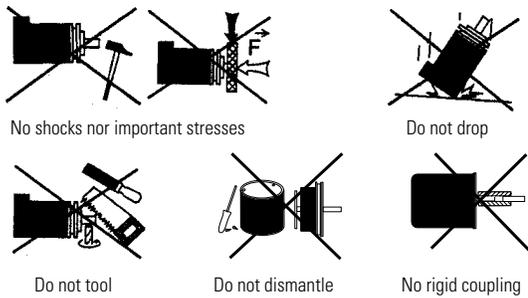


INCREMENTAL ROTARY ENCODERS

WARRANTY

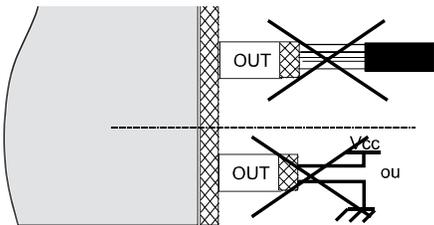
Our standard warranty is 12 months from the delivery date. Should any claim appear during the warranty period, our liability is limited to either the free of charge replacement or repairment of the encoder in our production site. The company discharges its responsibility for all material damage or injury due to a wrong set up or use of the encoder.

CAUTION !

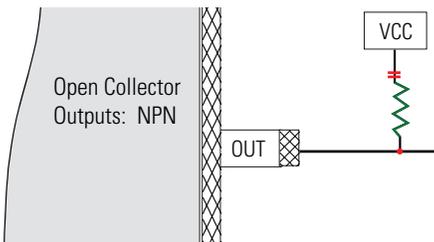


Do not hold the encoder by the cable
Do not dip encoder into water

CONNECTING CAUTIONS

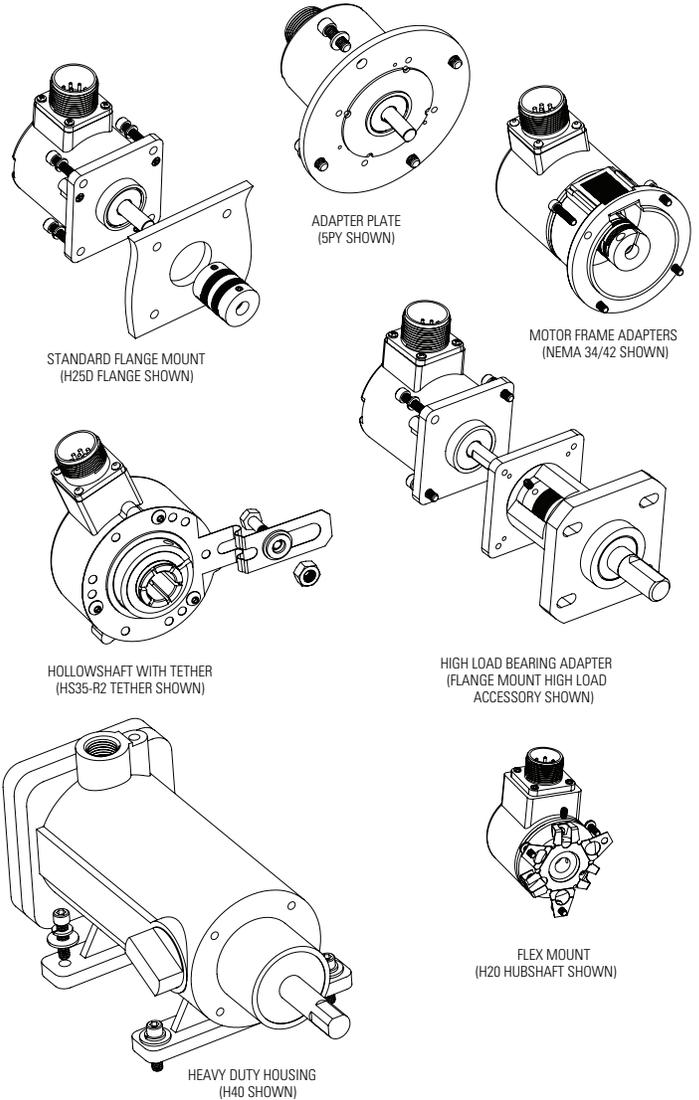


- Never connect outputs together
- Never connect idle outputs to a potential



- Max. sink current for NPN outputs will be 80 mA. total and pull-up to 30 VDC max. recommend resistor pull up value of 100 ohm/VDC at 50% power rating to nearest std. resistor value.

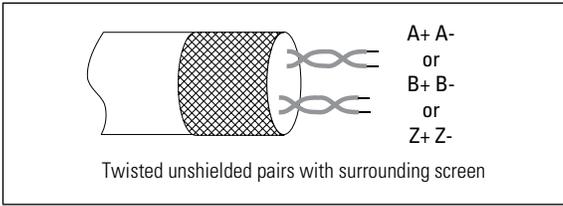
MOUNTING PROCEDURE



- Solid shaft**
1. Mount encoder to rigid bracket
 2. Mount a flexible coupling (loose assembly) to the encoder shaft
 3. Align carefully encoder and driving shaft
 4. Tighten all screws
- Hollow or through-in shaft**
1. Mount in a rigid assembly the driving shaft into the encoder hollow or through-in shaft
 2. Mount the flexible anti-rotation device onto the frame – tighten the assembly
 3. Respect the encoder-frame mounting distance of the flexible anti-rotation device

If possible, mount the encoder shaft horizontal or facing downward, with the cable-glands or the connector facing downward

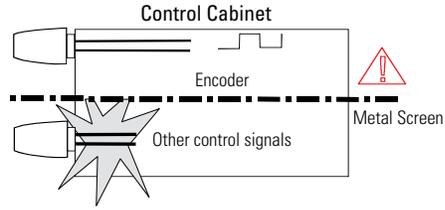
For an encoder with a cable output, please refer to the encoder label and spec sheet



Shielded pair cable : connect identical functions in each pair.

The connector style will determine pinouts. For example, an encoder with ABC channels and an M18 connector uses the table to the right.

PLC Cabinet Connection



Keep encoder signal and power wires or cables properly shielded and separated from other control and power supply cables in the cabinet.

M14 Connector	M16 Connector	Channels Designated in Model Number	
		ABZ	ABC
Pin	Pin		
E	A	A	A
D	B	B	B
C	C	Z	\bar{A}
B	D	+V (Supply Voltage)	
F	E	—	\bar{B}
A	F	0V (Circuit Common)	
	G	Case Ground (CG) (except H20)	

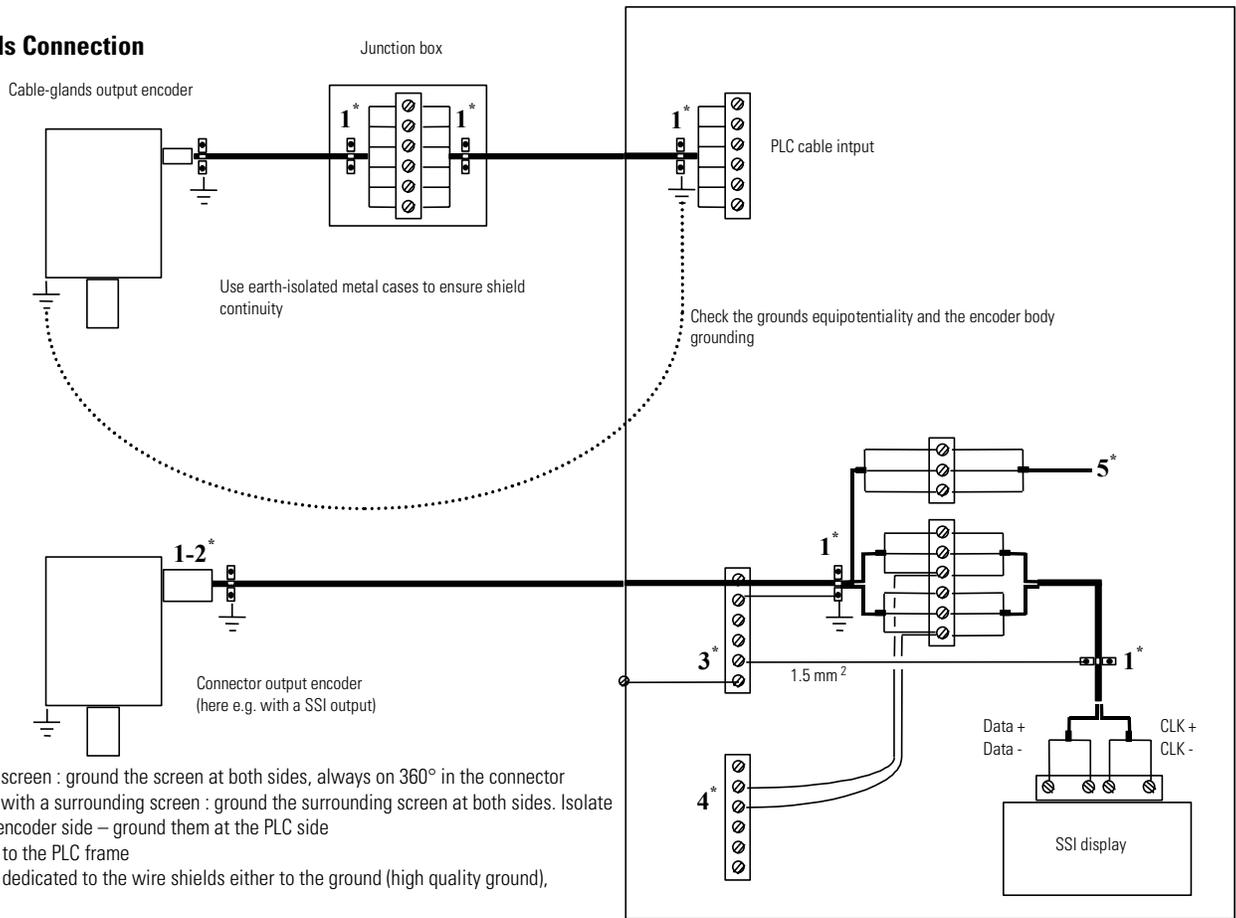
M18 Connector	
Pin	Channel
A	A
B	B
C	Z
D	+V
E	—
F	0V
G	CG
H	\bar{A}
I	\bar{B}
J	\bar{Z}

Wire Color (22AWG)	DA 15P Connector	Channels Designated in Model Number		
		ABZ	ABC	ABZC
YEL	13	A	A	A
BLUE	14	B	B	B
ORN	15	Z	—	Z
W-Yel	10	—	\bar{A}	\bar{A}
W-Blu	11	—	\bar{B}	\bar{B}
W-Orn	12	—	—	\bar{Z}
RED	6	+V (Supply Voltage)		
BLK	1	0V (Circuit Common)		
GRN	9	Case Ground (CG0) (except H20)		
WHITE		Shield Drain (Shielded Cable Only)		

M12 Connector	
Pin	Channel
A	A
B	B
C	Z
D	+V
E	—
F	0V
G	CG
H	\bar{A}
J	\bar{B}
K	\bar{Z}



Shields Connection



1. Cable with surrounding screen : ground the screen at both sides, always on 360° in the connector
 2. Cable shielded by pairs with a surrounding screen : ground the surrounding screen at both sides. Isolate the wire shields at the encoder side – ground them at the PLC side
 3. Connect the ground bar to the PLC frame
 4. Connect the ground bar dedicated to the wire shields either to the ground (high quality ground), otherwise to the 0V
 5. Ensure the continuity of the case ground up to the external power source
- Do not wind up the excess cable
 - Do not cut nor leave unconnected the case ground

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas
+1 (800) 350 2727
sensors@sensata.com

Europe, Middle East & Africa
+33 (3) 88 20 8080
position-info.eu@sensata.com

Asia Pacific
sales.isasia@list.sensata.com
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +886 (2) 27602006
ext 2808