

## DW51x pressure sensor series

Pressure sensor, Ø38mm 132long, 12-30V DC, G1/4 "I, 2x PNP NC/NO, 0-5/10V / 0/4-20mA, M12 plug connector 4-pin, IP67, PC (plastic), TFT display, IO-Link







### TFT color display with plain text display IO-Link interface

The pressure sensors of the DW5x series for pressure ranges from -1bar...+600bar are the "Swiss army knives" among the pressure sensors from ipf electronic. Highly flexible for use with liquid and gaseous media in all conceivable applications, these devices leave nothing to be desired in terms of convenient operation and technical features. The sensors with IO-Link interface have a switching output and a second variable output that can be defined as a switching, analog or alarm output as required. All settings of the DW5x can be checked before practical use in an application using an "offline test function" without having to apply pressure to the sensors.

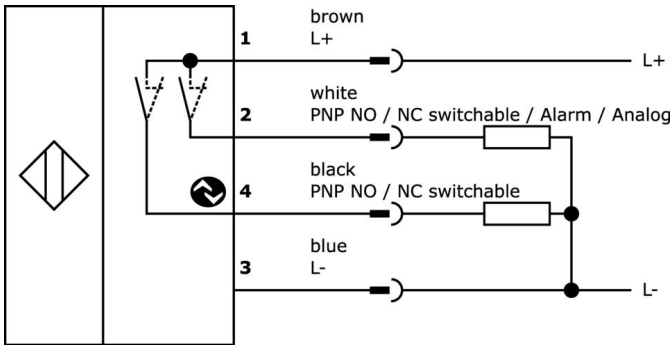
The focus is on the integrated, easy-to-read TFT color display with its extremely diverse options for different display modes. Just a few examples: Display of the pressure in plain text with trend display and accurate identification of the switching points or color display options for reaching previously defined switching points. But the potential of the easily switchable color display is far from exhausted.

The display is perfectly readable in any installation position, as the display can be rotated in 90° steps and the housing can also be continuously rotated by 305°. The sensors with full stainless steel measuring cell and integrated processor not only provide the pressure, but also determine a relative temperature value of the medium if required.

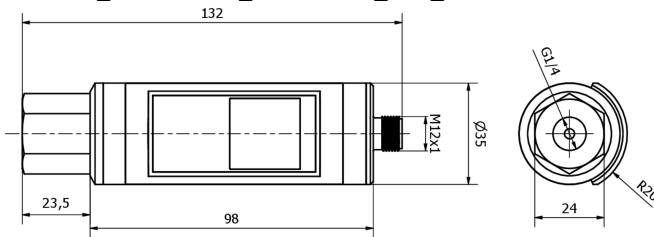
Article No.	DW51310D	DW51310K	DW51310T	DW51310U
				
<b>Design</b>	Cylinder plain			
<b>Housing material</b>	Plastic PC			
<b>ardSOCA_Abmessungen</b>	Ø38mm, 132mm long			
<b>Degree of protection (IP)</b>	IP67			
<b>Measuring range pressure</b>	0 - 10 bar	-1 - 10 bar	0 - 60 bar	-1 - 3 bar
<b>Max. operating pressure</b>	30 bar	30 bar	180 bar	15 bar
<b>Measurement method</b>	Absolute	Relative	Absolute	Relative
<b>Type of process connection</b>	G1/4 inch inside			
<b>ardTEME_WerkstoffDesProzessa</b>	Edelstahl 1.4305			
<b>ardTEME_WerkstoffDerMesszelle</b>	Stainless steel 1.4404			
<b>ardSOCA_ElektrischerAnschluss</b>	M12 4-pin plug connector			
<b>ardSOCA_Betriebsspannung</b>	12-30VDC			
<b>No-load current</b>	40 mA			
<b>Number of switching outputs</b>	2			
<b>Type of switching output</b>	PNP/NPN			
<b>Switching frequency</b>	50 Hz			
<b>Rated switching current</b>	250 mA			
<b>Type of switching function</b>	Programmable/configurable			
<b>Type of alarm output</b>	PNP			
<b>Type of analog output</b>	0 - 10V   0 - 20mA   0 - 5V   4 - 20mA			
<b>Number of analog output channels</b>	1			
<b>ardTEEL_Schutzfunktionen</b>	Reverse polarity protection   Short circuit protection			
<b>Relative linearity deviation</b>	0.25 %	0.25 %	0.25 %	0.5 %
<b>Relative repeat accuracy</b>	0.15 %			
<b>Relative measurement accuracy</b>	0.5 %	0.5 %	0.5 %	0.15 %
<b>Temperature drift over entire measuring range</b>	1 %			
<b>Long-term drift per year</b>	0.3 %			
<b>Medium temperature</b>	-20 - 80 °C			
<b>Ambient temperature</b>	-20 - 80 °C			
<b>Display</b>	TFT display			
<b>Measuring display</b>	Relative			
<b>Setting procedure</b>	Parameterization			
<b>Response/decay time</b>	10 ms			
<b>Readiness delay</b>	2000 ms			
<b>ardTEEL_Lebensdauer</b>	10 Millionen Lastwechsel			
<b>IO-Link version</b>	V1.1.4			

Article No.	DW513104	DW513105	DW513106	DW513107
				
<b>Design</b>	Cylinder plain			
<b>Housing material</b>	Plastic PC			
<b>ardSOCA_Abmessungen</b>	Ø38mm, 132mm long			
<b>Degree of protection (IP)</b>	IP67			
<b>Measuring range pressure</b>	0 - 100 bar	0 - 250 bar	0 - 400 bar	0 - 600 bar
<b>Max. operating pressure</b>	300 bar	375 bar	600 bar	900 bar
<b>Measurement method</b>	Absolute			
<b>Type of process connection</b>	G1/4 inch inside			
<b>ardTEME_WerkstoffDesProzessa</b>	Edelstahl 1.4305			
<b>ardTEME_WerkstoffDerMesszelle</b>	Stainless steel 1.4404			
<b>ardSOCA_ElektrischerAnschluss</b>	M12 4-pin plug connector			
<b>ardSOCA_Betriebsspannung</b>	12-30VDC			
<b>No-load current</b>	40 mA			
<b>Number of switching outputs</b>	2			
<b>Type of switching output</b>	PNP/NPN			
<b>Switching frequency</b>	50 Hz			
<b>Rated switching current</b>	250 mA			
<b>Type of switching function</b>	Programmable/configurable			
<b>Type of alarm output</b>	PNP			
<b>Type of analog output</b>	0 - 10V   0 - 20mA   0 - 5V   4 - 20mA			
<b>Number of analog output channels</b>	1			
<b>ardTEEL_Schutzfunktionen</b>	Reverse polarity protection   Short circuit protection			
<b>Relative linearity deviation</b>	0.25 %			
<b>Relative repeat accuracy</b>	0.15 %	0.15 %	0.15 %	0.25 %
<b>Relative measurement accuracy</b>	0.5 %			
<b>Temperature drift over entire measuring range</b>	1 %			
<b>Long-term drift per year</b>	0.3 %			
<b>Medium temperature</b>	-20 - 80 °C			
<b>Ambient temperature</b>	-20 - 80 °C			
<b>Display</b>	TFT display			
<b>Measuring display</b>	Relative			
<b>Setting procedure</b>	Parameterization			
<b>Response/decay time</b>	10 ms			
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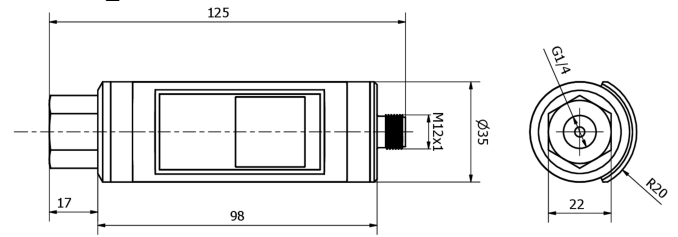
**Connection**



Maßbild\_DW513105, DW513106 und DW513107



Maßbild\_DW51310x



**Extract accessories program**

**VK505321**

Connection cable, 5m, M12  
Female (socket) 4pin Angular, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø5.5mm, 250V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicon...

**VK505325**

Connection cable, 5m, M12  
Female (socket) 4pin Straight, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø5.5mm, 250V, -25-90°C, IP67, Shielded, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silico...

**VY000005**

IO-Link master, 41x24x67mm, IO-Link, M12, With USB interface

You can find further accessories on our homepage



**Installation**

Mounting / installation may only be carried out by a qualified electrician!



**Disposal**

WEEE number according to § 6 para. 3  
ElektroG: 40951076

**Safety warnings**

/ Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

/ Never use these devices in applications where the safety of a person depends on their functionality.