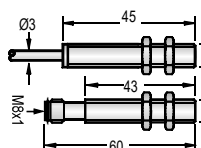
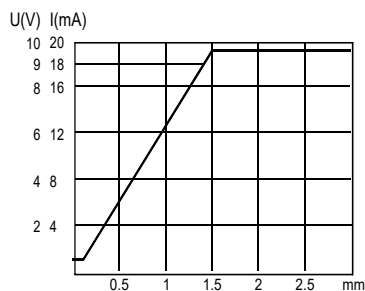


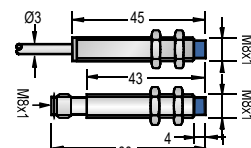
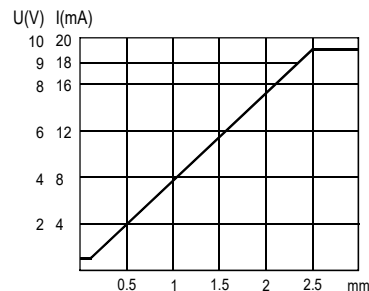


**Features**

- 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  
3 Pin M8 connector version
- IP67 Protection



(Unit: mm)



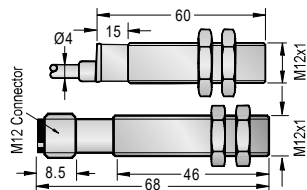
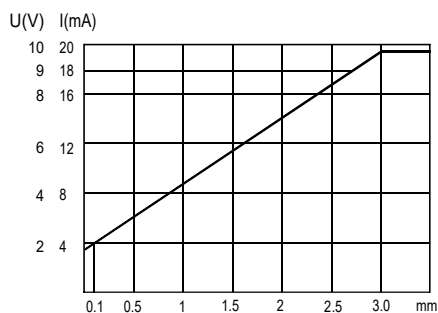
(Unit: mm)

| Mounting                     | Shielded   |              | Non-shielded   |              |
|------------------------------|--|--------------|--|--------------|
| Connection                   | 2m Cable   | M8 Connector | 2m Cable   | M8 Connector |
| 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                 | /  |              | /  |              |
| 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/<br>Al. Approx. 0.45/ copper approx. 0.4 |              | Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/<br>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 <sup>2</sup> ), 3 Pin/4 Pin M8 connector                                 |              | 2m PVC cable (Ø3 3/4x0.15mm <sup>2</sup> ), 3 Pin/4 Pin M8 connector                                 |              |
| Weight                       | Approx. 40g/15g  |              | Approx. 40g/15g  |              |

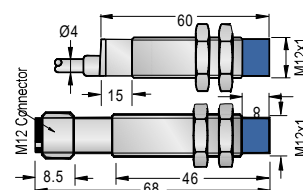
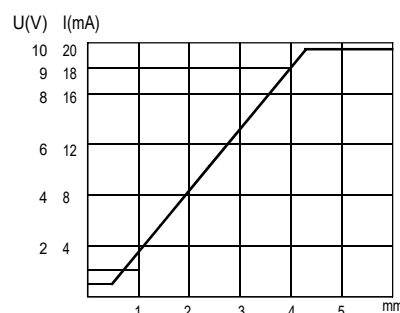


**Features**

- M12mm diameter
- 18-30VDC operating voltage
- Sn=0.1 ... 3.0mm, 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 |
| Current output           | A5AE12L03A | A5AE12L03H    | A5AF12L04A   | A5AF12L04H    |
| Voltage output           | A5AE12V03A | A5AE12V03H    | A5AF12V04A   | A5AF12V04H    |
| Voltage + Current Output | A5AE12M03A | A5AE12M03H    | A5AF12M04A   | A5AF12M04H    |

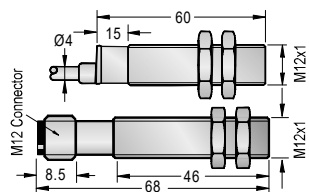
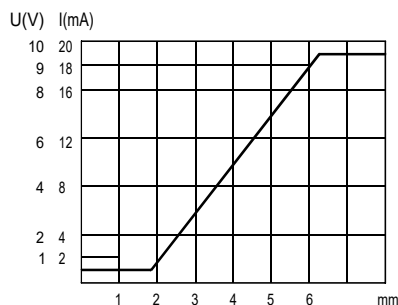
| General Data             |                     |  |
|--------------------------|---------------------|--|
| Housing size             | M12mm               |  |
| Installation type        | Shielded            |  |
| Sensing distance(Sn: mm) | 0.1 ... 3.0mm       |  |
| Output signal            | PNP-Analog          |  |
| Standard sensing object  | Steel 12x12x1mm     |  |
| 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/<br>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 <sup>2</sup> ), 4 Pin M12 connector |  |
| Weight                   | Approx. 67g/32g   |  |

**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

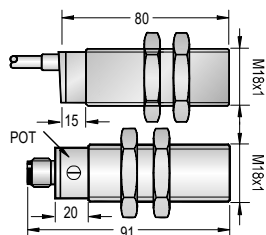
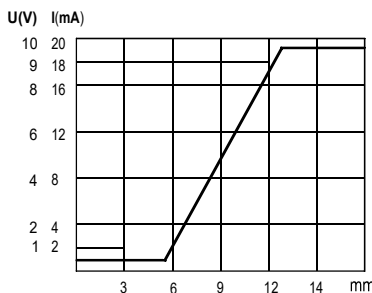


(Unit: mm)

| 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/<br>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 <sup>2</sup> ), 4 Pin M12 connector                                      |               |
| Weight                       | Approx. 67g/32g  |               |

**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



(Unit: mm)

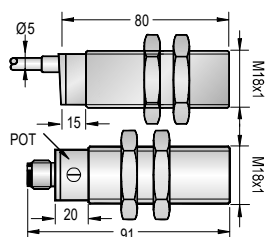
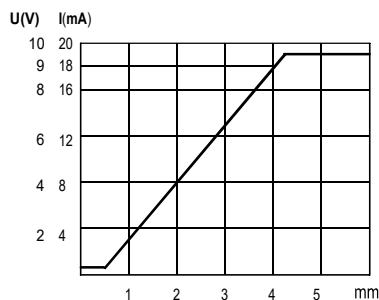


| Mounting                     | Shielded   |               |
|------------------------------|--|---------------|
| Connection                   | 2m Cable   | M12 Connector |
| Current output               | A5AE18L12A   | A5AE18L12H    |
| Voltage output               | A5AE18V12A   | A5AE18V12H    |
| 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  |               |
| 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              | <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/<br>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 <sup>2</sup> ), 4 Pin M12 connector                                       |               |
| Weight                       | Approx. 170g/58g   |               |

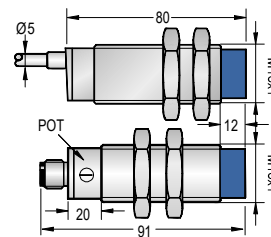
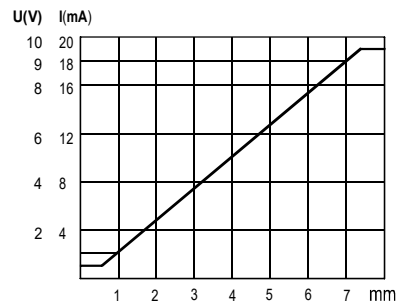


**Features**

- 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



(Unit: mm)



(Unit: mm)

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

| General Data             |                     |                     |
|--------------------------|---------------------|---------------------|
| Housing size             | M18mm               | M18mm               |
| 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 18x18x1mm     |
| Linerity                 | 5%                  | 5%                  |
| Hysteresis               | /                   | /                   |
| Housing material         | Nickel plated brass | Nickel plated brass |
| Operating voltage        | 18 ... 30VDC        | 18 ... 30VDC        |

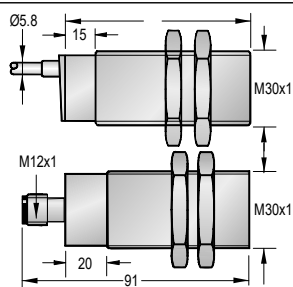
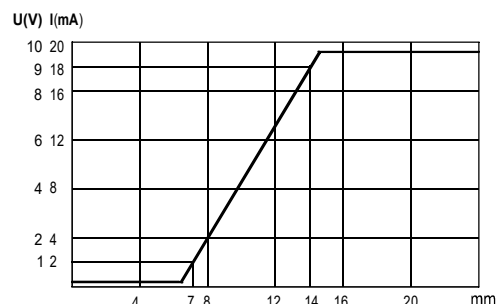
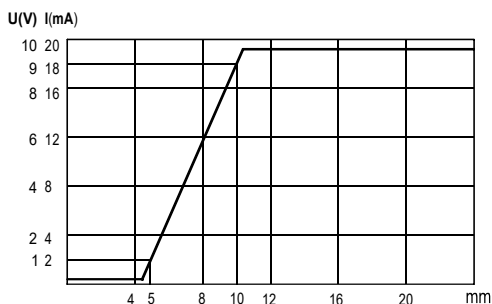
| Electrical Data              |  |  |
|------------------------------|--|--|
| Rated operating voltage      | 24VDC  | 24VDC  |
| Repeated accuracy            | 0.02mm   | 0.02mm   |
| Ripple                       | <10%   | <10%   |
| No load current              | <15mA  | <15mA  |
| Output voltage/Load 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/<br>Al. Approx. 0.45/ copper approx. 0.4 | Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/<br>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 <sup>2</sup> ), 4 Pin M12 connector | 2m PVC cable (Ø5 3/4x0.5mm <sup>2</sup> ), 4 Pin M12 connector |
| Weight                   | Approx. 170g/58g   | Approx. 170g/58g   |

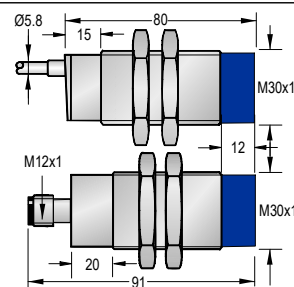


**Features**

- 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 |
| Current output           | A5AE30L10A | A5AE30L10H    | A5AF30L14A   | A5AF30L14H    |
| Voltage output           | A5AE30V10A | A5AE30V10H    | A5AF30V14A   | A5AF30V14H    |
| Voltage + Current Output | A5AE30M10A | A5AE30M10H    | A5AF30M14A   | A5AF30M14H    |

| General Data             |                     |  |
|--------------------------|---------------------|--|
| Housing size             | M30mm               |  |
| Installation type        | Shielded            |  |
| Sensing distance(Sn: mm) | 5.0 ... 10.0mm      |  |
| Output signal            | PNP-Analog          |  |
| Standard sensing object  | Steel 30x30x1mm     |  |
| Linerity                 | 5%                  |  |
| Hysteresis               | /                   |  |
| Housing material         | Nickel plated brass |  |
| Operating voltage        | 18 ... 30VDC        |  |

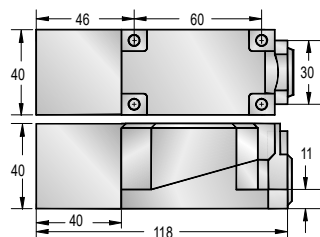
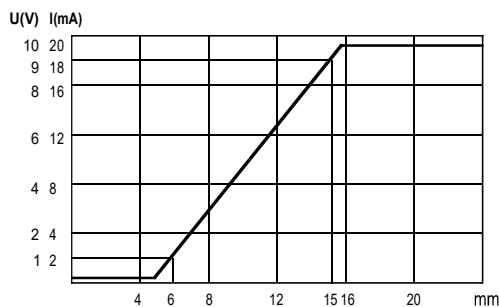
| Electrical Data              |  |  |
|------------------------------|--|--|
| Rated operating voltage      | 24VDC  |  |
| Repeated accuracy            | 0.02mm   |  |
| Ripple                       | <10%   |  |
| No load current              | <15mA  |  |
| Output voltage/Load resistor | 0 ... 10VDC/>4.7kΩ   |  |
| Output current/Load resistor | 0 ... 20mA/<200Ω   |  |
| 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            | <5%  |  |
| 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/<br>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 (Ø5.8 3/4x0.5mm <sup>2</sup> ), 4 Pin M12 connector |  |
| Weight                   | Approx. 252g/187g  |  |

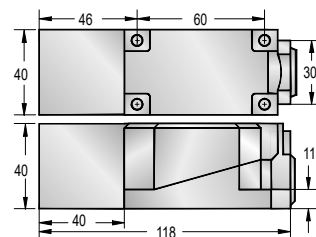
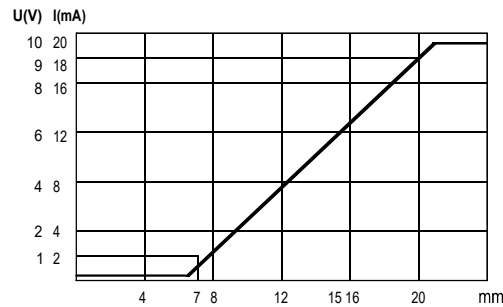


**Features**

- 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)

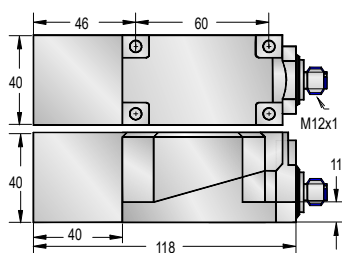
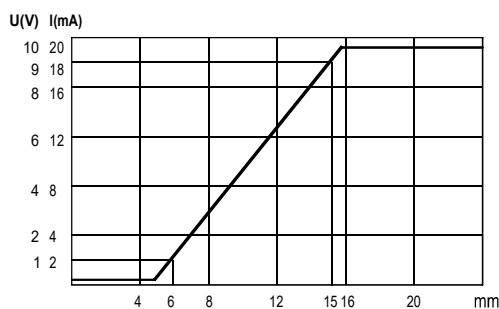


(Unit: mm)

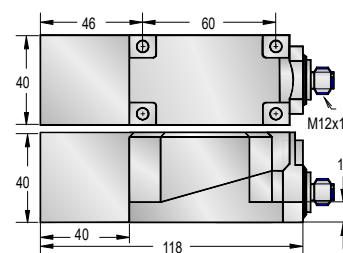
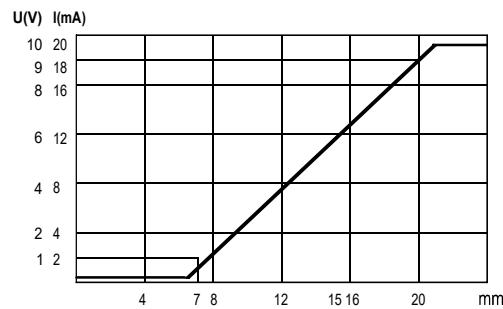
| Mounting                     | Shielded   | Non-shielded   |
|------------------------------|--|--|
| Connection                   | Cable Terminal with PG Connector   | Cable Terminal with PG Connector   |
| Current output               | A5EE40L15T   | A5EF40L20T   |
| Voltage output               | A5EE40V15T   | A5EF40V20T   |
| Voltage + Current Output     | A5EE40M15T   | A5EF40M20T   |
| <b>General Data</b>          |  |  |
| 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   |
| <b>Electrical Data</b>       |  |  |
| 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/<br>Al. Approx. 0.45/ copper approx. 0.4 | Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/<br>Al. Approx. 0.45/ copper approx. 0.4 |
| <b>Mechanical Data</b>       |  |  |
| 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   |

**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)

| Mounting                     | Shielded   | Non-shielded   |
|------------------------------|--|--|
| Connection                   | M12 Connector  | M12 Connector  |
| Current output               | A5EE40L15H   | A5EF40L20H   |
| Voltage output               | A5EE40V15H   | A5EF40V20H   |
| Voltage + Current Output     | A5EE40M15H   | A5EF40M20H   |
| <b>General Data</b>          |  |  |
| 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   |
| <b>Electrical Data</b>       |  |  |
| 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/<br>Al. Approx. 0.45/ copper approx. 0.4 | Fe37 steel=1/stainless steel approx. 0.85/brass approx. 0.5/<br>Al. Approx. 0.45/ copper approx. 0.4 |
| <b>Mechanical Data</b>       |  |  |
| 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   |