



Analog Linear Displacement Sensor



QUICK REFERENCE DATA							
Sensor type	LINEAR, conductive plastic						
Output type	Output by cable						
Market appliance	Industrial						
Dimensions	35 mm						

FEATURES





- Anodized light alloy housing
- Precious metal multi-contact wiper
- Stainless steel floating shaft
- Flange mounting
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

ELECTRICAL SPECIFIC	CATIO	NS										
PARAMETER												
Theoretical electrical travel (TET)	UET - 0 mm + 2 mm										
Independent linearity standard						± 0	.1 %					
Independent linearity optional						± 0.	05 %					
Tolerance on R _n						± 2	20 %					
Temperature coefficient		-300 ± 300 ppm/°C										
Wiper current		≤ 1 mA										
Recommended load impedance	≥ 1000 R _n											
Dielectric strength	500 V _{RMS} , 50 Hz, 1 min											
Insulation resistance	≥ 10 GΩ at 500 V _{DC}											
Output smoothness	≤ 0.05 %											
Useful electrical travel (UET)	100 mm 150 mm 200 mm 250 mm 300 mm 400 mm 500 mm 600 mm 700 mm 800 mm 900 mm 100						1000 mm					
Total resistance R _n (E3 series)	4.7 kΩ	4.7 kΩ	4.7 kΩ	4.7 kΩ	4.7 kΩ	10 kΩ	10 kΩ	22 kΩ	22 kΩ	47 kΩ	47 kΩ	47 kΩ
Power rating at +70 °C (0.15 W/cm of travel)	1.5 W	2.25 W	3 W	3.75 W	4.5 W	6 W	7.5 W	9 W	10.5 W	12 W	13.5 W	15 W

SPECIFIC CHARACTERISTICS							
PARAMETER							
Shaft version	F = floating						
	G = guided (on request)						
Connector output	S = standard (straight plug)						
Connector output	C = with right angle plug (on request)						
Cable output	A = axial cable sheath (on request)						
	R = radial cable (on request)						

MECHANICAL SPECIFICATIONS													
PARAMETER													
Mechanical	travel		UET + 3 mm min.										
Driving force		≤ 5 N in F version (floating shaft)											
Driving force	≤ 10 N in G version (guided shaft)												
Backlash							< 1	0 μm					
Drotootion o	Protection class		IP 50 in F version (floating shaft)										
Protection C	lass	IP 64 in G version (guided shaft)											
Maximum d	displacement speed 1.5 m/s												
Shaft / body	ft / body misalignment ≤ ± 0.5 mm in F version												
Mounting Flanges													
Useful elect	100 mm	150 mm	200 mm	250 mm	300 mm	400 mm	500 mm	600 mm	700 mm	800 mm	900 mm	1000 mm	
Weight	Shaft + wiper	46 g	56 g	67 g	78 g	89 g	110 g	131 g	153 g	175 g	196 g	220 g	240 g
	Sensor	450 g	540 g	620 g	720 g	800 g	970 g	1140 g	1320 g	1490 g	1660 g	1830 g	2000 g

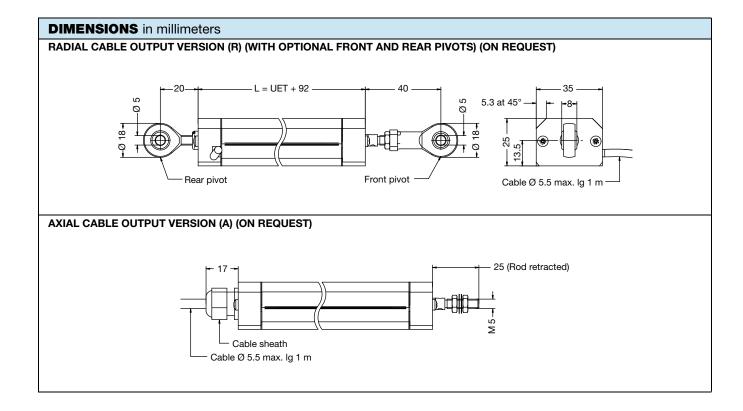


PERFORMANCE							
PARAMETER							
Operating temperature range	-40 °C to +105 °C						
Storage temperature range	-55 °C to +125 °C						
Life	20M operations for UET ≤ 250 mm						
	10M operations for 250 < UET ≤ 600 mm						
	5M operations for UET < 600 mm						

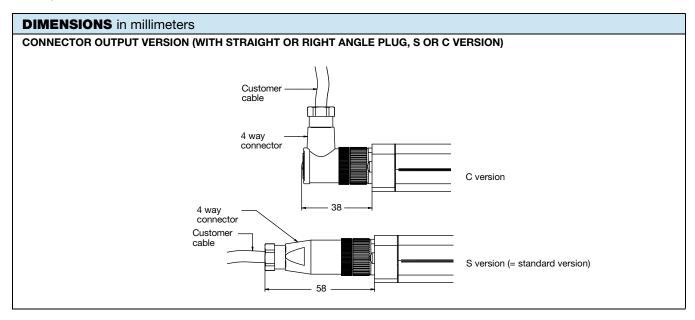
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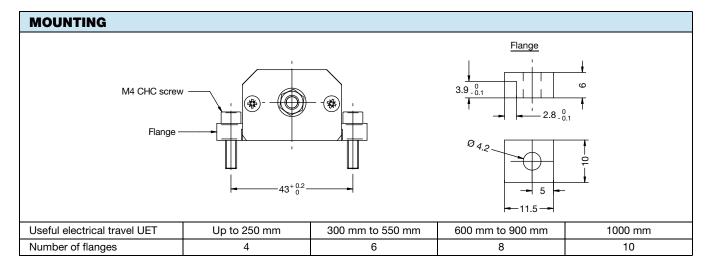
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SAP PART NUMBERING GUIDELINES											
MODEL	USEFUL ELECTRICAL TRAVEL (mm)	SHAFT VERSION	VALUE	LINEARITY	LEADS	PACKAGING					
RH28	0025	F = floating shaft	472 = 4K7	D = 0.1 %	S = standard	B = box					
	0050		103 = 10K		(straight plug)						
	0100		223 = 22K								
	0150		473 = 47K								
	0200										
	0250		In accordance								
	0300		with UET, see								
	0350		"Electrical								
	0400		Specifications"								
	0500										
	0600										
	0700										
	0800										
	0900										
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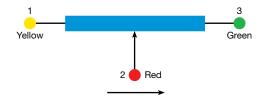








ELECTRICAL DIAGRAM



Direction of wiper displacement with shaft extended



BINDER 713 Series M12 connector (4 pin) for use with a 3 mm to 6 mm diameter cable Soldering contacts for 0.75 mm² max. wires

OPTIONS (on request)

- Independent linearity ± 0.05 %
- 25 mm and 50 mm electrical travels
- Front pivot
- Rear pivot (with radial cable output only)



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