PGS J1939 ISSUE 4

SAE J1939 TECHNICAL INFORMATION

DEVICE PROFILE FOR PENNY AND GILES ENCODERS

Prepared by: .................................................................
D Searle

Approved by: .................................................................
J Witts
## Change History

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Change</th>
<th>Author</th>
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<td>1</td>
<td>23/04/10</td>
<td>Original</td>
<td>J. Witts</td>
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<tr>
<td>2</td>
<td>08/06/10</td>
<td>Page 3 – Start Position 5.5, Length 1 bits – WAS 2 bits</td>
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<td>Start Position 5.6 and 5.7 Required for factory setup added.</td>
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<td>3</td>
<td>16/06/10</td>
<td>Page 1 – PGS J1939 ISSUE 3</td>
<td>M Bentley</td>
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<td>DEVICE PROFILE FOR PENNY AND GILES ENCODERS</td>
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<td>WAS – SRH500 J1939 CAN MESSAGE PROTOCOL</td>
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<td>4</td>
<td>18/02/14</td>
<td>Page 4 – SPN_PG 1 &amp; SPN_PG 2 updated to specify byte order.</td>
<td>D Searle</td>
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PGNs

**PGN_PG 65400**  **SRH520CN Position Sensor**  **PGSRH520CNP**

This parameter group is used to transmit dual channel rotary positional information about the SRH520CN sensor.

Transmission Repetition Rate: 25mS / 50mS /100mS (factory configurable)
Data Length: 5
Extended Data Page: 0
Data Page: 0
PDU Format: 255
PDU Specific: 120  PGN Supporting Information:
Default Priority: 3
Parameter Group Number: 65400 (0x00FF78)

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<td>Rotary Position Channel 1</td>
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<td>3-4</td>
<td>2 bytes</td>
<td>Rotary Position Channel 2</td>
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<td>Channel 1 Status</td>
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<td>5.3</td>
<td>2 bits</td>
<td>Channel 2 Status</td>
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<td>5.7</td>
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<td>} required for factory setup</td>
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SPNs

**SPN_PG 1 Rotary Position Channel 1**

SRH520CN Angle of rotation for channel 1 output.

- Data Length: 2 bytes**
- Resolution: 0.022* degrees/bit, 0 offset
- Data Range: 0 to 1440 degrees  
  Operational Range: 0 to 360 degrees
- Type: Measured
- Supporting Information:
  - PGN reference: 65400
- Note:
  - * 360 degrees using least significant 14 bits
  - ** Position data is transmitted in MOTOROLA format (i.e. most significant byte first)

**SPN_PG 2 Rotary Position Channel 2**

SRH520CN Angle of rotation for channel 2 output.

- Data Length: 2 bytes**
- Resolution: 0.022* degrees/bit, 0 offset
- Data Range: 0 to 1440 degrees  
  Operational Range: 0 to 360 degrees
- Type: Measured
- Supporting Information:
  - PGN reference: 65400
- Note:
  - * 360 degrees using least significant 14 bits
  - ** Position data is transmitted in MOTOROLA format (i.e. most significant byte first)

**SPN_PG 3 Channel 1 Status**

SRH520CN status signal which indicates the status of channel 1.

- 00 – Disabled
- 01 – Enabled / Normal Operation
- 10 – Error
- 11 – Not Available

- Data Length: 2 bits
- Resolution: 4 states/2 bit, 0 offset
- Data Range: 0 to 3  
  Operational Range: same as data range
- Type: Measured
- Supporting Information:
  - PGN reference: 65400
**SPN_PG 4 Channel 2 Status**

SRH520CN status signal which indicates the status of channel 2.

00 – Disabled  
01 – Enabled / Normal Operation  
10 – Error  
11 – Not Available  

Data Length: 2 bits  
Resolution: 4 states/2 bit, 0 offset  
Data Range: 0 to 3  
Operational Range: same as data range  
Type: Measured  
Supporting Information:  
PGN reference: 65400

**SPN_PG 5 SRH-500 Status**

SRH520CN status signal which indicates the status of the device.

00 – Disabled  
01 – Enabled / Normal Operation  
10 – Error  
11 – Not Available  

Data Length: 2 bits  
Resolution: 4 states/2 bit, 0 offset  
Data Range: 0 to 3  
Operational Range: same as data range  
Type: Measured  
Supporting Information:  
PGN reference: 65400