

# DATA LOGGER "SYNMET-IND"



for universal landfield applications



Picture without housing cover

## The standard in meteorology.

The system's components own intelligence as well as modular upgrades stand for future orientation. A large amount of specific applications can be realized with efficiency. Ease of maintenance, reliability and simple installation are further advantages of this standard logger for highest demands.

- ▶ ring buffer for 1 year
- ▶ free configurable sensor inputs
- ▶ 17 sensor channels
- ▶ 43 virtual channels
- ▶ able to communicate via Internet with a router \*
- ▶ LAN integration via Ethernet-Interface \*
- ▶ Integrated sensor and hardware control
- ▶ simultaneous communication with up to 10 users \*

meteorological applications • wide range of applications onshore • agricultural meteorology • hydrology

Professional Line	Series (95661) SYNMET-IND	Id-No. 00.95661.600 000
Range of application:	temperatures -30...+70 °C • humidity 0...100 % r. h.	
Accuracy:	depending on parameters and sensors	
Resolution:	16 bit-ADC with up to 1024-fold oversampling	
Measuring interval:	1 Hz / 2 Hz • average value 1...60 min	
Storage:	dyn. organized ring storage for mean and extreme values for 1 year	
Inputs:	12 analogue • 5 digital • universal sensor inputs • for Pt100 • voltage • current • frequency • impulse • status • serial sensors	
Interfaces:	see versions	
Supply voltage:	85...264 V <sub>AC</sub>	
Housing/ Weight:	aluminium • 306 x 241 x 220 mm (without sockets) • 8 kg • 20 EMC cable sockets • USV-accumulator • ESD-module • optional with integrated power supply for heated sensors	
Standards:	EMC EN 50081/ 82 • ESD protection IEC 61000-4-2/-4-5 • MIL STD 3015.7	
Accessories:	sensors • cables • power supplies • modules • modems • software • PC • masts • indicators	



# DATA LOGGER "SYNMET-LOG"

for use under rough, industrial conditions

## The standard under rough conditions.

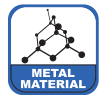
The perfect combination of the system's components offers a high degree of flexibility and reliability. The two-piece housing divides high quality electronics and installation. The galvanic separation of the measuring system, remote configuration and diagnosis are representative of a multitude of modern future-proof features.

- ▶ ring buffer for 1 year
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- ▶ 43 virtual channels ▶ able to communicate via Internet with a router \*
- ▶ LAN integration via Ethernet-Interface \*
- ▶ simultaneous communication with up to 10 users \*

rough industrial surroundings • wide range of application on-shore • agricultural meteorology • observational networks



Picture without housing cover



Professional Line	(95665) SYNMET-LOG	Id-No. 00.95665.600 000
Range of application:	temperatures -30...+70 °C • humidity 0...100 % r. h.	
Accuracy:	depending on parameters and sensors	
Resolution:	16 bit-ADC with up to 1024-fold oversampling	
Measuring interval:	1 Hz / 2 Hz • average value 1...60 min	
Storage:	dynamically organized ring storage for mean and extreme values for 1 year	
Inputs:	12 analogue • 5 digital • universal sensor inputs • for Pt100 • voltage • current • frequency • impulse • status • serial sensors	
Interfaces:	1x RS-232/ 422/ (485 optional on request) • 1 x RS-232	
Supply voltage:	18...32 V <sub>DC</sub>	
Housing/ Weight:	aluminium • 306 x 241 x 136 mm (without sockets) • approx. 8 kg • 20 EMC-cable sockets	
Standards:	EMC EN 50081/ 82 • ESD-protection IEC 61000-4-2/-4-5 • MIL STD 3015.7	
Accessories:	sensors • cables • power supplies • modules • modems • software • PC • masts • indicators	

\* Ethernet connection kit required

Further data see separate folder.



# DATA LOGGER "SYNMET-NAV"

for use under extreme, naval conditions

## The high standard in ship meteorology.

Individual ship data are registered professionally in connection with the shipboard computer. Data are 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.

- ▶ ring buffer for 1 year
- ▶ free configurable sensor inputs
- ▶ 17 sensor channels
- ▶ 43 virtual channels
- ▶ able to communicate via Internet with a router \*
- ▶ LAN integration via Ethernet-Interface \*
- ▶ Integrated sensor and hardware control
- ▶ simultaneous communication with up to 10 users \*

integration into  
 navigational systems •  
 project related application



Professional Naval-Line	(95664) SYNMET-NAV	Id-No. 00.95664.600 000
Range of application:	temperatures -30...+70 °C • humidity 0...100 % r. h.	
Accuracy:	depending on parameters and sensors	
Resolution:	16 bit-ADC with up to 1024-fold oversampling	
Measuring interval:	1 Hz / 2 Hz • average value 1...60 min	
Protocols:	NMEA 0183 • WIMTA • WIMTW • WIMHU • WIMMB • WIMWD • WIMWV • HEOSD • VMVHW	
Storage:	dyn. organized ring storage for mean and extreme values for 1 year	
Inputs:	12 analogue • 5 digital • universal sensor inputs • for Pt100 • voltage • current • frequency • impulse • status • serial sensors	
Interfaces:	redundant interfaces for FWD- and AFT-shipboard computer	
Supply voltage:	85...264 V <sub>AC</sub>	
Housing/ Weight:	aluminium • 306 x 241 x 136 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 61000-4-2/-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	

\* Ethernet connection kit required

## Modules



### Three names – one program...

**LOG** - the data logger for industrial application,  
**IND** - the data logger for highest demands in meteorology,  
**NAV** - the robust data logger for professional naval applications.

The specific characteristics and the modular construction are optimally customised to each individual field of application. All SYNMET systems are pre-configured and contain an individual documentation.

The following modules can be additionally integrated into the SYNMET data loggers:

Id-No.	SYNMET hardware modules overview	LOG	IND	NAV
32.95527.007 000	<b>Heating power supply</b> PSH · 100...240 V <sub>AC</sub> / 24 V <sub>DC</sub> · 35 W	-	X	X
32.95660.031 000	<b>DAC</b> · for 8 analog outputs · galvanically isolated · for indicators or SPS	X	X	X
32.95660.032 000	<b>RS quad interface</b> · serial · galv. isolated for sensors or further data interfaces	X	X	X
32.95661.009 000	<b>ESD overvoltage protection</b> · for all digital and analog sensor inputs	X <sup>1)</sup>	X <sup>1)</sup>	X <sup>1)</sup>
32.95665.008 030	<b>SI sensor interface</b> · e.g. DC/DC-converter, RS-485	X	-	-
32.95665.020 010	<b>Air pressure sensor</b> · 600...1100 hPa	X	X	-
32.95665.020 030	<b>Air pressure sensor</b> · 800...1100 hPa	X	X	-
32.95665.020 000	<b>Precision air pressure sensor</b> · 35...1310 hPa · ± 0.1 hPa	X	X	-
32.95660.035 000	<b>Ethernet connection kit</b>	X	X	X

<sup>1)</sup> already integrated in basic models of data logger