



Electronic Cylinder Pressure Indicator

- a beneficial tool that provides essential data with highest possible accuracy
- running costs can significantly be reduced by having a well-tuned and balanced engine
- avoiding unexpected maintenance or repairs leads to reliable operation

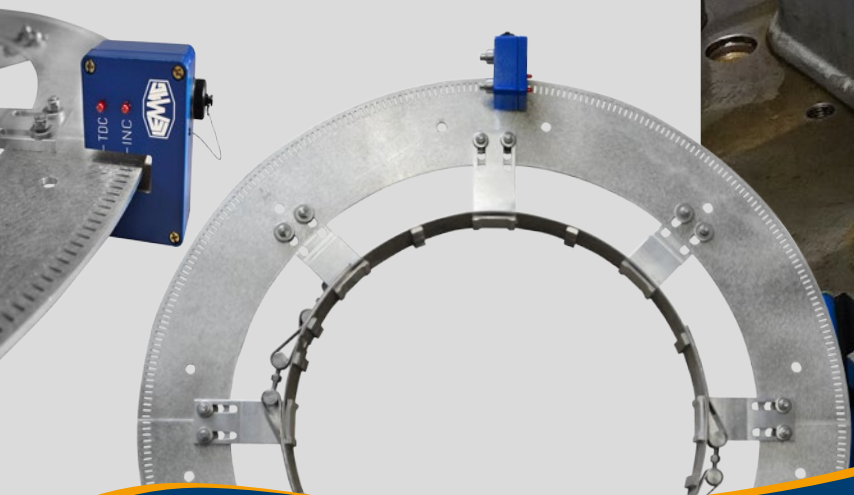
Features

- applicable on slow- medium- and high-speed engines
- outmost robust design for extreme ambient conditions
- superior quality ensuring long-lasting operation over years
- prompt test results for immediate evaluation
- large memory for thousands of measurements (e.g. managing up to 5 vessels with up to 6 engines each)
- high resolution colour display
- incl. WPREMET software with various diagrams and graphs for detailed and precise engine analyzing

The Next Generation of Cylinder Pressure Monitoring

The simple and self-explanatory software structure allows this versatile instrument to be operated using only four robust stainless steel buttons. The large integrated memory allows all measurements and engine data to be stored in the instrument itself. The data can also be evaluated on a computer and sent by e-mail for evaluation or storage on shore. The heart of the instrument is the pressure sensor. Using the latest technology from **Kistler** Switzerland its accuracy and lifetime are setting a new standard.

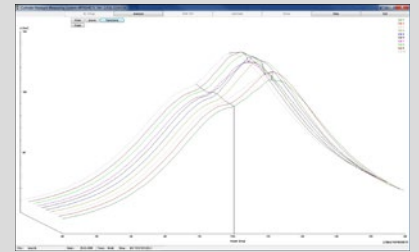
The LEMAG PREMETSUP> C electronic cylinder pressure indicator is available in different versions, each one optimized for the user's needs and desired accuracy. Quick measurements can be carried out while the engine is running. For a more detailed engine analysis the LEMAG PREMETSUP> C can also be equipped with **TDC** sensors, which enables the instrument to measure **mean indicated pressure (MIP)** and indicated power. On large slow speed engines the LEMAG **Multiscan-Sensor** can be used to measure the **crank angle** with a physical resolution of **360 degrees** to ensure that the measured data is of an optimum accuracy.



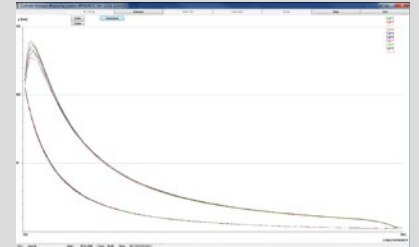


PREMET C	LS	XL	XLMS	Technical Details	
WPREMETS software	✓	✓	✓	ignition pressure range	0–250 bar
PPA software	opt.	opt.	opt.	injection pressure range (only for option fuel)	< 1600 bar
power diagram	-	✓	✓	speed range	40–1800 rpm
comparison with reference measurements	✓	✓	✓	max. number of cylinders	20
Pmax	✓	✓	✓	max. number of strokes per cylinder	30
measurement of injection pressure (fuel)	-	opt.	opt.	manufactured according to ISO 9001	✓
acceleration monitoring (ACL)	-	opt.	opt.	compensation of temp.	✓
pressure vs. time	✓	✓	✓	USB connection	✓
deviation of pressure peak vs. crank angle	-	✓	✓	stainless steel housing with isolated thermogrip	✓
compensation of torsional vibration	-	-	✓	high resolution colour display	✓
pressure sensor with armoured cable (h)	opt.	opt.	opt.	accuracy	better than class 1.6
TDC Sensor	-	✓	✓	opt. = optional	
MS wheel with 360° resolution sensor	-	-	✓		

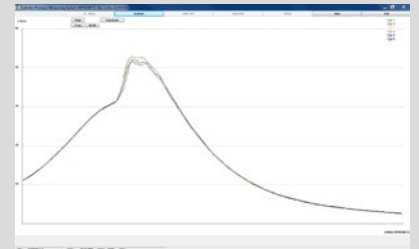
Included WPREMETS Software



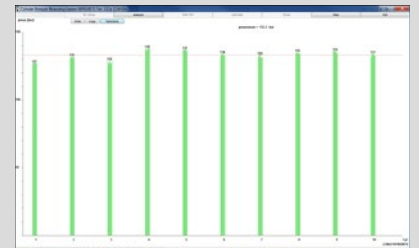
p/alpha diagram all cylinders 3D



p/Volume diagram



p/t diagram all cylinders



max. pressure all cylinders and strokes



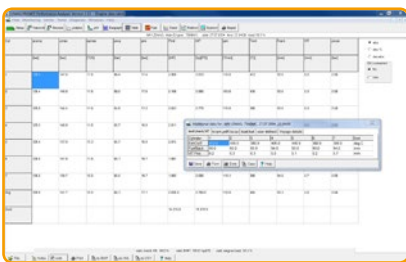
MIP deviation all cylinders

CYL.	pTDC [bar]	imean [mm]	apmax [bar]	ppmax [bar]	psicav [bar]	rpm [rpm]	MP [bar]	Pind [bar]	Teash [°C]	Frack	VIT
1	106.4	137.0	11.0	59.1	2.30	100.5	16.4	4991	247	7.3	12.0
2	106.7	132.0	12.8	59.8	2.30	99.9	16.3	4914	340	7.4	12.1
3	106.0	130.0	11.8	60.4	2.30	100.6	16.2	4910	349	7.5	12.2
4	107.3	130.0	11.8	59.2	2.30	100.1	16.2	4900	350	7.5	12.3
5	106.8	137.0	10.3	60.5	2.30	100.8	16.7	5005	351	7.7	12.4
6	106.5	134.0	10.8	60.1	2.30	100.1	16.4	4939	350	7.6	12.5
7	106.8	132.0	12.0	59.2	2.30	100.3	16.2	4994	349	7.5	12.6
8	106.7	136.0	12.3	60.3	2.30	100.0	16.4	4946	348	7.4	12.7
9	107.0	136.0	12.3	60.0	2.30	100.6	16.5	4906	347	7.3	12.8
10	106.2	131.0	10.0	59.2	2.30	100.6	16.1	4914	346	7.2	12.9
Mean	106.9	133.2	11.5	59.8	2.30	100.3	16.3	4940	348.5	7.4	12.4
Pmax								49396	Load = 90.0 %		

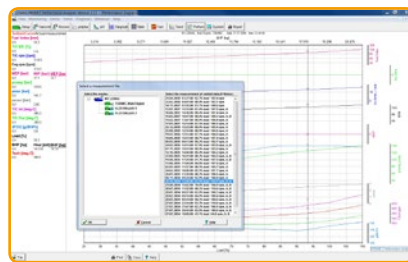
engine data overview

Optional PREMETS Performance Analyser (PPA) Software (Vers. 2.11)

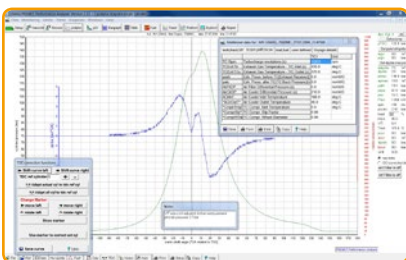
with multiple analyses including selection of different vessels and their engines



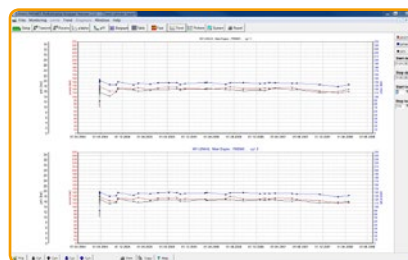
engine data overview



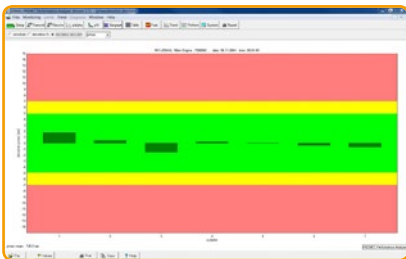
performance diagram



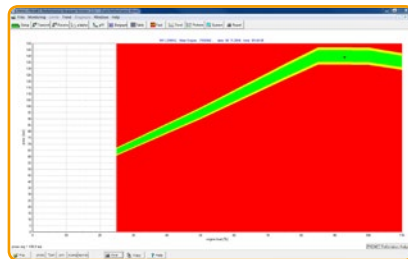
p/alpha with dp/da, TDC correction



data timeline



deviation diagram



p-max in relation to load

