

## Cylindrical designs – Smooth barrel

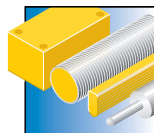


No matter if you choose a compact  $\varnothing$  3 mm or a rugged  $\varnothing$  40 mm version: The smooth barrels from TURCK are available with different switching distances, many connection possibilities and high protection rating. All these features are required as a standard in industrial automation.

### Features

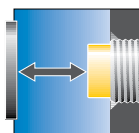
- Cables, connector or terminal chamber
- Mounting bracket included in delivery
- Electrical versions NAMUR, DC and AC/DC
- Stainless steel and plastic housings

### Properties



#### Designs

$\varnothing$  3 mm for confined spaces up to  $\varnothing$  40 mm



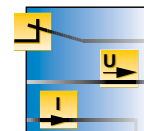
#### Switching distances

Large switching distances, optionally with factor 1, without reduction factor



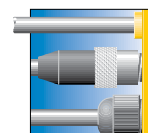
#### Materials

Stainless steel sensors up to  $\varnothing$  6.5 mm diameter, bigger sizes in PA or PBT



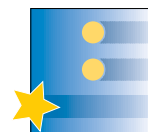
#### Electrical versions

NAMUR, 2, 3 and 4-wire DC, 2-wire AC/DC



#### Electrical connections

Cable, terminal chamber, M8 and M12 connectors



#### Special features

$\varnothing$  4 mm,  $\varnothing$  6.5 mm, with lateral active face, integrated rotation speed monitoring





#### Internet link

Scan the QR code to access our products on the internet

## Ø 3 mm



### General data

<b>Connection</b>	2 m cable	<b>Operating voltage</b>	10...30 VDC
<b>Output</b>	 , PNP	<b>Switching distance</b>	1 mm, 
<b>Housing material</b>	V2A (1.4301)	<b>Dimensions</b>	Ø 3 x 27 mm

### Types and data – selection table

Type		
BI1-EH03-AP7X	w012	d278

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









## Ø 4 mm



### General data

<b>Switching distance</b>	1 mm, 
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### Types and data – selection table

Type	Connection	Operating voltage	Output	Housing material	Dimensions		
BI1-EH04-Y1	2 m cable	8.2 VDC	NAMUR	V4A (1.4404)	Ø 4 x 30 mm	w014	d279
BI1-HS540-Y1	2 m cable	8.2 VDC	NAMUR	V2A (1.4301)	Ø 4 x 30 mm	w014	d280
BI1-EH04-AP6X-V1331	male, M8 x 1	10...30 VDC	 , PNP	V4A (1.4404)	Ø 4 x 42.5 mm	w013	d281
BI1-EH04-RP6X-V1331	male, M8 x 1	10...30 VDC	 , PNP	V4A (1.4404)	Ø 4 x 42.5 mm	w029	d281
BI1-EH04-AP6X	2 m cable	10...30 VDC	 , PNP	V4A (1.4404)	Ø 4 x 30 mm	w012	d282
BI1-EH04-RP6X	2 m cable	10...30 VDC	 , PNP	V4A (1.4404)	Ø 4 x 30 mm	w030	d282
BI1-HS540-RP6X	2 m cable	10...30 VDC	 , PNP	V2A (1.4301)	Ø 4 x 30 mm	w030	d283
BI1-HS540-AP6X	2 m cable	10...30 VDC	 , PNP	V2A (1.4301)	Ø 4 x 30 mm	w012	d283

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

## Ø 6.5 mm – NAMUR



### General data

<b>Connection</b>	2 m cable	<b>Operating voltage</b>	8.2 VDC
<b>Output</b>	NAMUR		

### Types and data – selection table

Type	Switching distance	Housing material	Dimensions	w	d
BI1,5-EH6,5K-Y1	1.5 mm,	V4A (1.4404)	Ø 6.5 x 23.6 mm	w014	d284
BI1,5-HS865-Y1	1.5 mm,	CuZn-Cr	Ø 6.5 x 32 mm	w014	d285
NI3-EH6,5K-Y1	3 mm,	V4A (1.4404)	Ø 6.5 x 23.6 mm	w014	d286

## Ø 6.5 mm – 3-wire DC



### General data











<b>Operating voltage</b>	10...30 VDC
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### Types and data – selection table

Type	Connection	Output	Switching distance	Housing material	Dimensions	w	d
BI1,5-EH6,5K-AP6X-V1131	male, M8 x 1	PNP	1.5 mm,	V4A (1.4404)	Ø 6.5 x 31 mm	w013	d287
BI2-EH6,5K-AP6X-V1131	male, M8 x 1	PNP	2 mm,	V4A (1.4404)	Ø 6.5 x 31 mm	w013	d287
BI2-EH6,5K-RP6X-V1131	male, M8 x 1	PNP	2 mm,	V4A (1.4404)	Ø 6.5 x 31 mm	w029	d287
BI2U-EH6,5-AP6X-V1131	male, M8 x 1	PNP	2 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w013	d288
BI2U-EH6,5-RP6X-V1131	male, M8 x 1	PNP	2 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w029	d288
BI1,5-EH6,5-AP6X-V1131	male, M8 x 1	PNP	1.5 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w013	d288
BI2-EH6,5-AP6X-V1131	male, M8 x 1	PNP	2 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w013	d288
NI3-EH6,5K-AP6X-V1131	male, M8 x 1	PNP	3 mm,	V4A (1.4404)	Ø 6.5 x 31 mm	w013	d289
NI6U-EH6,5-AP6X-V1131	male, M8 x 1	PNP	6 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w013	d290
NI6U-EH6,5-RP6X-V1131	male, M8 x 1	PNP	6 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w029	d290
NI3-EH6,5-AP6X-V1131	male, M8 x 1	PNP	3 mm,	V2A (1.4301)	Ø 6.5 x 49 mm	w013	d290
BI1,5-EH6,5K-AP6X	2 m cable	PNP	1.5 mm,	V4A (1.4404)	Ø 6.5 x 23.6 mm	w012	d291
BI2-EH6,5K-RP6X	2 m cable	PNP	2 mm,	V4A (1.4404)	Ø 6.5 x 23.6 mm	w030	d291
BI2-EH6,5K-AP6X	2 m cable	PNP	2 mm,	V4A (1.4404)	Ø 6.5 x 23.6 mm	w012	d291
BI1,5-HS865-AP6X	2 m cable	PNP	1.5 mm,	CuZn-Cr	Ø 6.5 x 32 mm	w012	d285
BI2U-EH6,5-AP6X	2 m cable	PNP	2 mm,	V2A (1.4301)	Ø 6.5 x 42 mm	w012	d292

Table continues on the next page...

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Type	Connection	Output	Switching distance	Housing material	Dimensions	w	d
BI2-EH6,5-AP6X	2 m cable	 , PNP	2 mm, 	V2A (1.4301)	Ø 6.5 x 42 mm	w012	d292
BI2U-EH6,5-RP6X	2 m cable	 , PNP	2 mm, 	V2A (1.4301)	Ø 6.5 x 42 mm	w030	d292
NI3-EH6,5K-AP6X	2 m cable	 , PNP	3 mm, 	V4A (1.4404)	Ø 6.5 x 23.6 mm	w012	d293
NI3-EH6,5-AP6X	2 m cable	 , PNP	3 mm, 	V2A (1.4301)	Ø 6.5 x 42 mm	w012	d294
NI6U-EH6,5-AP6X	2 m cable	 , PNP	6 mm, 	V2A (1.4301)	Ø 6.5 x 42 mm	w012	d294

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

## Ø 11 mm













### General data

Housing material PA

Fixing clamp BS11 included in delivery

### Types and data – selection table

Type	Connection	Operating voltage	Output	Switching distance	Dimensions	w	d
NI5-K11-Y1	2 m cable	8.2 VDC	NAMUR	5 mm, 	Ø 11 x 34 mm	w014	d295
BI2-K11-Y1	2 m cable	8.2 VDC	NAMUR	2 mm, 	Ø 11 x 34 mm	w014	d295
BI2-K11-AP6X	2 m cable	10...30 VDC	 , PNP	2 mm, 	Ø 11 x 54 mm	w012	d296
NI5-K11-AP6X	2 m cable	10...30 VDC	 , PNP	5 mm, 	Ø 11 x 54 mm	w012	d296
BI2-K11SK-AP6X	Terminal chamber	10...30 VDC	 , PNP	2 mm, 	Ø 11 x 75 mm	w022	d297
NI5-K11SK-AP6X	Terminal chamber	10...30 VDC	 , PNP	5 mm, 	Ø 11 x 75 mm	w022	d297

## Ø 20 mm



**General data**

**Switching distance** 10 mm, **Housing material** PBT

Fixing clamp BS20 included in delivery

**Types and data – selection table**

Type	Connection	Operating voltage	Output	Dimensions	w	d
NI10-K20-AP6X	2 m cable	10...30 VDC	, PNP	Ø 20 x 54 mm	w012	d298
NI10-K20SK-AP6X	Terminal chamber	10...30 VDC	, PNP	Ø 20 x 77 mm	w022	d299
NI10-K20-AZ3X	2 m cable	20...250 VAC / 10...300 VDC		Ø 20 x 79 mm	w028	d300
NI10-K20SK-AZ3X	Terminal chamber	20...250 VAC / 10...300 VDC		Ø 20 x 77 mm	w037	d299

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

## Ø 34 mm



**General data**

**Operating voltage** 10...65 VDC **Output** , PNP  
**Switching distance** 20 mm, **Housing material** PBT

Fixing clamp BS34.1 included in delivery

**Types and data – selection table**

Type	Connection	Dimensions	w	d
NI20-K34-VP4X	2 m cable	Ø 34 x 80 mm	w010	d301
NI20-K34SR-VP4X2	Terminal chamber	Ø 34 x 106 mm	w023	d302

Ø 40 mm



General data

Connection

Terminal chamber

Housing material





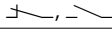

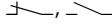

ABS

Dimensions

Ø 40 x 90 mm

Fixing clamp BS40 included in delivery

Types and data – selection table

Type	Operating voltage	Output	Switching distance	w	d
NI20-K40SR-VP4X2	10...65 VDC	 , PNP	20 mm, 	w023	d303
NI30-K40SR-VP4X2	10...65 VDC	 , PNP	30 mm, 	w023	d303
NI30-K40SR-FZ3X2	20...250 VAC / 10...300 VDC		30 mm, 	w024	d303
NI20-K40SR-FZ3X2	20...250 VAC / 10...300 VDC		20 mm, 	w024	d303

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