

SOMAT XR

...measure anything anywhere!



Topologies (Ethernet)



- One Module PC-tethered (Ethernet)
- Multiple Modules via CX27C-R to PC (internal sync)
- Multiple Modules via EX23-R to PC (PTPv2)
- Multiple Modules via WiFi Sync (NTP, Telemetry, WAN)
- Data Recorder CX22B-R for Universal Testing
- Data Recorder CX22B-R for Mobile Vehicle Testing
- Data Recorder CX22B-R for Mobile Vehicle Testing (unattended)
- Gateway CX27C-R (XCP-on-Ethernet) for ECU Calibration
- Data Recorder CX22B-R for Railway Testing
- Gateway CX27C-R (EtherCAT, Profinet IRT) for Durability Test Bench
- Gateway CX27C-R (EtherCAT, Profinet IRT) for Powertrain Test Bench
- Gateway MX471C-R (CAN) for Test Bench
- Voltage-out Modules MX878B/MX879B for Test Bench

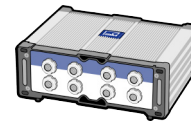
One Module PC-tethered (Ethernet)



Analog sensors



Digital sensors



MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Pressure
- Thermocouple
- CAN / CAN FD
- Frequency, encoder

Ethernet



DAQ Software:

- catman
- Common AP
- LabView drive

Analysis Software:

- nCode

Input / Sensors

DAQ

Software

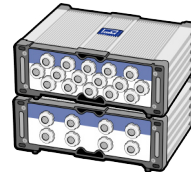
Multiple Modules via CX27C-R to PC (internal sync)



Analog sensors

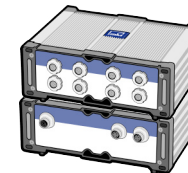
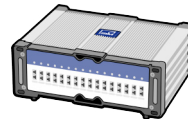


Digital sensors



MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Pressure
- Thermocouple
- CAN / CAN FD
- Frequency, encoder



Gateway:

- CX27C-R
- MX471C-R

Ethernet



DAQ Software:

- catman
- Common AP
- LabView drive

Analysis Software:

- nCode

Input / Sensors

DAQ

Software

Multiple Modules via EX23-R to PC (PTPv2)



Analog sensors

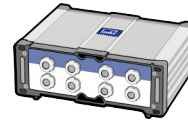


Digital sensors

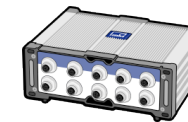
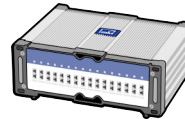


MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Pressure
- Thermocouple
- CAN / CAN FD
- Frequency, encoder



Ethernet



PTP Switch:
EX23-R



Grandmaster Clock
(optional)

Ethernet



DAQ Software:

- catman
- Common AP
- LabView drive

Analysis Software:

- nCode

Input / Sensors

DAQ

Software

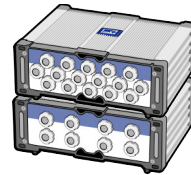
Multiple Modules via WiFi Sync (NTP, Telemetry, WAN)



Analog sensors



Digital sensors

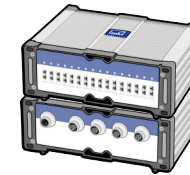
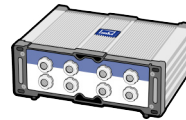


MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Pressure
- Thermocouple
- CAN / CAN FD
- Frequency, encoder



WIFI



Ethernet



DAQ Software:

- catman
- Common AP
- LabView drive

Analysis Software:

- nCode



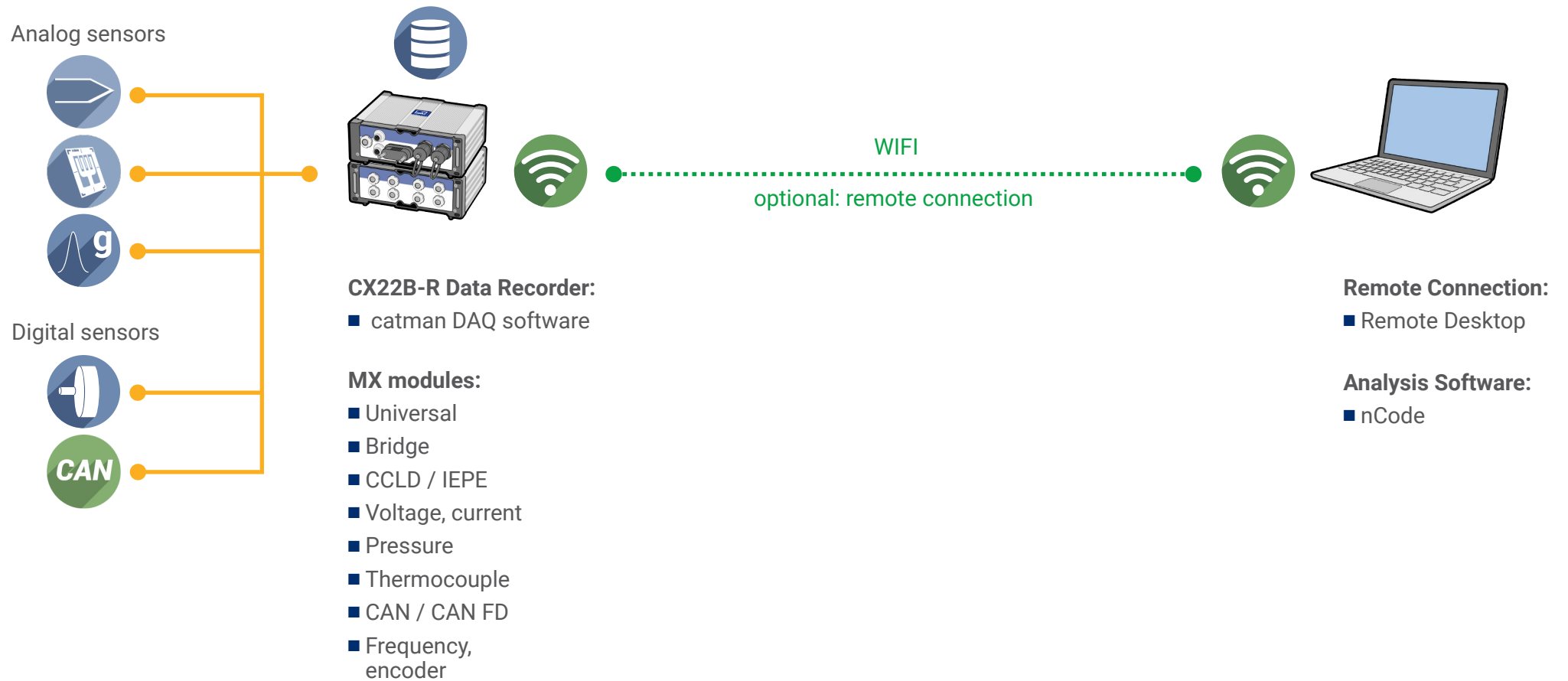
NTP-Server

Input / Sensors

DAQ

Software

Data Recorder CX22B-R for Universal Testing

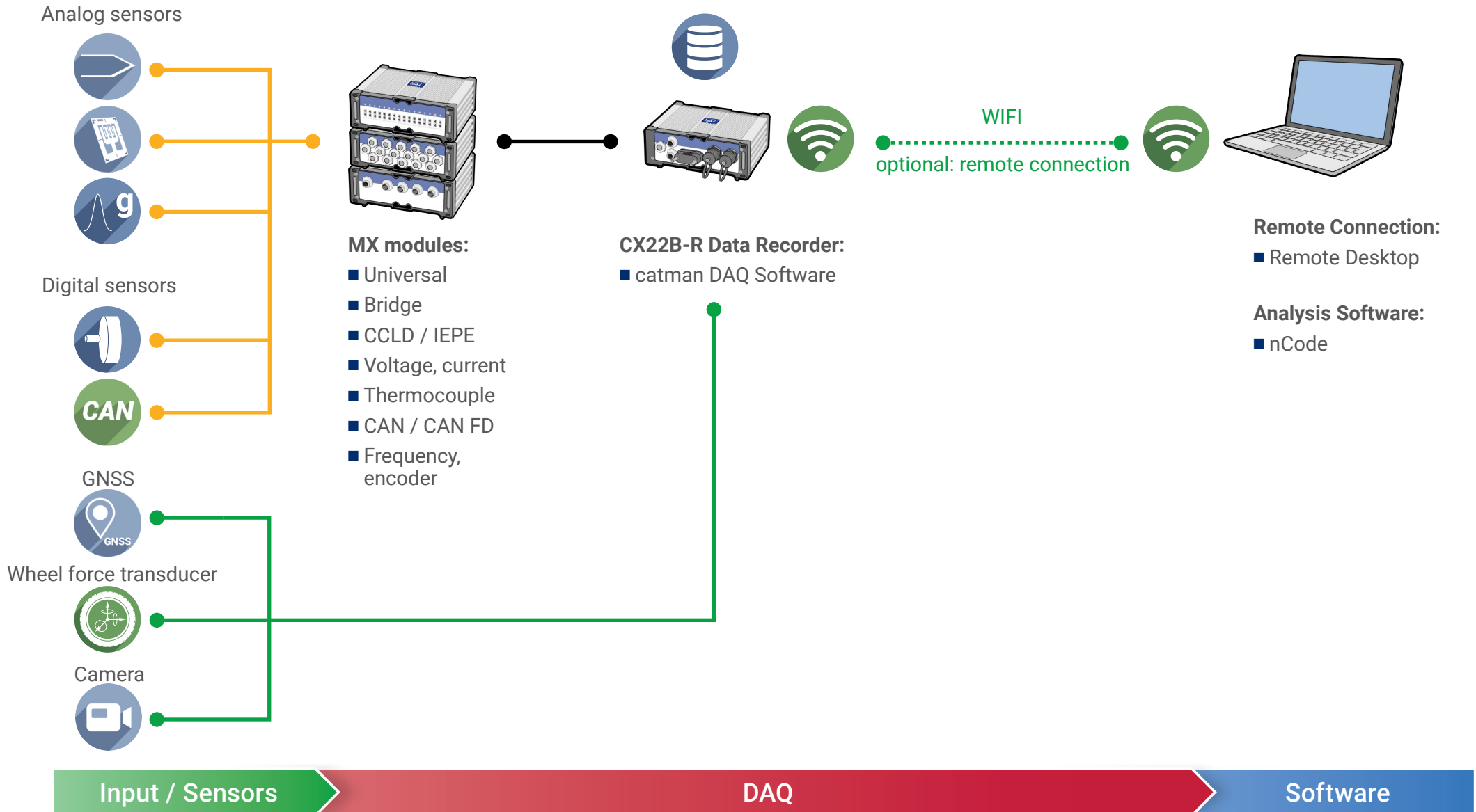


Input / Sensors

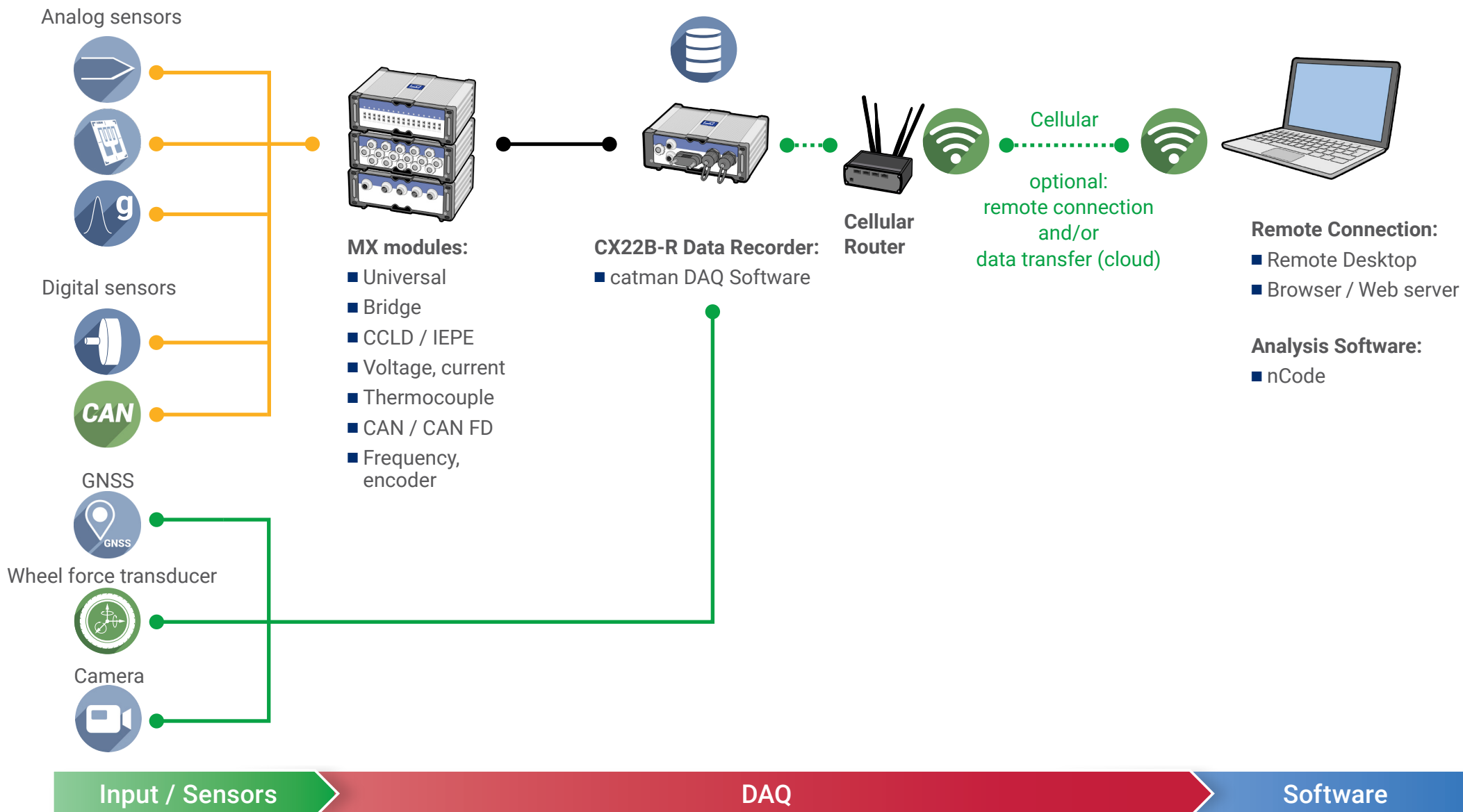
DAQ

Software

Data Recorder CX22B-R for Mobile Vehicle Testing



Data Recorder CX22B-R for Mobile Vehicle Testing (unattended)



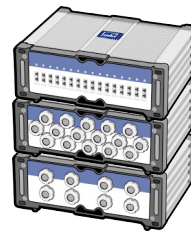
Gateway CX27C-R (XCP-on-Ethernet) for ECU Calibration



Analog sensors

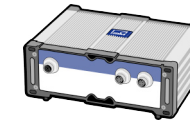


Digital sensors



MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Thermocouple
- Frequency, encoder



Gateway:
CX27C-R

Ethernet



MCD Software:

- ETAS INCA
- ATI Vision
- Vector CANape

Analysis Software:

- nCode

Input / Sensors

DAQ

Software

Data Recorder CX22B-R for Railway Testing



Analog sensors



Digital sensors



GNSS



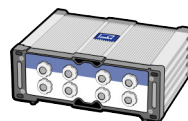
Camera



MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Thermocouple
- MVB (CAN)
- Frequency, encoder

opto link
(galvanic
isolation)



opto link
(galvanic
isolation)



Ethernet



CX22B-R DAQ Software:
catman

Remote Connection:

- Remote Desktop

Analysis Software:

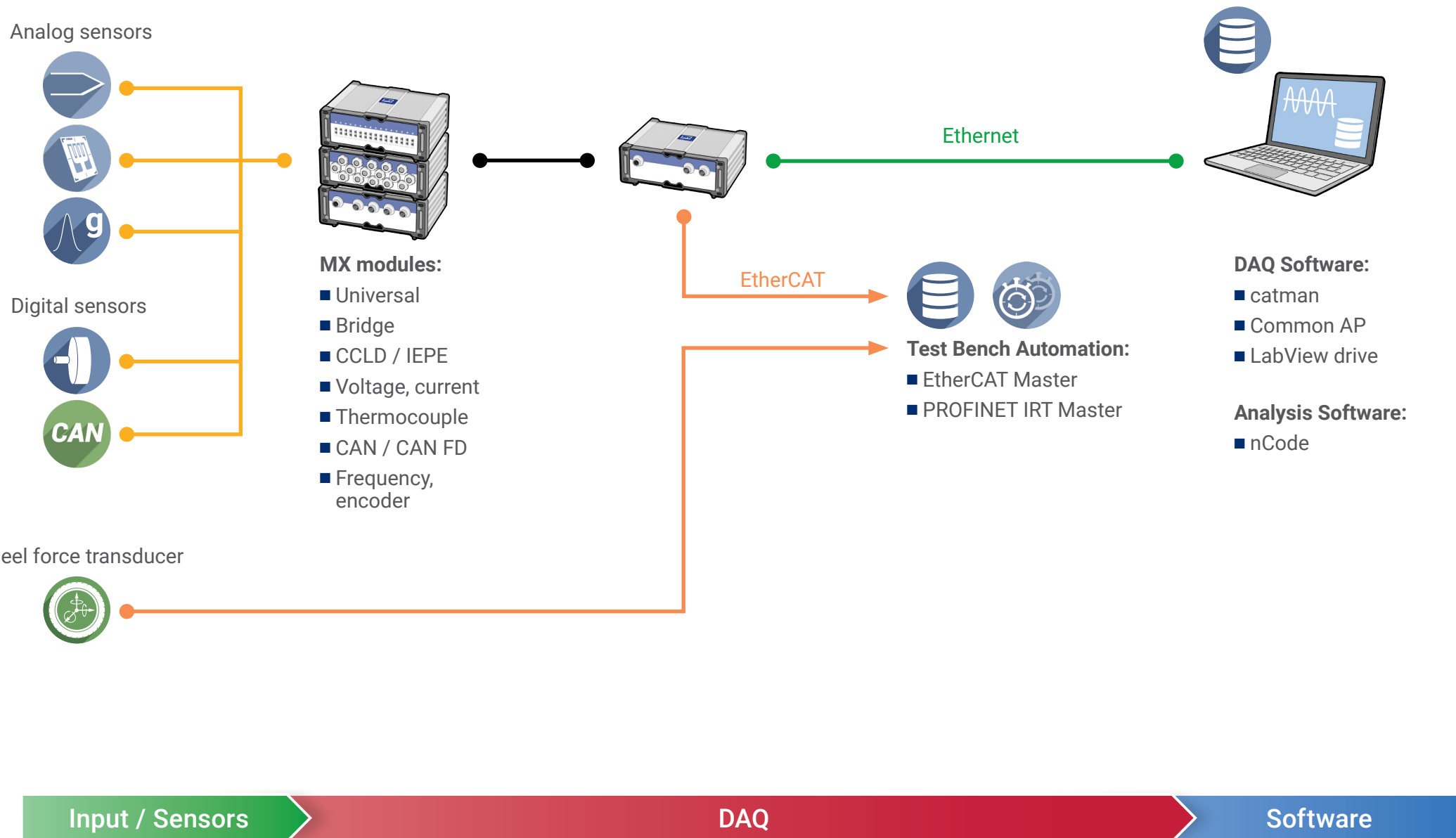
- nCode

Input / Sensors

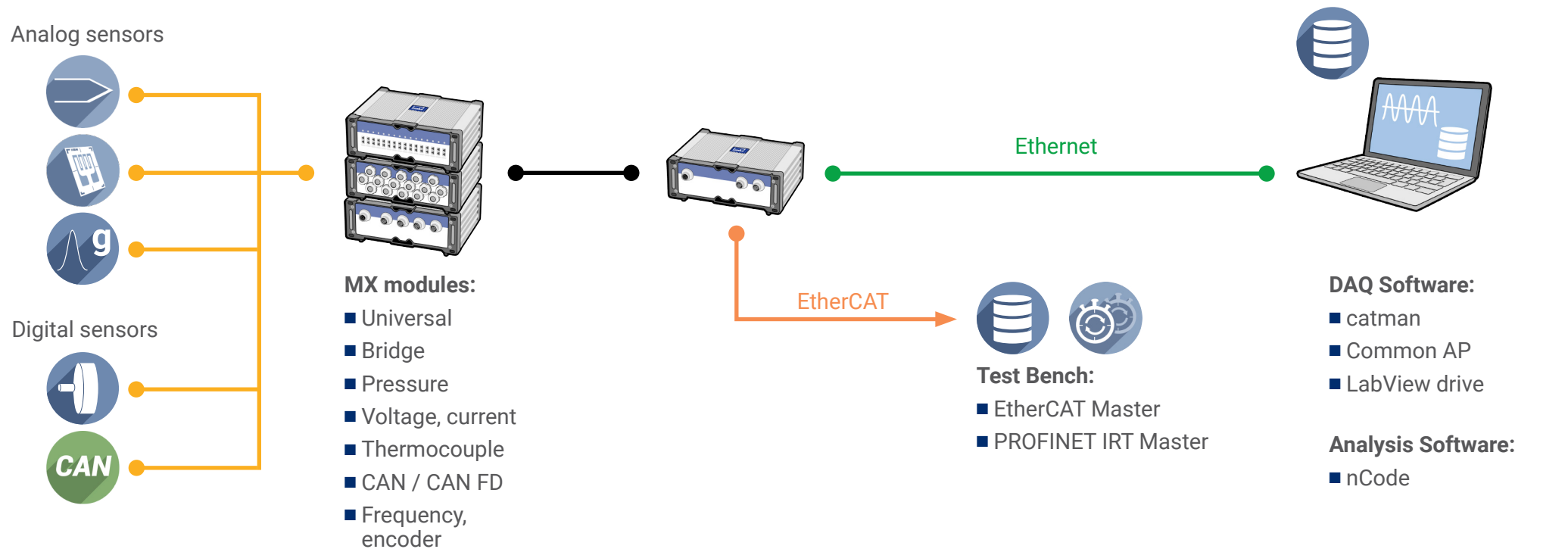
DAQ

Software

Gateway CX27C-R (EtherCAT, Profinet IRT) for Durability Test Bench



Gateway CX27C-R (EtherCAT, Profinet IRT) for Powertrain Test Bench



Input / Sensors

DAQ

Software

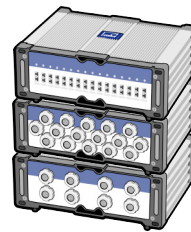
Gateway MX471C-R (CAN) for Test Bench



Analog sensors

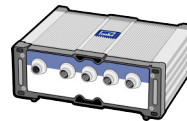


Digital sensors



MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Thermocouple
- CAN / CAN FD
- Frequency, encoder



Ethernet



DAQ Software:

- catman
- Common AP
- LabView drive

Analysis Software:

- nCode



Test Bench

CAN

Input / Sensors

DAQ

Software

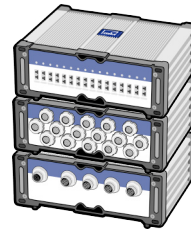
Voltage-out Modules MX878B/MX879B for Test Bench



Analog sensors

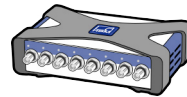


Digital sensors



MX modules:

- Universal
- Bridge
- CCLD / IEPE
- Voltage, current
- Thermocouple
- CAN / CAN FD
- Frequency, encoder



Voltage $\pm 10V$



Test Bench

Ethernet



DAQ Software:

- catman
- Common AP
- LabView drive

Analysis Software:

- nCode

Input / Sensors

DAQ

Software

HBM Test and Measurement

Tel. +49 6151 803-0

Fax +49 6151 803-9100

info@hbm.com

measure and predict with confidence



www.hbm.com