RESmith
www.rs485.com

Model IRSFC24   Rev. C   AUG 2007

RS232<=>3KV ISOLATED RS485 Automatic Converter
with Terminal Strip, RJ12/RJ11 connectors, LED Indicators, for Industrial Applications

General Description:
The IRSFC24 has fast automatic transmit-enable timing for easy RS232<=>RS485 conversion, in 2-wire half-duplex applications, at data rates up to 115.2Kbps. LED indicators for Power, TXD, RXD, with jumper selectable bias and termination. TI 1/4 unit load SN65LBC184 Transceiver IC with built-in protection, and onboard transient protection. A loop-back jumper allows for easy self-testing of the unit.

Features:
Temperature Range: -40C to +85C
3KV Isolated for Industrial Applications
Fast Automatic Transmit Enable
LED Indicators for RS232 & RS485
Terminal Strip or RJ12s for RS485

Physical Properties:

RS232:	3-wire interface to RJ11/12 Connector (TXD, RXD, Common), DTE/DCE Jumpers
RS485:	Wago terminal strip (TXD/RXD-, TXD/RXD+, Common) and dual RJ12/RJ11 connectors
Power:	2.1mm center positive "Barrel" connector, Terminals, (9-35Vdc), switching regulator
LEDs:	For RS232 & RS485: Power (Yellow), TXD (Red), RXD (Green)
Bias:	910 / 2.2K Ohm pull-up and pull-down resistors (jumper selectable)
Termination:	120 Ohm (jumper selectable)
Special:	Robust transient protection and isolation, Loop-back test jumper

Specifications:

Temp./Humidity:	-40C to +85C (-40F to +185F) operating temp., 10-90% relative humidity, non-condensing
Isolation Voltage	3KV for 1-Sec. peak for opto-isolators and onboard DC-DC converter
Input Voltage Range:	9-35Vdc (Switching regulator)
Power:	Under 1/2 Watt (typical) + external load
Physical Size:	PCB size: 3.25" X 3.00" X 0.9" with connectors: 3.50" X 3.25 X 0.9" (built-in #6 standoffs)
RS485 Distance:	4000ft. (1250 meters) minimum, with up to 32 unit loads
Speed/Format:	Up to 115.2Kbps data rate, with any combination of bits (start, data, parity, stop, etc.)
Operation:	2-wire, half-duplex, RS485 data, using twisted 24AWG wire (100-120 Ohm impedance)

Options and Ordering Information:

IRSFC24:	$99.00ea. (Fully tested & operational, Circuit board only, no accessories)
Enclosure:	$10.00ea. P/N Enclosure-M (medium)
RS232 Cable:	$7.50ea. P/N DB9F-7 (RJ11/12 to DB9F adapter with 7ft. cable)
Power Supply:	$8.50ea. P/N 12VDC-SPS (12Vdc @ 0.45A Switching Power Supply)
IRSFC24-B9FSPS:	$125.00ea. IRSFC24 Converter with all options (Qty. 1-9)

NOTE:	Industrial/robust applications, can be used with outdoor wiring (signs, camera PTZ, etc.)