22	mbar Σ1451.22	mbar Σ9521.22	mbar Σ7121.22
Ch21	Ch22	Ch23	Ch24
81.2	71.1	73.2	23.2
Σ5451.22	Pa Σ6621.22	Pa Σ6821.22	Pa Σ2221.22
Ch25	Ch26	Ch27	Ch28
41.8	92.2	15.2	24.2
Σ4021.22	MPa Σ6111.22	MPa Σ1321.22	MPa Σ1651.22
Ch29	Ch30	Ch31	Ch32
17.2	78.2	66.2	44.2
Σ1121.12	km Σ1021.22	km Σ6521.22	km Σ1121.22



DIMENSIONS



WIRING DIAGRAM



Input				Terminal	
				INPUT	
RTD	VDC / mV	mA	T/C Frequency	Channel 1-48	X1 / Y1 / Z1 .... X48 / Y48/ Z48
X ⊕				Output	
Y ⊕				Relay Channel 1-24	R1 / R1 .... R24 / R24
Z ⊕				4-20 mA Channel 1-8	Y41 / Z41 .... Y48 / Z48
				24 VDC Channel 1-6	1P+ / 1P- .... 6P+ / 6P-

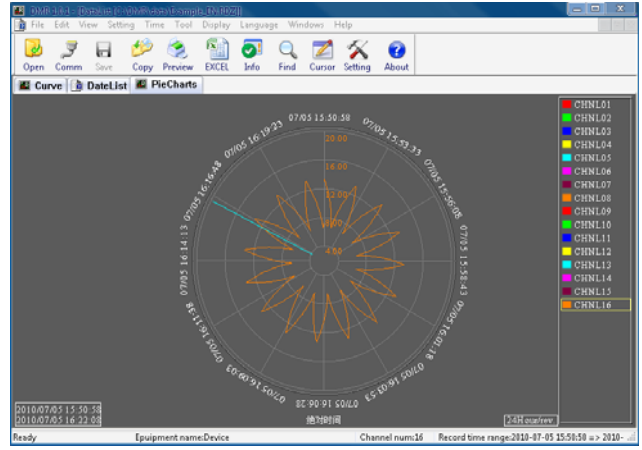
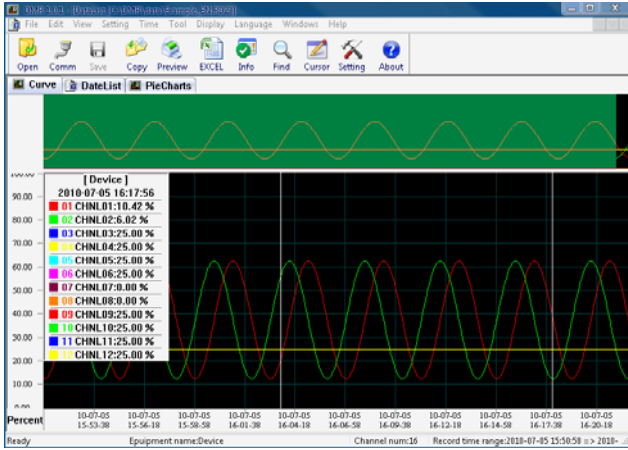
Output		
X ⊕	X ⊕	P+ ⊕ + 24 VDC 65 mA P- ⊕ -
Y ⊕	Y ⊕	
Z ⊕	Z ⊕	

Relay (NO)

**STANDARD ACCESSORY**

- \* Advanced software Data Analysis at your PC and Remote Viewing
- \* 16 GB USB Memory Disk (Advanced Software inside)
- \* 16 GB SD Memory Disk (Advanced Software inside)

**ADVANCED SOFTWARE**



**MODEL SELECTION GUIDE**

ARC1000 Series									
Example: ARC1000-U40-NNN-NNN-NNN-A08-R24-C5-N, Universal Input * 40, Current output * 8, Relay Output * 24, RS485 and Ethernet Port									
ARC1000-	XXX-	XXX-	XXX-	XXX-	XXX-	XXX-	XX-	X	Description
Universal Input	NNN-								None
	U□□-								Channels: 08, 16, 24, 32, 40, 48 * <b>Note</b>
Frequency Input (Ext. Power, 2-wire)	NNN-								None
	F□□-								Channels: 08, 16, 24, 32, 40, 48 * <b>Note</b>
Frequency Input (12 VDC Power, 3-wire)	NNN-								None
	G□□-								Channels: 08, 16, 24, 32, 40, 48 * <b>Note</b>
Frequency Input (24 VDC Power, 3-wire)	NNN-								None
	H□□-								Channels: 08, 16, 24, 32, 40, 48 * <b>Note</b>
4-20 mA Output	NNN-								None
	A□□-								Channels: 01-08 * <b>Note</b>
Relay Alarm Output (NO)	NNN-								None
	R□□-								Universal Input, 01-24 Channels
Communication	NN-								None
	C1-								RS232
	C2-								RS485
	C3-								Ethernet Port
	C4-								RS232 and Ethernet Port
C5-								RS485 (MODBUS) and Ethernet Port	
Other	N								None
	C								Temperature & Pressure Compensation

**Note:** The total channels of universal input, frequency input and 4-20 mA output can NOT be more than 48.