

SYNMET DATA LOGGING SYSTEMS

SYNOptical and METeorological measuring systems



Three names – one program...

LOG stands for simple, logic data**LOG**ger, **IND** for **IND**ustrial application and **NAV** for application in **NAV**igational systems in maritime navigation. Based on experience, specific characteristics and features are optimally adjusted to any individual field of application. All SYNMET systems are pre-configured and contain an individual, meaningful documentation.

- modular construction favors standard as well as client specific systems
- flexible and functionally extensible by modules
- integrable air pressure sensors
- EMC save aluminum housing
- separate clip chamber and EMC cable sockets
- integrated accumulator guarantees uninterrupted power supply (depending on model)

The following modules can be additionally integrated into the SYNMET data logger (see following pages):

Id-No.	Code	SYNMET hardware modules overview	LOG-D	LOG-DX	IND	NAV
32.95527.007 000 (95527 U7)		Heating power supply PSH · 100...240 V _{AC} / 24 V _{DC} · 30 VA	-	-	x	x
32.95660.004 000 (95660 U4)		DAC · for 8 analog outputs · galvanically isolated · for indicators or SPS	x	x	x	x
32.95660.011 000 (95660 U11)		RS quad interface · serial · galv. isolated for sensors or further data interfaces	x	x	x	x
32.95661.009 000 (95661 U9)		ESD Overvoltage protection · for all digital and analog sensor inputs	x	x	x ¹⁾	x ¹⁾
32.95665.008 030 (95665 U8c)		SI sensor interface · e.g. DC/DC-converter, RS485	x	x	-	-
32.95660.008 060 (95660 U8f)		Air pressure sensor ● 600...1100 hPa	-	-	x	-
32.95665.020 010 (95665 U20a)		Air pressure sensor ● 600...1100 hPa · ± 0.5 hPa	x	x	-	-
32.95665.020 000 (95665 U20)		Precision Air pressure sensor ● 35...1310 hPa · ± 0.1 hPa	x	x	x	-

¹⁾ already integrated in basic models of data logger



Data logger for naval application



Individual ship data...

is registered professionally in connection with the shipboard computer. Data is then processed for regulation and safety on board.

Detection of turbulences, luff and lee comparison, "true wind" as well as "bottom track" shall be named as examples.

LAMBRECHT's long-time experience in naval meteorology define with the SYNMET-NAV the high standard of marine and civil ships.

- EMC safe aluminum housing especially designed for application on ships
- shock- and vibration-resistant
- own-ship data processing
- 19"-industrial standard for quick service reaction
- NMEA communication
- very high reliability
- integrated SI-card
- built-in power supply unit for sensor heaters optional

navy • integration into navigational systems • project related application



Professional Naval-Line Series (95664) SYNMET-NAV

Range of application:	temperatures -30...+70°C • humidity 0...100% r. h.
Accuracy:	depending on parameters and sensors 12-Bit-ADC • 8 µs converting time
Resolution:	14-Bit-ADC • oversampling
Measuring interval:	1...60 s • average values 1...60 min
Protocols:	NMEA 0183 • WIMTA • WIMTW • WIMHU • WIMMB • WIMWD • WIMWV • HEOSD • VMVHW
Storage:	dyn. organized ring storage for mean and extreme values 512 KB RAM • battery-backed
Inputs:	12 analog • 5 digital • universal sensor inputs <u>provable as/ for</u> Pt100 • voltage • current • frequency • impulse • status • serial sensors
Interfaces:	see varieties • redundant interfaces for FWD- and AFT-shipboard computer
Supply voltage:	18...32 V _{DC}
Housing/ Weight:	aluminium • 306 x 241 x 220 mm (without sockets) • 8 kg • 12 EMC-cable sockets • ESD-module • optional with integrated heating power supply for heated sensors
Standards:	EMC EN 50081/ 82 • ESD-protection IEC 1000-4-2/-4-5 • MIL STD 3015.7 • Vibration BV 0440 • Shock BV 0430 (MIL-STD 810E)
Accessories:	sensors • cables • power supplies • modules • modems • software • PC • indicators

Varieties:

00.95664.232 010

(95664.2)

SYNMET-NAV • SI-module DC 1/2 • COM 1: RS 232/422 • COM 2: RS 232

00.95664.236 010

(95664.6) SYNMET-NAV

• SI-module DC 1/2 • COM 1: RS 232/422 • COM 2: RS 232/422/485

00.95664.239 010

(95664.9) SYNMET-NAV

• SI-module DC 1/2 • COM 1: RS 232/422 • COM 2: RS 232/422/485 • DC3-module-24V

Further data see separate folder.

