



### Data loggers for remote data collection & long term monitoring

- **Features**  
Ethernet, USB-Host, USB-Device, RS-232, Satellite, Cellular, Industrial Communication
- **Product Highlights**  
High data availability due to large memory and redundant communication, Multitasking capability for short polling cycles, Communication via TCP/IP, Integrated Web Server, Ultra low power consumption, Design for harsh environments, Industrial communication
- **IP-Communication**  
Yes
- **Sensor interfaces**  
SDI-12, RS-485 (SDI-12), Modbus RTU, analogue-in (voltage and current), Impulse Input, Status Input

The versatile OTT netDL 500 and 1000 data loggers were developed specifically for use in hydrology and meteorology stations. In addition to recording data, the data loggers are extremely low power and offer flexible data transfer options via the internet and mobile networks, providing a logging and telemetry solution for every project.

|                                       |   |
|---------------------------------------|---|
| OTT netDL 500/1000                    | IP data logger for hydrological and meteorological applications |
| <b>Communications interfaces</b>      |   |
| Ethernet RJ-45 10 Base-T (netDL 1000) |   |

|                         |   |
|-------------------------|---|
| USB Host and USB Device |   |
| RS-232                  |   |
| netDL 1000              | 2 |
| netDL 500               | 1 |

| Sensor interfaces (standard version) |   |
|--------------------------------------|---|
| SDI-12 V 1.3                         |   |
| RS-485 (SDI-12/Modbus RTU)           |   |
| Pulse/status input                   |   |
| netDL 1000                           | 4 |
| netDL 500                            | 2 |
| Status/switch output                 | 2 |

| Input/output modules                |              |
|-------------------------------------|--------------|
| Analogue inputs                     | configurable |
| Analogue inputs, isolated           | configurable |
| Analogue outputs                    | configurable |
| Serial input module for OTT Sensors |              |
| Barometric input board              |              |

| Measuring channels |     |
|--------------------|-----|
| Standard           | 40  |
| Optionally         | 120 |

| IP communication                  |  |
|-----------------------------------|--|
| Integrated TCP/IP stack           | HTTP, HTTPS, FTP, SMTP, Socket...                              |
| Communication paths               | GSM/GPRS/3G, Ethernet/DSL, PPP over landline                   |
| Integrated Web server             |  |
| Encrypted data transmission HTTPS | SSL 3.0 / TLS 1.0 /1.1/1.2                                     |
| Integrated modem (optional)       |  |
| GSM/GPRS                          | 900/1800, 850/1900 MHz   |
| GSM/GPRS; 3G (UMTS/HSPA+)         | 900/1800, 850/1900 MHz; 800/850, 900, AWS 1700, 1900, 2100 MHz |

|                      |  |
|----------------------|--|
| Operating system     | RTOS with power management for minimal power consumption |
| Time synchronisation | SNTP (Simple Network Time Protocol)                      |

| Electrical data              |  |
|------------------------------|--|
| Power supply                 | 9 ... 28 V DC (typ. 12 V DC)                               |
| Power consumption at 12 V DC |  |
| Sleep mode                   | < 250 $\mu$ A; Sleep mode, impulse active < 10 mA          |
| Active mode                  | approx. 25 mA ... max. 400 mA (depending on configuration) |
| RAM / NOR / NAND Flash       | 4 MB / 8 MB / 256 MB                                       |

### Data memory

|                            |                        |
|----------------------------|------------------------|
| Capacity                   | up to 1,100,000 values |
| OTT Parsivel spectral data | yes                    |

### Display

|                      |   |
|----------------------|---|
| Graphical dot matrix | 122 x 32 pixels                         |
| Illumination         | LED backlight                           |
| Control              | by jog shuttle                          |
| Status display       | 2 x LED (variant with integrated modem) |

### Environmental conditions

#### Temperature range

|                      |                             |
|----------------------|-----------------------------|
| Operation            | −40 °C ... +70 °C           |
| Storage              | −50 °C ... + 85 °C          |
| Internal modem       | −30 °C ... +70 °C           |
| Display (display on) | −20 °C ... +70 °C           |
| Relative humidity    | 5 ... 95 % (non condensing) |

### Mechanical data

|                        |                         |
|------------------------|-------------------------|
| Dimensions (L x W x H) |                         |
| netDL 1000             | 232 mm x 124 mm x 86 mm |
| netDL 500              | 148 mm x 124 mm x 86 mm |
| Housing                | ABS                     |

|                  |      |
|------------------|------|
| Protection class | IP41 |
|------------------|------|