

Advanced measuring modes

Battery and rpm

All measuring modes: the battery discharging status is always shown on the display. In case of an empty battery bar, the battery should be replaced.

Absolute mode and min-max range: the engine rpm is shown at the bottom part of the display.

Min-max range

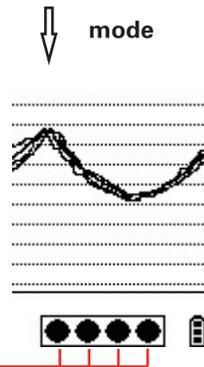
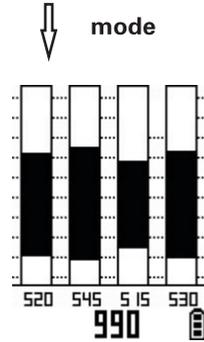
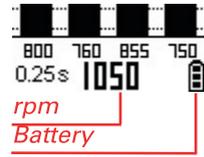
The difference between the lowest and the highest vacuum over the course of all 4 strokes is shown as a bar. Strong deviations between cylinders helps to indicate leaks and defect valves.

Pressure over time graph

Pressure behaviour during one cycle (2 crankshaft rotations with four stroke cycle engines). Deviations here also indicate errors.

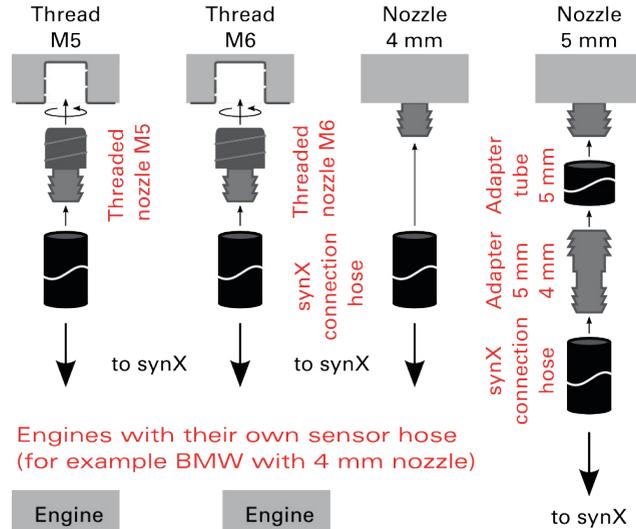
aux switches from the display of all cylinders at the same time to the display of single cylinders.

The pressure over time graph of the cylinders is shown on the display

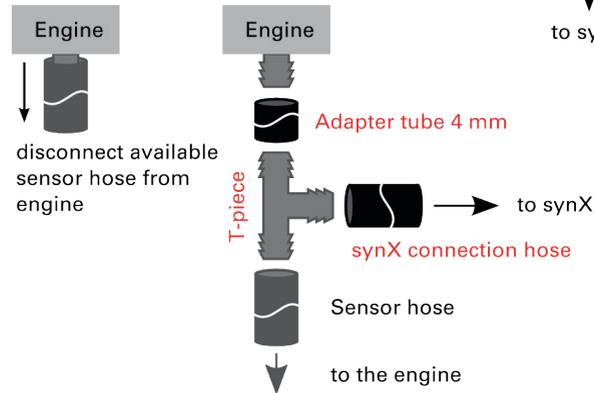


Connection configurations

Available engine connection (depending on the type)

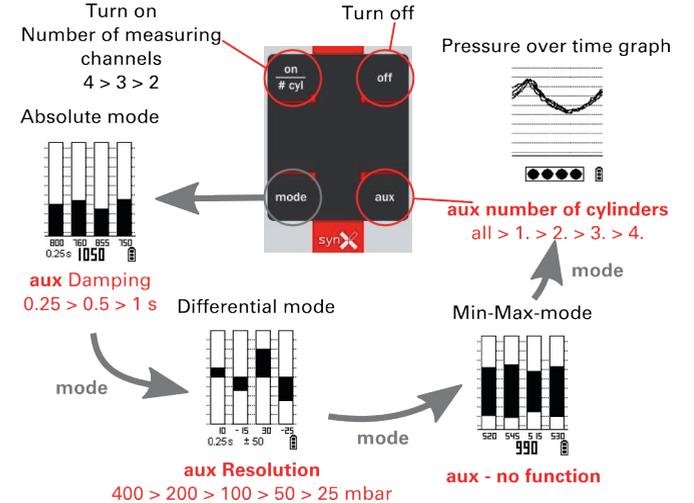


Engines with their own sensor hose (for example BMW with 4 mm nozzle)



DER SYNCHRONTESTER.

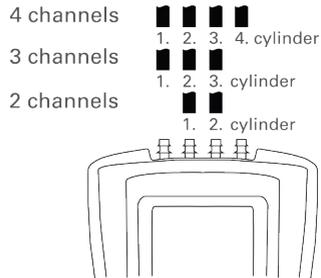
Operating overview



In four steps to a perfectly synchronised engine

Connect synX

- connect the measuring hoses to the measurement connections of the warmed-up engine
- choose matching adapters from the accessoires kit depending on the measurement connections of the engine
- connect the measuring hoses to synX



Turn on synX

- turn on synX pressing on/#cyl button
- repeat pressing on/#cyl button until the number of the bars corresponds to the number of connected cylinders



on/#cyl Button:
turn synX on, set up the required number of measuring channels

Start the engine and measure

- repeat pressing mode button until absolute mode is shown on the display (as shown in the picture)
- repeat pressing aux button until bars on the display are steady enough for calibration
- reach the required engine rpm (depending on engine)
- alternately regulate the adjustment screws until the bars show approximately the same height

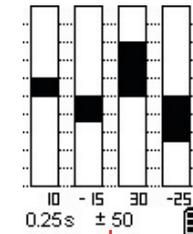


Mode button:
choose measuring mode

aux button:
choose display damping (absolute mode) or resolution (differential mode) depending on measuring mode

Precise synchronization

- 1 switch to the differential pressure mode with mode button (as shown in the picture on the right)
- 2 adjust engine so that bars show only minimal deviations upwards and downwards
- 3 press aux button to switch to more precise resolution
- 4 repeat step 2 and 3 until the most precise resolution is reached



Resolution
±400 ... ±25 mbar

... DONE!

V.1.02

Important information

Calibration

If the measuring connections are open, bar height deviations of one display-point are normal. Should the divergence grow bigger, the device can be recalibrated:

Turn off synX and remove all measuring hoses. Now keep holding the aux button and turn on synX. The device will calibrate itself automatically.

Pressure sensors

Fuel condensation on the sensors can lead to a false measurement result. This happens particularly when synX is connected to a running engine for too long. If implausible measurement results are detected, disconnect all measuring hoses and lay synX down openly. We also recommend to keep the measuring hoses removed while synX is not being used.

Technical facts

rpm 500 ... 2500 min-1
2, 3 4 simultaneous channels
pressure 1150 .. 250 mbar
display damping 0,25/0,50/1,00 s
differential mode ±25/50/100/200/400 mbar
Min-Max-range
pressure over time graph
all channels simultaneously
channel 1/2/3/4
battery discharging status

automatic display light
batteries 3 x LR6 (AA)

Service & Support

www.x-log.de/synX



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