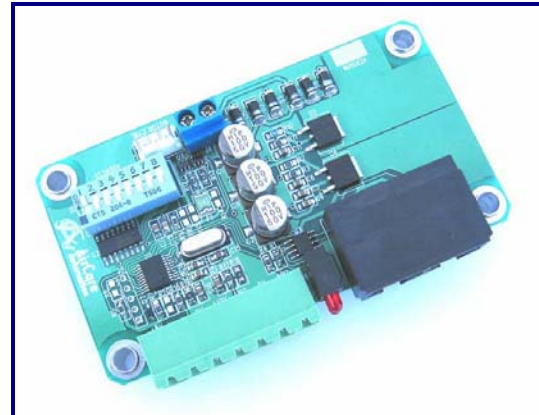


Overview

The ACM1014 provides MODBUS network and analog control capabilities to a GE ECM motor. ACM1014 is fully compatible with AirCare's Small System Controls. Simply add an AirCare Console™ and optional building management interfaces for a complete control & monitoring solution.

The ACM1014 analog input enables analog speed control from any 0-5 volt source or sensor. Use our internal 5 volt reference to control speed with a simple potentiometer. A built-in PID controller provides precise closed loop set-point control. ECM from Regal Beloit (formerly GE) is a high-efficiency brushless DC motor which is popular in high performance air-moving applications.



Specifications

- Control Interface for ONE (1) GE ECM motor
- Network or Analog Control Interface
- Simple connections
 - o 4 Pin MTA for motor control signals
 - o RJ45 for networking
 - o 7 Pin terminal for analog inputs
- LED diagnostics
 - o Board Status
 - o Network Traffic
- Industry standard MODBUS Networking
 - o MODBUS RTU Protocol
 - o RS485 9600,8,n,1
- Analog Control options
 - o 0-5V source
 - o Potentiometer
 - o Sensor with 0-5V output
 - o Internal RPM closed-loop control
- Powered from Network or Local Supply
 - o 12-24V AC or DC supply
- Mechanical
 - o Open-frame PCB with standoffs
 - o 0-50°C operating temperature
 - o 3.9" x 2.16" x 0.95"

Benefits

ACM1014 expands interface options for GE ECM motors. The unit connects to the ECM motor through a 4-wire connector. The installer need only connect power and the RJ45 communication patch cable to complete the control network.

Installation

ACM1014 is powered by a low voltage supply that is provided by the AirCare Small System (*MODBUS network using AirCare Console™ powered by ACM1008 or similar*) or from a local 12-24V DC supply or AC transformer.

Two RJ45 jacks provide In/Out connections for network cables. Like the AirCare VariPhase™, the ACM1014 is daisy-chained using CAT5 patch cables.

ACM to ECM Control Cable Harness

Signal Name	Function	ECM Name	ECM Pin andColor
SPD	PWM speed signal to motor	PWM	9 Red
EN	Enable signal to motor	G	16 Black
0V	Common Ground	C2 OUT-	3,8 Green
IN	Feedback signal from motor	OUT+	15 White

Mating connector for ACM1014:
AMP MTA 640442-4

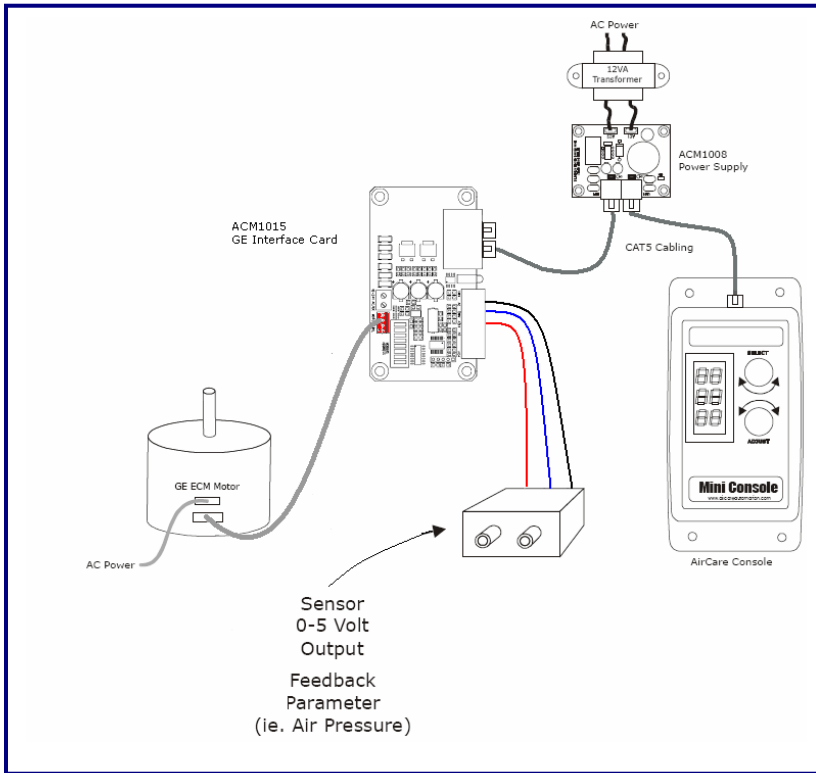
Mating connector for GE ECM:
Housing – AMP 1-480763-1
Contact – AMP 350537-1

AirCare Console™ and *AirCare VariPhase™* are Trademarks of AirCare Automation Inc.

MODBUS™ is a registered trademark of Schneider Automation

ECM™ is a trademark of General Electric Inc.

ACM1014 System Diagram



Mechanical Dimensions

