# Command Frame

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| STX | Command | ETX | BCC |  |
| 1 |  | 1 | 1 | bytes |
|  |  |  |  |  |
|  | BCC calculation range | |  |  |

|  |  |
| --- | --- |
| STX | Code that indicates the beginning of the communications frame. (0x02) |
| Command | Text of the command. |
| ETX | Code that indicates the end of the communications frame. |
| BCC | Block check character. Stores the result of the BCC calculation. (0x03) |

# Command Text

## Data Transfer Command (0x04)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Command No. (0x04) | Ballast position LSB | Ballast position MSB | Servo position LSB | Servo position MSB |  |
| 1 | 1 | 1 | 1 | 1 | bytes |

## Setting Command (0x05)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Command No. (0x05) | Setting Index No. | Data  LSB | Data  MSB |  |
| 1 | 1 | 1 | 1 | bytes |

|  |  |  |  |
| --- | --- | --- | --- |
| Index Number | Setting | Data Range | Unit |
| 0 | Ballast tank minimum position | 0 to 32767 | rev |
| 1 | Ballast tank maximum position | 0 to 32767 | rev |
| 2 | Ballast tank motor duty cycle | 0 to 255 |  |
| 3 | Servo minimum position | 0 to 32767 | µs |
| 4 | Servo mid position | 0 to 32767 | µs |
| 5 | Servo maximum position | 0 to 32767 | µs |
| 6 | Servo delay (for deployment) | 0 to 32767 | ms |
| 7 | Deployment motor duty cycle | 0 to 255 |  |
| 8 | Deployment delay | 0 to 32767 | ms |

## Deploy Command (0x06)

|  |  |  |
| --- | --- | --- |
| Command No. (0x06) | Command  Data |  |
| 1 | 1 | bytes |

|  |  |
| --- | --- |
| Command Data | Command |
| 0 | Close dive planes |
| 1 | Open dive planes |

# BCC Calculation

## Example BCC Calculation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| STX | Command | BALLSB | BALMSB | SERVLSB | SERVMSB | ETX |
| 0x02 | 0x04 | 0x01 | 0xFE | 0x05 | 0xDC | 0x03 |

(where )