

Specifications

Rated operating distance (S_n)	Reference target: 1 mm metal rolled finish. EAD04: 100 x 100 mm EAD09 and EAD15: 200 x 200 mm	Operating frequency digital output (f)	
UA18EAD04	50 - 400 mm	UA18EAD04...	≤ 10 Hz
UA18EAD09	100 - 900 mm	UA18EAD09...	≤ 4 Hz
UA18EAD15	200 - 1500 mm	UA18EAD15...	≤ 1 Hz
Blind zone		Response time OFF-ON digital output (t_{ON})	
UA18EAD04...	≤ 50 mm	UA18EAD04...	≤ 50 mS
UA18EAD09...	≤ 100 mm	UA18EAD09...	≤ 125 mS
UA18EAD15...	≤ 200 mm	UA18EAD15...	≤ 500 mS
Repeatability	0.5%	Response time ON-OFF digital output (t_{OFF})	
Linear Accuracy	1%	UA18EAD04...	≤ 50 mS
Beam angle		UA18EAD09...	≤ 125 mS
UA18EAD04...	±10°	UA18EAD15...	≤ 500 mS
UA18EAD09...	±7°	Response time analog output	≤ 500 mS
UA18EAD15...	±7°	Power ON delay	≤ 500 mS
Sensitivity		Output function, open collector	
Push-button	P1 (farthest setpoint) P2 (nearest setpoint)	By sensor type	NPN or PNP
Resolution	1 mm	Output switching function	One open collector transistor and one analogue output to be configured as: Window function with N.O or N.C. output. Analogue output with positive or negative slope.
Temperature drift	0.1%/°C @ -20° to +60° C	Indication Output ON	Yellow LED
Temperature compensation	Yes	Environment	
Hysteresis (H)	Min. 1%	Installation category	III (IEC 60664/60664A; 60947-1)
Rated operational voltage (U_B)	15 to 30 VDC (ripple included)	Pollution degree	3 (IEC 60664/60664A; 60947-1)
Ripple (U_{pp})	≤ 5%	Degree of protection	IP67 (IEC 60529; 60947-1)
No-load supply current (I_o)		Ambient temperature	
UA18EAD04...	50 mA @ U _B max	Operating	-20° to +60°C (-4° to +140°F)
UA18EAD09...	50 mA @ U _B max	Storage	-35° to +70°C (-31° to +158°F)
UA18EAD15...	50 mA @ U _B max	Vibration	10 to 55 Hz, 1.0 mm/6g (IEC/EN 60068-2-6)
Output current continuous digital output (I_o)		Shock	30 g / 11 ms, 3 directions (IEC/EN 60068-2-27)
Max. load capacity 100 nF	100 mA	Rated insulation voltage	< 500 VAC (rms)
UL508 specification	100 mA	Housing	
Output current short-time digital output (I)		Material body	AISI 316L
Max. load capacity 100 nF	100 mA	Material front	Epoxy-glass resin
UL508 specification	100 mA	Material back, plug	Grilamid
Minimum operational current digital output (I_m)	0.5 mA	Material back, cable	Grilamid
OFF-state current digital output (I_o)	10 μA	Material trimmer	POM
Voltage drop digital output (U_d)	≤ 2.2 VDC @ I _g max.	Sealing around trimmer	TPE
Protection digital output	Short-circuit, overvoltage and reverse polarity	Material sealing front	
Output analog output		UA18EAD04...	TPE
NG.. or PG.. types	4 to 20 mA	UA18EAD09...	TPE
NK.. or PK.. types	0 to 10 VDC	UA18EAD15...	TPE
Load		Connection	
4 to 20 mA	max. 500 Ω	Cable	PVC, grey, 2 m, 4 x 0.32 mm ² , Ø = 4.7 mm
0 to 10 VDC	min. 3 kΩ	Plug	M12, 4-pin (CON. 14-series)
Carrier frequency		Tightening torque	≤ 50 Nm
UA18EAD04...	300 kHz		
UA18EAD09...	300 kHz		
UA18EAD15...	200 kHz		