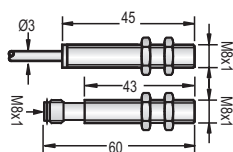
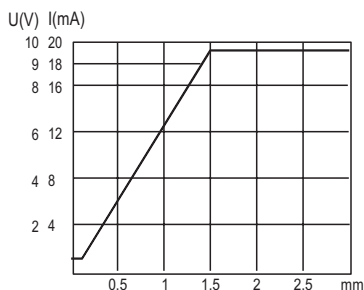


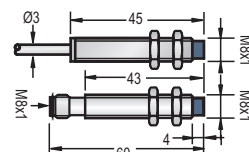
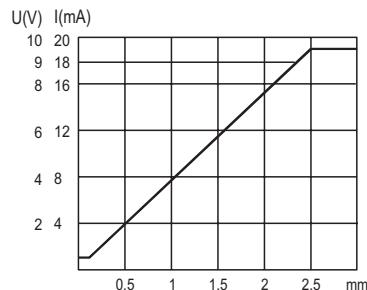


Features

- M8mm diameter
- 18-30VDC operating voltage
- Sn=0.1 ... 1.5mm, shielded
0.1 ... 2.5mm, non-shielded
- Brass housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- Cable version
- 4 Pin M12 connector version
- IP67 Protection



(Unit: mm)



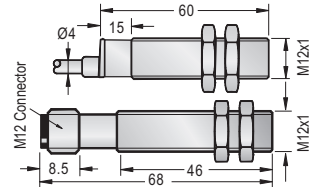
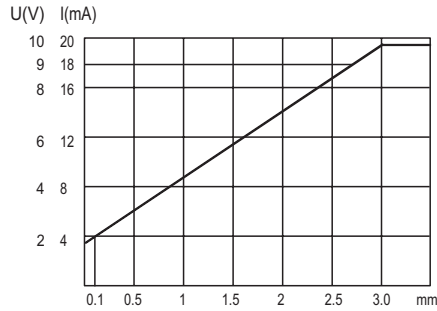
(Unit: mm)

Mounting	Shielded		Non-shielded	
	2m Cable	M8 Connector	2m Cable	M8 Connector
Connection	A5AE08L1.5A	A5AE08L1.5F	A5AF08L2.5A	A5AF08L2.5F
Current output	A5AE08L1.5A	A5AE08L1.5F	A5AF08L2.5A	A5AF08L2.5F
Voltage output	A5AE08V1.5A	A5AE08V1.5F	A5AF08V2.5A	A5AF08V2.5F
Voltage + Current Output	A5AE08M1.5A	A5AE08M1.5F	A5AF08M2.5A	A5AF08M2.5F
General Data				
Housing size	M8mm		M8mm	
Installation type	Shielded		Non-shielded	
Sensing distance(Sn: mm)	0.1 ... 1.5mm		0.1 ... 2.5mm	
Output signal	PNP-Analog		PNP-Analog	
Standard sensing object	Steel 8x8x1mm		Steel 8x8x1mm	
Linerity	5%		5%	
Hysteresis	/		/	
Housing material	Nickel plated brass		Nickel plated brass	
Operating voltage	18 ... 30VDC		18 ... 30VDC	
Electrical Data				
Rated operating voltage	24VDC		24VDC	
Repeated accuracy	0.02mm		0.02mm	
Ripple	<10%		<10%	
No load current	<35mA		<35mA	
Output voltage/Load resistor	0 ... 10VDC/>2kΩ		0 ... 10VDC/>2kΩ	
Output current/Load resistor	4 ... 20mA/<400Ω		4 ... 20mA/<400Ω	
Voltage drop电压降	/		/	
Switching frequency	<100Hz		<100Hz	
Response time	/		/	
Rated insulation voltage	75VDC		75VDC	
Operating temperature	-25°C ... +70°C		-25°C ... +70°C	
Storage temperature	-40°C ... +80°C		-40°C ... +80°C	
Temperature drift	<10%		<10%	
Power indicator	No		No	
Function indicator	No		No	
Reverse polarity protection	Yes		Yes	
Short-circuit protection	No		No	
Overload trip point	/		/	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4		Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	
Mechanical Data				
Sensing surface material	PBT		PBT	
Protection	IP67		IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms		Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.		55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2		IEC 60947-5-2	
Accessory	2 nuts		2 nuts	
Connection	2m PVC cable (Ø3 3/4x0.15mm ²), 3 Pin/4 Pin M8 connector		2m PVC cable (Ø3 3/4x0.15mm ²), 3 Pin/4 Pin M8 connector	
Weight	Approx. 40g/15g		Approx. 40g/15g	

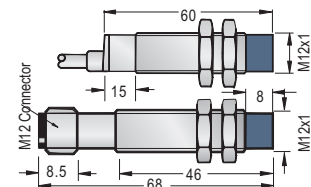
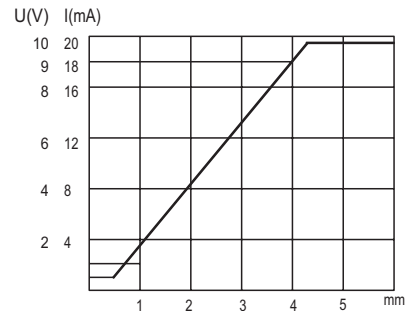


Features

- M12mm diameter
- 18-30VDC operating voltage
- $S_n=0.1 \dots 3.0\text{mm}$, shielded
0.1 ... 4.0mm, non-shielded
- Brass housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- Cable version
- 4 Pin M12 connector version
- IP67 Protection



(Unit: mm)



(Unit: mm)

Mounting	Shielded		Non-shielded	
	2m Cable	M12 Connector	2m Cable	M12 Connector
Connection	A5AE12L03A	A5AE12L03H	A5AF12L04A	A5AF12L04H
Current output	A5AE12L03A	A5AE12L03H	A5AF12L04A	A5AF12L04H
Voltage output	A5AE12V03A	A5AE12V03H	A5AF12V04A	A5AF12V04H
Voltage + Current Output	A5AE12M03A	A5AE12M03H	A5AF12M04A	A5AF12M04H
General Data				
Housing size	M12mm		M12mm	
Installation type	Shielded		Non-shielded	
Sensing distance(S_n : mm)	0.1 ... 3.0mm		0.1 ... 4.0mm	
Output signal	PNP-Analog		PNP-Analog	
Standard sensing object	Steel 12x12x1mm		Steel 12x12x1mm	
Linerity	5%		5%	
Hysteresis	/		/	
Housing material	Nickel plated brass		Nickel plated brass	
Operating voltage	18 ... 30VDC		18 ... 30VDC	
Electrical Data				
Rated operating voltage	24VDC		24VDC	
Repeated accuracy	0.02mm		0.02mm	
Ripple	<10%		<10%	
No load current	<35mA		<35mA	
Output voltage/Load resistor	0 ... 10VDC/>2k Ω		0 ... 10VDC/>2k Ω	
Output current/Load resistor	4 ... 20mA/<400 Ω		4 ... 20mA/<400 Ω	
Voltage drop电压降	/		/	
Switching frequency	<100Hz		<100Hz	
Response time	/		/	
Rated insulation voltage	75VDC		75VDC	
Operating temperature	-25°C ... +70°C		-25°C ... +70°C	
Storage temperature	-40°C ... +80°C		-40°C ... +80°C	
Temperature drift	<10%		<10%	
Power indicator	No		No	
Function indicator	No		No	
Reverse polarity protection	Yes		Yes	
Short-circuit protection	No		No	
Overload trip point	/		/	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4		Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	
Mechanical Data				
Sensing surface material	PBT		PBT	
Protection	IP67		IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms		Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.		55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2		IEC 60947-5-2	
Accessory	2 nuts		2 nuts	
Connection	2m PVC cable ($\varnothing 4$ 3/4x0.34mm ²), 4 Pin M12 connector		2m PVC cable ($\varnothing 4$ 3/4x0.34mm ²), 4 Pin M12 connector	
Weight	Approx. 67g/32g		Approx. 67g/32g	



Analog Output Inductive Proximity Sensors

Features

- M12mm diameter
- 18-30VDC operating voltage
- Sn=2.0 ... 6.0mm, shielded
- Brass housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- Cable version
- 4 Pin M12 connector version
- IP67 Protection

Distance l (mm)	Output Voltage U (V)
0	0
2	0
3	3
4	6
5	9
6	18
7	18
8	18
9	18
10	18

(Unit: mm)

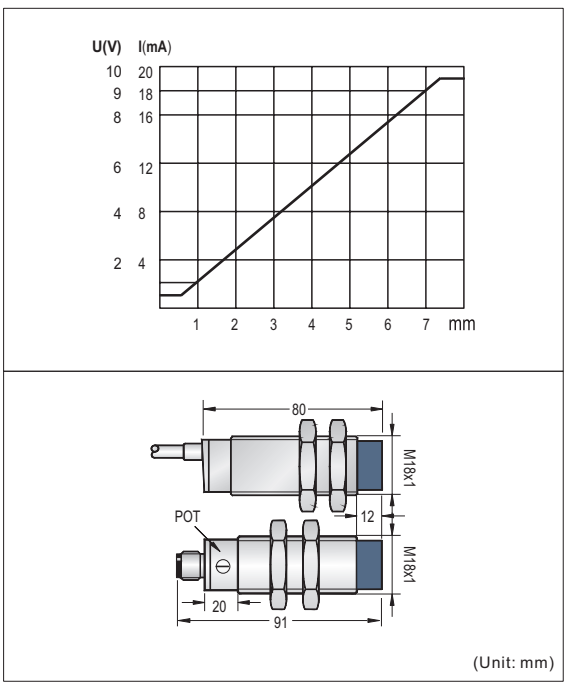
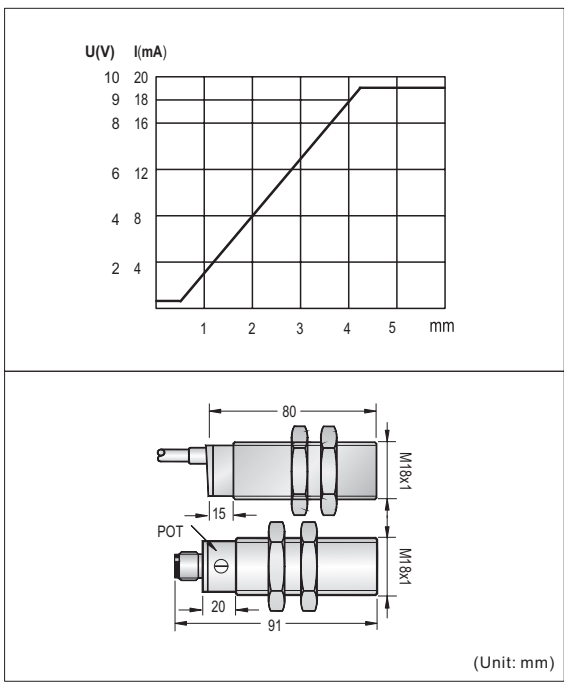
Mounting	Shielded	
Connection	2m Cable	M12 Connector
Current output	A5AE12L06A	A5AE12L06H
Voltage output	A5AE12V06A	A5AE12V06H
Voltage + Current Output	A5AE12M06A	A5AE12M06H
General Data		
Housing size	M12mm	
Installation type	Shielded	
Sensing distance(Sn: mm)	2.0 ... 6.0mm	
Output signal	PNP-Analog	
Standard sensing object	Steel 18x18x1mm	
Linerity	5%	
Hysteresis	/	
Housing material	Nickel plated brass	
Operating voltage	18 ... 30VDC	
Electrical Data		
Rated operating voltage	24VDC	
Repeated accuracy	0.02mm	
Ripple	<10%	
No load current	<35mA	
Output voltage/Load resistor	0 ... 10VDC/>2kΩ	
Output current/Load resistor	4 ... 20mA/<400Ω	
Voltage drop 电压降	/	
Switching frequency	<100Hz	
Response time	/	
Rated insulation voltage	75VDC	
Operating temperature	-25°C ... +70°C	
Storage temperature	-40°C ... +80°C	
Temperature drift	<10%	
Power indicator	No	
Function indicator	No	
Reverse polarity protection	Yes	
Short-circuit protection	No	
Overload trip point	/	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	
Mechanical Data		
Sensing surface material	PBT	
Protection	IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2	
Accessory	2 nuts	
Connection	2m PVC cable (Ø4 3/4x0.34mm ²), 4 Pin M12 connector	
Weight	Approx. 67g/32g	



Features

- M18mm diameter
- 18-30VDC operating voltage
- Sn=1.0 ... 4.0mm, shielded
1.0 ... 7.0mm, non-shielded
- Brass housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- Cable version
- 4 Pin M12 connector version
- IP67 Protection

CE



Mounting	Shielded		Non-shielded	
	2m Cable	M12 Connector	2m Cable	M12 Connector
Connection	A5AE18L04A	A5AE18L04H	A5AF18L07A	A5AF18L07H
Current output	A5AE18L04A	A5AE18L04H	A5AF18L07A	A5AF18L07H
Voltage output	A5AE18V04A	A5AE18V04H	A5AF18V07A	A5AF18V07H
Voltage + Current Output	A5AE18M04A	A5AE18M04H	A5AF18M07A	A5AF18M07H

General Data		
Housing size	M18mm	M12mm
Installation type	Shielded	Non-shielded
Sensing distance(Sn: mm)	1.0 ... 4.0mm	1.0 ... 7.0mm
Output signal	PNP-Analog	PNP-Analog
Standard sensing object	Steel 18x18x1mm	Steel 12x12x1mm
Linerity	5%	5%
Hysteresis	/	/
Housing material	Nickel plated brass	Nickel plated brass
Operating voltage	18 ... 30VDC	18 ... 30VDC

Electrical Data		
Rated operating voltage	24VDC	24VDC
Repeated accuracy	0.02mm	0.02mm
Ripple	<10%	<10%
No load current	<15mA	<15mA
Output voltage/Load resistor	0 ... 10VDC/>2kΩ	0 ... 10VDC/>2kΩ
Output current/Load resistor	4 ... 20mA/<400Ω	4 ... 20mA/<400Ω
Voltage drop电压降	/	/
Switching frequency	<100Hz	<100Hz
Response time	/	/
Rated insulation voltage	75VDC	75VDC
Operating temperature	-25°C ... +70°C	-25°C ... +70°C
Storage temperature	-40°C ... +80°C	-40°C ... +80°C
Temperature drift	<10%	<10%
Power indicator	No	No
Function indicator	No	No
Reverse polarity protection	Yes	Yes
Short-circuit protection	No	No
Overload trip point	/	/
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4

Mechanical Data		
Sensing surface material	PBT	PBT
Protection	IP67	IP67
Shock rating	Shock, half-sinus, 30gn, 11ms	Shock, half-sinus, 30gn, 11ms
Vibration rating	55Hz, 1mm ampl., 3x30min.	55Hz, 1mm ampl., 3x30min.
EMC	IEC 60947-5-2	IEC 60947-5-2
Accessory	2 nuts	2 nuts
Connection	2m PVC cable (Ø5 3/4x0.5mm ²), 4 Pin M12 connector	2m PVC cable (Ø5 3/4x0.5mm ²), 4 Pin M12 connector
Weight	Approx. 170g/58g	Approx. 170g/58g

Features

- M18mm diameter
- 18-30VDC operating voltage
- Sn=6.0 ... 12.0mm, shielded
- Brass housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- Cable version
- 4 Pin M12 connector version
- IP67 Protection

Sensing Distance (mm)	Output Voltage U(V)	Output Current I(mA)
6	1	2
9	4	8
12	10	20
14	10	20

(Unit: mm)

	Shielded	
Mounting	2m Cable	M12 Connector
Connection	A5AE18L12A	A5AE18L12H
Current output	A5AE18L12A	A5AE18L12H
Voltage output	A5AE18V12A	A5AE18V12H
Voltage + Current Output	A5AE18M12A	A5AE18M12H

General Data	
Housing size	M18mm
Installation type	Shielded
Sensing distance(Sn: mm)	6.0 ... 12.0mm
Output signal	PNP-Analog
Standard sensing object	Steel 36x36x1mm
Linearity	5%
Hysteresis	/
Housing material	Nickel plated brass
Operating voltage	18 ... 30VDC

Electrical Data	
Rated operating voltage	24VDC
Repeated accuracy	0.02mm
Ripple	<10%
No load current	<15mA
Output voltage/Load resistor	0 ... 10VDC/>2kΩ
Output current/Load resistor	4 ... 20mA/<400Ω
Voltage drop电压降	/
Switching frequency	<100Hz
Response time	/
Rated insulation voltage	75VDC
Operating temperature	-25°C ... +70°C
Storage temperature	-40°C ... +80°C
Temperature drift	<10%
Power indicator	No
Function indicator	No
Reverse polarity protection	Yes
Short-circuit protection	No
Overload trip point	/
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4

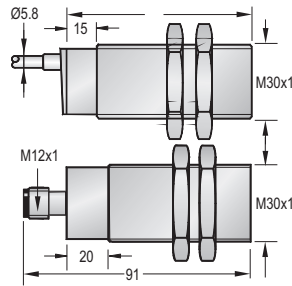
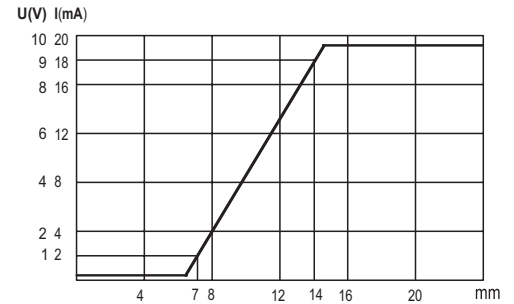
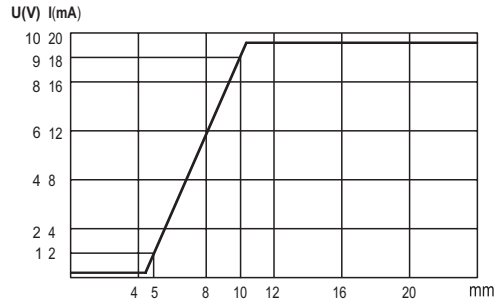
Mechanical Data	
Sensing surface material	PBT
Protection	IP67
Shock rating	Shock, half-sinus, 30gn, 11ms
Vibration rating	55Hz, 1mm ampl., 3x30min.
EMC	IEC 60947-5-2
Accessory	2 nuts
Connection	2m PVC cable (Ø5 3/4x0.5mm ²), 4 Pin M12 connector
Weight	Approx. 170g/58g



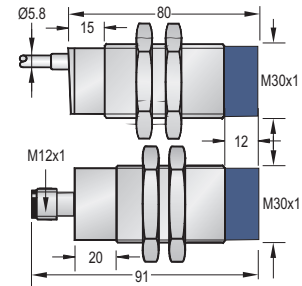
Analog Output Inductive Proximity Sensors

Features

- M30mm diameter
- 18-30VDC operating voltage
- Sn=5.0 ... 10.0mm, shielded
7.0 ... 14.0mm, non-shielded
- Brass housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- Cable version
- 4 Pin M12 connector version
- IP67 Protection



(Unit: mm)



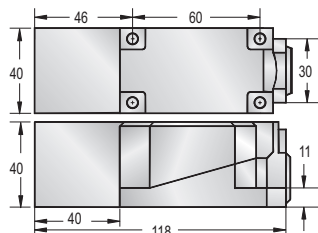
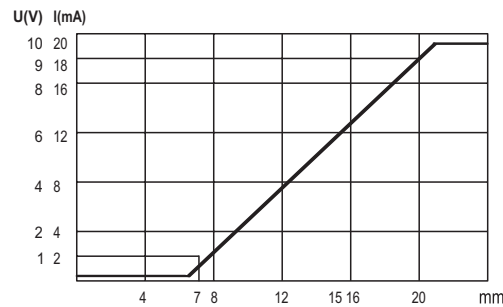
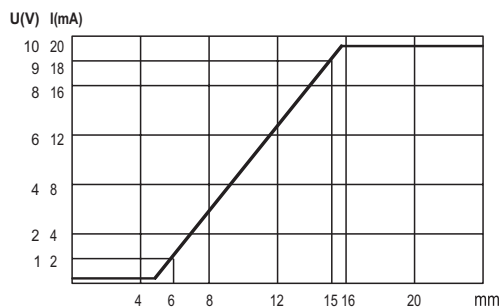
(Unit: mm)

Mounting	Shielded		Non-shielded	
	2m Cable	M12 Connector	2m Cable	M12 Connector
Connection	A5AE30L10A	A5AE30L10H	A5AF30L14A	A5AF30L14H
Current output	A5AE30L10A	A5AE30L10H	A5AF30L14A	A5AF30L14H
Voltage output	A5AE30M10A	A5AE30M10H	A5AF30M14A	A5AF30M14H
Voltage + Current Output	A5AE30M10A	A5AE30M10H	A5AF30M14A	A5AF30M14H
General Data				
Housing size	M30mm		M30mm	
Installation type	Shielded		Non-shielded	
Sensing distance(Sn: mm)	5.0 ... 10.0mm		7.0 ... 14.0mm	
Output signal	PNP-Analog		PNP-Analog	
Standard sensing object	Steel 30x30x1mm		Steel 52x52x1mm	
Linerity	5%		5%	
Hysteresis	/		/	
Housing material	Nickel plated brass		Nickel plated brass	
Operating voltage	18 ... 30VDC		18 ... 30VDC	
Electrical Data				
Rated operating voltage	24VDC		24VDC	
Repeated accuracy	0.02mm		0.02mm	
Ripple	<10%		<10%	
No load current	<15mA		<15mA	
Output voltage/Load resistor	0 ... 10VDC/>4.7kΩ		0 ... 10VDC/>4.7kΩ	
Output current/Load resistor	0 ... 20mA/<200Ω		0 ... 20mA/<200Ω	
Voltage drop电压降	/		/	
Switching frequency	<100Hz		<100Hz	
Response time	/		/	
Rated insulation voltage	75VDC		75VDC	
Operating temperature	-25°C ... +70°C		-25°C ... +70°C	
Storage temperature	-40°C ... +80°C		-40°C ... +80°C	
Temperature drift	<5%		<5%	
Power indicator	No		No	
Function indicator	No		No	
Reverse polarity protection	Yes		Yes	
Short-circuit protection	No		No	
Overload trip point	/		/	
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4		Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	
Mechanical Data				
Sensing surface material	PBT		PBT	
Protection	IP67		IP67	
Shock rating	Shock, half-sinus, 30gn, 11ms		Shock, half-sinus, 30gn, 11ms	
Vibration rating	55Hz, 1mm ampl., 3x30min.		55Hz, 1mm ampl., 3x30min.	
EMC	IEC 60947-5-2		IEC 60947-5-2	
Accessory	2 nuts		2 nuts	
Connection	2m PVC cable (Ø5.8 3/4x0.5mm ²), 4 Pin M12 connector		2m PVC cable (Ø5.8 3/4x0.5mm ²), 4 Pin M12 connector	
Weight	Approx. 252g/187g		Approx. 252g/187g	

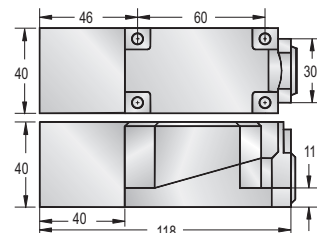


Features

- Q40x40mm diameter
- 18-30VDC operating voltage
- Sn=6.0 ... 15.0mm, shielded
7.0 ... 20.0mm, non-shielded
- PBT Resin housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- PG connector version
- IP67 Protection



(Unit: mm)



(Unit: mm)

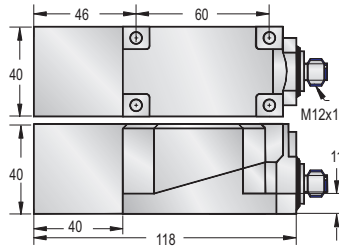
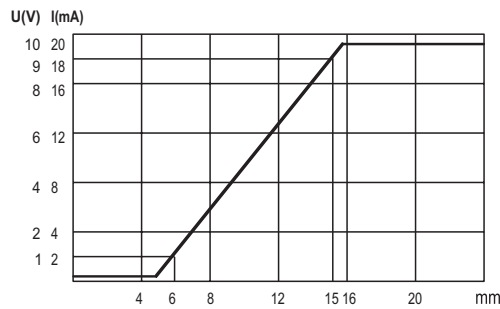
Mounting	Shielded	Non-shielded
Connection	Cable Terminal with PG Connector	Cable Terminal with PG Connector
Current output	A5EE40L15T	A5EF40L20T
Voltage output	A5EE40V15T	A5EF40V20T
Voltage + Current Output	A5EE40M15T	A5EF40M20T
General Data		
Housing size	Q40x40mm	Q40x40mm
Installation type	Shielded	Non-shielded
Sensing distance(Sn: mm)	6.0 ... 15.0mm	7.0 ... 20.0mm
Output signal	PNP-Analog	PNP-Analog
Standard sensing object	Steel 45x45x1mm	Steel 60x60x1mm
Linerity	5%	5%
Hysteresis	/	/
Housing material	PBT Resin	PBT Resin
Operating voltage	18 ... 30VDC	18 ... 30VDC
Electrical Data		
Rated operating voltage	24VDC	24VDC
Repeated accuracy	0.02mm	0.02mm
Ripple	<10%	<10%
No load current	<15mA	<15mA
Output voltage/Load resistor	0 ... 10VDC/>4.7kΩ	0 ... 10VDC/>4.7kΩ
Output current/Load resistor	0 ... 20mA/<200Ω	0 ... 20mA/<200Ω
Voltage drop电压降	/	/
Switching frequency	<100Hz	<100Hz
Response time	/	/
Rated insulation voltage	75VDC	75VDC
Operating temperature	-25°C ... +70°C	-25°C ... +70°C
Storage temperature	-40°C ... +80°C	-40°C ... +80°C
Temperature drift	<5%	<5%
Power indicator	No	No
Function indicator	No	No
Reverse polarity protection	Yes	Yes
Short-circuit protection	No	No
Overload trip point	/	/
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4
Mechanical Data		
Sensing surface material	PBT	PBT
Protection	IP67	IP67
Shock rating	Shock, half-sinus, 30gn, 11ms	Shock, half-sinus, 30gn, 11ms
Vibration rating	55Hz, 1mm ampl., 3x30min.	55Hz, 1mm ampl., 3x30min.
EMC	IEC 60947-5-2	IEC 60947-5-2
Accessory	/	/
Connection	Cable terminal with PG connector	Cable terminal with PG connector
Weight	Approx. 262g	Approx. 262g



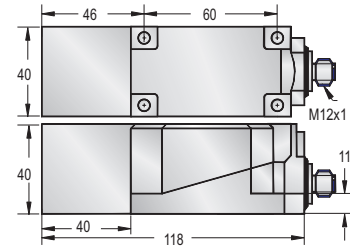
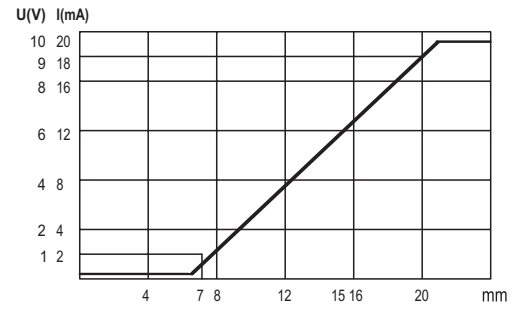
Analog Output Inductive Proximity Sensors

Features

- Q40x40mm diameter
- 18-30VDC operating voltage
- Sn=6.0 ... 15.0mm, shielded
7.0 ... 20.0mm, non-shielded
- PBT Resin housing case
- PNP-Analog Output Signal
- Voltage output
- Current output
- Current + Voltage output
- 4 Pin M12 connector version
- IP67 Protection



(Unit: mm)



(Unit: mm)

	Shielded	Non-shielded
Mounting		
Connection	M12 Connector	M12 Connector
Current output	A5EE40L15H	A5EF40L20H
Voltage output	A5EE40V15H	A5EF40V20H
Voltage + Current Output	A5EE40M15H	A5EF40M20H
General Data		
Housing size	Q40x40mm	Q40x40mm
Installation type	Shielded	Non-shielded
Sensing distance(Sn: mm)	6.0 ... 15.0mm	7.0 ... 20.0mm
Output signal	PNP-Analog	PNP-Analog
Standard sensing object	Steel 45x45x1mm	Steel 60x60x1mm
Linerity	5%	5%
Hysteresis	/	/
Housing material	PBT Resin	PBT Resin
Operating voltage	18 ... 30VDC	18 ... 30VDC
Electrical Data		
Rated operating voltage	24VDC	24VDC
Repeated accuracy	0.02mm	0.02mm
Ripple	<10%	<10%
No load current	<15mA	<15mA
Output voltage/Load resistor	0 ... 10VDC/>4.7kΩ	0 ... 10VDC/>4.7kΩ
Output current/Load resistor	0 ... 20mA/<200Ω	0 ... 20mA/<200Ω
Voltage drop电压降	/	/
Switching frequency	<100Hz	<100Hz
Response time	/	/
Rated insulation voltage	75VDC	75VDC
Operating temperature	-25°C ... +70°C	-25°C ... +70°C
Storage temperature	-40°C ... +80°C	-40°C ... +80°C
Temperature drift	<5%	<5%
Power indicator	No	No
Function indicator	No	No
Reverse polarity protection	Yes	Yes
Short-circuit protection	No	No
Overload trip point	/	/
Correction factors	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4	Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/ Al. Approx. 0.45/ copper approx. 0.4
Mechanical Data		
Sensing surface material	PBT	PBT
Protection	IP67	IP67
Shock rating	Shock, half-sinus, 30gn, 11ms	Shock, half-sinus, 30gn, 11ms
Vibration rating	55Hz, 1mm ampl., 3x30min.	55Hz, 1mm ampl., 3x30min.
EMC	IEC 60947-5-2	IEC 60947-5-2
Accessory	/	/
Connection	Euro-style 4 Pin M12 connector	Euro-style 4 Pin M12 connector
Weight	Approx. 290g	Approx. 290g