

Energy-Saving Control System for Hydraulic Units

Energy-saving effect can be obtained by adding this system to an existing unit and carrying out simple adjustments.



System Configuration

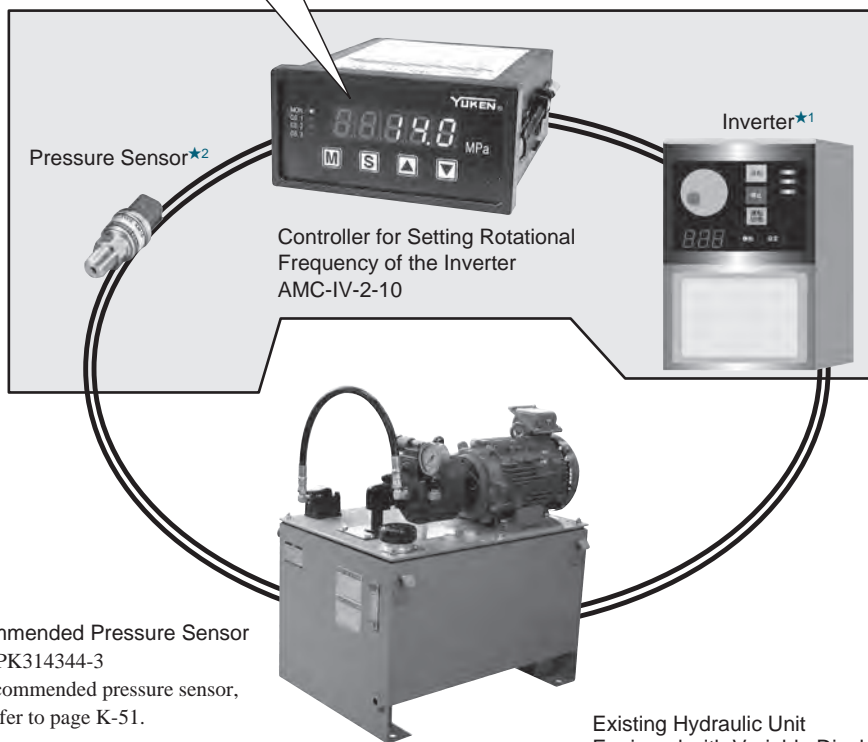
Use the hydraulic pump and electric motor of the current equipment, add the controller for setting rotational frequency of the inverter, the pressure sensor, and the inverter, and only carry out simple adjustments.

Due to adopt the select indication system, it is possible to indicate the five descriptions below.

- ① Input for pressure sensor (indicate pressure)
- ② Output for inverter
- ③ Simple power calculation value
- ④ Sequence input/output code
- ⑤ Alarm output code

★1. Recommended Inverter

A product which performance higher than the sensorless vector control type should be used.



★2. Recommended Pressure Sensor

· 1501-PK314344-3

As of recommended pressure sensor, please refer to page K-51.

Existing Hydraulic Unit
Equipped with Variable Displacement Piston Pump and
Induction Motor : 0.75 - 7.5 kW

По вопросам продаж и поддержки обращайтесь:

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■ Controller for Setting Rotational Frequency of the Inverter

● Specifications

Descriptions	Model Numbers	AMC-IV-2-10
Output Voltage for Inverter		3 Ranges Selectable (0 - +5 V, +1 - +5 V, +0.5 - +4.5 V)
Input Voltage for Pressure Sensor		3 Ranges Selectable (0 - +5 V, +1 - +5 V, +0.5 - +4.5 V)
Power Supply for Pressure Sensor		+5 V Max. 0.5 W
Sequence Input Signal	AC Photocoupler Input Resistance to limit the Current 3.3 kΩ	
	Name	IN1 IN2 INC
	Description	RUN Alarm Reset Input Common
Sequence Output Signal	Open Collector Output (Photocoupler Insulated) Max. Supply Voltage 35 V · 50 mA	
	Name	OUT1 IN2 OUTC
	Description	Low Rotational Frequency Alarm Output Common
Voltage for Power Supply		85 - 264 V AC 50/60 Hz
Power Consumption		Less than 6 VA
Ambient Temperature		0 - 50°C
Mass		0.3 kg

● Model Number Designation

AMC-IV	-2	-10
Series Number	Function Category	Design Number
AMC-IV : Controller for Setting Rotational Frequency of the Inverter	2 : High-Function Type	10

- ★1. This energy-saving system has no model numbers as for system itself, so when ordering this system, please indicate the model numbers of the controller for setting rotational frequency of the inverter and those of the pressure sensor.
- ★2. Also available with the simple model (with auto-tuning function) that is easy to set up. For details, please contact us separately.

AMC-IV-2-10

Panel Cutout Dimensions

★The value for using several controllers.

Detail of Terminal Block

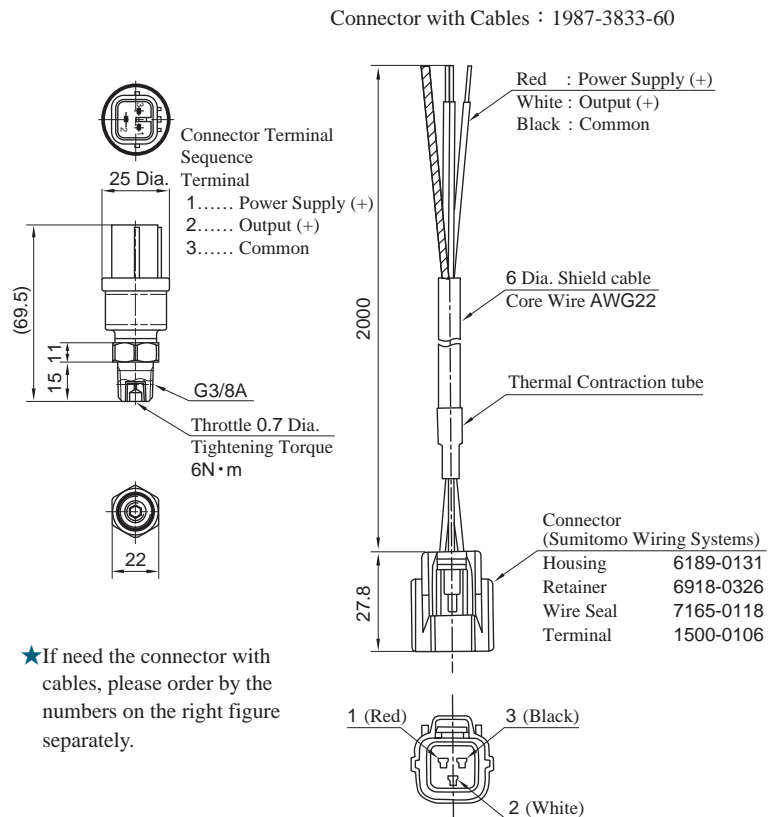
No.	Terminal Name	No.	Terminal Name
1	Output	11	OUT1
2	Inverter Output	12	Sequence Output
3	Common	13	Alarm
4	Shield	14	Output Common
5	Power Supply	15	AC
6	Pressure Sensor	16	FG
7	Common		
8	Shield		
9	Sequence Input		
10	Input Common		

Pressure Sensor

1501-PK314344-3

Specifications

Model Numbers	1501-PK314344-3
Descriptions	1501-PK314344-3
Rated Pressure Range	0 - 35 MPa
Allowable Max. Pres.	52.5 MPa
Output Range	0.5 - 4.5 V (Supply Voltage 5.00 V)
Supply Voltage	5.0±0.5 V DC (Output is proportional to supply voltage.)
Current Consumption	10 mA or less
Load Resistance	10 kΩ or more
Load Capacity	1000 pF or less
Output Impedance	10 Ω or less
Insulation Resistance	100 MΩ or more (50 V DC)
Voltage Resistance	150 V AC (1 min)
Precision	±1.0 % F.S. (23±2°C) ±3.0 % F.S. (Temperature Compensated Range)
Response Time	1 ms or less
Operating Temperature Range	-40 - +120°C
Temperature Compensated Range	-30 - +120°C
Vibration-Proof	147 m/s ² (33.3 - 200 Hz)
Shock-Proof	490 m/s ² (11 ms or less)
Dust-Proof / Water-Proof	IP 65
Approx. Mass	80 g



★If need the connector with cables, please order by the numbers on the right figure separately.

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