

Appendix to data sheets on ECL Comfort 296 / 310, ECL Portal, Leanheat® Monitor, heat meters and DECS 2.0

# SCADA

## Energy meters supported by Danfoss SCADA solutions, Leanheat® Monitor and ECL Comfort 296/310

| Energy meters                      | Leanheat® Monitor | ECL Comfort 296 / 310 | ECL Portal | DECS 2.0 | OPC Server |
|------------------------------------|-------------------|-----------------------|------------|----------|------------|
| Danfoss Sonometer 1100             |                   |                       |            |          |            |
| Danfoss SonoSelect 10/ SonoSafe 10 |                   |                       |            |          |            |
| Danfoss Sonometer 30               |                   |                       |            |          |            |
| Danfoss Sonometer 31               |                   |                       |            |          |            |
| Danfoss SonoSensor 30              |                   |                       |            |          |            |
| Danfoss SONO 3500 CT               |                   |                       |            |          |            |
| Danfoss Infocal 5                  |                   |                       |            |          |            |
| Danfoss Infocal 6                  |                   |                       |            |          |            |
| Danfoss Infocal 8                  |                   |                       |            |          |            |
| Danfoss Infocal 9                  |                   |                       |            |          |            |
| ABB "Odin" OD4110                  |                   |                       |            |          |            |
| ABB "Delta" DBM 2300               |                   |                       |            |          |            |
| Actaris, Allmess, Itron CF51       |                   |                       |            |          |            |
| Actaris, Allmess, Itron CF55       |                   |                       |            |          |            |
| Actaris, Allmess, Itron CF Echo II |                   |                       |            |          |            |



Supported by Danfoss SCADA solutions and/or ECL Comfort 296 / 310. Click on the icons in the table to get more information.

Blank field means 'not tested'.



Partly supported by Danfoss SCADA solutions and/or ECL Comfort 296 / 310. Click on the icons in the table to get more information.



Not supported by Danfoss SCADA solutions and/or ECL Comfort 296 / 310. Click on the icons in the table to get more information.

**Energy meter overview (continued)**

| Energy meters                      | Leanheat® Monitor | ECL Comfort 296 / 310 | ECL Portal | DECS 2.0 | OPC Server |
|------------------------------------|-------------------|-----------------------|------------|----------|------------|
| Axis Industries SKS-3              |                   |                       |            |          |            |
| Axis Industries Enco Pulse         |                   |                       |            |          |            |
| Brunata HGQ                        |                   |                       |            |          |            |
| Carlo Gavazzi EM33-DIN             |                   |                       |            |          |            |
| EMH Metering KIZ W1EL-KOM-11-E50/K |                   |                       |            |          |            |
| Engelmann SensoStar2               |                   |                       |            |          |            |
| Hydrometer / Diehl Sharky 775      |                   |                       |            |          |            |
| Hydrometer / Diehl Hydros          |                   |                       |            |          |            |
| Itron Cyble v1.4                   |                   |                       |            |          |            |
| Itron Cyble v2.0                   |                   |                       |            |          |            |
| Kamstrup Multical 21               |                   |                       |            |          |            |
| Kamstrup Multical 62               |                   |                       |            |          |            |
| Kamstrup Multical 382              |                   |                       |            |          |            |
| Kamstrup Multical 401              |                   |                       |            |          |            |
| Kamstrup Multical 402              |                   |                       |            |          |            |
| Kamstrup Multical 601              |                   |                       |            |          |            |
| Kamstrup Multical 602              |                   |                       |            |          |            |
| Kamstrup Multical 801              |                   |                       |            |          |            |



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Not supported by Danfoss SCADA solutions and/or ECL Comfort 296 / 310. Click on the icons in the table to get more information.

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### Energy meter overview (continued)

| Energy meters             | Leanheat® Monitor | ECL Comfort 296 / 310 | ECL Portal | DECS 2.0 | OPC Server |
|---------------------------|-------------------|-----------------------|------------|----------|------------|
|                           |                   |                       |            |          |            |
| Kamstrup SVM F4           |                   |                       |            |          |            |
| Landis & Gyr 2WR5         |                   |                       |            |          |            |
| Landis & Gyr UltraHeat 50 |                   |                       |            |          |            |
| Saia ALD1D5FM             |                   |                       |            |          |            |
| Saia ALE3D5FM             |                   |                       |            |          |            |
| Sensus HRI                |                   |                       |            |          |            |



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#### General considerations

- As the M-bus data communication requires a certain power it is recommended to use mains powered energy meters.
- Some energy meters have an option of high energy battery (like Sonometer 1100 D-Cell) which enables frequent communication. This kind of battery powered meters can be used.
- Energy meter must not disable M-bus data communication and / or enter into battery saving mode if data is requested too frequently by the controller or SCADA software, i.e. each 60 seconds.
- Energy meters are considered to be supported when energy, volume, flow rate, power, supply and return temperature can be read by the ECL Comfort 296 / 310 / SCADA software.
- Only systems using the ECL Comfort 296 / 310 controller are evaluated.

**Details on specific combinations**

**Danfoss Sonometer 1100**

- Setup/configuration of meter may be required
- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Danfoss SonoSelect 10 / SonoSafe 10**

- Setup/configuration of meter may be required
- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Danfoss Sonometer 30**

- Setup/configuration of meter may be required
- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
  - \* AC mains power supply required
- ECL Comfort 296 / 310 must be version 1.60 or newer
- Sample interval > 900 seconds to respect battery lifetime requirements

**Danfoss Sonometer 31**

- Setup/configuration of meter may be required
- Flow/volume data only supported for meter ordered with U1/q1 input
  - \* Required for support of flow/power limitation with ECL Comfort 296 / 310
  - \* AC mains power supply required
- ECL Comfort 296 / 310 must be version 1.60 or newer
- Sample interval > 900 seconds to respect battery lifetime requirements
- Ordered with U2/q2 input: Flow and volume data not supported

**Danfoss Infocal 5**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Danfoss Infocal 6**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Danfoss Infocal 8**

- Setup/configuration of meter may be required
- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Danfoss Infocal 9**

- Setup/configuration of meter may be required
- Flow/volume data only supported for meter ordered with U1/q1 input
  - \* Required for support of flow/power limitation with ECL Comfort 296 / 310
  - \* AC mains power supply required
- ECL Comfort 296 / 310 must be version 1.60 or newer
- Sample interval > 900 seconds to respect battery lifetime requirements
- Ordered with U2/q2 input: Flow and volume data not supported

**ABB "Odin" OD4110**

- Preliminary test results. Tests not yet completed
- Meter must not communicate with both ECL Comfort 296 / 310 and ECL Portal

**Details on specific combinations (continued)****ABB “Delta” DBM 2300**

- Preliminary test results. Tests not yet completed
- Meter must not communicate with both ECL Comfort 296 / 310 and ECL Portal

**Actaris, Allmess, Itron CF51**

- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer
- Sample interval > 900 seconds to respect battery lifetime requirements

**Actaris, Allmess, Itron CF55**

- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer
- Sample interval > 900 seconds to respect battery lifetime requirements

**Actaris, Allmess, Itron CF Echo II**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.46 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer
- Sample interval > 900 seconds to respect battery lifetime requirements

**Axis Industries SKS-3**

- Sample interval > 900 seconds to respect battery lifetime requirements

**Axis Industries Enco Pulse**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.20 or newer

**Brunata HGQ**

- Meter must not communicate with both ECL Comfort 296 / 310 and ECL Portal

**Carlo Gavazzi EM33-DIN**

- No comments

**EMH Metering KIZ W1EL-KOM-11-E50/K**

- Meter must not communicate with both ECL Comfort 296 / 310 and ECL Portal

**Engelmann SensoStar2**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Hydrometer / Diehl Sharky 775**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Hydrometer / Diehl Hydros**

- ECL Comfort 296 / 310 must be version 1.40 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Itron Cyble v1.4**

- No comments

**Itron Cyble v2.0**

- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

Details on specific combinations (continued)

**Kamstrup Multical 21**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 supported with limitations
- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup Multical 62**

- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer
- Values not supported by Multical 62 will be shown as 0 and 180, respectively

**Kamstrup Multical 382**

- Preliminary test results. Tests not yet completed
- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup Multical 401**

- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup Multical 402**

- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup Multical 601**

- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup Multical 602**

- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.10 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup Multical 801**

- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Kamstrup SVM F4**

- Preliminary test results. Tests not yet completed
- Meter must not communicate with both ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Landis & Gyr 2WR5**

- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

**Landis & Gyr UltraHeat 50**

- Supports flow/power limitation with ECL Comfort 296 / 310 and ECL Portal
- ECL Comfort 296 / 310 must be version 1.20 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

## **Appendix to data sheets on ECL Comfort 296 / 310, ECL Portal, Leanheat® Monitor, heat meters and DECS 2.0**

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### **Details on specific combinations (continued)**

#### **Saia ALD1D5FM**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 supported with limitations
- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

#### **Saia ALE3D5FM**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 supported with limitations
- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer

#### **Sensus HRI**

- Setup/configuration of meter may be required
- ECL Comfort 296 / 310 supported with limitations
- ECL Comfort 296 / 310 must be version 1.42 or newer
- DECS 2.0 software must be version 2.0.25B or newer
- OPC Server software must be version 3.53.0.56 - Release 1 or newer



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**Danfoss A/S**

Climate Solutions • danfoss.com • +45 7488 2222

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