# ZMLPA1N2SW





### Main

Range of product	OsiSense XM
Product or component type	Electronic pressure sensors
Device short name	ZMLP

### Complementary

Display range	o compression and a	
Current consumption         <= 50 mA	Display range	-14.56000
Electrical connection         M12 female connector with 2 pins M12 male connector with 4 pins           Type of output signal         Analogue + discrete           Analogue output function         420 mA           Discrete output type         NPN solid state - NO/NC programmable           Switching function         Window           Maximum switching current         200 mA           Voltage drop         <= 2 V	[Us] rated supply voltage	24 V DC SELV, voltage limit: 1733 V
Type of output signal         Analogue + discrete           Analogue output function         420 mA           Discrete output type         NPN solid state - NO/NC programmable           Switching function         Window           Maximum switching current         200 mA           Voltage drop         <= 2 V	Current consumption	<= 50 mA
Analogue output function Discrete output type NPN solid state - NO/NC programmable Switching function Window Maximum switching current 200 mA Voltage drop <= 2 V Adjustable range of switching point on rising pressure 598 % of selected display range Adjustable range of switching point on falling pressure 3.% 6 selected display range Marking CE Front material Polyester Housing material PBT Valox Operating position Any position Protection type Overload protection Overvoltage protection Overvoltage protection Pewerse polarity Short-circuit protection Pissay type 4 digits 7 segments Local signalling 1 LED yellow light ON when switch is actuated Response time Delay first up Accuracy <= 10.1 % of the measuring range Mechanical durability >= 10000000 cycles Depth Height 1.65 in (42 mm) Width Product weight Product weight Product weight Product weight  NPN solid state - NO/NC programmable Window Window Window Window  Accuracy Accur	Electrical connection	·
Discrete output type  NPN solid state - NO/NC programmable  Switching function  Window  Maximum switching current  200 mA  Voltage drop  Adjustable range of switching point on rising pressure  Minimum differential travel  Maximum switching current  295 % of selected display range  Minimum differential travel  3 % of selected display range  Marking  CE  Front material  Polyester  Housing material  Operating position  Protection type  Voerload protection Overvoitage protection Reverse polarity Sohrt-circuit protection Reverse p	Type of output signal	Analogue + discrete
Switching function         Window           Maximum switching current         200 mA           Voltage drop         <= 2 V	Analogue output function	420 mA
Maximum switching current         200 mA           Voltage drop         <= 2 V	Discrete output type	NPN solid state - NO/NC programmable
Voltage drop <=2 V  Adjustable range of switching point on rising pressure 598 % of selected display range  Adjustable range of switching point on falling pressure 295 % of selected display range  Minimum differential travel 3 % of selected display range  Marking CE  Front material Polyester  Housing material PBT Valox  Operating position Any position  Protection type Overload protection Overvoltage protection Reverse polarity Short-circuit protection  Response time on output <=3 ms analog output <=3 ms discrete output  Display type 4 digits 7 segments  Local signalling 1 LED yellow light ON when switch is actuated  Response time 300 ms  Delay first up <=100 ms  Accuracy <=-0.1 % of the measuring range  Measurement accuracy <=1 % of the measuring range  Mechanical durability >=1000000 cycles  Depth 1.65 in (42 mm)  Width 1.61 in (41 mm)  Product weight  0.23 b(US) (0.103 kg)	Switching function	Window
Adjustable range of switching point on rising pressure Adjustable range of switching point on falling pressure Adjustable range of switching point on falling pressure  Minimum differential travel  3 % of selected display range  Marking  CE Front material  Polyester  Housing material  Operating position  Any position  Overload protection Overvoltage protection Reverse polarity Short-circuit protection Reverse polarity Short-circuit protection  Any sposition  Response time on output	Maximum switching current	200 mA
Adjustable range of switching point on falling pressure  Minimum differential travel  3 % of selected display range  Marking  CE  Front material  Polyester  Housing material  PBT Valox  Operating position  Any position  Overload protection Reverse polarity Short-circuit protection Reverse polarity Short-circuit protection  C=3 ms analog output = 3 ms discrete output  Display type  4 digits 7 segments  Local signalling  1 LED yellow light ON when switch is actuated  Response time 30 ms  Delay first up  Accuracy  = 1 % of the measuring range  Measurement accuracy  = 1 % of the measuring range  Mechanical durability  >= 10000000 cycles  Depth 1.65 in (42 mm)  Height  Width 1.61 in (41 mm)  Product weight  Now position  295 % of selected display range  296 when 3 % of selected display range  297 when 4 selected display range  298 when 4 selected display range  298 when 4 selected display range  299 when 4 selected display range  299 when 4 selected display range  299 when 4 selected display range  290 when 4 selected display range  290 when 4 selected display range  3 % of selected display range  290 when 4 selected display range  291 when 4 selected display range  292 when 4 selected display range  292 when 4 selected display range  294 when 4 selected display range  3 % of selected display range  294 when 4 selection 6 vertex between 8 vertex between 8 vertex between 8 vertex between 9 vertex b	Voltage drop	<= 2 V
Minimum differential travel       3 % of selected display range         Marking       CE         Front material       Polyester         Housing material       PBT Valox         Operating position       Any position         Protection type       Overload protection Overvoltage protection Reverse polarity Short-circuit protection         Response time on output       <= 3 ms analog output	Adjustable range of switching point on rising pressure	598 % of selected display range
Marking CE Front material Polyester Housing material PBT Valox Operating position Any position Protection type Overload protection Overvoltage protection Reverse polarity Short-circuit protection  Response time on output <= 3 ms analog output <= 3 ms analog output <= 3 ms discrete output  Display type 4 digits 7 segments Local signalling 1 LED yellow light ON when switch is actuated Response time 300 ms Delay first up <= 100 ms Accuracy <= -0.1 % of the measuring range Measurement accuracy <= 1 % of the measuring range Measurement accuracy <= 1 % of the measuring range Mechanical durability >= 10000000 cycles Depth 1.65 in (42 mm) Height 3.03 in (77 mm) Width 1.61 in (41 mm) Product weight  0.23 lb(US) (0.103 kg)	Adjustable range of switching point on falling pressure	295 % of selected display range
Front material Polyester  Housing material PBT Valox  Operating position Any position  Protection type Overload protection Overvoltage protection Reverse polarity Short-circuit protection  Response time on output <= 3 ms analog output <= 3 ms discrete output  Display type 4 digits 7 segments  Local signalling 1 LED yellow light ON when switch is actuated  Response time 300 ms  Delay first up <= 100 ms  Accuracy <= 100 ms  Accuracy <= -0.1 % of the measuring range  Measurement accuracy <= 1 % of the measuring range  Mechanical durability >= 10000000 cycles  Depth 1.65 in (42 mm)  Height 3.03 in (77 mm)  Width 1.61 in (41 mm)  Product weight 1.65 in (42 lm)  Product weight 0.23 lb(US) (0.103 kg)	Minimum differential travel	3 % of selected display range
PBT Valox  Operating position  Any position  Protection type  Overload protection Overvoltage protection Reverse polarity Short-circuit protection Response time on output  = 3 ms analog output = 3 ms analog output = 3 ms discrete output  Display type  4 digits 7 segments  Local signalling  1 LED yellow light ON when switch is actuated  Response time  300 ms  Delay first up  = 100 ms  Accuracy  = -0.1 % of the measuring range  Measurement accuracy  = 1 % of the measuring range  Mechanical durability  = 1000000 cycles  Depth  1.65 in (42 mm)  Height  3.03 in (77 mm)  Width  1.61 in (41 mm)  Product weight	Marking	CE
Operating position  Protection type  Overload protection Overvoltage protection Reverse polarity Short-circuit protection  Response time on output  = 3 ms analog output = 3 ms discrete output  Display type  4 digits 7 segments  Local signalling  1 LED yellow light ON when switch is actuated  Response time 300 ms  Delay first up  = 100 ms  Accuracy  = -0.1 % of the measuring range  Measurement accuracy  = 1 % of the measuring range  Mechanical durability  = 10000000 cycles  Depth  1.65 in (42 mm)  Height  3.03 in (77 mm)  Width  Product weight  Overload protection Overvoltage protection Severse polarity = 3 ms discrete output  = 1 % of the measuring range  = 1 % of the measuring range  = 1 % of the measuring range  Mechanical durability  = 10000000 cycles  Depth  1.65 in (42 mm)  Height  3.03 in (77 mm)  Width  O.23 lb(US) (0.103 kg)	Front material	Polyester
Protection type  Overload protection Reverse polarity Short-circuit protection Reverse polarity Short-circuit protection  Response time on output  = 3 ms analog output = 3 ms discrete output  Display type  4 digits 7 segments  Local signalling  1 LED yellow light ON when switch is actuated  Response time  300 ms  Delay first up  = 100 ms  Accuracy  = 100 ms  Accuracy  = 1 % of the measuring range  Measurement accuracy  = 1 % of the measuring range  Mechanical durability  = 10000000 cycles  Depth  1.65 in (42 mm)  Height  3.03 in (77 mm)  Width  1.61 in (41 mm)  Product weight	Housing material	PBT Valox
Overvoltage protection Reverse polarity Short-circuit protection         Response time on output       <= 3 ms analog output	Operating position	Any position
<= 3 ms discrete outputDisplay type4 digits 7 segmentsLocal signalling1 LED yellow light ON when switch is actuatedResponse time300 msDelay first up<= 100 ms	Protection type	Overvoltage protection Reverse polarity
Local signalling  1 LED yellow light ON when switch is actuated  Response time  300 ms  Delay first up  <= 100 ms  Accuracy  <= - 0.1 % of the measuring range  Measurement accuracy  <= 1 % of the measuring range  Display accuracy  <= 1 % of the measuring range  Mechanical durability  >= 10000000 cycles  Depth  1.65 in (42 mm)  Height  3.03 in (77 mm)  Width  1.61 in (41 mm)  Product weight  0.23 lb(US) (0.103 kg)	Response time on output	· ·
Response time300 msDelay first up<= 100 ms	Display type	4 digits 7 segments
Delay first up <= 100 ms  Accuracy <= - 0.1 % of the measuring range  Measurement accuracy <= 1 % of the measuring range  Display accuracy <= 1 % of the measuring range  Mechanical durability >= 10000000 cycles  Depth 1.65 in (42 mm)  Height 3.03 in (77 mm)  Width 1.61 in (41 mm)  Product weight 0.23 lb(US) (0.103 kg)	Local signalling	1 LED yellow light ON when switch is actuated
Accuracy <= - 0.1 % of the measuring range  Measurement accuracy <= 1 % of the measuring range  Display accuracy <= 1 % of the measuring range  Mechanical durability >= 10000000 cycles  Depth 1.65 in (42 mm)  Height 3.03 in (77 mm)  Width 1.61 in (41 mm)  Product weight 0.23 lb(US) (0.103 kg)	Response time	300 ms
Measurement accuracy <= 1 % of the measuring range  Display accuracy <= 1 % of the measuring range  Mechanical durability >= 10000000 cycles  Depth 1.65 in (42 mm)  Height 3.03 in (77 mm)  Width 1.61 in (41 mm)  Product weight 0.23 lb(US) (0.103 kg)	Delay first up	<= 100 ms
Display accuracy         <= 1 % of the measuring range	Accuracy	<= - 0.1 % of the measuring range
Mechanical durability         >= 10000000 cycles           Depth         1.65 in (42 mm)           Height         3.03 in (77 mm)           Width         1.61 in (41 mm)           Product weight         0.23 lb(US) (0.103 kg)	Measurement accuracy	<= 1 % of the measuring range
Depth         1.65 in (42 mm)           Height         3.03 in (77 mm)           Width         1.61 in (41 mm)           Product weight         0.23 lb(US) (0.103 kg)	Display accuracy	<= 1 % of the measuring range
Height         3.03 in (77 mm)           Width         1.61 in (41 mm)           Product weight         0.23 lb(US) (0.103 kg)	Mechanical durability	>= 10000000 cycles
Width         1.61 in (41 mm)           Product weight         0.23 lb(US) (0.103 kg)	Depth	1.65 in (42 mm)
Product weight 0.23 lb(US) (0.103 kg)	Height	3.03 in (77 mm)
	Width	1.61 in (41 mm)
[Uimp] rated impulse withstand voltage 0.5 kV DC	Product weight	0.23 lb(US) (0.103 kg)
	[Uimp] rated impulse withstand voltage	0.5 kV DC

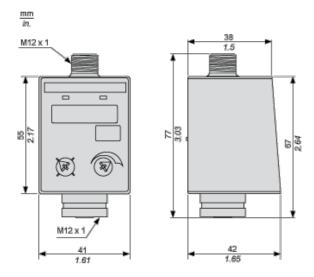
### **Environment**

product certifications	CULus EAC
standards	EN/IEC 61000-6-2 EN/IEC 61000-6-4 UL 508
ambient air temperature for operation	-13158 °F (-2570 °C)
ambient air temperature for storage	-22176 °F (-3080 °C)
IP degree of protection	IP65 conforming to EN/IEC 60529 IP67 conforming to EN/IEC 60529 IP69K conforming to DIN 40050
vibration resistance	5 gn at 102000 Hz conforming to EN/IEC 60068-2-6
shock resistance	25 gn conforming to EN/IEC 60068-2-27
electromagnetic compatibility	Immunity to conducted RF disturbances at 10 V, 0.1580 MHz conforming to EN/IEC 61000-4-6 Surge immunity test at 1 kV conforming to EN/IEC 61000-4-5 Electrical fast transient/burst immunity test at 2 kV conforming to EN/IEC 61000-4-4 Susceptibility to electromagnetic fields at 10 V/m, 802000 MHz conforming to EN/IEC 61000-4-3 Electrostatic discharge immunity test at 8 kV air, 4 kV contact conforming to EN/IEC 61000-4-2

# Offer Sustainability

Green Premium product	Green Premium product
Compliant - since 1406 - Schneider Electric declaration of conformity	Compliant - since 1406 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available
WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and	e Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and
Di-isodecyl phthalate (DIDP), which is known to the Stat of California to cause birth defects or other reproductive harm.	eDi-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

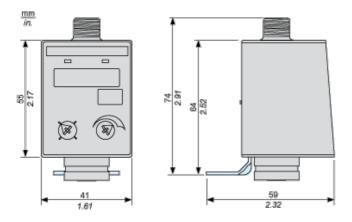
## **Dimensions**



## **Dimensions**

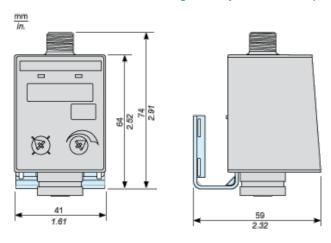
**Switch with Metal Bracket for Fixing Horizontally** 





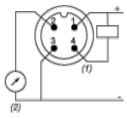
### **Dimensions**

Switch with Metal Bracket for Fixing Vertically or on an Inlet Pipe



### **Connections and Schema**

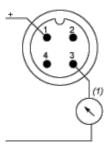
**Output M12 Male Connector Wiring** 



- (1) Out
- (2) I Out

### **Connections and Schema**

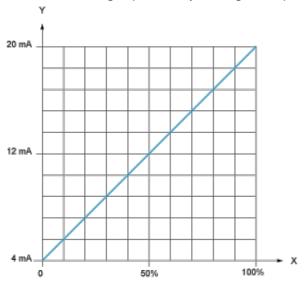
**Input M12 Female Connector Wiring** 



(1) I in = 4-20 mA

## **Analog Output Description**

The 4...20 mA analog output is strictly the image of the pressure transmitter output signal.

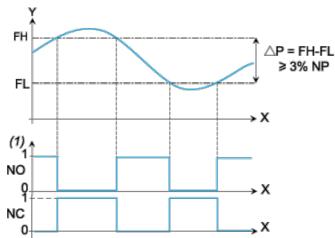


X: Pressure

Y: Analog output signal

## **Switching Output Description. Window Mode**

The window switching mode is typically used for the pressure regulation applications



 $\mathbf{X}$ : Time

Y: Pressure

(1) Output

NP: Nominal pressure

 $\mathbf{FH}$  : High switching point (adjustable from 5 % to 98 % NP)

 ${\bf FL}$  : Low switching point (adjustable from 2 % to 95 % NP)