

DLMS / COSEM

Niagara Framework Driver

The DLMS / COSEM driver reads utility meters directly from Tridium Niagara using the DLMS/COSEM application layer over direct HDLC (IEC 62056-46) or the IEC 62056-47 TCP wrapper. Meters connect over TCP/IP, directly or through a gateway, or over a serial line via RS-485 or an optical probe.

The driver is read-only: it polls the meter but never writes, so meter settings and values can never be changed from Niagara. One device model reads any DLMS/COSEM meter, with Logical Name or Short Name referencing detected automatically, and also reads classic IEC 62056-21 ASCII meters.

Automatic device discovery probes an endpoint and lists each meter found. Point discovery then reads the meter's OBIS objects and presents them with human-readable names, types, and units, ready for periodic polling.

- ✓ Full DLMS/COSEM over HDLC, the IEC 62056-47 wrapper, and IEC 62056-21 ASCII
- ✓ Automatic device discovery over TCP/IP
- ✓ Automatic OBIS point discovery and naming
- ✓ Logical Name and Short Name referencing
- ✓ true
- ✓ Reads kWh, kW, kVA, kVAR, V, A, power factor
- ✓ Multiple meters per gateway or RS-485 bus
- ✓ TCP gateway, RS-485, and optical links
- ✓ Read-only polling for safety
- ✓ No annual fees
- ✓ Free technical support and upgrades

The screenshot shows the Vibe Workbench interface with the 'DLMS Discovery' window open. The 'Discovered' tab displays a table of OBIS objects, and the 'Database' tab shows a list of discovered points.

Obis	Class Id	Description	Value	Units
0.0.42.0.0.255	1	Logical Device Name	GRX123456	
1.0.0.2.0.255	1	Configuration Program Version Number	Gurux FW 0.0.1	
0.0.43.1.0.255	1	Invocation Counter	100	
1.1.21.25.0.255	3	L1 Active Power+ Last Average 3	127.0	
0.0.1.0.0.255	8	Clock	2026-07-21 15:28:15	
1.0.31.4.0.255	5	L1 Current Current Period Average	10.0	

Name	Type	Out	Obis	Class Id	Attribute
InvocationCounter	Numeric Point	100 [ok]	0.0.43.1.0.255	1	2
L1ActivePower+LastAverage3	Numeric Point	680.0 [ok]	1.1.21.25.0.255	3	2
Clock	String Point	2026-07-21 15:28:30 [ok]	0.0.1.0.0.255	8	2
L1CurrentCurrentPeriodAverage	Numeric Point	10.0 [ok]	1.0.31.4.0.255	5	2

Automatic OBIS Point Discovery Reading a Meter's Objects

SUPPORTED DEVICES

Landis+Gyr	Kamstrup	EDMI	Secure Meters
Itron	Elster	Aclara	Circutor
Siemens	Sagemcom	Diehl Metering	ZIV
ABB	Iskraemeco	Genus	Apator

SYSTEM REQUIREMENTS

- ✓ Niagara framework 4.8 or later, including OEM versions
 - ✓ JACE or Supervisor with network access (TCP) or an RS-485 / optical port for serial meters
 - ✓ TCP-to-serial gateway or optical / RS-485 converter, depending on the meter
 - ✓ DLMS / COSEM driver license
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CONNECTIVITY

TCP/IP

Connect Niagara over direct DLMS/COSEM via HDLC or the IEC 62056-47 wrapper, either straight to a meter with a network port or through a TCP-to-serial gateway.

Serial (RS-485 / Optical)

Connect via RS-485 or an optical probe for direct DLMS/COSEM or classic IEC 62056-21 readout, including the Mode E handoff to HDLC. Converters may be required depending on the meter's physical interface.

ORDERING INFORMATION

Part Number	Description
DLMS-J-10	DLMS / COSEM for JACE, 10 meters
DLMS-J-20	DLMS / COSEM for JACE, 20 meters
DLMS-J-UNL	DLMS / COSEM for JACE, unlimited meters
DLMS-SUP	DLMS / COSEM for Supervisor, first 10 meters
DLMS-SUP-10	DLMS / COSEM for Supervisor, extra 10 meters