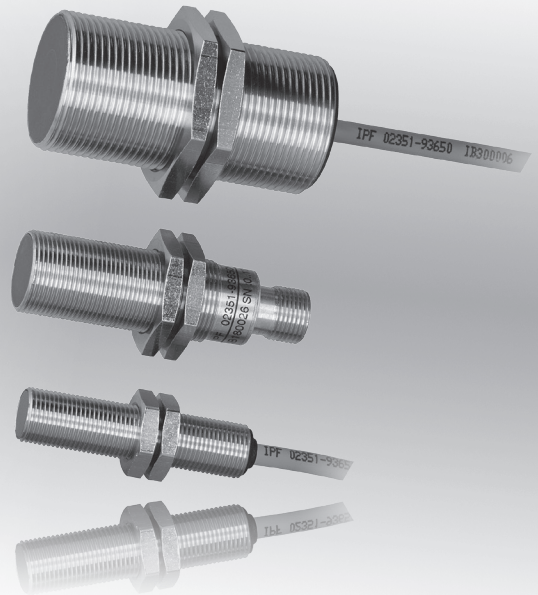


dimensions	M8x1 M12x1 M18x1 M30x1.5	
semi-flush	measuring range	up to 20mm

- ✓ chrome-plated brass housing
- ✓ integrated amplifier
- ✓ large measuring ranges
- ✓ connection via cable, M8- or M12-connector



analog measurement systems
0 to 10 V DC and 4 to 20mA



description

Inductive analog sensors from *ipf electronic* are distinguished by a very large detection range, high precision, stability, repeat accuracy and low scattering.

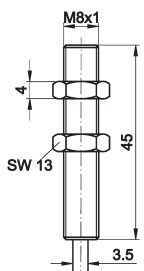
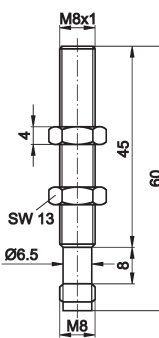
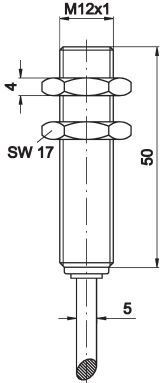
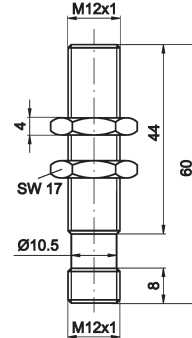
The product range includes sizes from M8 to M30 in semi-flush, build-in versions.

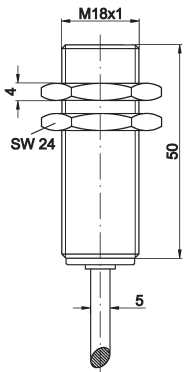
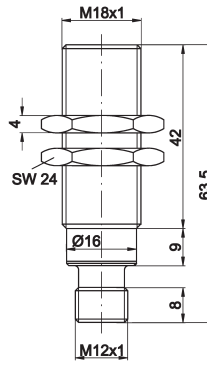
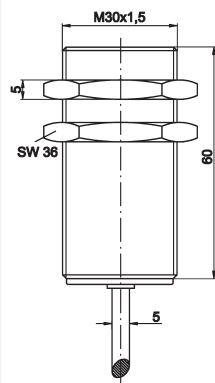
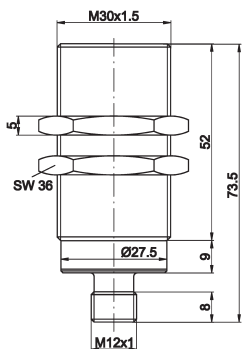
Devices in the M8 design have a voltage output (0 ... 10V). Starting with the M12 design, an additional current output (4 ... 20mA) is available. All the main protective functions such as short-circuit and overload protection, reverse polarity protection, induction and EMC-protection and power-on reset are built in.

To obtain the maximum measuring range, pay attention to the size of the object (standard target) and the surface finish (even surface). To ensure reliable device operation, you must comply with the installation conditions on this data sheet.

application examples

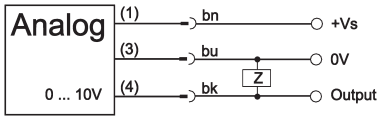
- ▶ punch check on metal parts with different dimensions
- ▶ distance and position measurement
- ▶ position recognition of rotating machine parts using eccentrics

article-no.	IB080006	IB080076	IB120006	IB120026
operating range	0 ... 4mm	0 ... 4mm	0 ... 6mm	0 ... 6mm
output	0 ... 10V DC / -	0 ... 10V DC / -	0 ... 10V DC / 4 ... 20mA	0 ... 10V DC / 4 ... 20mA
				
TECHNICAL DATA				
measuring range	0 ... 4mm	0 ... 4mm	0 ... 6mm	0 ... 6mm
output signal	0 ... 10V DC	0 ... 10V DC	0 ... 10V DC 4 ... 20mA	0 ... 10V DC 4 ... 20mA
resolution	≤ 1μm	≤ 1μm	≤ 1μm	≤ 1μm
operating voltage	15 ... 30V DC	15 ... 30V DC	15 ... 30V DC	15 ... 30V DC
current consumption (w/o load)	≤ 10mA	≤ 10mA	≤ 12mA	≤ 12mA
load resistance	voltage: > 100kΩ	voltage: > 100kΩ	voltage: > 100kΩ current: > 1kΩ	voltage: > 100kΩ current: < 1kΩ
norm measuring plate	12x12x1mm	12x12x1mm	18x18x1mm	18x18x1mm
repeat accuracy	0.3mm	0.3mm	0.3mm	0.3mm
readiness delay	≤ 50ms	≤ 50ms	≤ 50ms	≤ 50ms
correction factors (St37/Alu/Ms)	1.0 / 0.28 / 0.4	1.0 / 0.28 / 0.4	1.0 / 0.28 / 0.35	1.0 / 0.28 / 0.35
correction factors (stainl. steel/Cu)	0.68 / 0.25	0.68 / 0.25	0.47 / 0.2	0.47 / 0.2
display	-	-	-	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
dimensions	M8x1	M8x1	M12x1	M12x1
housing material	chrome-plated brass	chrome-plated brass	chrome-plated brass	chrome-plated brass
material (front cap)	PBTP	PBTP	PBTP	PBTP
length (thread/complete)	45mm/45mm	45mm/60mm	50mm/50mm	44mm/60mm
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
degree of protection (EN 60529)	IP67	IP67	IP67	IP67
connection	2m PUR cable, 3-wire	M8-connector, 3-pin e.g. VK205071	2m PUR cable, 4-wire	M12-connector, 4-pin e.g. VK205321
connection accessories	-	-	-	-
mounting accessories (clip)	AY000047	AY000047	AY000049	AY000049
mounting accessories (universal holder)	AY000115	AY000115	AY000115	AY000115

article-no.	IB180006	IB180026	IB300006	IB300026
operating range	0 ... 10mm	0 ... 10mm	0 ... 20mm	0 ... 20mm
output	0 ... 10V DC / 4 ... 20mA	0 ... 10V DC / 4 ... 20mA	0 ... 10V DC / 4 ... 20mA	0 ... 10V DC / 4 ... 20mA
				
TECHNICAL DATA				
measuring range	0 ... 10mm	0 ... 10mm	0 ... 20mm	0 ... 20mm
output signal	0 ... 10V DC 4 ... 20mA	0 ... 10V DC 4 ... 20mA	0 ... 10V DC 4 ... 20mA	0 ... 10V DC 4 ... 20mA
resolution	≤ 2µm	≤ 2µm	≤ 5µm	≤ 5µm
operating voltage	15 ... 30V DC	15 ... 30V DC	15 ... 30V DC	15 ... 30V DC
current consumption (w/o load)	≤ 12mA	≤ 12mA	≤ 12mA	≤ 12mA
load resistance	voltage: > 100kΩ current: > 1kΩ	voltage: > 100kΩ current: > 1kΩ	voltage: > 100kΩ current: > 1kΩ	voltage: > 100kΩ current: < 1kΩ
norm measuring plate	30x30x1mm	30x30x1mm	60x60x1mm	60x60x1mm
repeat accuracy	0.3mm	0.3mm	0.3mm	0.3mm
readiness delay	≤ 50ms	≤ 50ms	≤ 50ms	≤ 50ms
correction factors (St37/Alu/Ms)	1.0 / 0.18 / 0.28	1.0 / 0.18 / 0.28	1.0 / 0.2 / 0.3	1.0 / 0.2 / 0.3
correction factors (stainl. steel/Cu)	0.6 / 0.15	0.6 / 0.15	0.65 / 0.17	0.65 / 0.17
display	-	-	-	-
short-circuit protection	+	+	+	+
reverse polarity protection	+	+	+	+
dimensions	M18x1	M18x1	M30x1.5	M30x1.5
housing material	chrome-plated brass	chrome-plated brass	chrome-plated brass	chrome-plated brass
material (front cap)	PBTP	PBTP	PBTP	PBTP
length (thread/complete)	50mm/50mm	42mm/63.5mm	60mm/60mm	52mm/73.5mm
operating temperature	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C	-25 ... +70°C
degree of protection (EN 60529)	IP67	IP67	IP67	IP67
connection	2m PUR cable, 4-wire	M12-connector, 4-pin	2m PUR cable, 4-wire	M12-connector, 4-pin
connection accessories	-	e.g. VK205321	-	e.g. VK205321
mounting accessories (clip)	AY000051	AY000051	AY000061	AY000061
mounting accessories (universal holder)	AY000117	AY000117	-	-

connection

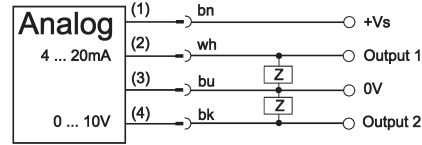
IB08



wire colors: bn = brown (1), wh = white (2), bu = blue (3), bk = black (4)

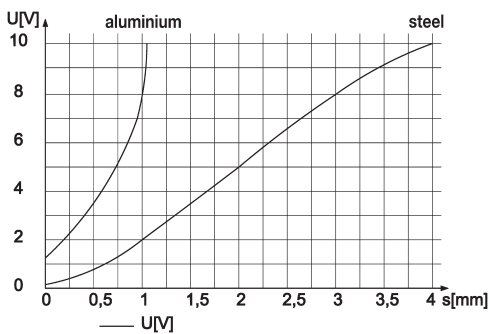
IB080006 and IB080076 only analog output 0 to 10V DC

IB12, IB18, IB30

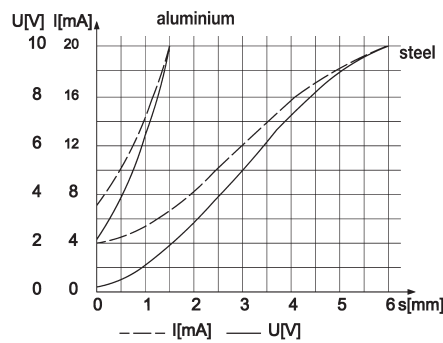


response curves

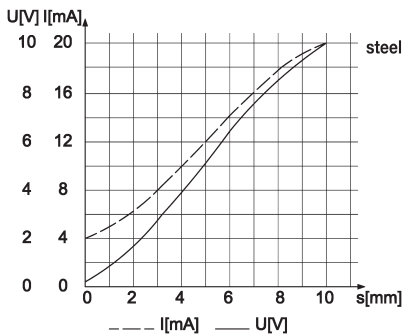
IB08



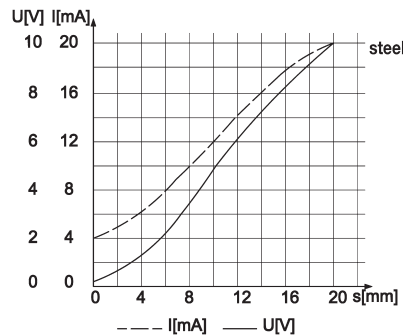
IB12



IB18



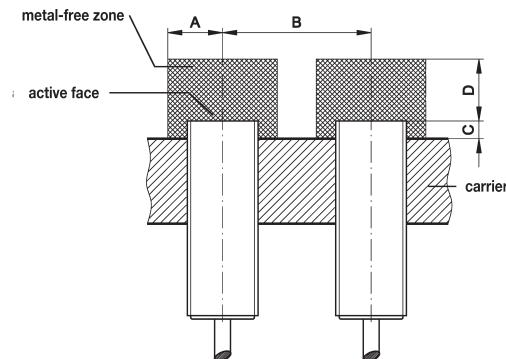
IB30



mounting parameters

	IB080006	IB120006	IB180006	IB300006
	IB080076	IB120026	IB180026	IB300026
installation dimension A	8mm	12mm	19mm	35mm
installation dimension B	20mm	30mm	44mm	80mm
installation dimension C*	1mm	2mm	4mm	6mm
installation dimension D	12mm	18mm	30mm	60mm

* when mounting into backing material „metal“



This data sheet contains the standard versions only. Kindly request the availability of other output and connection versions.

We will be pleased to supply the matching cable socket for your devices with connector. Please refer to the list in catalog chapter „accessories“ under „cable sockets **ipf**-SENSORFLEX®“ or search our website for „VK“.

Warning: Never use these devices in applications where the safety of a person depends on their functionality.

This data sheet as well as your personal contact can be found at www.ipf-electronic.com