

## Connector pin assignment ZH-81 with Interbus-S - Interface

### General note

If the encoder is the last node in the ring, you must wire connector X4 for the incoming remote bus interface and connector X1 for the encoder supply voltage (connector X2 is not wired).

If there are additional nodes in the ring after the encoder, you must additionally wire connector X2 for the remote out interface to the subsequent node.

For the subsequent node to be detected, SW1 (RBST) must be switched on.

TR-profile: ID=51 dec. (33 HEX), K1: ID=54 dec. (36 HEX), K2: ID=54 dec. (36 HEX), K3: ID=55 dec. (37 HEX).

### Print- Spring Force Terminals

Grid Spacing:	2.54 mm		
Nominal Voltage / -Current:	63 V / 6 A at a nominal cross section of 0.5 mm <sup>2</sup>		
Connection:	inflexible 0.14 – 0.5 mm <sup>2</sup>	flexible 0.14 – 0.5 mm <sup>2</sup>	Conductor size (AWG) 26 - 20
	flexible with wire end sleeve without plastic sleeve —	flexible with wire end sleeve with plastic sleeve —	

### Explanation of terms:

ZH-81: Absolute Hollow Shaft Encoder  
 US: Supply Voltage, 11 – 27 V DC  
 US-Input: 1-level > +8V, 0-level < +2V, up to ±35V, 5 kOhm

### X1 - 4-pole

Pin 1 / 3 0V-Supply  
 Pin 2 / 4 US-Supply Voltage

### X2 - 9-pole, REMOTE OUT

Pin 1 - 4 NC  
 Pin 5 DI2 inverted  
 Pin 6 DI2  
 Pin 7 GND (data reference potential for successor)  
 Pin 8 DO2 inverted  
 Pin 9 DO2

### X3 - 9-pole

Pin 1, 3 - 9 NC  
 Pin 2 US-Input for Preset

### X4 - 9-pole, REMOTE IN

Pin 1 RS485 for PC-adaptor and EPROG –  
 Pin 2 RS485 for PC-adaptor and EPROG +  
 Pin 3 - 4 NC  
 Pin 5 DI1 inverted  
 Pin 6 DI1  
 Pin 7 GNDI (data reference potential from predecessor)  
 Pin 8 DO1 inverted  
 Pin 9 DO1

### LEDs

RD (red): Following IBS-Interface is disconnected  
 BA (green): Interbus-S active  
 CC (green): Remote-Control (Cable-Check)  
 PWR (green): SUP1 Supply-Voltage

