

uprox[®]+ cylindrical designs

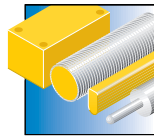


All sensors of the uprox[®]+ series owe many new features to their new multi-coil system, providing them with distinct advantages over conventional inductive sensors. The \varnothing 6.5 mm, M8 x 1, M12 x 1, M18 x 1 and M30 x 1.5 standard types are available as chrome-plated versions (M12, M18, M30 x 1.5) or as stainless steel versions (EH6.5, EG08, EM12, EM18 and EM30) and excel in maximum operating distances, no reduction factors, high magnetic-field immunity, excellent EMC properties and versatile mounting options.

Features

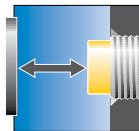
- Recessed mounting of flush sensors
- Non-flush mountable sensors can be embedded to the upper edge of the barrel
- Excellent EMC properties and magnetic field resistance
- Highest switching distance
- Factor 1 for all metals

Properties



Designs

From the small \varnothing 6.5 mm smooth barrel to the large threaded barrel version M30 x 1.5



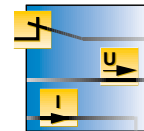
Switching distances

From 2 mm flush to 30 mm non-flush, on all metals



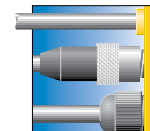
Materials

Threaded barrels available as nickel-plated brass or stainless steel versions



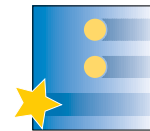
Electrical versions

3/4-wire NO/NC contact as well as antivalent output, PNP and NPN



Electrical connections

2 m connection cable, male M12 x 1 or M8 x 1



Special features

Protection class IP68; different thread sizes for individual requirements



Internet link

Scan the QR code to access our products on the internet

EH6.5



General data

Operating voltage	10...30 VDC	Output	PNP
Housing material	V2A (1.4301)	Operating current [mA]	150,

Types and data – selection table

Type	Connection	Switching distance	Ambient temperature	Dimensions		
BI2U-EH6,5-AP6X	2 m cable	2 mm,	-30...+85 °C	Ø 6.5 x 42 mm	w001	d021
BI2U-EH6,5-AP6X-V1131	male, M8 x 1	2 mm,	-30...+85 °C	Ø 6.5 x 49 mm	w002	d022
NI6U-EH6,5-AP6X	2 m cable	6 mm,	-25...+70 °C	Ø 6.5 x 42 mm	w001	d023
NI6U-EH6,5-AP6X-V1131	male, M8 x 1	6 mm,	-25...+70 °C	Ø 6.5 x 49 mm	w002	d024

Many different types available, also as NPN version, see type code

EG08



General data

Operating voltage	10...30 VDC	Housing material	V4A (1.4404)
Operating current [mA]	150,		

Types and data – selection table

Type	Connection	Output	Switching distance	Ambient temperature	Dimensions		
BI2U-EG08-AP6X	2 m cable	PNP	2 mm,	-30...+85 °C	Ø 8 x 42 mm	w001	d025
BI2U-EG08-AP6X-V1131	male, M8 x 1	PNP	2 mm,	-30...+85 °C	Ø 8 x 49 mm	w002	d026
BI2U-EG08-RP6X-V1131	male, M8 x 1	PNP	2 mm,	-30...+85 °C	Ø 8 x 49 mm	w003	d026
BI2U-EG08-AP6X-H1341	male, M12 x 1	PNP	2 mm,	-30...+85 °C	Ø 8 x 57 mm	w002	d027
BI2U-EG08-RP6X-H1341	male, M12 x 1	PNP	2 mm,	-30...+85 °C	Ø 8 x 57 mm	w008	d027
NI6U-EG08-AP6X	2 m cable	PNP	6 mm,	-25...+70 °C	Ø 8 x 42 mm	w001	d028
NI6U-EG08-AP6X-V1131	male, M8 x 1	PNP	6 mm,	-25...+70 °C	Ø 8 x 49 mm	w002	d029
NI6U-EG08-RP6X-V1131	male, M8 x 1	PNP	6 mm,	-25...+70 °C	Ø 8 x 49 mm	w003	d029
NI6U-EG08-AP6X-H1341	male, M12 x 1	PNP	6 mm,	-25...+70 °C	Ø 8 x 57 mm	w002	d030
NI6U-EG08-RP6X-H1341	male, M12 x 1	PNP	6 mm,	-25...+70 °C	Ø 8 x 57 mm	w008	d030

Many different types available, also as NPN version, see type code

M12 – 2-wire DC



General data

Operating voltage	10...65 VDC
Housing material	CuZn-Cr
Ambient temperature	0...+70 °C

Output	2-wire
Operating current [mA]	100,

Types and data – selection table

Type	Connection	Switching distance	Dimensions	w	d
BI2U-M12E-AD4X	2 m cable	2 mm,	Ø 12 x 64 mm	w009	d031
BI2U-M12E-AD4X-H1144	male, M12 x 1	2 mm,	Ø 12 x 62 mm	w004	d032
NI5U-M12E-AD4X	2 m cable	5 mm,	Ø 12 x 64 mm	w009	d033
NI5U-M12E-AD4X-H1144	male, M12 x 1	5 mm,	Ø 12 x 62 mm	w004	d034

M12 – 3-wire DC



General data

Operating voltage	10...30 VDC
Operating current [mA]	200,

Housing material	CuZn-Cr
Ambient temperature	-30...+85 °C

Types and data – selection table

Type	Connection	Output	Switching distance	Dimensions	w	d
BI4U-M12-AP6X	2 m cable	PNP	4 mm,	Ø 12 x 54 mm	w001	d035
BI4U-M12-AP6X-V1131	male, M8 x 1	PNP	4 mm,	Ø 12 x 52 mm	w002	d036
BI4U-M12-AP6X-H1141	male, M12 x 1	PNP	4 mm,	Ø 12 x 52 mm	w002	d037
Bi4U-M12-RP6X-H1141	male, M12 x 1	PNP	4 mm,	Ø 12 x 52 mm	w008	d037
NI10U-M12-AP6X	2 m cable	PNP	10 mm,	Ø 12 x 54 mm	w001	d038
NI10U-M12-AP6X-V1131	male, M8 x 1	PNP	10 mm,	Ø 12 x 52 mm	w002	d039
NI10U-M12-AP6X-H1141	male, M12 x 1	PNP	10 mm,	Ø 12 x 52 mm	w002	d040
NI10U-M12-RP6X-H1141	male, M12 x 1	PNP	10 mm,	Ø 12 x 52 mm	w008	d040

Many different types available, also as NPN version, see type code

M12 – 4-wire DC



General data

Operating voltage	10...55 VDC
Housing material	CuZn-Cr
Ambient temperature	-30...+85 °C

Output

—, PNP

Operating current [mA] 200, (K)

Types and data – selection table

Type	Connection	Switching distance	Dimensions	w	d
BI4U-M12E-VP44X	2 m cable	4 mm,	Ø 12 x 64 mm	w010	d031
BI4U-M12E-VP44X-H1141	male, M12 x 1	4 mm,	Ø 12 x 62 mm	w011	d032
BI4U-M12-VP44X-H1141 L80	male, M12 x 1	4 mm,	Ø 12 x 80 mm	w011	d041
BI4U-M12-VP44X-H1141 L100	male, M12 x 1	4 mm,	Ø 12 x 100 mm	w011	d042
NI10U-M12E-VP44X	2 m cable	10 mm,	Ø 12 x 64 mm	w010	d033
NI10U-M12E-VP44X-H1141	male, M12 x 1	10 mm,	Ø 12 x 62 mm	w011	d034

Many different types available, also as NPN version, see type code

M18 – 2-wire DC



General data

Operating voltage	10...65 VDC
Housing material	CuZn-Cr
Ambient temperature	-25...+70 °C

Output

—, 2-wire

Operating current [mA] 100, (K)

Types and data – selection table

Type	Connection	Switching distance	Dimensions	w	d
BI5U-M18M-AD4X	2 m cable	5 mm,	Ø 18 x 64 mm	w009	d043
BI5U-M18M-AD4X-H1144	male, M12 x 1	5 mm,	Ø 18 x 61.5 mm	w004	d044
NI10U-M18M-AD4X	2 m cable	10 mm,	Ø 18 x 64 mm	w009	d045
NI10U-M18M-AD4X-H1144	male, M12 x 1	10 mm,	Ø 18 x 61.5 mm	w004	d046

M18 – 3-wire DC



General data

Operating voltage	10...30 VDC	Operating current [mA]	200, (K)
Ambient temperature	-30...+85 °C		

Types and data – selection table

Type	Connection	Output	Switching distance	Housing material	Dimensions	w	d
BI8U-M18-AP6X	2 m cable	PNP	8 mm,	CuZn-Cr	Ø 18 x 54 mm	w001	d047
BI8U-EM18-AP6X-H1141	male, M12 x 1	PNP	8 mm,	V2A (1.4301)	Ø 18 x 52 mm	w002	d048
BI8U-M18-AP6X-H1141	male, M12 x 1	PNP	8 mm,	CuZn-Cr	Ø 18 x 52 mm	w002	d048
BI8U-M18E-AP6X-H1141	male, M12 x 1	PNP	8 mm,	CuZn-Cr	Ø 18 x 72 mm	w002	d049
BI8U-M18-RP6X-H1141	male, M12 x 1	PNP	8 mm,	CuZn-Cr	Ø 18 x 52 mm	w008	d048
NI15U-M18-AP6X	2 m cable	PNP	15 mm,	CuZn-Cr	Ø 18 x 54 mm	w001	d050
NI15U-EM18-AP6X-H1141	male, M12 x 1	PNP	15 mm,	V2A (1.4301)	Ø 18 x 52 mm	w002	d051
NI15U-M18-AP6X-H1141	male, M12 x 1	PNP	15 mm,	CuZn-Cr	Ø 18 x 52 mm	w002	d051
NI15U-M18-RP6X-H1141	male, M12 x 1	PNP	15 mm,	CuZn-Cr	Ø 18 x 52 mm	w008	d051

Many different types available, also as NPN version, see type code

M18 – 4-wire DC



General data

Operating voltage	10...55 VDC	Output	PNP
Housing material	CuZn-Cr	Operating current [mA]	200, (K)
Ambient temperature	-30...+85 °C		

Types and data – selection table

Type	Connection	Switching distance	Dimensions	w	d
BI8U-M18M-VP44X	2 m cable	8 mm,	Ø 18 x 64 mm	w010	d043
BI8U-M18M-VP44X-H1141	male, M12 x 1	8 mm,	Ø 18 x 61.5 mm	w011	d044
NI15U-M18M-VP44X	2 m cable	15 mm,	Ø 18 x 64 mm	w010	d045
NI15U-M18M-VP44X-H1141	male, M12 x 1	15 mm,	Ø 18 x 61.5 mm	w011	d046

Many different types available, also as NPN version, see type code

M30 – 2-wire DC



General data

Operating voltage	10...65 VDC
Housing material	CuZn-Cr
Ambient temperature	-25...+70 °C

Output	2-wire
Operating current [mA]	100,

Types and data – selection table

Type	Connection	Switching distance	Dimensions		
BI10U-M30-AD4X	2 m cable	10 mm,	Ø 30 x 64 mm	w009	d052
BI10U-M30-AD4X-H1144	male, M12 x 1	10 mm,	Ø 30 x 62 mm	w004	d053
NI15U-M30-AD4X	2 m cable	15 mm,	Ø 30 x 64 mm	w009	d054
NI15U-M30-AD4X-H1144	male, M12 x 1	15 mm,	Ø 30 x 62 mm	w004	d055

M30 – 3-wire DC



General data

Operating voltage	10...30 VDC
Operating current [mA]	200,

Output	PNP
Ambient temperature	-30...+85 °C

Types and data – selection table

Type	Connection	Switching distance	Housing material	Dimensions		
BI15U-M30-AP6X	2 m cable	15 mm,	CuZn-Cr	Ø 30 x 64 mm	w001	d052
BI15U-EM30-AP6X-H1141	male, M12 x 1	15 mm,	V2A (1.4301)	Ø 30 x 62 mm	w002	d053
BI15U-M30-AP6X-H1141	male, M12 x 1	15 mm,	CuZn-Cr	Ø 30 x 62 mm	w002	d053
NI30U-M30-AP6X	2 m cable	30 mm,	CuZn-Cr	Ø 30 x 64 mm	w001	d054
NI30U-EM30-AP6X-H1141	male, M12 x 1	30 mm,	V2A (1.4301)	Ø 30 x 62 mm	w002	d055
NI30U-M30-AP6X-H1141	male, M12 x 1	30 mm,	CuZn-Cr	Ø 30 x 62 mm	w002	d055

Many different types available, also as NPN version, see type code

M30 – 4-wire DC



General data

Operating voltage	10...55 VDC
Housing material	CuZn-Cr
Ambient temperature	-30...+85 °C

Output	, PNP
Operating current [mA]	200,

Types and data – selection table

Type	Connection	Switching distance	Dimensions		
BI15U-M30-VP44X	2 m cable	15 mm,	Ø 30 x 64 mm	w010	d052
BI15U-M30-VP44X-H1141	male, M12 x 1	15 mm,	Ø 30 x 62 mm	w011	d053
NI30U-M30-VP44X	2 m cable	30 mm,	Ø 30 x 64 mm	w010	d054
NI30U-M30-VP44X-H1141	male, M12 x 1	30 mm,	Ø 30 x 62 mm	w011	d055

Many different types available, also as NPN version, see type code

