

DRAW WIRE SENSOR



SXM30 SERIES

Key-Features:

- Measurement ranges from 150 to 750 mm
- Economy version for ranges 500 and 750 mm
- Output: potentiometer 1 k Ω , 5 k Ω or 10 k Ω
- Linearity up to $\pm 0.1\%$ of full scale
- Protection class up to IP50
- Temperature range: -40...+80 °C
- Compact, perfect for medical application

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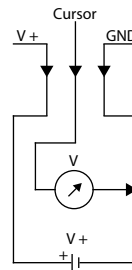
TECHNICAL DATA

		Economy version		Standard version					
		500	750	150	215	250	375	500	750
Measurement range MR	[mm]	500	750	150	215	250	375	500	750
Linearity	[%]	±0.25		±0.2				±0.1	
Resolution		see output types below							
Sensor element		Wirewound Potentiometer		Hybrid Potentiometer					
Connection		solder terminals							
Protection class		IP40		IP50				IP40	
Temperature		see output types below							
Mechanical data		extraction force, max. velocity and max. acceleration see „Mechanical Data“							
Housing		glass fibre reinforced PA							
Draw wire		stainless steel V4A with synthetic coating Ø 0.36 mm (optional: Coramid)							
Weight	[g]	approx. 50							

ELECTRICAL DATA

	Economy version		Standard version	
	1RE	1R	5R	10R
Order code	1RE	1R	5R	10R
Output	1 kΩ	1 kΩ	5 kΩ	10 kΩ
Supply	max. 30 V			
Recommended cursor current	<1 μA			
Resolution	0.03 %	theoretically unlimited, limited by the noise		
Noise	depends on the quality of the power supply			
Operating temperature	-20...+80 °C		-40...+80 °C	
Temperature coefficient	±0.0025 %/K			

Circuit



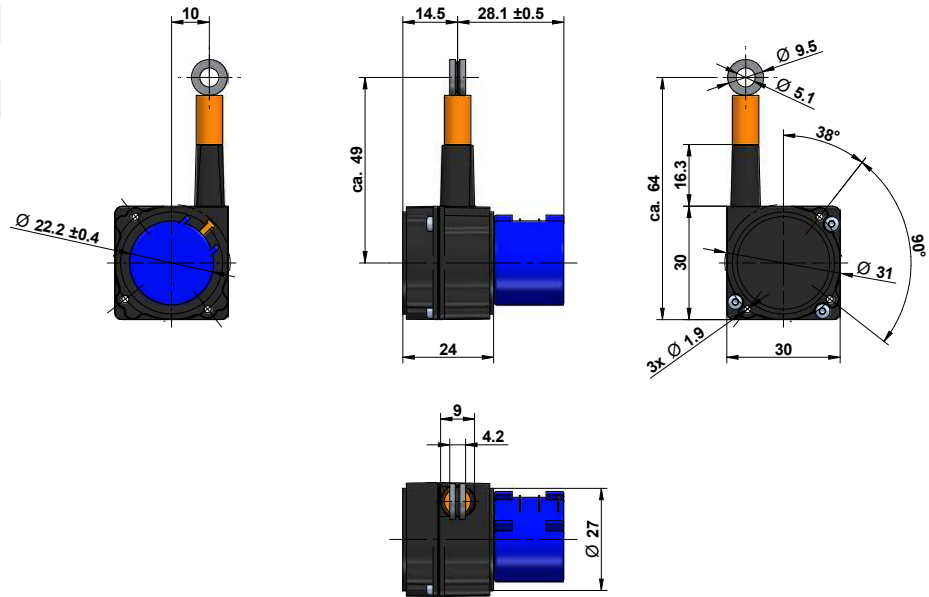
MECHANICAL DATA

Measurement range [mm]	Extraction force		Retraction force		Speed V _{max} [m/s]	Acceleration Ø a _Ø [m/s ²]
	F _{min} [N]	F _{max} [N]	F _{min} [N]	F _{max} [N]		
150	1.4	2.7	1.3	1.8	3	50
215	1.1	2	0.9	1.5	4	50
250	1.7	2.8	1.3	1.9	4	50
375	1.1	2	0.9	1.3	5	50
500	1.6	3	1.2	2.4	6	50
750	1.1	2.3	0.9	1.4	7	50

TECHNICAL DRAWING

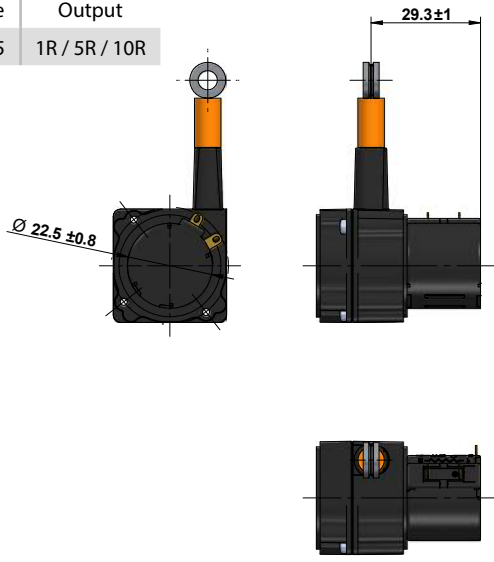
Economy version

Measurement range	Output
500 / 750	1RE



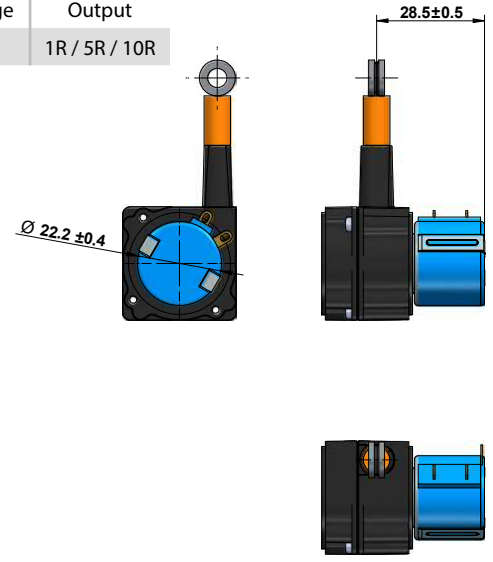
Standard version

Measurement range	Output
150 / 215 / 250 / 375	1R / 5R / 10R

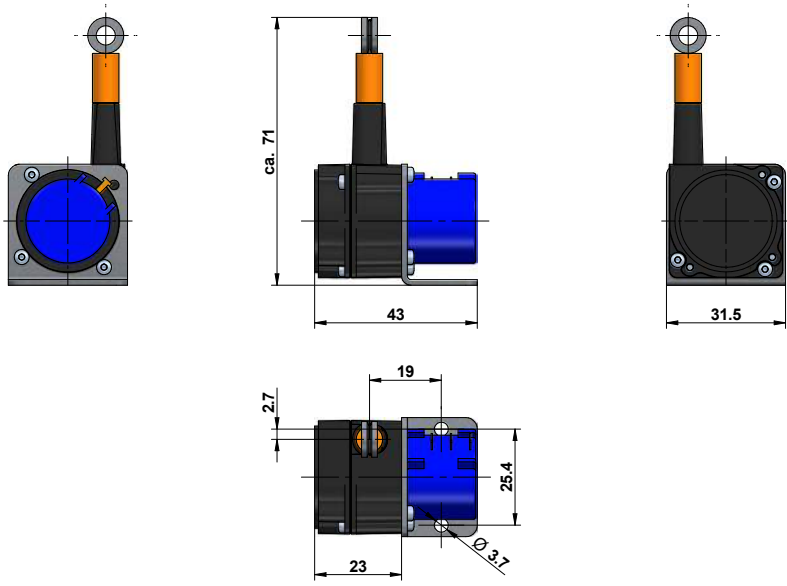


Standard version

Measurement range	Output
500 / 750	1R / 5R / 10R



Mounting bracket BW-SXM30



ORDER CODE

SXM30 - - - LF -

Measurement range MR [mm] 150 / 215 / 250 / 375 / 500 / 750	<input type="checkbox"/>
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Output signal economy version Potentiometer 1 kΩ ¹⁾	1RE
Output signal standard version Potentiometer 1 kΩ Potentiometer 5 kΩ Potentiometer 10 kΩ	1R 5R 10R

Version Standard Sensor with options	- O
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Option	Description (see page 4)
COR	Synthetic wire rope (Coramid)
DS	Rope clip with drill protection
M4	Rope fixation M4
ZH	Cylindrical pin
ZR	Cylindrical pin with carbine ring

¹⁾ **Economy version:** 500 mm or 750 mm only

Bold text: standard with shorter lead time

ACCESSORIES

UR2	deflection pulley
MGG1	magnetic clamp
BW-SXM30	mounting bracket, holding plate, 2x screw

SV1-XXXX	rope extension (150 mm up to 4995 mm)
SV2-XXXX	rope extension (5000 mm up to 19995 mm)
SV3-XXXX	rope extension (20000 mm up to 40000 mm)

Digital displays for sensors with analog output, 2 channel	
WAY-AX-S	touch screen, supply: 18...30 VDC
WAY-AX-AC	touch screen, supply: 115...230 VAC

Signal conditioner	
PMX-24	Output signals: 4...20 mA, 0...10 V, 0...5 V, ±10 V, ±5 V

For more information and options please refer to the [WAY-AX data sheet](#).

For more information and options please refer to the [PMX-24 data sheet](#).

Subject to change without prior notice.