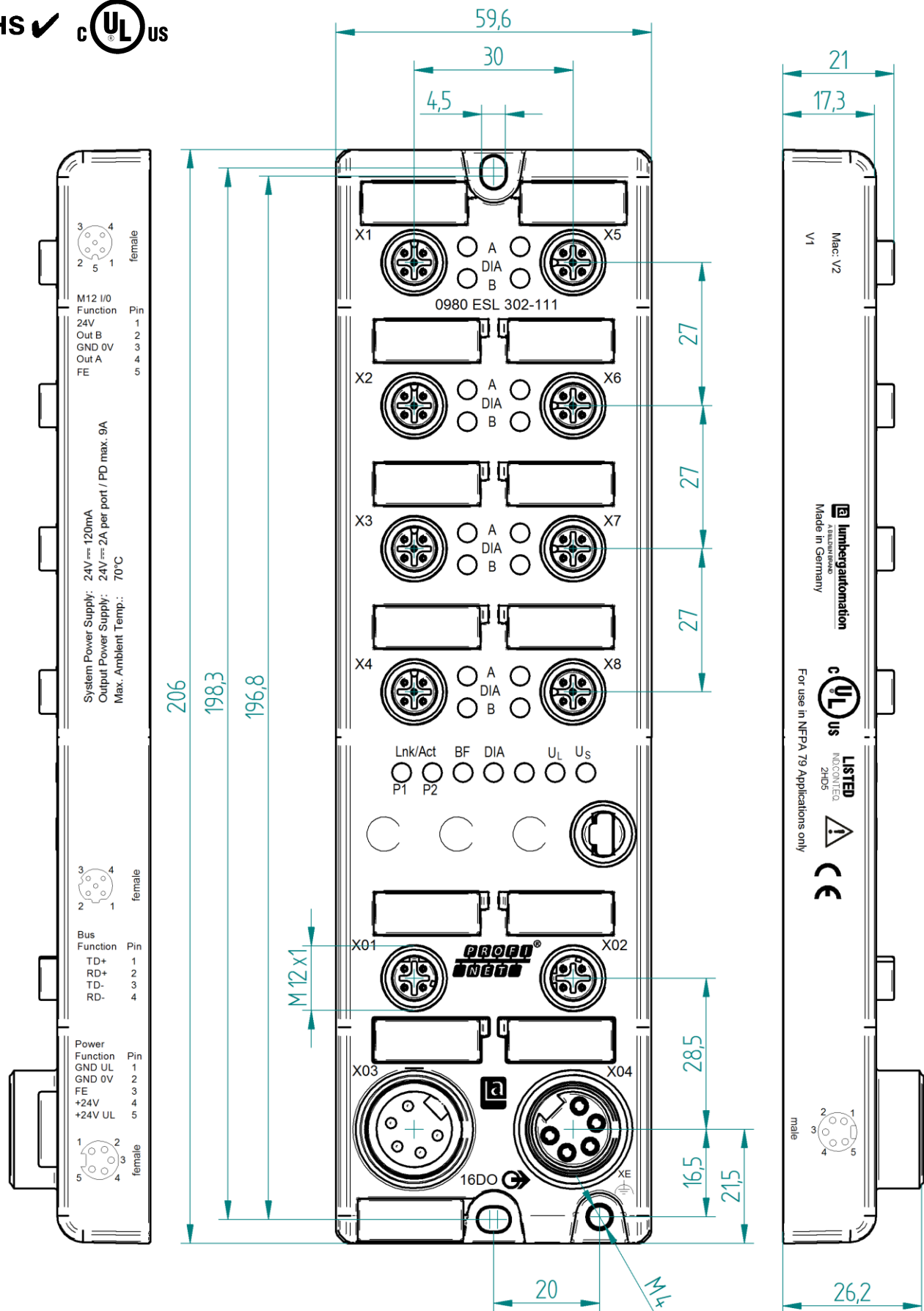
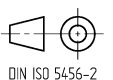




The information/details in this datasheet merely contain general descriptions or performance factors which, when applied in an actual situation, do not always correspond with the described form, and may be amended by way of the further development of products. The desired performance factors shall only be binding if these are expressly agreed on conclusion of the contract.



**Product description**

|             |                                                                                                                              |
|-------------|------------------------------------------------------------------------------------------------------------------------------|
| Description | LioN-P M12-60 , 7/8", PROFINET                                                                                               |
| Type        | 16 DO<br>0980 ESL 302-111<br>connections:<br>7/8" power connector, 5 poles<br>M12 PROFINET, D-Coded<br>M12 I/O port, A-coded |

**Technical data**

|               |                      |
|---------------|----------------------|
| Digital Input | Typ acc. IEC 61131-2 |
|---------------|----------------------|

Anzugsmoment Schraubverbindung /  
tightening torque coupling

50Ncm

Gewicht / weight

520 g

**Materials**

|                 |                                    |
|-----------------|------------------------------------|
| Housing         | zinc, die casting                  |
| Contact bearer  | PA/TPU                             |
| Contact         | M12 A, D-kodiert CuSn, gold-plated |
| threaded sleeve | 7/8" CuZn, gold-plated             |
| O-ring          | FKM                                |

**Environmental conditions**

|                                |                 |
|--------------------------------|-----------------|
| Protection class (IEC 60529) * | IP65 / IP67     |
| Pollution severity             | 3               |
| Temperature range              | -20 °C / +70 °C |

\* only if mounted and locked in combination with Hirschmann / Lumberg connector.

**Additional technical data**

see page 3

### Elektrische Daten / electrical data

|                                                                                       |                                                    |
|---------------------------------------------------------------------------------------|----------------------------------------------------|
| Systemversorgungsspannung / Sensorspannung<br>system supply voltage / sensor voltage  | 24 V DC selv/pelv                                  |
| Versorgungsspannung / Aktorikspannung<br>input power supply voltage / actoric voltage | 24 V DC selv/pelv                                  |
| Spannungsbereich / voltage range                                                      | 19 bis 30 V / 19 to 30 V                           |
| Nennstrom / nominal current                                                           | 9 A pro Spannungsversorgung / 9 A per power supply |
| Stromaufnahme / sytem current consumption                                             | typ. 120mA                                         |

### Bus-System

|                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| GSDML-Datei / GSDML-File         | <a href="http://www.beldensolutions.com">http://www.beldensolutions.com</a> |
| Übertragungsrate / transfer rate | 10/100 Mbit/s                                                               |
| Adressbereich / address range    | 0 bis 255 / 0 to 255                                                        |

### Aktorik- und Systemstromversorgung / actoric- and system power supply

|                                            |                                                       |
|--------------------------------------------|-------------------------------------------------------|
| Verpolschutz / reverse polarity protection | ja, dauerverpolsicher / yes, permanently polarizesafe |
| Diagnoseanzeige / diagnostic indicator     | LED rot / LED red                                     |
| Statusanzeige / status indicator           | LED grün / LED green                                  |

### Ausgänge / outputs

|                                                          |                                                                |
|----------------------------------------------------------|----------------------------------------------------------------|
| Aktorikstrom / actoric current                           | 2 A per Kanal / 2 A per channel                                |
| Aktorikstrom max. / actoric current max.                 | 9 A gesamt / 9 A total                                         |
| Kurzschlussfest / short-circuit proof                    | ja / yes                                                       |
| Anzahl der digitalen Kanäle / number of digital channels | 16                                                             |
| Statusanzeige / status indicator                         | LED weiß oder gelb pro Kanal / LED white or yellow per channel |
| Diagnoseanzeige / diagnostic indicator                   | LED rot pro Port / LED red per port                            |

### Technische Daten / Technical Data

| LED            | Anzeige / Display                                            | Bedingung / Function                                                                                                                                                                                                                               |
|----------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1...8 A        | Gelb / Yellow                                                | Kanal Status / channel status                                                                                                                                                                                                                      |
| 1...8 DIA A    | Rot / red                                                    | Peripheriefehler / peripheral fault                                                                                                                                                                                                                |
| 1...8 B        | Weiß / white                                                 | Kanal Status / channel status                                                                                                                                                                                                                      |
| 1...8 DIA B    | Rot / red                                                    | Peripheriefehler / peripheral fault                                                                                                                                                                                                                |
| P1 Lnk/Act     | Grün / green<br>Gelb blinkend / green blinking<br>aus / off  | Verbindung zu einem Ethernet-Teilnehmer / connection to an Ethernet subscriber<br>IO-Device befindet sich im Datenaustausch / IO device is in data exchange<br>Keine Verbindung zu einem weiteren Teilnehmer / no connection to another subscriber |
| P2 Lnk/Act     | Grün / green<br>Gelb blinkend / yellow blinking<br>aus / off | Verbindung zu einem Ethernet-Teilnehmer / connection to an Ethernet subscriber<br>IO-Device befindet sich im Datenaustausch / IO device is in data exchange<br>Keine Verbindung zu einem weiteren Teilnehmer / no connection to another subscriber |
| BF             | Rot / red<br>aus / off                                       | Busfehler, keine Kommunikation / bus fault, no communication<br>Keine Fehlermeldung vorhanden / no fault present                                                                                                                                   |
| DIA            | Rot / red<br>Rot blinkend / red blining<br>aus / off         | Sammelanzeige Peripheriefehler / collective display peripheral fault<br>Firmwareupdate<br>Keine Fehlermeldung vorhanden / no fault present                                                                                                         |
| U <sub>s</sub> | Grün / green<br>Rot / red                                    | Spannung 19V ≤ U <sub>s</sub> ≤ 30V / voltage 19V ≤ U <sub>s</sub> ≤ 30V<br>Spannung U <sub>s</sub> < 19V oder U <sub>s</sub> > 30V / U <sub>s</sub> voltage < 19V or U <sub>s</sub> > 30V                                                         |
| U <sub>L</sub> | Grün / green<br>Rot / red                                    | Spannung 19V ≤ U <sub>L</sub> ≤ 30V / voltage 19V ≤ U <sub>L</sub> ≤ 30V<br>Spannung U <sub>L</sub> < 19V oder U <sub>L</sub> > 30V / U <sub>L</sub> voltage < 19V or U <sub>L</sub> > 30V                                                         |

### Bitbelegung / bit assignment

| Bit             | 7  | 6  | 5  | 4  | 3  | 2  | 1  | 0  |
|-----------------|----|----|----|----|----|----|----|----|
| M12 Output 16DO |    |    |    |    |    |    |    |    |
| Byte 0          | 4B | 4A | 3B | 3A | 2B | 2A | 1B | 1A |
| Byte 1          | 8B | 8A | 7B | 7A | 6B | 6A | 5B | 5A |

## Standard products

| Artikel-No. | Type             |
|-------------|------------------|
| 934-881-002 | 0980 ESL 302-111 |