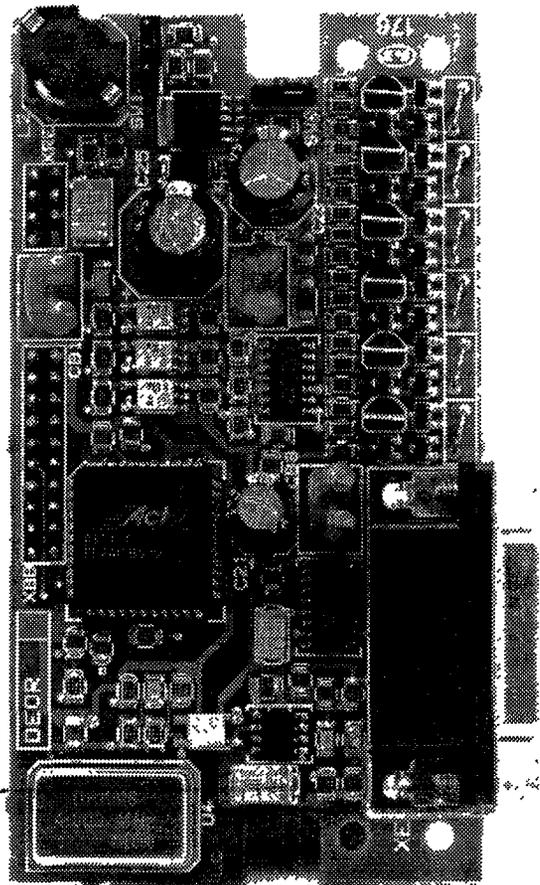




**GE Motors & Industrial Systems**

**6KAV300ESR**

Encoder Signal Repeater

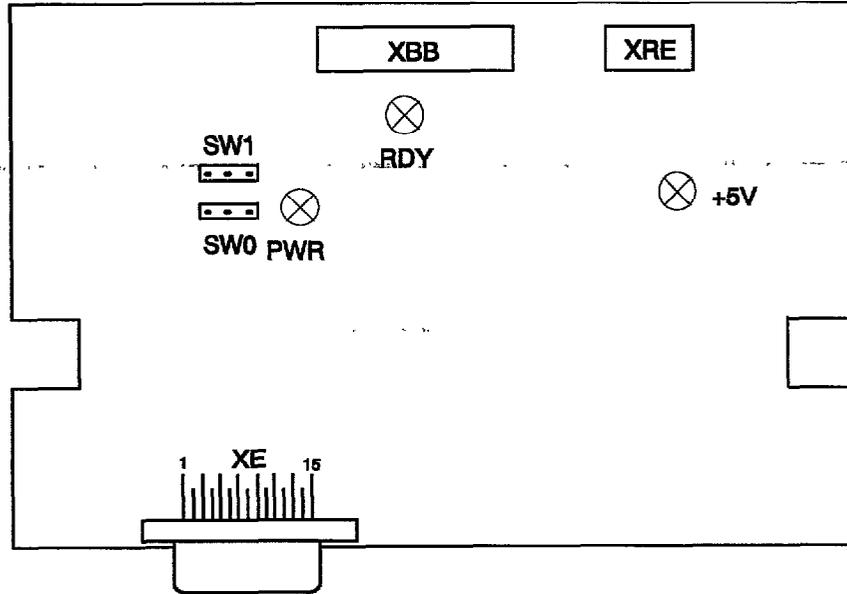


These instructions do not purport to cover all details or variations in equipment, nor to provide every possible contingency to be met during installation, operation, and maintenance. If further information is desired or if particular problems arise that are not covered sufficiently for the purchaser's purpose, the matter should be referred to GE Motors & Industrial Systems. This document contains proprietary information of General Electric Company, USA and is furnished to its customer solely to assist that customer in the installation, testing, operation, and/or maintenance of the equipment described. This document shall not be reproduced in whole or in part nor shall its contents be disclosed to any third party without the written approval of GE Motors & Industrial Systems.

© 1997 by General Electric Company, USA. All rights reserved.

The 6KAV300ESR Encoder Signal Repeater Card is designed to transmit an encoder signal to a remote user connected to the AV-300 drive. The output signals are electrically isolated.

The card has to be installed on the regulation card of the AV-300 drive, in place of "option B" card assembly on the left-hand side of the regulation card.



Dimensions: 4 x 2.2 inches (102 x 56 mm) Weight : 0.22 pounds (100 g)

Through XRE connector the Encoder Signal Repeater card detects encoder signals from the drive regulator. Through XBB connector it receives voltage input (+5V) for its synchronization circuit.

XE connector is used to provide the TTL or HTL signals encoder output and to receive an external voltage supply of either +5V or +15 to +24V.

Configuration of SW0 and SW1 Jumper determines external power requirement and output signal levels.

Table 1: Jumpers SW0 and SW1

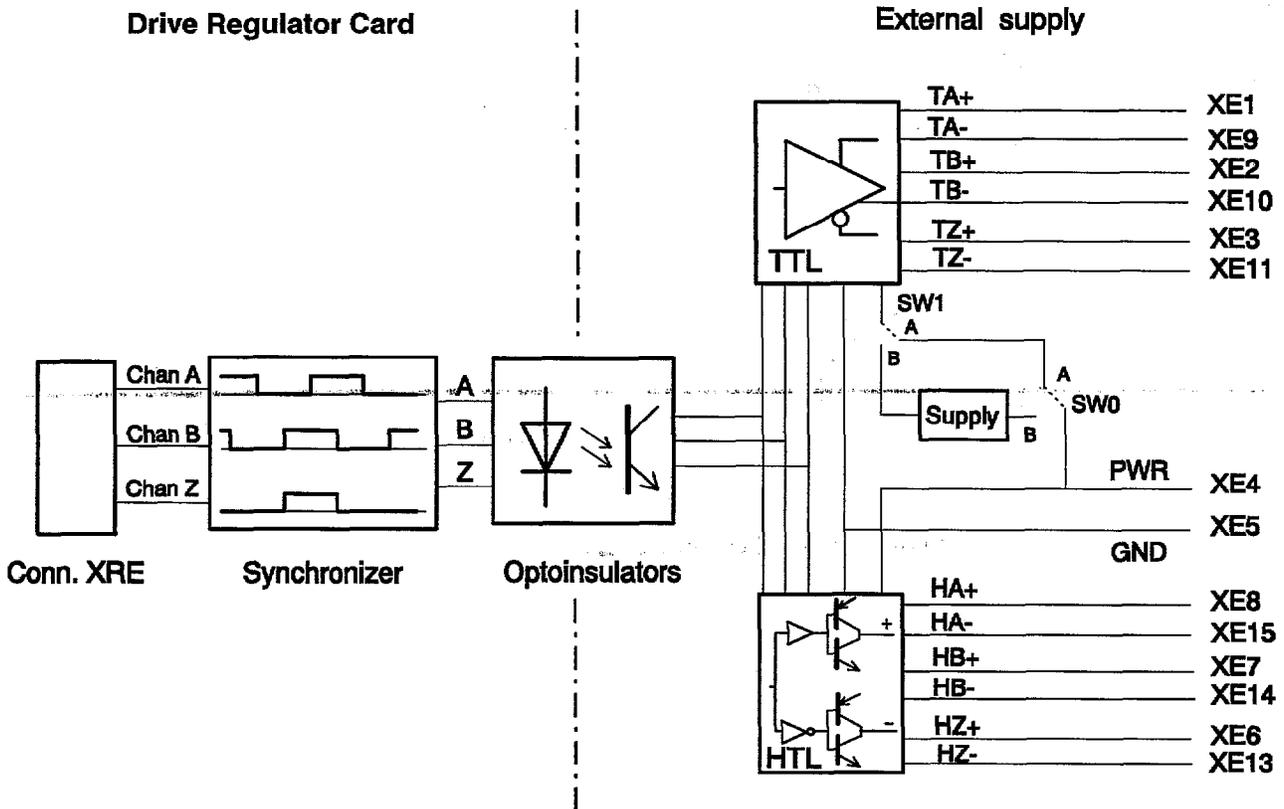
Switches configuration	PWR supply	Available output
SW0 and SW1 in position A	+5V	TTL logic
SW0 and SW1 in position B	+15...+24V	HTL and TTL logic

P-0163

Two electrical output protocols are available, as shown above; the HTL protocol is not protected against short circuit.

The synchronism assures that the channel C pulse (zero pulse) is in phase with and has the same duration as one channel B pulse.

In case of noise on the encoder signals, connect ground GND with terminal 11 of the regulation card through a capacitor ( 0.47  $\mu$ F 850V ).



Encoder Signal Repeater

D-sub miniature connector of 15 sockets, assembly on the card.

To join the input conductors and output signals use a male connector in accordance with DIN 41 652.

Table 2: Assignment of the Plug Connector XE

PIN	Name	Electrical protocol and function	I/Q	max. Voltage	max. Current
PIN 1	TA+	TTL channel A+	Q	TTL	20 mA
PIN 2	TB+	TTL channel B+	Q	TTL	20 mA
PIN 3	TZ+	TTL channel C+ (impulse of zero)	Q	TTL	20 mA
PIN 4	PWR	Voltage Supply	I	+15 - +24V or +5V	150 mA
PIN 5	GND	Supply Ground	I	-	-
PIN 6	HZ+	HTL channel C+ (impulse of zero)	Q	PWR - 3.5V	20 mA
PIN 7	HB+	HTL channel B+	Q	PWR - 3.5V	20 mA
PIN 8	HA+	HTL channel A+	Q	PWR - 3.5V	20 mA
PIN 9	TA-	TTL channel A-	Q	TTL	20 mA
PIN 10	TB-	TTL channel B-	Q	TTL	20 mA
PIN 11	TZ-	TTL channel C- (impulse of zero)	Q	TTL	20 mA
PIN 12	-	Not used	-	-	-
PIN 13	HZ-	HTL channel C- (impulse of zero)	Q	PWR - 3.5V	20 mA
PIN 14	HB-	HTL channel B-	Q	PWR - 3.5V	20 mA
PIN 15	HA-	HTL channel A-	Q	PWR - 3.5V	20 mA

Table 3: Recommended Cable cross-section area and length for connection

Section [mm ]	0.22	0.5	0.75
max Length feet [m]	180 [55]	140 [125]	500 [150]

P-0165

Table 4: LEDs on the card

Designation	Color	Function
+5 V	green	ON when there is power present
PWR	green	ON when there is external supply
RDY	red	ON when external supply is not OK

P-0166

**Notes**

1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice G. D. C. O'Connell, Chief Justice of the Supreme Court of the State of New South Wales."

THE STATE OF NEW SOUTH WALES

IN SENATE, ASSEMBLED, THE 15th DAY OF JANUARY, 1901.

.....

.....

.....



***We bring good things to life.***

***GE Motors & Industrial Systems***