

**Model** IO-Link Signal Beacons  
**Type** NE-IL

|             |  |
|-------------|--|
| Vendor ID   | 763  |
| Vendor Name | PATLITE Corporation                                  |
| Device ID   | 60001  |
| Vendor Url  | <a href="http://www.patlite.com">www.patlite.com</a> |
| Device Name | NE-IL  |

|                    |                      |        |                     |        |
|--------------------|----------------------|--------|---------------------|--------|
| IO-Link Revision   | 1.1                  |        |                     |        |
| Bit rate           | COM2 (38.4 kbps)     |        |                     |        |
| Minimum cycle time | 8 ms                 |        |                     |        |
| Data length        | input<br>from master | 2 byte | output<br>to master | 2 byte |

**Parameter ( Service data )**

| Index | Parameter              | Access | Byte Length | Default Value   | Remarks                           |
|-------|------------------------|--------|-------------|---|-----------------------------------|
| 2     | Standard command       | Wo     | 1           |   | 130 - Restore the factory setting |
| 16    | Vendor name            | Ro     | 48          | PATLITE Corporation   |                                   |
| 17    | Vendor text            | Ro     | 48          | <a href="http://www.patlite.com">www.patlite.com</a>          |                                   |
| 18    | Product name           | Ro     | 16          | NE-ILNN-M   | Model : NE-ILNN-M                 |
|       |                        |        | 16          | NE-ILNB-M   | Model : NE-ILNB-M                 |
|       |                        |        | 16          | NE-ILTN-M   | Model : NE-ILTN-M                 |
|       |                        |        | 16          | NE-ILTB-M   | Model : NE-ILTB-M                 |
|       |                        |        | 16          | NE-ILXB-M   | Model : NE-ILXB-M                 |
| 19    | Product ID             | Ro     | 16          | NE-ILNN-M   | Model : NE-ILNN-M                 |
|       |                        |        | 16          | NE-ILNB-M   | Model : NE-ILNB-M                 |
|       |                        |        | 16          | NE-ILTN-M   | Model : NE-ILTN-M                 |
|       |                        |        | 16          | NE-ILTB-M   | Model : NE-ILTB-M                 |
|       |                        |        | 16          | NE-ILXB-M   | Model : NE-ILXB-M                 |
| 20    | Product text           | Ro     | 64          | IO-Link Signal Beacons  | Model : NE-ILNN-M                 |
|       |                        |        | 64          | IO-Link Signal Beacons, Buzzer                                | Model : NE-ILNB-M                 |
|       |                        |        | 64          | IO-Link Signal Beacons, Touch Sensor                          | Model : NE-ILTN-M                 |
|       |                        |        | 64          | IO-Link Signal Beacons, Buzzer, Touch Sensor                  | Model : NE-ILTB-M                 |
|       |                        |        | 64          | IO-Link Signal Beacons, Buzzer, Touch Sensor, External Inputs | Model : NE-ILXB-M                 |
| 21    | Serial Number          | Ro     | 16          | -   |                                   |
| 22    | Hardware revision      | Ro     | 16          | 1.00  | Hardware latest version           |
| 23    | Firmware revision      | Ro     | 16          | 1.00  | Software latest version           |
| 24    | Application text       | R / W  | 32          | ***   |                                   |
| 36    | Device status          | Ro     | 1           | 0   | 0 - Device OK                     |
|       |                        |        |             |   | 1 - Maintenance required          |
|       |                        |        |             |   | 2 - Out of specification          |
|       |                        |        |             |   | 3 - Functional check              |
|       |                        |        |             |   | 4 - Failure                       |
|       |                        |        |             |   | 5 to 255 - Reserved               |
| 37    | Detailed Device status | Ro     | 21          | 0x00 0x0000   |                                   |
| 810   | Operating Mode         | R / W  | 1           | 4   | 0 - Color Specification Mode      |
|       |                        |        |             |   | 1 - Level Mode                    |
|       |                        |        |             |   | 2 - Sensor Input Mode             |
|       |                        |        |             |   | 3 - Digital Input Mode            |
| 2000  | LED Intensity          | R / W  | 1           | 0x64  | 0x00 - 0x64 (0.. 100%)            |
| 2001  | Buzzer Sound Level     | R / W  | 1           | 0x64  | 0x00 - 0x64 (0.. 100%)            |
| 2002  | SIO LED Color          | R / W  | 1           | 7   | 0 - off                           |
|       |                        |        |             |   | 1 - red                           |
|       |                        |        |             |   | 2 - green                         |
|       |                        |        |             |   | 3 - amber                         |
|       |                        |        |             |   | 4 - blue                          |
|       |                        |        |             |   | 5 - purple                        |
|       |                        |        |             |   | 6 - cyan                          |
|       |                        |        |             |   | 7 - white                         |
| 2003  | SIO LED Pattern        | R / W  | 1           | 0   | 0 - Continuous Lightning          |
|       |                        |        |             |   | 1 - Blinking Slow                 |
|       |                        |        |             |   | 2 - Blinking Middle               |
|       |                        |        |             |   | 3 - Blinking Fast                 |
|       |                        |        |             |   | 4 - Flashing Single               |
|       |                        |        |             |   | 5 - Flashing Double               |
|       |                        |        |             |   | 6 - Flashing Triple               |
|       |                        |        |             |   | 7 - Sine Slow                     |
|       |                        |        |             |   | 8 - Sine Fast                     |
| 2004  | Touch Sensor LED Color | R / W  | 1           | 7   | 0 - off                           |
|       |                        |        |             |   | 1 - red                           |
|       |                        |        |             |   | 2 - green                         |
|       |                        |        |             |   | 3 - amber                         |
|       |                        |        |             |   | 4 - blue                          |
|       |                        |        |             |   | 5 - purple                        |
|       |                        |        |             |   | 6 - cyan                          |
|       |                        |        |             |   | 7 - white                         |

|      |                              |       |           |       |                          |
|------|------------------------------|-------|-----------|-------|--------------------------|
| 2005 | Touch Sensor LED Pattern     | R / W | 1         | 0     | 0 – Continuous Lightning |
|      |                              |       |           |       | 1 – Blinking Slow        |
|      |                              |       |           |       | 2 – Blinking Middle      |
|      |                              |       |           |       | 3 – Blinking Fast        |
|      |                              |       |           |       | 4 – Flashing Single      |
|      |                              |       |           |       | 5 – Flashing Double      |
|      |                              |       |           |       | 6 – Flashing Triple      |
|      |                              |       |           |       | 7 – Sine Slow            |
|      |                              |       |           |       | 8 – Sine Fast            |
| 2006 | Touch Sensor Buzzer Pattern  | R / W | 1         | 0     | 0 – Buzzer No.1(off)     |
|      |                              |       |           |       | 1 – Buzzer No.2          |
|      |                              |       |           |       | 2 – Buzzer No.3          |
|      |                              |       |           |       | 3 – Buzzer No.4          |
|      |                              |       |           |       | 4 – Buzzer No.5          |
|      |                              |       |           |       | 5 – Buzzer No.6          |
|      |                              |       |           |       | 6 – Buzzer No.7          |
|      |                              |       |           |       | 7 – Buzzer No.8          |
|      |                              |       |           |       | 8 – Buzzer No.9          |
| 2007 | Digital Input LED Color      | R / W | 1         | 7     | 0 – off                  |
|      |                              |       |           |       | 1 – red                  |
|      |                              |       |           |       | 2 – green                |
|      |                              |       |           |       | 3 – amber                |
|      |                              |       |           |       | 4 – blue                 |
|      |                              |       |           |       | 5 – purple               |
|      |                              |       |           |       | 6 – cyan                 |
|      |                              |       |           |       | 7 – white                |
| 2008 | Digital Input LED Pattern    | R / W | 1         | 0     | 0 – Continuous Lightning |
|      |                              |       |           |       | 1 – Blinking Slow        |
|      |                              |       |           |       | 2 – Blinking Middle      |
|      |                              |       |           |       | 3 – Blinking Fast        |
|      |                              |       |           |       | 4 – Flashing Single      |
|      |                              |       |           |       | 5 – Flashing Double      |
|      |                              |       |           |       | 6 – Flashing Triple      |
|      |                              |       |           |       | 7 – Sine Slow            |
|      |                              |       |           |       | 8 – Sine Fast            |
| 2009 | Digital Input Buzzer Pattern | R / W | 1         | 0     | 0 – Buzzer No.1(off)     |
|      |                              |       |           |       | 1 – Buzzer No.2          |
|      |                              |       |           |       | 2 – Buzzer No.3          |
|      |                              |       |           |       | 3 – Buzzer No.4          |
|      |                              |       |           |       | 4 – Buzzer No.5          |
|      |                              |       |           |       | 5 – Buzzer No.6          |
|      |                              |       |           |       | 6 – Buzzer No.7          |
|      |                              |       |           |       | 7 – Buzzer No.8          |
|      |                              |       |           |       | 8 – Buzzer No.9          |
| 2010 | Analog Input Value Threshold | R / W | 20 (2x10) | All 0 | 0x000 - 0x1F4 (0..500)   |
| 2011 | Analog Input LED Color       | R / W | 11        | All 0 | 0 – off                  |
|      |                              |       |           |       | 1 – red                  |
|      |                              |       |           |       | 2 – green                |
|      |                              |       |           |       | 3 – amber                |
|      |                              |       |           |       | 4 – blue                 |
|      |                              |       |           |       | 5 – purple               |
|      |                              |       |           |       | 6 – cyan                 |
|      |                              |       |           |       | 7 – white                |
| 2012 | Analog Input LED Pattern     | R / W | 11        | All 0 | 0 – Continuous Lightning |
|      |                              |       |           |       | 1 – Blinking Slow        |
|      |                              |       |           |       | 2 – Blinking Middle      |
|      |                              |       |           |       | 3 – Blinking Fast        |
|      |                              |       |           |       | 4 – Flashing Single      |
|      |                              |       |           |       | 5 – Flashing Double      |
|      |                              |       |           |       | 6 – Flashing Triple      |
|      |                              |       |           |       | 7 – Sine Slow            |
|      |                              |       |           |       | 8 – Sine Fast            |
| 2013 | Analog Input Buzzer Pattern  | R / W | 11        | All 0 | 0 – Buzzer No.1(off)     |
|      |                              |       |           |       | 1 – Buzzer No.2          |
|      |                              |       |           |       | 2 – Buzzer No.3          |
|      |                              |       |           |       | 3 – Buzzer No.4          |
|      |                              |       |           |       | 4 – Buzzer No.5          |
|      |                              |       |           |       | 5 – Buzzer No.6          |
|      |                              |       |           |       | 6 – Buzzer No.7          |
|      |                              |       |           |       | 7 – Buzzer No.8          |
|      |                              |       |           |       | 8 – Buzzer No.9          |
| 2014 | Test Mode                    | R / W | 1         | 0     | 0 – off<br>1 – on        |

### Events

| Code   | Name                       | Type         | Description                        |
|--------|----------------------------|--------------|------------------------------------|
| 0x0000 | No error                   | Notification | No error                           |
| 0x5000 | Hardware error in the unit | Error        | Replace the unit                   |
| 0x6320 | Parameter error            | Error        | Check the data sheet and the value |

### Error Type

| Error  | Name                              | Description   |
|--------|-----------------------------------|---|
| 0x8000 | Device application error – no     | There is no detailed information available                                |
| 0x8011 | Index not available               | Access to a non-existent index  |
| 0x8012 | Subindex not available            | Access to a non-existent subindex   |
| 0x8020 | Service temporarily not available | On the parameters just cannot be accessed.                                |
| 0x8023 | Access denied                     | The device does not allow this in the current state                       |
| 0x8030 | Parameter value out of range      | Write access to a read-only parameter                                     |
| 0x8033 | Parameter length overrun          | Written parameter value is out of range                                   |
| 0x8034 | Parameter length underrun         | Written parameter length is greater than allowed                          |
| 0x8035 | Function not available            | Written parameter length is smaller than allowed                          |
| 0x8036 | Function temporarily unavailable  | Written command is not supported by the device                            |
| 0x8040 | Invalid parameter set             | Written command is not supported by the device in its current state       |
| 0x8041 | Inconsistent parameter set        | Typed single parameter value collides with the other parameter settings   |
| 0x8082 | Application not ready             | At the end of the block parameter transfer inconsistencies were detected. |

### Process Data

Color Specification Mode (Index 810): Input from Master

|        | bit 7          | bit 6 | bit 5 | bit 4 | bit 3     | bit 2 | bit 1         | bit 0 |
|--------|----------------|-------|-------|-------|-----------|-------|---------------|-------|
| Byte 1 | Buzzer Pattern |       |       | N/N   | N/N       | N/N   | Buzzer On/Off |       |
| Byte 0 | LED Pattern    |       |       | N/N   | LED Color |       |               |       |

Level mode (Index 810): Input from Master

|        | bit 7                                       | bit 6 | bit 5 | bit 4 | bit 3 | bit 2 | bit 1 | bit 0                                      |
|--------|---|-------|-------|-------|-------|-------|-------|--|
| Byte 1 | N/N   | N/N   | N/N   | N/N   | N/N   | N/N   | N/N   | Analog Input Value (Upper 1 bit of 9 bits) |
| Byte 0 | Analog Input Value (Lower 8 bits of 9 bits) |       |       |       |       |       |       |  |

Common: Output to Master

|        | bit 7  | bit 6         | bit 5    | bit 4    | bit 3    | bit 2                                       | bit 1 | bit 0 |
|--------|--|---------------|----------|----------|----------|---|-------|-------|
| Byte 1 | Touch Sensor                                 | Digital Input | Status 3 | Status 2 | Status 1 | Analog Input Value (Upper 3 bit of 11 bits) |       |       |
| Byte 0 | Analog Input Value (Lower 8 bits of 11 bits) |               |          |          |          |   |       |       |

\*1 On = 1, Off = 0

\*2 Pattern List

Buzzer

| Value | Configuration    |
|-------|------------------|
| 0     | Buzzer No.1(off) |
| 1     | Buzzer No.2      |
| 2     | Buzzer No.3      |
| 3     | Buzzer No.4      |
| 4     | Buzzer No.5      |
| 5     | Buzzer No.6      |
| 6     | Buzzer No.7      |
| 7     | Buzzer No.8      |
| 8     | Buzzer No.9      |

LED

| Value | Configuration        |
|-------|----------------------|
| 0     | Continuous Lightning |
| 1     | Blinking Slow        |
| 2     | Blinking Middle      |
| 3     | Blinking Fast        |
| 4     | Flashing Single      |
| 5     | Flashing Double      |
| 6     | Flashing Triple      |
| 7     | Sine Slow            |
| 8     | Sine Fast            |

\*3 Status

| Status No. | Configuration      |
|------------|--------------------|
| 1          | Touch Sensor Error |
| 2          | Memory Error       |
| 3          | Reserve            |