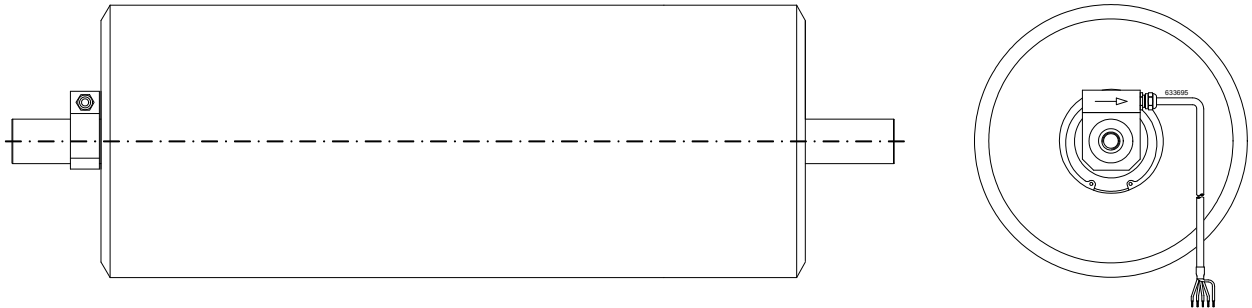


Sensor Roll - SW

Precision web tension measurement online



The **sensor roll** with integrated force measurement can be installed just like a standard web guide roll (see Inometa) without major mechanical modifications.

The **sensor roll** provides two functions at once:

- measurement of tension in the web
- guiding and reserving the product web

The **sensor roll** is checked and assembled ready for installation.

➔ for the customer the complicated installation of electromechanical and mechanical components is reduced to a minimum.

Special Features:

- easy mounting with tapped hole on the face of the shaft ends
- easy-turning roller bearings with lifetime lubrication
- floating and fixed bearing construction with contactless labyrinth seal
- precision dynamic balancing as per VDI 2060
- robust, efficient overload protection by mechanical fixed stop
- custom specific dimensions and rated measurement ranges available
- every coating and geometric structure of the roll surface available - just like standard web guide rolls

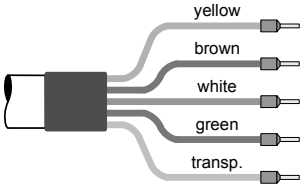
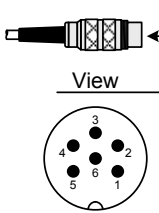
Technical Data

Type of sensor	Sensor roll - SW	
Rated measuring ranges available (F_N) - construction size BG1 - construction size BG2 - construction size BG3	N	0 - 20 to 0 - 4000 Construction size and nominal force are depending on the customers application
Rated output	mV/V	1,5
Rated output tolerance	%	< $\pm 0,2$
Accuracy class		0,5
Excitation voltage max.	V	12
Reference excitation voltage	V	10
Input resistance	Ω	175 ± 3
Output resistance	Ω	175 ± 1
Isolation resistance	G Ω	> 10
Rated temperature range	$^{\circ}\text{C}$	+5 to +50, Option: -10 to +70
Operational temperature range		
- sensor	$^{\circ}\text{C}$	-10 to +70
- connection cable	$^{\circ}\text{C}$	-30 to +80
Storage temperature range	$^{\circ}\text{C}$	-30 to +70
Reference temperature	$^{\circ}\text{C}$	+23
Temperature influence per 10 $^{\circ}\text{C}$		
- on the zero point	% F_N	< $\pm 0,1$
- on the calibration	% F_N	< $\pm 0,15$
Creep after 30 minutes	% F_N	< $\pm 0,05$
Linear output signal up to	% F_N	approx. 120
Mech. overload protection takes effect at	% F_N	approx. 130
Overload protected ¹	% F_N	300 to 500, depending on nominal force and construction size
Ultimate side load	% F_N	200 to 400, depending on nominal force and construction size
Typ. deflection at nominal force	mm	$0,07 \pm 20\%$
Weight	g	depending on construction size and design
Connection cable		robust, flexible, shielded 4 x 0,38mm ² , cable diameter 5,6mm, 5m long, open ends with splices, sheath special PVC
- capacity (at 1kHz, shield grounded)	pF/m	$190 \pm 20\%$
System of protection		IP 50

¹ radial incoming force without additional bending or tilting moment

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Connections

Standard: connection type „O“	Option: connection type „S“
 yellow brown white green transp. + U_{Br} - U_{Br} + U_{Sig} - U_{Sig} Shield (not connected to housing) Excitation Output	 1 + U_{Br} 2 - U_{Br} 3 Shield (not connected to housing) 4 + U_{Sig} 5 - U_{Sig} 6 Reserved Excitation Output

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Technical execution subject to change without prior notice.
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Dimensions

