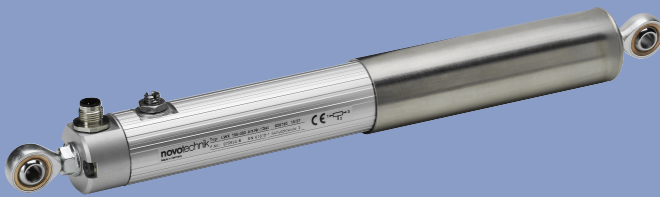


Position Transducers up to 750 mm

Series LWX,
Model 002
Shaft protected



Special features

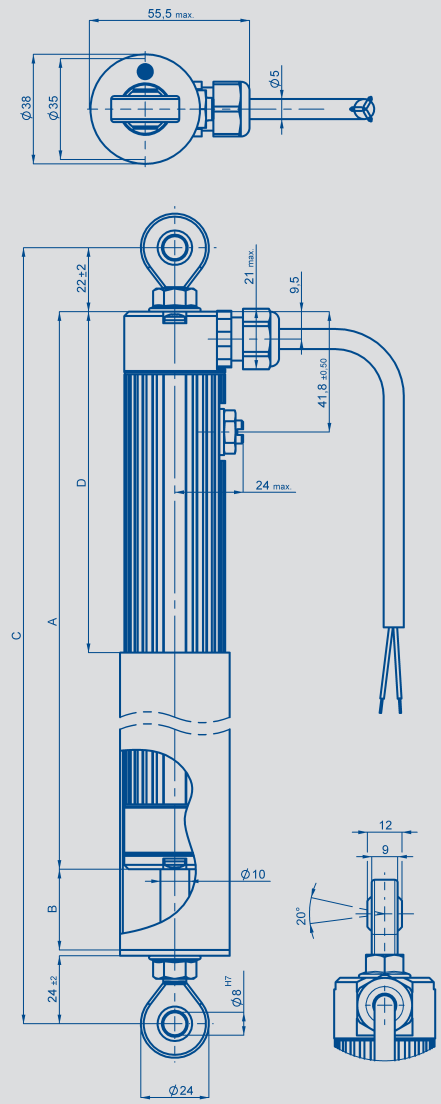
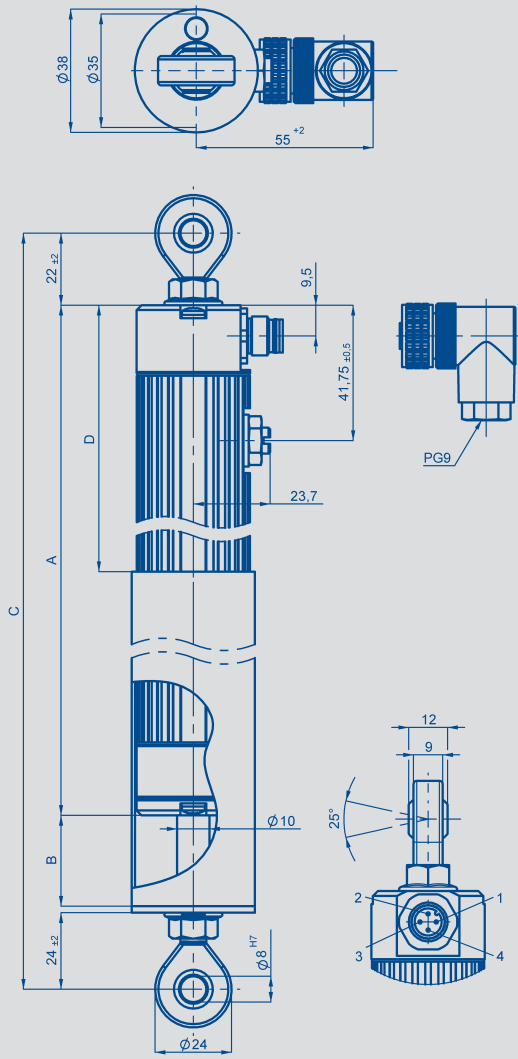
- protection class IP 67
- all-metal housing
- corrosion resistant
- patented differential pressure compensation system compensates for pump effect of push rod movement
- shaft protected
- high vibration resistance
- can withstand oil and water environments
- twin-bearing actuating rod
- mountable over back-lash free pivot heads with a large angle of free movement (up $\pm 12.5\%$)
- outstanding linearity
- resolution better than 0.01 mm
- life (depending on application) up to 50 million movements
- cable connection on request
- version IP65 see data sheet LWG
- non-shaft protected version see data sheet LWX, model 001

Designed for extreme operating environments, the LWX series features all-metal construction and patented pressure equalization technology to prevent buildup that could degrade operation in mechanical, vehicle, automation and robotic applications where an extended operating life is essential.

These rugged position transducers provide direct, absolute measurement of displacement or length. A free-pivot-head mounted on the actuating rod eliminates backlash guaranteeing high accuracy.

Description

Housing	aluminium, anodized
Fixings	see drawing
Actuator	stainless steel, rotatable
Bearings	sleeve bearing
Resistance element	conductive plastic
Wiper assembly	precious metal multi-finger wiper, elastomer damped
Electrical connections	4-pin round connector, M12x1, IP 67 for suitable cables diameter 6...8 mm, max. 0.75 mm ² 3-pin cable, shielded 1 m long



Type designations	LWX 50	LWX 75	LWX 100	LWX 150	LWX 175	LWX 225	LWX 250	LWX 300	LWX 360	LWX 450	LWX 500	LWX 600	LWX 750	
Electrical Data														
Defined electrical range	50	75	100	150	175	225	250	300	360	450	500	600	750	mm
Electrical stroke	52	77	102	152	178	228	254	304	366	457	508	610	762	mm
Nominal resistance	2	3	3	5	5	5	5	5	5	5	5	5	10	kΩ
Resistance toleranz	20													±%
Independent linearity	0.2	0.1	0.1	0.08	0.07	0.07	0.07	0.06	0.05	0.05	0.05	0.05	0.04	%
Repeatability	0.01													mm
Recommended operating wiper current	≤ 1													μA
Max. wiper current in case of malfunction	10													mA
Max. permissible applied voltage	42													V
Effective temperature coefficient of the output-to-applied voltage ration	typical 5													ppm/K
Insulation resistance (500 VDC, 1 bar, 2 s)	≥10													MΩ
Dielectric strength (50 Hz, 2 s, 1 bar, 500 VAC)	≤100													μA
Mechanical Data														
Body length (dimension A)	176	201	227	277	303	354	379	430	505	619	684	810	994	±2 mm
Mechanical stroke (dimension B)	54	79	105	155	181	231	257	307	368	460	510	612	764	±2 mm
Minimum distance between pivot heads, nominal (dimension C)	224	249	275	325	351	402	427	478	553	667	732	858	1042	mm
Open housing area (dimension D)	84	90	90	90	90	91	90	91	105	127	142	166	198	±2 mm
Weight with connector approx.	489	556	623	757	824	958	1025	1159	1353	1594	1728	1996	2398	g
Operating force horizontal	typical 50													N
vertical	typical 50													N

Environmental Data		
Temperature range	-30...+100	°C
Operating humidity range	0... 95 (no condensation)	% R.H.
Vibration	5...2000 A _{max} = 0,75 a _{max} = 20	Hz mm g
Shock	50 11	g ms
Life	> 50 x 10 ⁶ (typical)	movem.
Operating speed	5	m/s max.
Protection class	IP 67 (DIN EN 60529), also dynamic	

Order designations	
Type	Art.no.
LWX 0050-001	026150
LWX 0075-001	026151
LWX 0100-001	026152
LWX 0150-001	026154
LWX 0175-001	026155
LWX 0225-001	026157
LWX 0250-001	026158
LWX 0300-001	026160
LWX 0360-001	026162
LWX 0450-001	026166
LWX 0500-001	026168
LWX 0600-001	026172
LWX 0750-001	026178

Order designations	
Type	Art.no.
LWX 0050-001-201	026250
LWX 0075-001-201	026251
LWX 0100-001-201	026252
LWX 0150-001-201	026254
LWX 0175-001-201	026255
LWX 0225-001-201	026257
LWX 0250-001-201	026258
LWX 0300-001-201	026260
LWX 0360-001-201	026262
LWX 0450-001-201	026266
LWX 0500-001-201	026268
LWX 0600-001-201	026272
LWX 0750-001-201	026278

Important

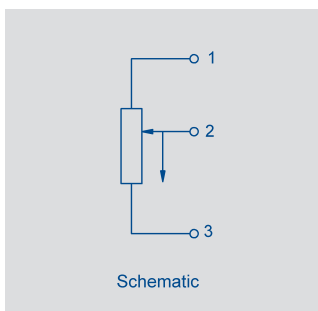
All values specified in this data sheet for linearity, lifetime and temperature coefficient are only valid for a sensor used as a voltage divider with virtually no load applied to the wiper ($I_e \leq 1 \mu A$).

Included in delivery

1 round connector,
Art.No. 515532

Recommended accessories

Process-controlled indicators
MAP... with display,
Signal conditioner MUP.../
MUK ... for standardized out-
put signals.



Signal conditioner MUP

	GUEMISA (Electrónica Guerra y Miró Guemisa S.L.)
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	Tlfn.: (034) 91 764 21 00 Fax.: (034) 91 764 21 32
	Email.: ventas@guemisa.com Web.: www.guemisa.com