OEM-version

Applications

- Shipbuilding
- Process technology
- Water treatment (wastewater, grey-water, drinking water)
- Seawater

Features

- Suitable for thick and viscous media
- Different materials for optimum media compatibility
- Configurable measuring ranges
- Optional: Enhanced lightning protection

Technical Data			
Measuring principle	Thick-film-on-ceramic	Accuracy @ 25°C typ.	± 0.3 % FS typ. Range 0 ... 0.1 to 0 ... 0.2 bar: ± 0.5 % FS typ.
Measuring range	0 ... 0.1 to 0 ... 6.0 bar 0 ... 1.5 to 0 ... 100 psi	Media temperature	max. -25°C ... +70°C
Output signal	4 ... 20 mA	Ambient temperature	max. -25°C ... +70°C
NLH @ 25°C (BSL) typ.	± 0.2 % FS typ. Range 0 ... 0.1 to 0 ... 0.2 bar: ± 0.3 % FS typ.	Approval / conformity	DNV-GL EU RO Mutual Recognition Type Approval Certificate

12/2021
Data sheetH72336m
Subject to change

Ordering information/type code

8439 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 0.1	1.2	2	**66**	0 ... 1.5	15	30	**F6**
0 ... 0.16	1.2	2	**67**	0 ... 2	15	30	**F7**
0 ... 0.2	1.2	2	**68**	0 ... 2.5	15	30	**F8**
0 ... 0.4	1.2	2	**69**	0 ... 5	15	30	**F9**
0 ... 0.5	1.2	2	**64**	0 ... 6.5	15	30	**F4**
0 ... 0.6	1.2	2	**70**	0 ... 7.5	15	30	**G0**
0 ... 1.0	2	3	**71**	0 ... 15	30	45	**G1**
0 ... 1.6	3.2	4.8	**73**	0 ... 20	45	70	**G3**
0 ... 2.0	3.2	4.8	**72**	0 ... 30 [4]	45	70	**G5**
0 ... 2.5 [4]	5	7.5	**75**	0 ... 50 [4]	100	150	**G6**
0 ... 4 [4]	8	12	**76**	0 ... 100 [4]	200	250	**G7**
0 ... 6 [4]	12	15	**77**				

Configurable measuring ranges standard, see table on page 3

Sensor

Relative pressure	**23**

Housing

Housing AISI316L, standard version [2]	**58**
Housing 1.4462, standard version [2] [3]	**55**
Housing AISI316L, OEM-version [2]	**56**
Housing 1.4462, OEM-version [2] [3]	**50**
Housing AISI316L, Serto Connection [2] [3]	**60**

Electrical connection

Cable PUR, Ø 6 mm, L = 5 m	**21**	Cable PE, Ø 6 mm, L = 5 m	**41**
Cable PUR, Ø 6 mm, L = 10 m	**22**	Cable PE, Ø 6 mm, L = 10 m	**42**
Cable PUR, Ø 6 mm, L = 15 m	**23**	Cable PE, Ø 6 mm, L = 15 m	**43**
Cable PUR, Ø 6 mm, L = 20 m	**24**	Cable PE, Ø 6 mm, L = 20 m	**44**
Cable PUR, Ø 6 mm, L = 25 m	**25**	Cable PE, Ø 6 mm, L = 25 m	**45**
Cable PUR, Ø 6 mm, L = 30 m	**26**	Cable PE, Ø 6 mm, L = 30 m	**46**
Cable PUR, Ø 6 mm, L = 35 m	**27**	Cable PE, Ø 6 mm, L = 35 m	**47**
Cable PUR, Ø 6 mm, L = 40 m	**28**	Cable PE, Ø 6 mm, L = 40 m	**48**
Cable PUR, Ø 6 mm, L = 50 m	**29**	Cable PE, Ø 6 mm, L = 50 m	**49**
Cable PUR, Ø 6 mm, customized (L = max. 50 m)	**20**	Cable PE, Ø 6 mm, customized (L = max. 50 m)	**40**

Output signal

4 ... 20 mA	**19**

Accessories

Seal FKM / FPM / Viton	**61**
Seal EPDM / TPE	**63**
Enhanced lightning protection DIN 61000-4-5 (Surge 4kV)	**LP**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] See "Dimensions"
[3] Upon request
[4] Without ship approval DNV-GL

Configurable measuring ranges standard				
Pressure measuring range minimal	Pressure measuring range max. (nominal range)	Overpressure	Burst pressure	Ordering no.
0 ... 0.1	0 ... 0.3	1.2	2	C1
0 ... 0.15	0 ... 0.4	1.2	2	C2
0 ... 0.2	0 ... 0.6	1.2	2	C3
0 ... 0.35	0 ... 1.0	2	3	C4
0 ... 0.6	0 ... 1.6	3.2	4.8	C5
0 ... 0.85	0 ... 2.0	3.2	4.8	C6

All accuracy indications refer to the nominal measurement range and the respective span. When minimizing the span, the relative errors are increasing in relation of the maximum to the selected span.

Configuration of the measuring ranges

All measuring ranges can be configured via Smartphone app (Android). The SMI Sensor Master Interface as well as the Smartphone, which are necessary for the configuration, are not part of the delivery. The Android app is available for free in the Google Play Store.

- Ordering No. SMI Sensor Master Interface: F90170
- Data sheet SMI Sensor Master Interface: H72618

Type	Type code	Housing	Cable material [2]	Seal	Typical applications
Standard [1] OEM [1] Serto	8439.XX.2358.2X.19.61.XX 8439.XX.2356.2X.19.61.XX 8439.XX.2360.2X.19.61.XX	AISI316L AISI316L / Brass nickel plated AISI316L	PUR	FKM / Viton	General applications
Standard OEM Serto	8439.XX.2358.4X.19.63.XX 8439.XX.2356.4X.19.63.XX 8439.XX.2360.4X.19.63.XX	AISI316L AISI316L / Brass nickel plated AISI316L	PE	EPDM / TPE	Wastewater, grey-water, drinking water
Standard OEM	8439.XX.2355.4X.19.63.XX 8439.XX.2350.4X.19.63.XX	1.4462 1.4462 / Brass nickel plated	PE	EPDM / TPE	Seawater

Non-standard build-up combinations may be selected, whereas minimum order quantities may apply
[1] Extra short lead time
[2] Cable PUR or PE only usable inside tank

Specifications		
Electrical data	Output / supply voltage	4...20 mA: 24 (9...32) VDC
	Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure
	Power-on delay time	100 ms
Environmental conditions	Media temperature [1)]	max. -25°C ... +70°C
	Ambient temperature	max. -25°C ... +70°C
	Protection	IP68 (6.0 bar/60 m)
	Vibration	20 g (40 ... 2000 Hz) 15 grms (20 ... 2000 Hz)
	Shock	50 g / 8 ms
EMC protection	Emission	EN/IEC 61000-6-3 / DNVGL-CG-0339
	Immunity	EN/IEC 61000-6-2 / DNVGL-CG-0339 Option LP: Enhanced inspection level 4 acc. to DIN EN 61000-4-5
Mechanical data	Sensor (wetted parts)	Ceramic, Al_2O_3 (96%)
	Pressure connection (wetted parts)	1.4404 (AISI316L) or 1.4462 (AISI318LN)
	Housing	1.4404 (AISI316L) or 1.4462 (AISI318LN) OEM-version: Screwed cable gland brass nickel-plated
	Sealing	FKM (FPM, Viton), EPDM (TPE)
	Weight	~ 200 g (without cable) / OEM ~ 150 g

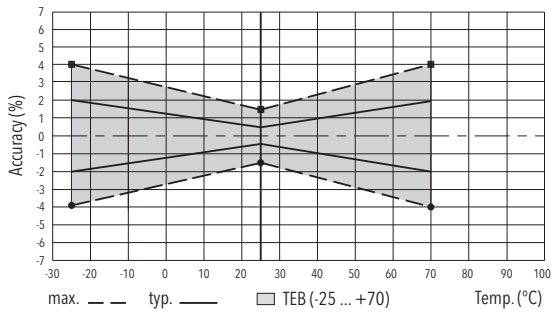
[1)] see table Temperature ranges

Temperature ranges		
Max. ambient and media temperature		-25°C ... +70°C
Cable PE	Code 8439.XX.23.XX.4X.19.XX	-20°C ... +65°C
Seal FKM with standard version	Code 8439.XX.23.55.XX.19.61 Code 8439.XX.23.58.XX.19.61	-20°C ... +70°C
Seal FKM with Serto connection	Code 8439.XX.23.60.XX.19.61	

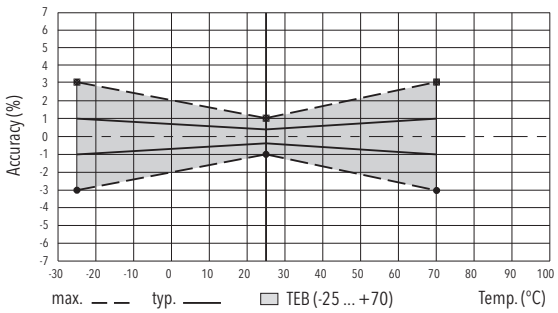
Accuracy		**Measuring accuracy 0.3 %** Measuring ranges ≥ 0.3 bar	**Measuring accuracy 0.5 %** Measuring ranges < 0.3 bar
TEB @ -25 ... +70°C	[% FS typ.]	± 1.0	± 2.0
Accuracy @ +25°C	[% FS typ.]	± 0.3	± 0.5
NLH @ +25°C (BSL)	[% FS typ.]	± 0.2	± 0.3
TC zero point and span	[% FS/K typ.]	± 0.02	± 0.02
Long term stability 1 year @ +25°C	[% FS typ.]	± 0.2	± 0.2

For instruments with configurable measuring ranges, the specifications always refer to the measuring span of the maximum measuring range. If the measuring span is reduced, the relative errors increase in relation to the maximum and the set measuring span.

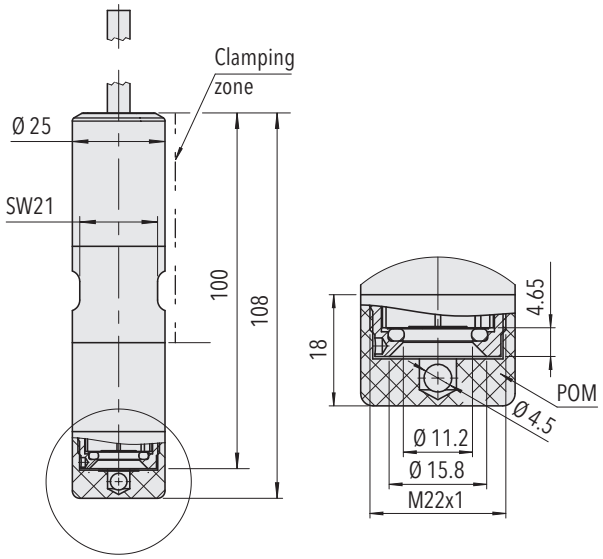
Measuring accuracy 0.5 %



Measuring accuracy 0.3 %

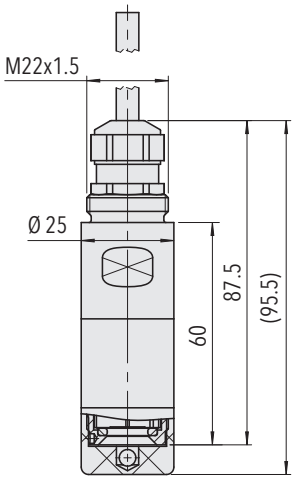


Dimensions



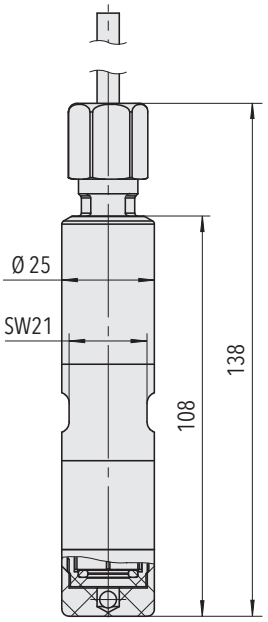
8439.XX.XX**58/55**.XX.XX.XX

Standard version



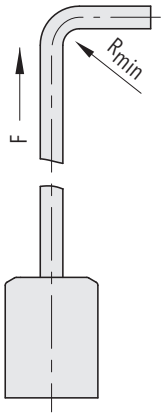
8439.XX.XX**56/50**.XX.XX.XX

OEM-version



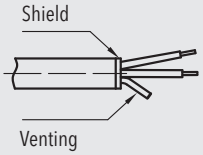
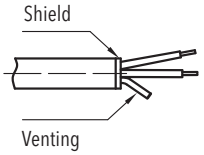
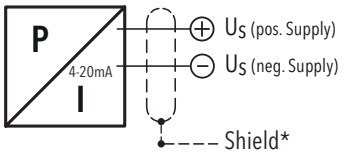
8439.XX.XX**60**.XX.XX.XX

Serto adapter SO 50021-12
for stainless steel tubes with:
outer diameter 12 mm
inner diameter 8 mm



F = max. 10 kg (100 N)

Electrical connection

		Protection / electrical connection	
		IP68 (6.0 bar/60 m)	IP68 (6.0 bar/60 m)
		Cable PUR Ø 6 mm (5x0.22mm²) **2X** 	Cable PE Ø 6 mm (5x0.22mm²) **4X** 
Output signal	 **8439**.xx.xxxx.xx.**19**	white brown (yellow = not connected) (green = not connected) (red = not connected)	white brown (yellow = not connected) (green = not connected) (red = not connected)
	Minimum cable bending radius R_{min}	40 mm	30 mm
T-Range	Ambient and media temperature	-25°C ... +70°C	-20°C ... +65°C

* Shield not connected