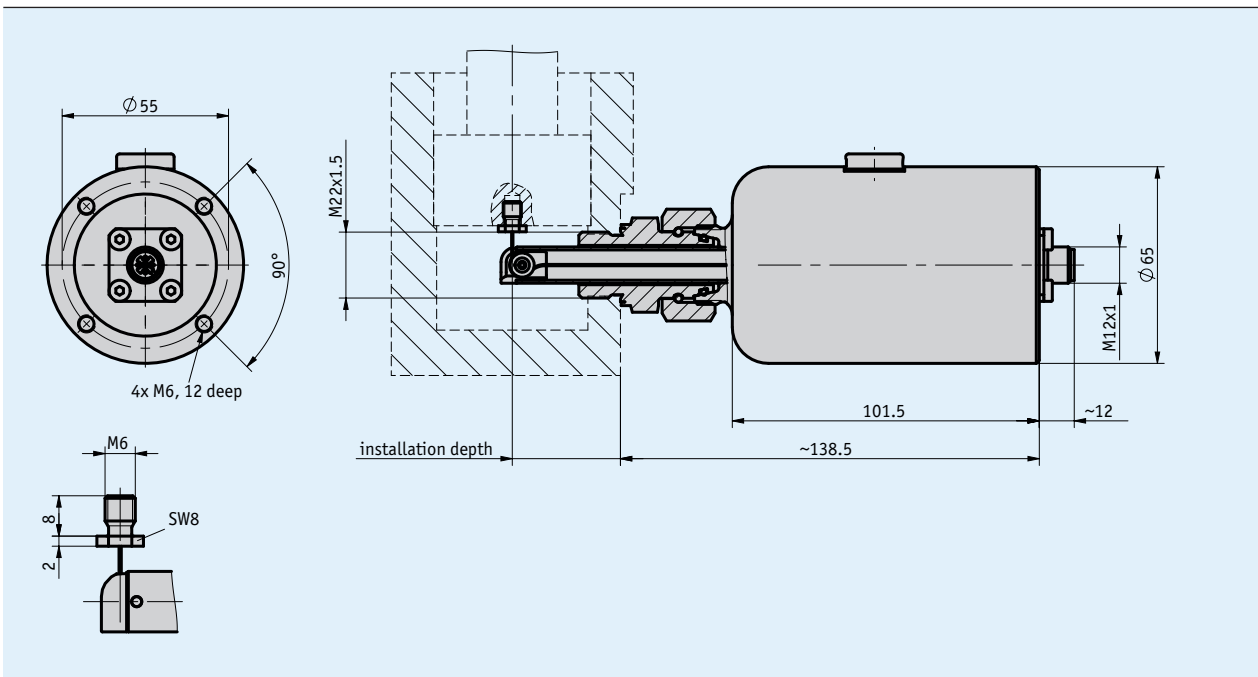


Profile

- Measuring range 0 ... 1000 mm (39.37 inches)
- almost no stroke lost thanks to lateral mounting
- Absolute measuring system
- CANopen interface, analog: Current and voltage
- Operating voltage 9 ... 32 VDC
- Pressure-resistant up to 350 bar, pressure peaks up to 450 bar
- High degree of flexibility, adjustable to all measuring lengths thanks to teach-in
- High electro-magnetic compatibility
- High shock and vibration resistance
- With PURE.MOBILE technology



Mechanical data

Feature	Technical data	Additional information
Housing	stainless steel	V4A housing, 1.4404 uncoated
	steel	St housing, 1.7225 not coated
seal	HNBR	Sensor
	Viton	Screw-in connector housing V4A
	NBR	Screw-in connector housing St
Wire design	ø0.45 mm	rustproof stainless steel
Extension force	≥2 N	
Acceleration	≤10 m/s ²	
Weight	~2.1 kg	V4A housing without spacer tube
	~2 kg	St housing without spacer tube

Electrical data

■ Analog interface

Feature	Technical data	Additional information
Operating voltage	9 ... 32 V DC	with output 0 ... 5 V, 0.5 ... 4.5 V, 0.25 ... 4.75 V, 1.0 ... 4.9 V, reverse polarity protected
	12 ... 32 V DC	with output 0 ... 10 V, reverse polarity protected
	12 ... 32 V DC	with output 0 ... 20 mA, but $U_B > U_{load} + 2.0 V$, 4 ... 20 mA, reverse polarity protected
Current consumption	<32 mA	without load
Power input	<0.5 W	without load
Digital inputs	2	limit inputs
Input signal level high	>8.4 V	
Input signal level low	<2.8 V	
Output voltage	0 ... 10 V	load current <1 mA
	0 ... 5 V	load current <1 mA
	0.5 ... 4.5 V	load current <1 mA
	0.25 ... 4.75 V	load current <1 mA
Output current	1 ... 4.9 V	load current <1 mA
	0 ... 20 mA	load $\leq 500 \Omega$
	4 ... 20 mA	load $\leq 500 \Omega$
Linearity tolerance	$\pm 0.25 \%$	1000 mm measuring length, $\pm 0.5 \%$ output value range $\leq 15 mV$
	$\pm 0.5 \%$	500 mm measurement length
Settling time	<150 ms	
Type of connection	1x M12 plug connector (A-coded)	5-pole, 1x pin

■ CANopen interface

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	reverse polarity protected
Power input	<0.8 W	
Parameter storage	10^5 cycles	also applies to calibration operations
Linearity tolerance	$\pm 0.25 \%$	1000 mm measurement length
	$\pm 0.5 \%$	500 mm measurement length
Interface	according to ISO 11898, not isolated	CANopen, CiA 301, CiA 305, CiA 406
Address	1 ... 127	Node-ID, per SDO or Layer Setting Service (LSS)
Baud rate	≤ 1 Mbit/s	
Cycle time	typical 1.5 ms	
Settling time	<150 ms	
Type of connection	1x M12 plug connector (A-coded)	5-pole, 1x pin

System data

Feature	Technical data	Additional information
Scanning	magnetic	
Resolution	12 bit	analog output
Repeat accuracy	± 0.15 mm	
Measuring range	500 mm	measuring range flexibly usable between 0 ... 500 mm
	1000 mm	measuring range flexibly usable between 0 ... 1000 mm
Travel speed	≤ 1 m/s	
Failure rate	235.6 year(s)	analog output, at 60 °C (MTBF) EN/IEC 61709 (SN 29500)
	253.3 year(s)	CANopen, at 60 °C (MTBF) EN/IEC 61709 (SN 29500)
Approval	E1 compliant	UN ECE R10 Approval number: E1 10 R - 05 8507

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-40 ... 105 °C	electronics
	-30 ... 105 °C	mechanics
Storage temperature	-40 ... 85 °C	
Relative humidity	100 %	condensation admissible in the mounted and plugged condition
Operating pressure	<350 bar	P _n based on ISO19879
Overload pressure	<450 bar	P _{max} based on ISO 19879
Test pressure	650 bar	P _{static} based on ISO 19879
EMC	EN 61326-3.1	immunity requirement of industry, class B emission limit
	ISO 11452-1, -2, -3, -4, -5	interference radiation ESA
	ISO 7637-1, -2	transient pulses
	ISO 10605	electrostatic discharge (ESD)
Protection category	IP6K9K	ISO 20653, fitted with suitable mating connector
Shock resistance	1000 m/s ² , 11 ms	EN 60068-2-27, additional support is recommended
Vibration resistance	70 m/s ² , 10 Hz ... 2 kHz	EN 60068-2-64, additional support is recommended at >150 Hz

Order

Ordering table

Feature	Ordering data	Specification	Additional information
Measuring range	... A	500, 1000 in mm	
installation depth	... B	30, 36, 110, 140, 320 in mm others on request	
Interface	0/5V C	0 ... 5 V	voltage output
	0/10V	0 ... 10 V	voltage output
	0.25/4.75V	0.25 ... 4.75 V	voltage output
	0.5/4.5V	0.5 ... 4.5 V	voltage output
	1.0/4.9V	1.0 ... 4.9 V	voltage output
	0/20mA	0 ... 20 mA	current output
	4/20mA	4 ... 20 mA	current output
Housing	St D	steel	
	V4A	rustproof stainless steel	

Order key

SGH10L - - - **GW6** - - - **DS** - **S**

A
B
C
D

Scope of delivery: SGH10L, Quick Start Guide

Accessories you can find:
 Programming Tool ProTool SGH
 Wire extension piece SVH
 Socket wrench ZB4008
 rope swivel ZB4009

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