

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Overview

SIMATIC sensors PXI200

Sensors for standard applications. Typical values:

- Operating voltage up to 34 V DC
- Degree of protection up to IP67
- Operating distance acc. to standard

Selection table

SIMATIC PXI200										
Design, Ø	3 mm	4 mm	M5	5 mm x 5 mm	M8	6.5 mm	8 mm x 8 mm	M12	12 mm x 40 mm	12 mm x 32 mm
Operating distance										
• 0 ... 0.8 mm (PXI.1.)	0.6 mm	0.8 mm	0.8 mm	0.8 mm						
• 1 ... 4 mm (PXI.2.)					1 mm 1.5 mm 2.5 mm	1.5 mm 2.5 mm	1.5 mm	2 mm 4 mm	2 mm 4 mm	2 mm
Output										
• NO contact/NC contact	■ / —	■ / ■	■ / ■	■ / —	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■
• pnp/npn	■ / —	■ / —	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / —	■ / —
Number of wires	3	3	3	3	2, 3, 4	3	3	2, 3, 4	3, 4	4
Operating voltage										
• 10/15 ... 30/35 V DC	■	■	■	■	■	■	■	■	■	■
Connection										
• M8 connector		■	■		■	■	■		■	
• M12 connector					■			■	■	
• Cable	■	■	■	■	■	■	■	■	■	■
Degree of protection										
• IP65 / IP67	— / ■	— / ■	— / ■	— / ■	— / ■	— / ■	— / ■	— / ■	— / ■	— / ■
See page	2/140	2/141	2/141	2/141	from 2/142	from 2/144	2/146	from 2/148	2/150	2/150

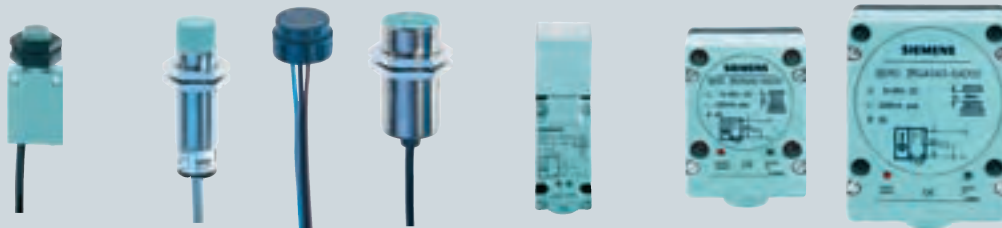
A configurator for fast product selection and ordering in the Internet can be found at www.siemens.com/simatic-sensors/pxi

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

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SIMATIC PXI200



Design, Ø	Box with M14	M18	Button 18 mm	M30	40 mm x 40 mm	60 mm x 80 mm	80 mm x 100 mm
Operating distance							
• 1 ... 4 mm (PXI.2.)	2.5 mm						
• 5 ... 10 mm (PXI.3.)	5 mm	5 mm 8 mm	5 mm	10 mm			
• 12 ... 22 mm (PXI.4.)				15 mm	15 mm 20 mm		
• 25 ... 40 mm (PXI.5.)						30 mm	40 mm
Output							
• NO contact/NC contact	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■
• pnp/npn	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / —	■ / —
Number of wires	2, 3, 4	2, 3, 4	3	2, 3, 4	2, 3, 4	4	4
Operating voltage							
• 10/15 ... 30/35 V DC	■	■	■	■	■	■	■
Connection							
• M12 connector	■	■		■	■		
• Cable	■	■	■	■			
• Terminal compartment					■	■	■
Degree of protection							
• IP65 / IP67	— / ■	— / ■	— / ■	— / ■	■ / ■	■ / —	■ / —
See page	2/153	from 2/157	2/158	from 2/162	from 2/165	2/169	2/169

A configurator for fast product selection and ordering in the Internet can be found at www.siemens.com/simatic-sensors/px

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 0.6 mm

Technical specifications

Class		Standard duty
Number of wires		3-wire
Design		Ø 3 mm, mini
Installation in metal		Flush
Rated operating distance s_n		0.6 mm
Enclosure material		Stainless steel
Operational voltage (DC)	V	10 ... 30
No-load supply current I_0	mA	≤ 10
Rated operational current I_e	mA	100
Switching frequency f	Hz	5000
Repeat accuracy R	mm	0.01
Power-up delay t_v	ms	10
Switching status display		Yellow LED
Precautions		
• Spurious signal suppression		•
• Short-circuit-proof/overload-proof		•
• Reverse-polarity protection		•
• Wire-break protection		—
• Inductive interference protection		•
• Radio interference protection		•
Degree of protection		IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Order No.
With 2 m cable, PUR		$3 \times 0.055 \text{ mm}^2$
NO contact, pnp	11	3RG46 03-2AB00

1) See page 2/242.

► Preferred type, available from stock.

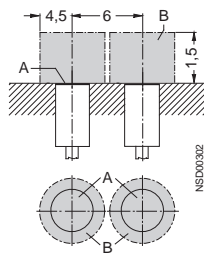
Dimensions

Mounting instructions

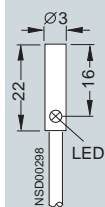
Dimension depending on form

A = active surface

B = metal-free area



3RG46 03-2AB00



Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	3-wire
Design		5 mm × 5 mm, mini	Ø 4 mm, mini	M5, mini
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		0.8 mm	0.8 mm	0.8 mm
Enclosure material		Brass, nickel-plated	Stainless steel	Stainless steel
Operating voltage (DC)	V	10 ... 30	10 ... 30	10 ... 30
No-load supply current I_0	mA	≤ 10	≤ 10	≤ 10
Rated operational current I_e	mA	200	200	200
Switching frequency f	Hz	5000	5000	5000
Repeat accuracy R	mm	0.01	0.01	0.01
Power-up delay t_v	ms	10	8	10
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression	•	•	•	•
• Short-circuit-proof/overload-proof	•	•	•	•
• Reverse-polarity protection	•	•	•	•
• Wire-break protection	–	–	–	–
• Inductive interference protection	•	•	•	•
• Radio interference protection	•	•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR					
NO contact, pnp	11	▶	3 × 0.14 mm ² 3RG42 36-0AG00	▶	3 × 0.14 mm ² 3RG42 00-1AB00
NC contact, pnp	12		–	▶	3RG42 00-1AA00
NO contact, npn	13		3RG46 36-0GB00	▶	3RG46 10-0BF00
					3RG46 10-0GB00
With 8 mm combination plug					
NO contact, pnp	2	A, C	–	▶	3RG42 00-7AB00
NC contact, pnp	3	A	–		3RG42 10-7AG00
NO contact, npn	4	A, C	–		3RG42 10-7AF00
					3RG46 10-7GB00

1) See page 2/242.

2) See from page 2/268.

▶ Preferred type, available from stock

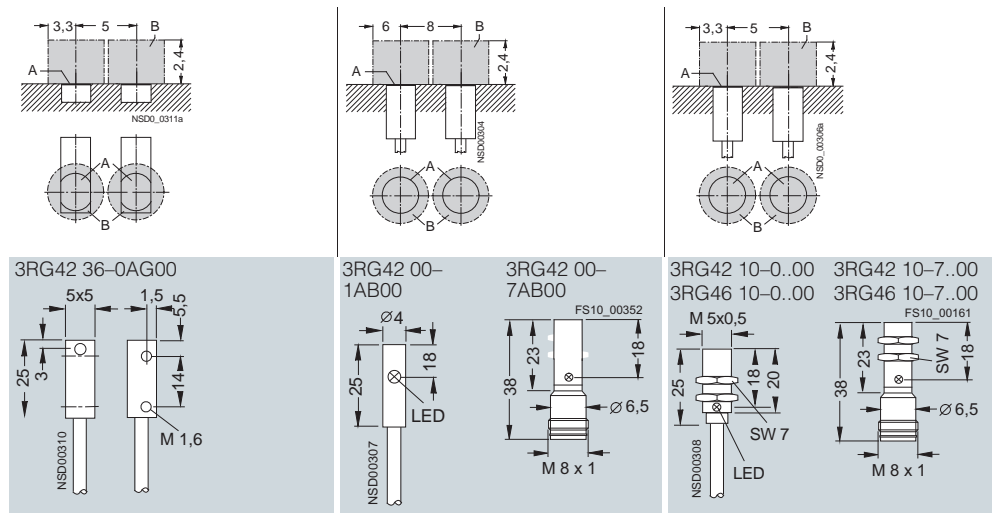
Dimensions

Mounting instructions

Dimension depending on form

A = active surface

B = metal-free area



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 1 mm

Technical specifications

Class		Standard duty	Standard duty
Number of wires		3-wire	4-wire
Design		M8	M8
Installation in metal		Flush	Flush
Rated operating distance s_n		1 mm	1 mm
Enclosure material		Stainless steel	Stainless steel
Operational voltage (DC)	V	15 ... 34	10 ... 30
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 1
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	50
Switching frequency f	Hz	1500	1500
Repeat accuracy R	mm	0.1	0.1
Power-up delay t_v	ms	40	40
Switching status display		Yellow LED	Yellow LED
Precautions			
• Spurious signal suppression		•	•
• Short-circuit-proof/overload-proof		•	•
• Reverse-polarity protection		•	•
• Wire-break protection		•	•
• Inductive interference protection		•	•
• Radio interference protection		•	•
Degree of protection		IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR			3 × 0.25 mm ²	4 × 0.14 mm ²
NO contact, pnp	11	▶	3RG40 11-0AG00	—
NC contact, pnp	12		3RG40 11-0AF00	—
NO contact, npn	13	▶	3RG40 11-0GB00	—
NO contact and NC contact, pnp	10		—	▶ 3RG40 11-0CC00
With 8 mm combination plug				
NO contact, pnp	2	A, C	▶ 3RG40 11-7AG00	—
NC contact, pnp	3	A	3RG40 11-7AF00	—
NO contact and NC contact, pnp	1	B	—	B 3RG40 11-7CC00
With M12 connector				
NO contact, pnp	2	E, F	▶ 3RG40 11-3AG00	—
NC contact, pnp	3	F	3RG40 11-3AF00	—
NO contact, npn	4	E, F	3RG40 11-3GB00	—
NO contact and NC contact, pnp	4	F	—	3RG40 11-3CC00

1) See page 2/242.

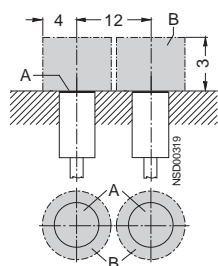
2) See from page 2/268.

▶ Preferred type, available from stock

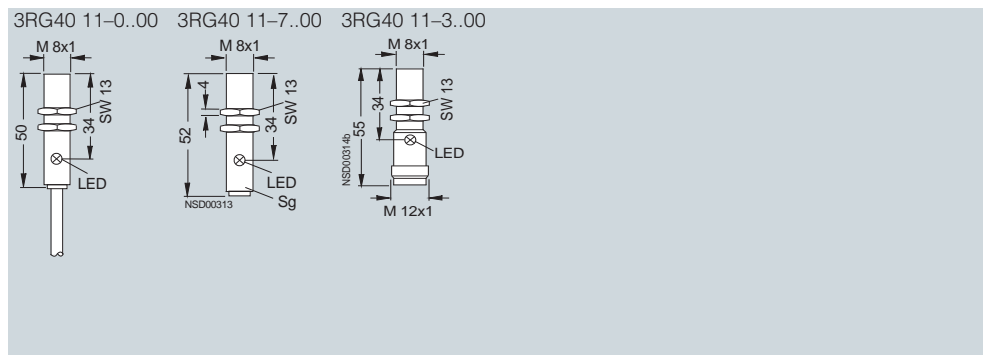
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions



A = active surface
B = metal-free area



Technical specifications

Class	Standard duty (PLC)	
Number of wires	2-wire	
Design	M8	
Installation in metal	Flush	
Rated operating distance s_n	1 mm	
Enclosure material	Stainless steel	
Operating voltage (DC)	V	15 ... 34
No-load supply current I_0	mA	≤ 1.5
Rated operational current I_e	mA	25
Switching frequency f	Hz	1500
Repeat accuracy R	mm	0.1
Power-up delay t_v	ms	40
Switching status display	Yellow LED	
Precautions	<ul style="list-style-type: none"> • Spurious signal suppression • • Short-circuit-proof/overload-proof – • Reverse-polarity protection • • Wire-break protection • • Inductive interference protection • • Radio interference protection • 	
Degree of protection	IP67	

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.
With 2 m cable, PUR			
NO contact	15	▶ B	3RG40 11-0JB00
With 8 mm combination plug			
NO contact	7	A	3RG40 11-7JB00
With M12 connector			
NO contact	6	E, F ▶ B	3RG40 11-3JB00

1) See page 2/242.

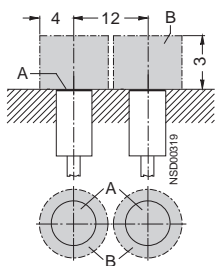
2) See from page 2/268.

▶ Preferred type, available from stock

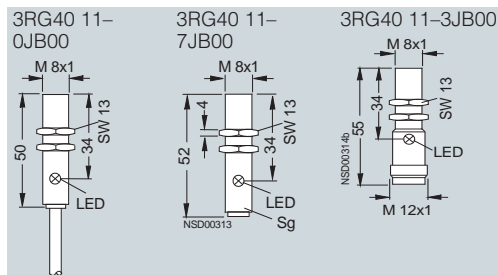
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions



A = active surface
B = metal-free area



SIMATIC PXI inductive proximity switches

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Operating distance 1.5 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	3-wire
Design		Ø 6.5 mm, mini	Ø 6.5 mm, Shorty	Ø 6.5 mm
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		1.5 mm	1.5 mm	1.5 mm
Enclosure material		Stainless steel	Stainless steel	Stainless steel
Operating voltage (DC)	V	10 ... 30	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 10	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)
Rated operational current I_e	mA	200	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	3000	1500	1500
Repeat accuracy R	mm	0.02	0.1	0.1
Power-up delay t_v	ms	10	40	40
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		–	•	•
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR			3 × 0.14 mm ²	3 × 0.25 mm ²	3 × 0.25 mm ²
NO contact, pnp	11	▶	3RG42 01-1AB00	3RG40 50-0AG33	3RG40 50-0AG05
NC contact, pnp	12		–	B 3RG40 50-0AF33	3RG40 50-0AF05
NO contact, npn	13		–	3RG40 50-0GB33	3RG40 50-0GB05
NC contact, npn	14		–	3RG40 50-0GA33	3RG40 50-0GA05
With 8 mm combination plug					
NO contact, pnp	2	A ▶	3RG42 01-7AG00	3RG40 50-7AG33	3RG40 50-7AG05
NC contact, pnp	3	A ▶	3RG42 01-7AF00	B 3RG40 50-7AF33	3RG40 50-7AF05
NO contact, npn	4	A	3RG46 01-7GB00	3RG40 50-7GB33	3RG40 50-7GB05
NC contact, npn	5	A	–	B 3RG40 50-7GA33	3RG40 50-7GA05

1) See page 2/242.

2) See from page 2/268.

▶ Preferred type, available from stock

B: Subject to export regulations AL = N and ECCN = EAR99

SIMATIC PXI inductive proximity switches

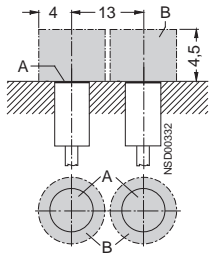
SIMATIC PXI200

Operating distance 1.5 mm

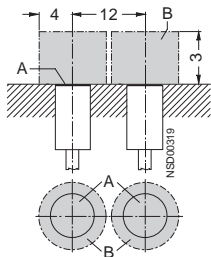
Dimensions

Mounting instructions

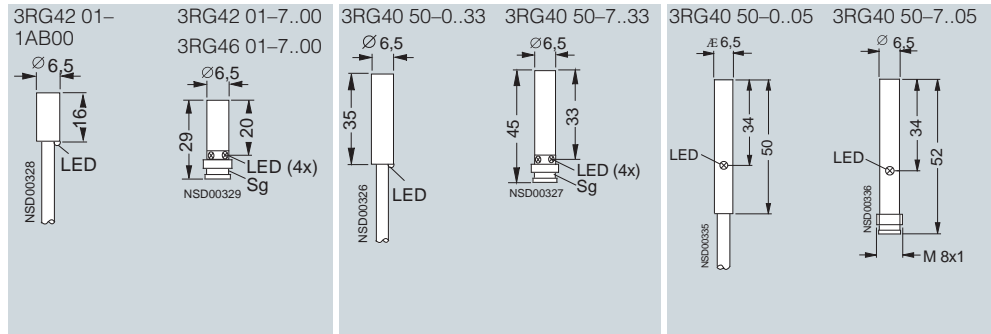
3RG42 01, 3RG46 01-7



3RG40 50



A = active surface
B = metal-free area



2

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 1.5 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	3-wire
Design		M8, mini	Ø 8 mm, Shorty	8 mm × 8 mm
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		1.5 mm	1.5 mm	1.5 mm
Enclosure material		Brass, nickel-plated	Stainless steel	Brass, nickel-plated
Operating voltage (DC)	V	10 ... 30	15 ... 34	10 ... 30
No-load supply current I_0	mA	≤ 10	≤ 17 (24 V); ≤ 30 (34 V)	≤ 10
Rated operational current I_e	mA	200	200 (≤ 50 °C); 150 (≤ 85 °C)	200
Switching frequency f	Hz	3000	1500	1000
Repeat accuracy R	mm	0.01	0.1	0.07
Power-up delay t_v	ms	10	40	10
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		–	•	–
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.	
With 2 m cable, PUR						
NO contact, pnp	11	▶	3 × 0.14 mm ² 3RG42 11-0AG31	▶	3 × 0.25 mm ² 3RG40 51-0AG33	
NC contact, pnp	12		–	B	3RG40 51-0AF33	
NO contact, npn	13		–		3RG40 51-0GB33	
NC contact, npn	14		–		3RG40 51-0GA33	
With 8 mm combination plug						
NO contact, pnp	2	A	▶	3RG42 11-7AG31	▶	3RG40 51-7AG33
NC contact, pnp	3	A	▶	3RG42 11-7AF31	B	3RG40 51-7AF33
NO contact, npn	4	A		3RG46 11-7GB31		3RG40 51-7GB33
NC contact, npn	5	A		–	B	3RG40 51-7GA33

1) See page 2/242.

2) See from page 2/268.

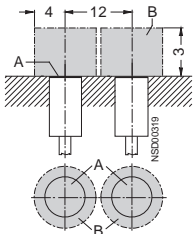
B: Subject to export regulations AL = N and ECCN = EAR99

▶ Preferred type, available from stock.

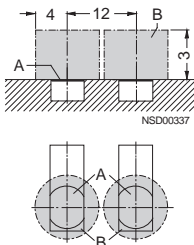
Dimensions

Mounting instructions

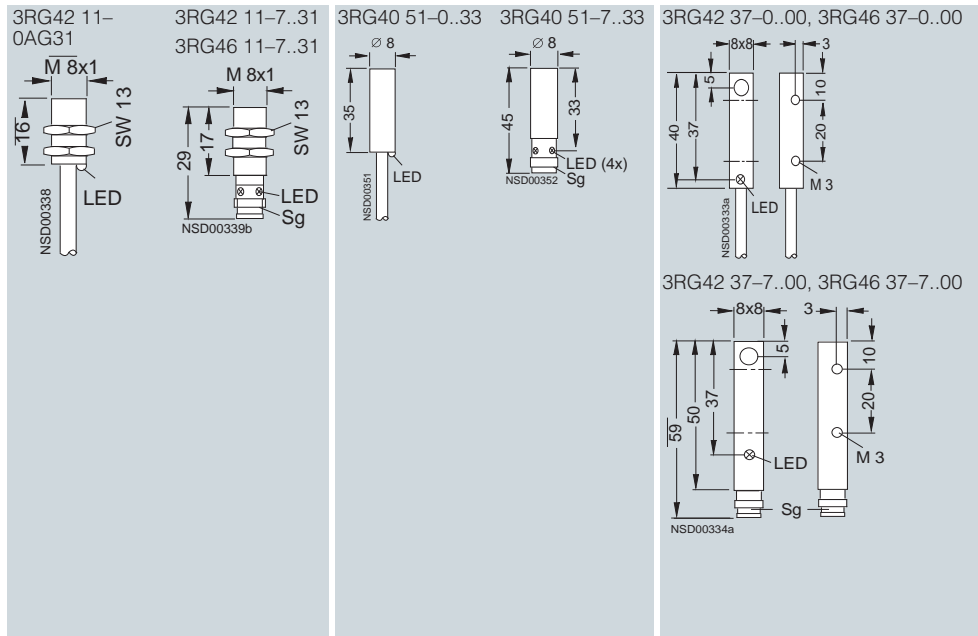
3RG42 11, 3RG46 11, 3RG40 51



3RG42 37, 3RG46 37



A = active surface
B = metal-free area



Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	4-wire
Design		M8, Shorty	M8	M8
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		1.5 mm	1.5 mm	1.5 mm
Enclosure material		Stainless steel	Stainless steel	Stainless steel
Operating voltage (DC)	V	15 ... 34	15 ... 34	10 ... 30
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)	≤ 1.0
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	50
Switching frequency f	Hz	1500	1500	1500
Repeat accuracy R	mm	0.1	0.1	0.1
Power-up delay t_v	ms	40	40	40
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		•	•	•
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR					
NO contact, pnp	11	▶	3 × 0.25 mm ² 3RG40 11-0AG33	▶	3 × 0.25 mm ² 3RG40 11-0AG05
NC contact, pnp	12	▶ B	3RG40 11-0AF33	▶	3RG40 11-0AF05
NO contact, npn	13		3RG40 11-0GB33		3RG40 11-0GB05
NC contact, npn	14		3RG40 11-0GA33		3RG40 11-0GA05
NO contact and NC contact, pnp	10		–		▶ 3RG40 11-0CC05
With 8 mm combination plug					
NO contact, pnp	2	A ▶	3RG40 11-7AG33	▶	3RG40 11-7AG05
NC contact, pnp	3	A ▶ B	3RG40 11-7AF33	▶	3RG40 11-7AF05
NO contact, npn	4	A	3RG40 11-7GB33		–
NC contact, npn	5	A B	3RG40 11-7GA33		–
NO contact and NC contact, pnp	1	F	–		B 3RG40 11-7CC05
With M12 connector					
NO contact, pnp	2	E, F	–	▶	3RG40 11-3AG05
NC contact, pnp	3	F	–		3RG40 11-3AF05
NO contact, npn	4	E, F	–		3RG40 11-3GB05
NC contact, npn	5	F	–		3RG40 11-3GA05
NO contact and NC contact, pnp	1	F	–		3RG40 11-3CC05

1) See page 2/242.

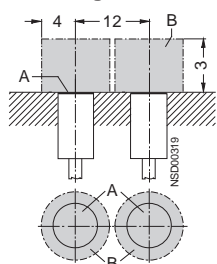
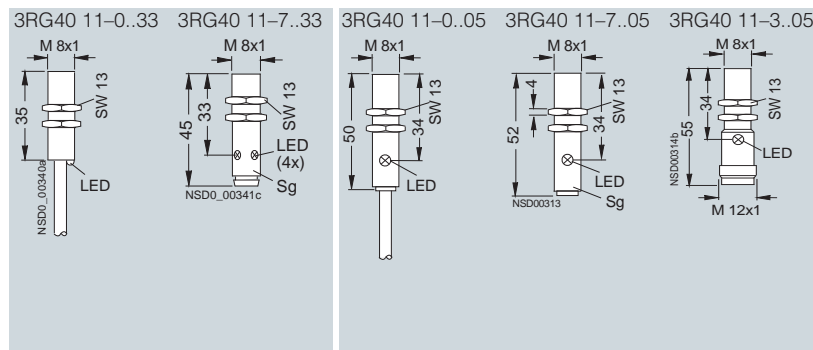
2) See from page 2/268.

▶ Preferred type, available from stock

B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions

A = active surface;
B = metal-free area

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 2 mm

Technical specifications

Class	Standard duty			
	3-wire	4-wire	3-wire	4-wire
Number of wires				
Design	M12, Shorty	M12, Shorty	M12	M12
Installation in metal	Flush	Flush	Flush	Flush
Rated operating distance s_n	2 mm	2 mm	2 mm	2 mm
Enclosure material	Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated
Operating voltage (DC)	V 15 ... 34	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA ≤ 17 (24 V); ≤ 30 (34 V)	≤ 1.0	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA 200 (≤ 50 °C); 150 (≤ 85 °C)	50	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz 1200	800	1200	1200
Repeat accuracy R	mm 0.1	0.1	0.1	0.1
Power-up delay t_v	ms 40	3	40	40
Switching status display	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression	•	•	•	•
• Short-circuit-proof/overload-proof	•	•	•	•
• Reverse-polarity protection	•	•	•	•
• Wire-break protection	•	•	•	•
• Inductive interference protection	•	•	•	•
• Radio interference protection	•	•	•	•
Degree of protection	IP67	IP67	IP67	IP67
Type	3RG40 12-.A.33 3RG40 12-.G.33	3RG40 12-0CD10 3RG40 12-3CD11	3RG40 12-.A.01 3RG40 12-.G.00	3RG40 12-0CD00 3RG40 12-3CD00

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR				
NO contact, pnp	11	▶	3RG40 12-0AG33	▶ B 3RG40 12-0AG01
NC contact, pnp	12	B	3RG40 12-0AF33	B 3RG40 12-0AF01
NO contact, npn	13	▶ B	3RG40 12-0GB33	▶ B 3RG40 12-0GB00
NC contact, npn	14	B	3RG40 12-0GA33	B 3RG40 12-0GA00
			4 × 0.25 mm ²	4 × 0.14 mm ²
NO contact and NC contact, pnp	10		3RG40 12-0CD10	▶ B 3RG40 12-0CD00
With M12 connector				
NO contact, pnp	2	E, F	▶ 3RG40 12-3AG33	▶ B 3RG40 12-3AG01
NC contact, pnp	3	F	B 3RG40 12-3AF33	▶ B 3RG40 12-3AF01
NO contact, npn	4	E, F	B 3RG40 12-3GB33	▶ B 3RG40 12-3GB00
NC contact, npn	5	F	3RG40 12-3GA33	-
			4-wire	4-wire
NO contact and NC contact, pnp	1	F	3RG40 12-3CD11	▶ B 3RG40 12-3CD00

1) See page 2/242.

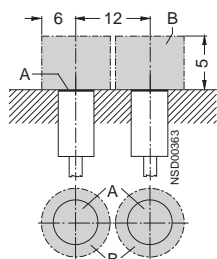
2) See from page 2/268.

▶ Preferred type, available from stock.

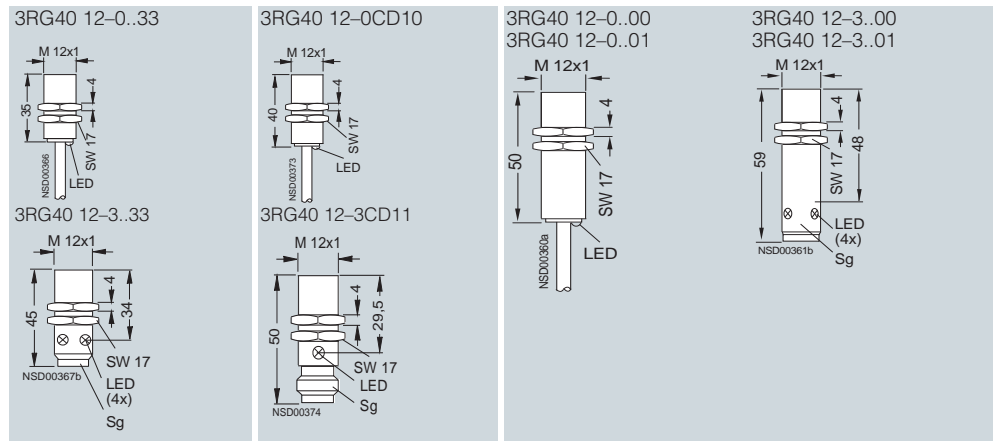
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions



A = active surface
B = metal-free area



Technical specifications

Class		Standard duty (PLC)
Number of wires		2-wire
Design		M12
Installation in metal		Flush
Rated operating distance s_n		2 mm
Enclosure material		Brass, nickel-plated
Operating voltage		
• DC	V	15 ... 34
No-load supply current I_0		
• At 24 V DC	mA	1.5
Rated operational current I_e		
• Continuous	mA	25
Minimum load current		mA
		2
Switching frequency f		Hz
		700
Repeat accuracy R		mm
		0.1
Power-up delay t_v		ms
		40
Switching status display		Yellow LED
Precautions		
• Spurious signal suppression		•
• Short-circuit-proof/overload-proof		—
• Reverse-polarity protection		•
• Wire-break protection		•
• Inductive interference protection		•
• Radio interference protection		•
Degree of protection		IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.
With 2 m cable, PUR			2 × 0.25 mm ²
NO contact	15	▶ B	3RG40 12-0JB00
With M12 connector			
NO contact	6	E, F ▶ B	3RG40 12-3JB00

1) See page 2/242.

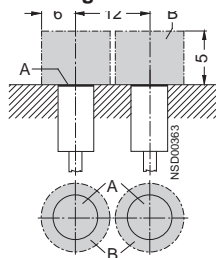
2) See from page 2/268.

▶ Preferred type, available from stock

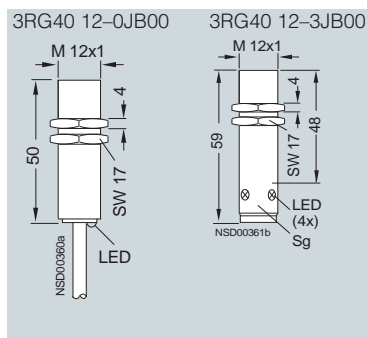
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions



A = active surface
B = metal-free area



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 2 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	4-wire	4-wire
Design		Cubic 12 mm x 40 mm	Cubic 12 mm x 40 mm	Cubic 12 mm x 32 mm
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		2 mm	2 mm	2 mm
Enclosure material		Molded plastic	Molded plastic	Molded plastic
Operating voltage (DC)	V	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)	≤ 1.0
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	50	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	800	1200	1200
Repeat accuracy R	mm	0.2	0.1	0.1
Power-up delay t_v	ms	40	40	40
Switching status display		Yellow LED	Yellow LED	–
Precautions				
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		•	•	–
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR			$3 \times 0.25 \text{ mm}^2$	$3 \times 0.25 \text{ mm}^2$	$4 \times 0.14 \text{ mm}^2$
NO contact, pnp	11		3RG40 70-0AG45	–	–
NO contact and NC contact, pnp	10		–	–	3RG40 71-0CD00
With 8 mm combination plug					
NO contact, pnp	2	A	3RG40 70-7AG45	–	–
NO contact and NC contact, pnp	1	F	–	3RG40 70-7CD45	–

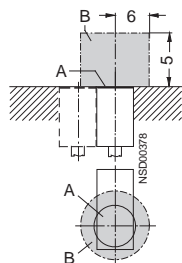
1) See page 2/242.

2) See from page 2/268.

▶ Preferred type, available from stock

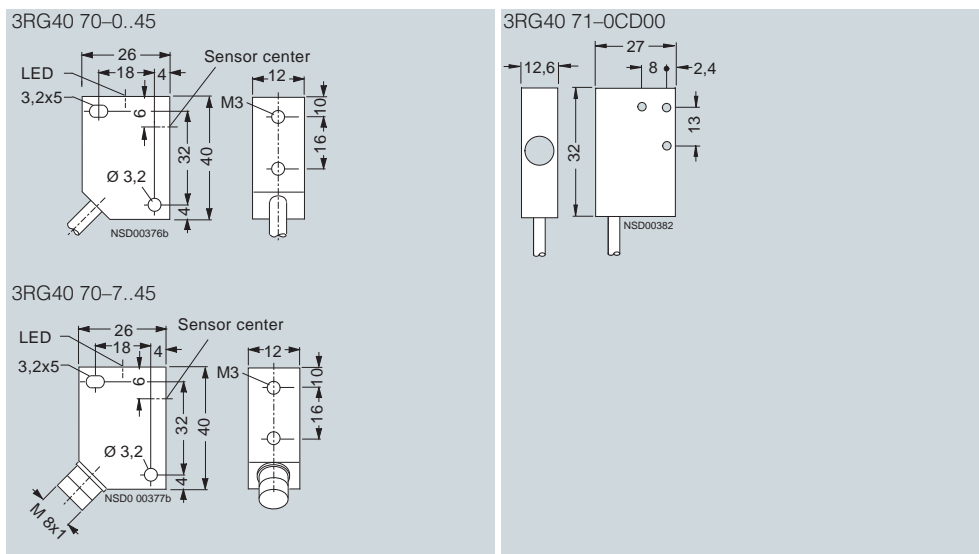
Dimensions

Mounting instructions



A = active surface
B = metal-free area

These proximity switches can be mounted next to one another.



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 2 mm

Technical specifications

Class		Standard duty	Standard duty
Number of wires		3-wire	4-wire
Design		Cubic 12 mm x 40 mm	Cubic 12 mm x 40 mm
Installation in metal		Flush	Flush
Rated operating distance s_n		2 mm	2 mm
Enclosure material		Molded plastic	Molded plastic
Operating voltage (DC)	V	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 40 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	1200	1200
Repeat accuracy R	mm	0.1	0.1
Power-up delay t_v	ms	40	40
Switching status display		Yellow LED	Yellow LED
Precautions			
• Spurious signal suppression		•	•
• Short-circuit-proof/overload-proof		•	•
• Reverse-polarity protection		•	•
• Wire-break protection		•	•
• Inductive interference protection		•	•
• Radio interference protection		•	•
Degree of protection		IP67	IP67

Selection and Ordering data

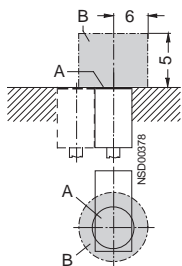
Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR			$3 \times 0.25 \text{ mm}^2$	$4 \times 0.14 \text{ mm}^2$
NO contact, pnp	11		3RG40 70-0AG01	—
NC contact, pnp	12		3RG40 70-0AF01	—
NO contact and NC contact, pnp	10		—	3RG40 70-0CD00
With 8 mm combination plug				
NO contact, pnp	2	A	3RG40 70-7AG01	—
NO contact and NC contact, pnp; LED corresp. to NO contact	1	B	—	3RG40 70-7CD01
NO contact and NC contact, pnp; LED corresp. to NC contact	1	B	—	3RG40 70-7CD02
With M12 connector				
NO contact, pnp	2	E, F	3RG40 70-3AG01	—
NC contact, pnp	3	F	3RG40 70-3AF01	—
NO contact and NC contact, pnp	1	F	—	3RG40 70-3CD00

1) See page 2/242.

2) See from page 2/268.

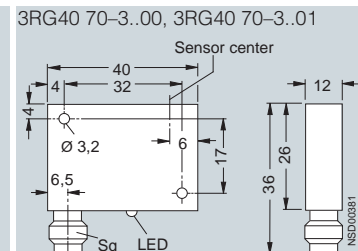
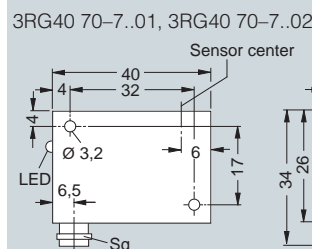
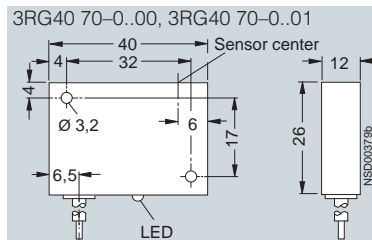
Dimensions

Mounting instructions



A = active surface
B = metal-free area

These proximity switches can be mounted next to one another.



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 2.5 mm

Technical specifications

Class		Standard duty	Standard duty
Number of wires		3-wire	3-wire
Design		Ø 6.5 mm	M8
Installation in metal		Not flush	Not flush
Rated operating distance s_n		2.5 mm	2.5 mm
Enclosure material		Stainless steel	Stainless steel
Operational voltage (DC)	V	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	900	1200
Repeat accuracy R	mm	0.08	0.1
Power-up delay t_v	ms	40	40
Switching status display		Yellow LED	Yellow LED
Precautions		•	•
• Spurious signal suppression		•	•
• Short-circuit-proof/overload-proof		•	•
• Reverse-polarity protection		•	•
• Wire-break protection		•	•
• Inductive interference protection		•	•
• Radio interference protection		•	•
Degree of protection		IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR			3 × 0.25 mm ²	3 × 0.25 mm ²
NO contact, pnp	11		3RG40 60-0AG33	3RG40 21-0AG33
NC contact, pnp	12	B	3RG40 60-0AF33	B 3RG40 21-0AF33
NO contact, npn	13	B	3RG40 60-0GB33	3RG40 21-0GB33
NC contact, npn	14	B	3RG40 60-0GA33	3RG40 21-0GA33
With 8 mm combination plug				
NO contact, pnp	2	A	3RG40 60-7AG33	3RG40 21-7AG33
NC contact, pnp	3	A	B 3RG40 60-7AF33	B 3RG40 21-7AF33
NO contact, npn	4	A	3RG40 60-7GB33	3RG40 21-7GB33
NC contact, npn	5	A	B 3RG40 60-7GA33	B 3RG40 21-7GA33

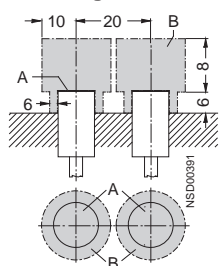
1) See page 2/242.

2) See from page 2/268.

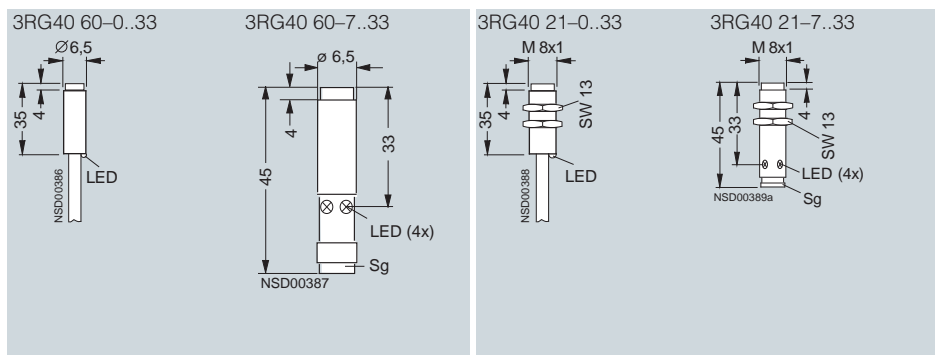
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions



A = active surface
B = metal-free area



Technical specifications

Class		Standard duty	Standard duty
Number of wires		3-wire	4-wire
Design		M14	M14
Installation in metal		Flush	Flush
Rated operating distance s_n		2.5 mm	2.5 mm
Enclosure material		Molded plastic	Molded plastic
Operational voltage (DC)	V	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	800	800
Repeat accuracy R	mm	0.1	0.1
Power-up delay t_v	ms	40	40
Switching status display		Yellow LED	Yellow LED
Precautions		<ul style="list-style-type: none"> • Spurious signal suppression • Short-circuit-proof/overload-proof • Reverse-polarity protection • Wire-break protection • Inductive interference protection • Radio interference protection 	<ul style="list-style-type: none"> • • • • • •
Degree of protection		IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR			$3 \times 0.25 \text{ mm}^2$	$4 \times 0.14 \text{ mm}^2$
NO contact, npn	13	B	3RG40 72-0GB00	—
NC contact, npn	14	▶ B	3RG40 72-0GA00	—
NO contact and NC contact, npn	10	—	—	▶ B 3RG40 72-0CD00
With M12 connector				
NO contact, npn	4	E, F	B 3RG40 72-3GB00	—
NC contact, npn	5	F	B 3RG40 72-3GA00	—
NO contact and NC contact, npn	1	F	—	▶ B 3RG40 72-3CD00

1) See page 2/242.

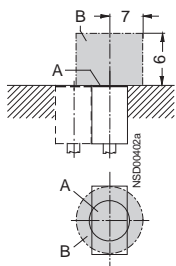
2) See from page 2/268.

▶ Preferred type, available from stock.

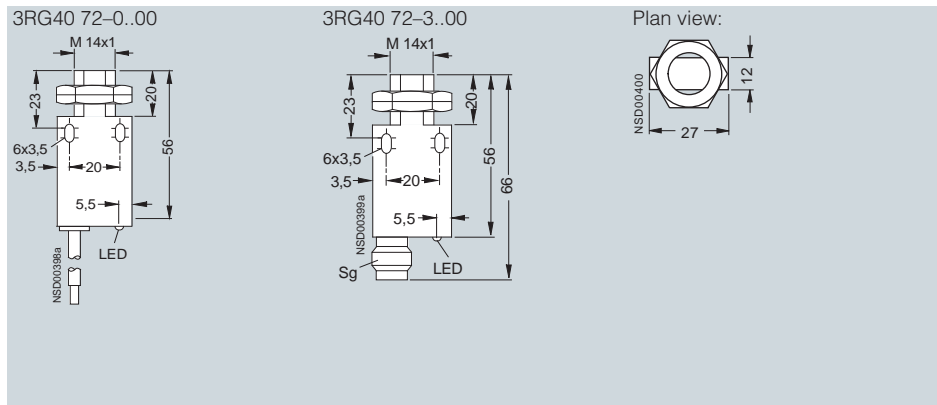
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions

A = active surface
B = metal-free area

These proximity switches can be mounted next to one another.



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 2.5 mm

Technical specifications

Class	Standard duty (PLC)	
Number of wires	2-wire	
Design	M14	
Installation in metal	Flush	
Rated operating distance s_n	2.5 mm	
Enclosure material	Molded plastic	
Operating voltage		
• DC	V	15 ... 34
No-load supply current I_0		
• At 24 V DC	mA	1.5
Rated operational current I_e		
• Continuous	mA	25
Minimum load current	mA	2
Switching frequency f	Hz	800
Repeat accuracy R	mm	0.1
Power-up delay t_v	ms	40
Switching status display	Yellow LED	
Precautions		
• Spurious signal suppression	•	
• Short-circuit-proof/overload-proof	—	
• Reverse-polarity protection	•	
• Wire-break protection	•	
• Inductive interference protection	•	
• Radio interference protection	•	
Degree of protection	IP67	

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.
With 2 m cable, PUR			2 × 0.25 mm ²
NO contact	15	B	3RG40 72-0JB00
With M12 connector			
NO contact	6	E, F	3RG40 72-3JB00

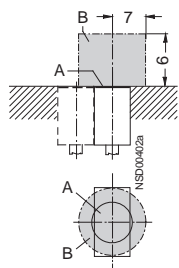
1) See page 2/242.

2) See from page 2/268.

B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

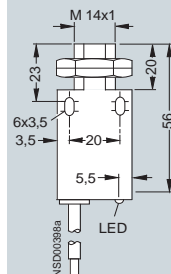
Mounting instructions



A = active surface
B = metal-free area

These proximity switches can be mounted next to one another.

3RG40 72-0..00



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 4 mm

2

Technical specifications

Class	Standard duty			
	3-wire	4-wire	3-wire	4-wire
Number of wires				
Design	M12, Shorty	M12, Shorty	M12	M12
Installation in metal	Not flush	Not flush	Not flush	Not flush
Rated operating distance s_n	4 mm	4 mm	4 mm	4 mm
Enclosure material	Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated
Operational voltage (DC)	V 15 ... 34	V 15 ... 34	V 15 ... 34	V 15 ... 34
No-load supply current I_0	mA ≤ 17 (24 V); ≤ 30 (34 V)	mA 1.0	mA ≤ 17 (24 V); ≤ 30 (34 V)	mA ≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA 200 ($\leq 50^\circ\text{C}$); 150 ($\leq 85^\circ\text{C}$)	mA 50	mA 200 ($\leq 50^\circ\text{C}$); 150 ($\leq 85^\circ\text{C}$)	mA 200 ($\leq 50^\circ\text{C}$); 150 ($\leq 85^\circ\text{C}$)
Switching frequency f	Hz 800	Hz 800	Hz 800	Hz 800
Repeat accuracy R	mm 0.2	mm 0.2	mm 0.2	mm 0.2
Power-up delay t_v	ms 40	ms 40	ms 40	ms 40
Switching status display	Yellow LED	Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression	•	•	•	•
• Short-circuit-proof/overload-proof	•	•	•	•
• Reverse-polarity protection	•	•	•	•
• Wire-break protection	•	•	•	•
• Inductive interference protection	•	•	•	•
• Radio interference protection	•	•	•	•
Degree of protection	IP67	IP67	IP67	IP67
Type	3RG40 22-.A.33 3RG40 22-.G.33	3RG40 22-0CD10 3RG40 22-3CD11	3RG40 22-.A.01 3RG40 22-.G.00	3RG40 22-0CD00 3RG40 22-3CD00

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR				
NO contact, pnp	11		3 × 0.25 mm ²	3 × 0.25 mm ²
NC contact, pnp	12		▶ B 3RG40 22-0AG33	▶ B 3RG40 22-0AG01
NO contact, npn	13		▶ B 3RG40 22-0AF33	▶ B 3RG40 22-0AF01
NC contact, npn	14		B 3RG40 22-0GB33	▶ B 3RG40 22-0GB00
			3RG40 22-0GA33	B 3RG40 22-0GA00
			4 × 0.14 mm ²	4 × 0.14 mm ²
NO contact and NC contact, pnp	10		▶ B 3RG40 22-0CD10	▶ B 3RG40 22-0CD00
With M12 connector				
NO contact, pnp	2	E, F	▶ B 3RG40 22-3AG33	▶ B 3RG40 22-3AG01
NC contact, pnp	3	F	B 3RG40 22-3AF33	▶ B 3RG40 22-3AF01
NO contact, npn	4	E, F	B 3RG40 22-3GB33	▶ B 3RG40 22-3GB00
NC contact, npn	5	F	3RG40 22-3GA33	B 3RG40 22-3GA00
			4-wire	4-wire
NO contact and NC contact, pnp	1	F	▶ B 3RG40 22-3CD11	▶ B 3RG40 22-3CD00

1) See page 2/242.

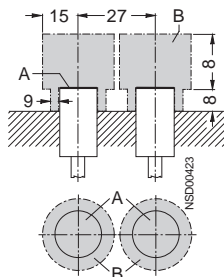
2) See from page 2/268.

▶ Preferred type, available from stock.

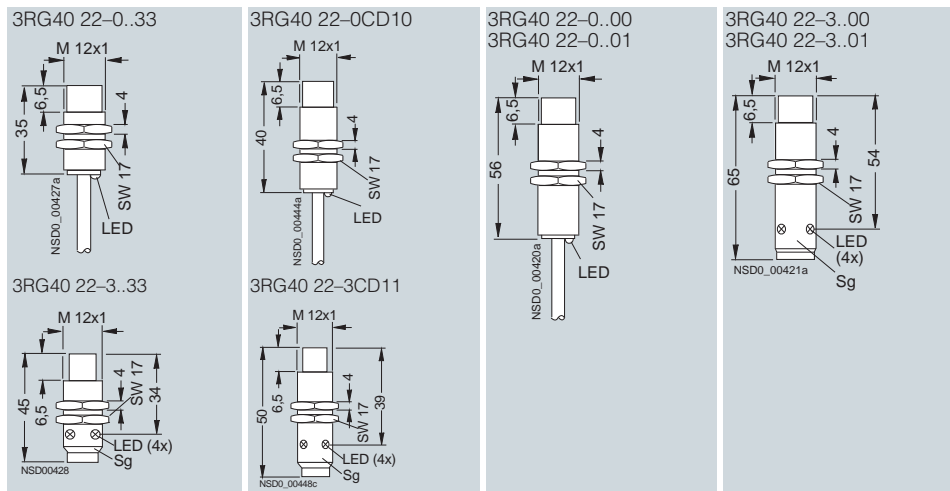
B: Subject to export regulations AL = N and ECCN = EAR99

Dimensions

Mounting instructions



A = active surface
B = metal-free area



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 4 mm

Technical specifications

Class		Standard duty	Standard duty (PLC)
Number of wires		3-wire	2-wire
Design		Cubic 12 mm x 40 mm	M12
Installation in metal		Not flush	Not flush
Rated operating distance s_n		4 mm	4 mm
Enclosure material		Molded plastic	Brass, nickel-plated
Operational voltage (DC)	V	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 1.5 (24 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	25
Minimum load current		–	2
Switching frequency f	Hz	800	300
Repeat accuracy R	mm	0.2	0.2
Power-up delay t_v	ms	40	40
Switching status display		Yellow LED	Yellow LED
Precautions			
• Spurious signal suppression	•	•	•
• Short-circuit-proof/overload-proof	•	•	–
• Reverse-polarity protection	•	•	•
• Wire-break protection	•	•	•
• Inductive interference protection	•	•	•
• Radio interference protection	•	•	•
Degree of protection		IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR			$3 \times 0.34 \text{ mm}^2$	$2 \times 0.25 \text{ mm}^2$
NO contact, npn	11		3RG40 80-0AG45	–
NO contact	15		–	▶ B 3RG40 22-0JB00
With 8 mm combination plug				
NO contact, npn	2	A	3RG40 80-7AG45	–
With M12 connector				
NO contact	6	E, F	–	▶ B 3RG40 22-3JB00

1) See page 2/242.

2) See from page 2/268.

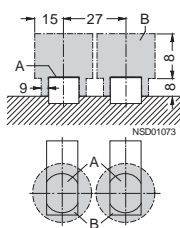
▶ Preferred type, available from stock.

B: Subject to export regulations AL = N and ECCN = EAR99.

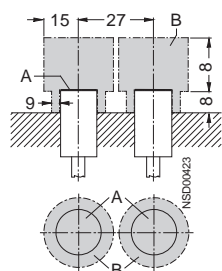
Dimensions

Mounting instructions

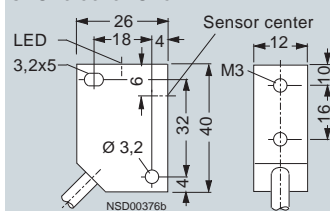
3RG40 80-AG45



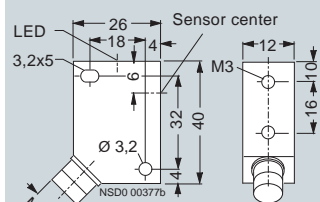
3RG40 22-JB00

A = active surface
B = metal-free area

3RG40 80-0AG45

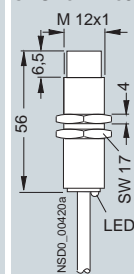


3RG40 80-7AG45

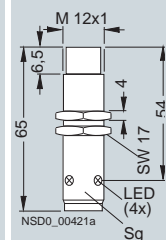


These proximity switches can be mounted next to one another.

3RG40 22-0JB00



3RG40 22-3JB00



Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	4-wire
Design		M18, Shorty	M18	M18
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		5 mm	5 mm	5 mm
Enclosure material		Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated
Operational voltage (DC)	V	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	800	800	800
Repeat accuracy R	mm	0.15	0.15	0.15
Power-up delay t_v	ms	40	40	40
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions		•	•	•
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		•	•	•
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR			3 × 0.25 mm ²	3 × 0.25 mm ²	4 × 0.14 mm ²
NO contact, pnp	11	▶ B	3RG40 13-0AG33	▶ B 3RG40 13-0AG01	—
NC contact, pnp	12	B	3RG40 13-0AF33	B 3RG40 13-0AF01	—
NO contact, npn	13	B	3RG40 13-0GB33	▶ B 3RG40 13-0GB00	—
NC contact, npn	14	B	3RG40 13-0GA33	3RG40 13-0GA00	—
NO contact and NC contact, pnp	10	—	—	—	▶ B 3RG40 13-0CD00
With M12 connector					
NO contact, pnp	2	E, F	▶ B 3RG40 13-3AG33	▶ B 3RG40 13-3AG01	—
NC contact, pnp	3	F	B 3RG40 13-3AF33	B 3RG40 13-3AF01	—
NO contact, npn	4	E, F	B 3RG40 13-3GB33	B 3RG40 13-3GB00	—
NC contact, npn	5	F	B 3RG40 13-3GA33	B 3RG40 13-3GA00	—
NO contact and NC contact, pnp	1	F	—	—	▶ B 3RG40 13-3CD00

1) See page 2/242.

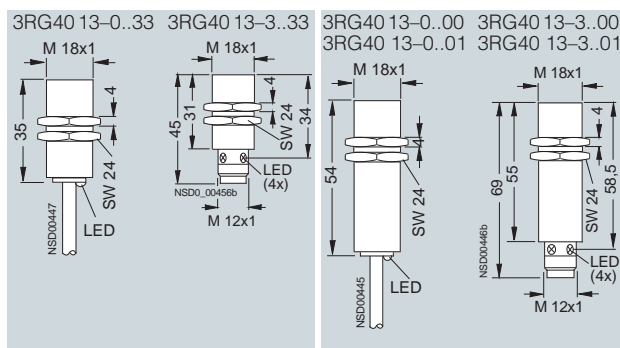
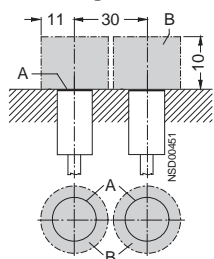
2) See from page 2/268.

▶ Preferred type, available from stock.

B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

Mounting instructions



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 5 mm

Technical specifications

Class		Standard duty	Standard duty
Number of wires		3-wire	4-wire
Design		Ø 18 mm (button)	M14
Installation in metal		Flush	Not flush
Rated operating distance s_n		5 mm (3,2 mm)	5 mm
Enclosure material		Molded plastic	Molded plastic
Operational voltage (DC)	V	10 ... 30	15 ... 34
No-load supply current I_0	mA	≤ 1.5	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	50	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	100	300
Repeat accuracy R	mm	0.15	0.1
Power-up delay t_v	ms	1.0	40
Switching status display		–	Yellow LED
Precautions			
• Spurious signal suppression	–		•
• Short-circuit-proof/overload-proof	–		•
• Reverse-polarity protection	•		•
• Wire-break protection	–		•
• Inductive interference protection	•		•
• Radio interference protection	•		•
Degree of protection		IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR				4 × 0.14 mm ²
NO contact and NC contact, pnp	10	–	–	B 3RG40 82–0CD00
With M12 connector				
NO contact and NC contact, pnp	1	F	–	B 3RG40 82–3CD00
With single wires, 0.5 m, PVC			3 × 0.25 mm ²	
NO contact, pnp	11	▶	3RG40 75–0AJ00	–
NC contact, pnp	12	–	3RG40 75–0AH00	–
NO contact, npn	13	▶	3RG40 75–0GJ00	–

1) See page 2/242.

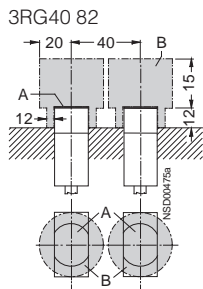
2) See from page 2/268.

▶ Preferred type, available from stock.

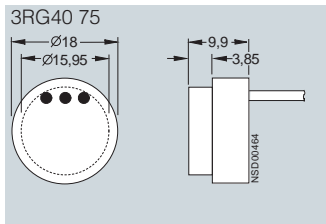
B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

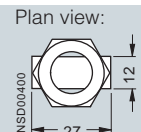
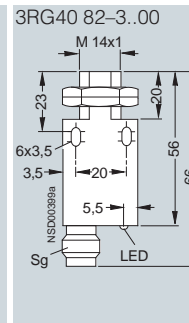
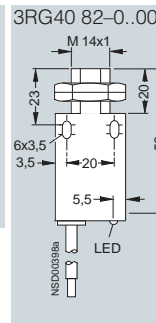
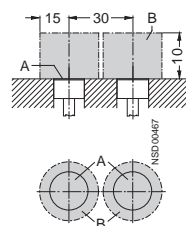
Mounting instructions



A = active surface
B = metal-free area



Mounting instructions



3RG40 75–0GJ00 also possible
with non-embedding mounting:
Rated operating distance
 $s_n = 3,2$ mm

Technical specifications

Class	Standard duty (PLC)	
Number of wires	2-wire	
Design	M18	
Installation in metal	Flush	
Rated operating distance s_n	5 mm	
Enclosure material	Brass, nickel-plated	
Operational voltage (DC)		
• DC	V	15 ... 34
No-load supply current I_0		
• At 24 V DC	mA	≤1.5
Rated operational current I_e		
• Continuous	mA	25
Minimum load current	mA	2
Switching frequency f	Hz	400
Repeat accuracy R	mm	0.15
Power-up delay t_v	ms	40
Switching status display	Yellow LED	
Precautions		
• Spurious signal suppression	•	
• Short-circuit-proof/overload-proof	—	
• Reverse-polarity protection	•	
• Wire-break protection	•	
• Inductive interference protection	•	
• Radio interference protection	•	
Degree of protection	IP67	

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.
With 2 m cable, PUR			$2 \times 0.25 \text{ mm}^2$
NO contact	15	▶ B	3RG40 13-0JB00
With M12 connector			
NO contact	6	E, F ▶ B	3RG40 13-3JB00

1) See page 2/242.

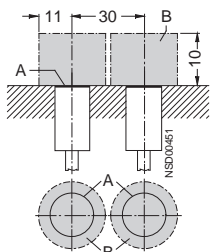
2) See from page 2/268.

▶ Preferred type, available from stock.

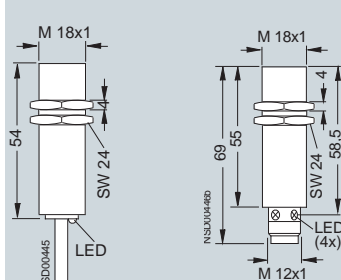
B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

Mounting instructions

A = active surface
B = metal-free area

3RG40 13-0JB00 3RG40 13-3JB00



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 8 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	4-wire
Design		M18, Shorty	M18	M18
Installation in metal		Not flush	Not flush	Not flush
Rated operating distance s_n		8 mm	8 mm	8 mm
Enclosure material		Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated
Operating voltage (DC)	V	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	500	500	500
Repeat accuracy R	mm	0.2	0.2	0.2
Power-up delay t_v	ms	40	40	40
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression	•	•	•	•
• Short-circuit-proof/overload-proof	•	•	•	•
• Reverse-polarity protection	•	•	•	•
• Wire-break protection	•	•	•	•
• Inductive interference protection	•	•	•	•
• Radio interference protection	•	•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR			3 × 0.25 mm ²	3 × 0.25 mm ²	4 × 0.14 mm ²
NO contact, pnp	11	B	3RG40 23-0AG33	▶ B 3RG40 23-0AG01	—
NC contact, pnp	12	B	3RG40 23-0AF33	B 3RG40 23-0AF01	—
NO contact, npn	13	B	3RG40 23-0GB33	B 3RG40 23-0GB00	—
NC contact, npn	14	B	3RG40 23-0GA33	B 3RG40 23-0GA00	—
NO contact and NC contact, pnp	10	—	—	—	▶ B 3RG40 23-0CD00
With M12 connector					
NO contact, pnp	2	E, F	B 3RG40 23-3AG33	▶ B 3RG40 23-3AG01	—
NC contact, pnp	3	F	B 3RG40 23-3AF33	B 3RG40 23-3AF01	—
NO contact, npn	4	E, F	B 3RG40 23-3GB33	B 3RG40 23-3GB00	—
NC contact, npn	5	F	B 3RG40 23-3GA33	—	—
NO contact and NC contact, pnp	1	F	—	—	B 3RG40 23-3CD00

1) See page 2/242.

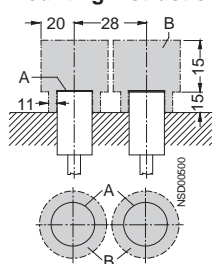
2) See from page 2/268.

▶ Preferred type, available from stock.

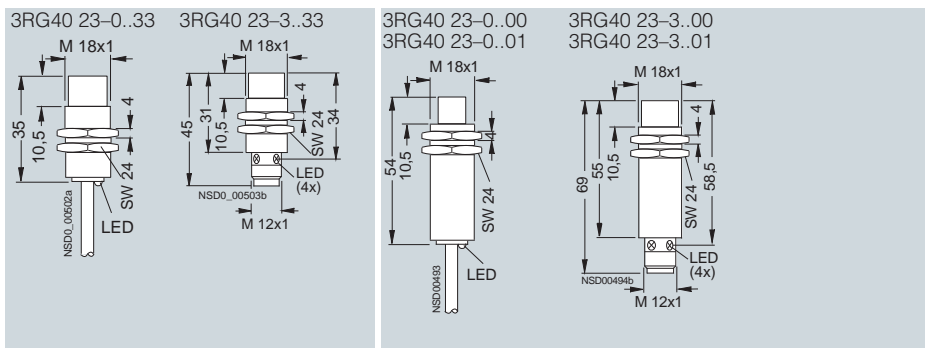
B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

Mounting instructions



A = active surface;
B = metal-free area



Technical specifications

Class	Standard duty (PLC)	
Number of wires	2-wire	
Design	M18	
Installation in metal	Not flush	
Rated operating distance s_n	8 mm	
Enclosure material	Brass, nickel-plated	
Operating voltage		
• DC	V	15 ... 34
No-load supply current I_0		
• At 24 V DC	mA	≤ 1.5
Rated operational current I_e		
• Continuous	mA	25
Minimum load current	mA	2
Switching frequency f	Hz	200
Repeat accuracy R	mm	0.2
Power-up delay t_v	ms	40
Switching status display	Yellow LED	
Precautions		
• Spurious signal suppression	•	
• Short-circuit-proof/overload-proof	–	
• Reverse-polarity protection	•	
• Wire-break protection	•	
• Inductive interference protection	•	
• Radio interference protection	•	
Degree of protection	IP67	
Type	3RG40 23-..JB00	

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.
With 2 m cable, PUR			
NO contact	15	▶ B	3RG40 23-0JB00
With M12 connector			
NO contact	6	E, F ▶ B	3RG40 23-3JB00

1) See page 2/242.

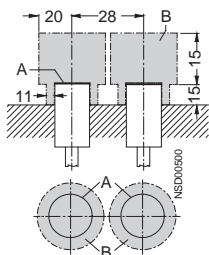
2) See from page 2/268.

▶ Preferred type, available from stock.

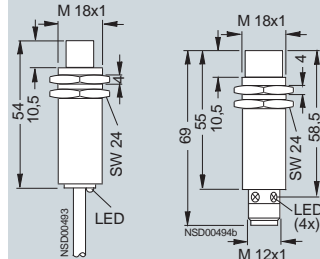
B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

Mounting instructions

A = active surface
B = metal-free area

3RG40 22-0..00 3RG40 22-3..00



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 10 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	4-wire
Design		M30, Shorty	M30	M30
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		10 mm	10 mm	10 mm
Enclosure material		Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated
Operating voltage (DC)	V	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	300	300	300
Repeat accuracy R	mm	0.3	0.3	0.3
Power-up delay t_v	ms	40	40	40
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions				
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		•	•	•
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR			3 × 0.25 mm ²	3 × 0.25 mm ²	4 × 0.14 mm ²
NO contact, pnp	11	B	3RG40 14-0AG33	▶ B 3RG40 14-0AG01	—
NC contact, pnp	12	B	3RG40 14-0AF33	▶ B 3RG40 14-0AF01	—
NO contact, npn	13	B	3RG40 14-0GB33	▶ B 3RG40 14-0GB00	—
NC contact, npn	14	B	3RG40 14-0GA33	B 3RG40 14-0GA00	—
NO contact and NC contact, pnp	10	—	—	—	▶ B 3RG40 14-0CD00
With M12 connector					
NO contact, pnp	2	E, F	▶ B 3RG40 14-3AG33	▶ B 3RG40 14-3AG01	—
NC contact, pnp	3	F	B 3RG40 14-3AF33	B 3RG40 14-3AF01	—
NO contact, npn	4	E, F	B 3RG40 14-3GB33	B 3RG40 14-3GB00	—
NC contact, npn	5	F	B 3RG40 14-3GA33	—	—
NO contact and NC contact, pnp	1	F	—	—	B 3RG40 14-3CD00

1) See page 2/242.

2) See from page 2/268.

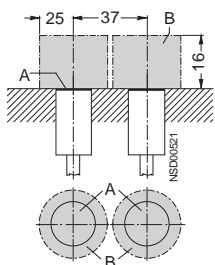
▶ Preferred type, available from stock.

B: Subject to export regulations AL = N and ECCN = EAR99.

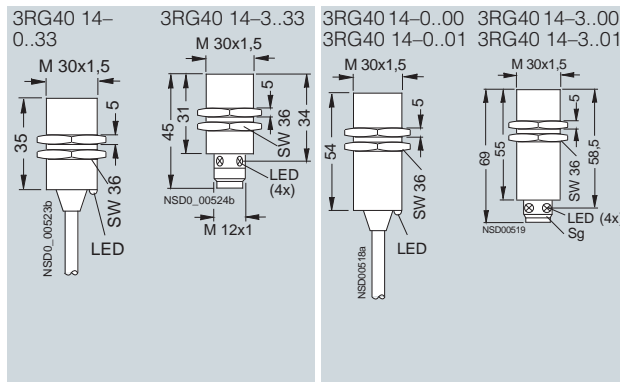
Dimensions

Mounting instructions

3RG40 14-...33



A = active surface
B = metal-free area



Technical specifications

Class	Standard duty (PLC)		Standard duty
Number of wires	2-wire		4-wire
Design	M30		M30
Installation in metal	Flush		Flush
Rated operating distance s_n	10 mm		10 mm
Enclosure material	Brass, nickel-plated		Brass, nickel-plated
Operating voltage			
• DC	V	15 ... 34	15 ... 34
No-load supply current I_0			
• At 24 V DC	mA	≤1.5	15
Rated operational current I_e			
• Continuous	mA	25	200
Minimum load current	mA	2	–
Switching frequency f	Hz	300	300
Repeat accuracy R	mm	0.3	0.3
Power-up delay t_v	ms	40	40
Switching status display	Yellow LED		–
Precautions			
• Spurious signal suppression	•		•
• Short-circuit-proof/overload-proof	–		•
• Reverse-polarity protection	•		•
• Wire-break protection	•		•
• Inductive interference protection	•		•
• Radio interference protection	•		•
Degree of protection	IP67		IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR				
NO contact	15	▶ B	3RG40 14-0JB00	–
NO contact and NC contact, pnp	10	–	–	▶ B 3RG40 14-0CD00
With M12 connector				
NO contact	6	E, F	B 3RG40 14-3JB00	–
NO contact and NC contact, pnp	1	F	–	B 3RG40 14-3CD00

1) See page 2/242.

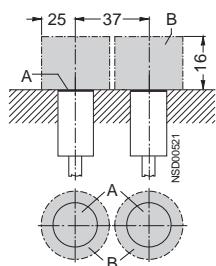
2) See from page 2/268.

▶ Preferred type, available from stock.

B: Subject to export regulations AL = N and ECCN = EAR99.

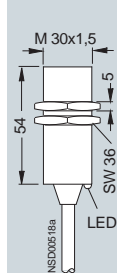
Dimensions

Mounting instructions

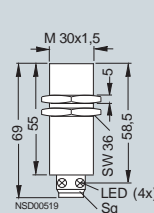


A = active surface
B = metal-free area

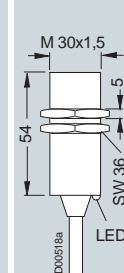
3RG40 14-0JB00



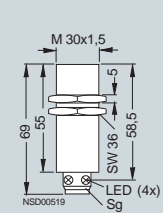
3RG40 14-3JB00



3RG40 14-3CD00



3RG40 14-0CD00



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 15 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	3-wire	4-wire
Design		M30, Shorty	M30	M30
Installation in metal		Not flush	Not flush	Not flush
Rated operating distance s_n		15 mm	15 mm	15 mm
Enclosure material		Brass, nickel-plated	Brass, nickel-plated	Brass, nickel-plated
Operating voltage (DC)	V	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 17 (24 V); ≤ 30 (34 V)	≤ 17 (24 V); ≤ 30 (34 V)	≤ 25 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	300	300	300
Repeat accuracy R	mm	0.4	0.4	0.4
Power-up delay t_v	ms	40	40	40
Switching status display		Yellow LED	Yellow LED	Yellow LED
Precautions		•	•	•
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	•	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		•	•	•
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP67	IP67	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With 2 m cable, PUR			3 × 0.25 mm ²	3 × 0.25 mm ²	4 × 0.14 mm ²
NO contact, pnp	11	B	3RG40 24-0AG33	▶ B 3RG40 24-0AG01	—
NC contact, pnp	12	B	3RG40 24-0AF33	B 3RG40 24-0AF01	—
NO contact, npn	13	B	3RG40 24-0GB33	B 3RG40 24-0GB00	—
NC contact, npn	14	B	3RG40 24-0GA33	B 3RG40 24-0GA00	—
NO contact and NC contact, pnp	10	—	—	—	▶ B 3RG40 24-0CD00
With M12 connector					
NO contact, pnp	2	E, F	B 3RG40 24-3AG33	▶ B 3RG40 24-3AG01	—
NC contact, pnp	3	F	B 3RG40 24-3AF33	B 3RG40 24-3AF01	—
NO contact, npn	4	E, F	B 3RG40 24-3GB33	B 3RG40 24-3GB00	—
NC contact, npn	5	F	B 3RG40 24-3GA33	—	—
NO contact and NC contact, pnp	1	F	—	—	B 3RG40 24-3CD00

1) See page 2/242.

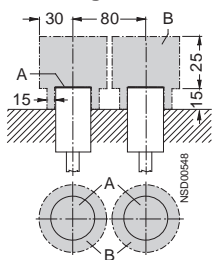
2) See from page 2/268.

▶ Preferred type, available from stock.

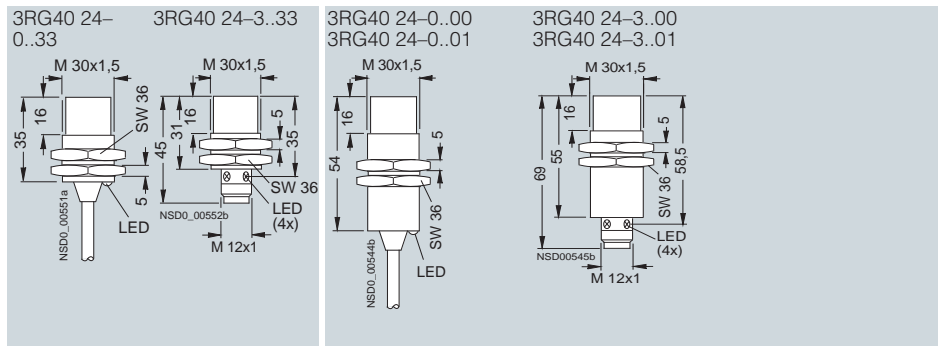
B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

Mounting instructions



A = active surface
B = metal-free area



SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 15 mm

Technical specifications

Class		Standard duty	Standard duty	Standard duty
Number of wires		3-wire	4-wire	4-wire
Design		Cubic 40 mm x 40 mm	Cubic 40 mm x 40 mm	Cubic 40 mm x 40 mm
Installation in metal		Flush	Flush	Flush
Rated operating distance s_n		15 mm	15 mm	15 mm
Enclosure material		Molded plastic	Molded plastic	Molded plastic
Operating voltage	V	15 ... 34	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 25 (24 V); ≤ 40 (34 V)	≤ 30 (24 V); ≤ 50 (34 V)	≤ 30 (24 V); ≤ 40 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	100	100	50
Repeat accuracy R	mm	0.75	0.75	0.75
Power-up delay t_v	ms	100	100	100
LEDs				
• Switching status		Yellow LED	Yellow LED	Yellow LED
• Supply voltage		Green LED	Green LED	Green LED
Precautions				
• Spurious signal suppression		•	•	•
• Short-circuit-proof/overload-proof		•	–	•
• Reverse-polarity protection		•	•	•
• Wire-break protection		•	•	•
• Inductive interference protection		•	•	•
• Radio interference protection		•	•	•
Degree of protection		IP65	IP65	IP67

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.	Order No.
With M12 connector, rotatable					
NO contact and NC contact, pnp	1	F	–	–	▶ B 3RG40 38–3CD00
NO contact and NC contact, npn	–	F	–	–	B 3RG40 38–3GD00
With terminal box					
NO contact, pnp	19	▶	3RG40 31–6AG01	–	–
NC contact, pnp	20		3RG40 31–6AF01	–	–
NO contact, npn	21	▶	3RG40 31–6GB00	–	–
NO contact and NC contact, pnp	18		–	▶ B 3RG40 31–6CD00	–

1) See page 2/242.

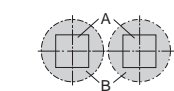
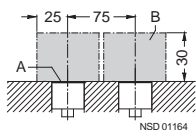
2) See from page 2/268.

▶ Preferred type, available from stock.

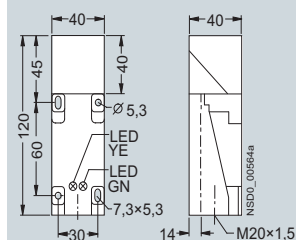
B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

Mounting instructions

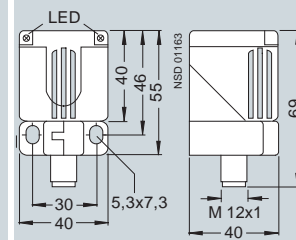
A = active surface;
B = metal-free area

3RG40 31–6..0.



The active surface can be adjusted in 5 directions.

3RG40 38–3..00

The active surface can be adjusted in 5 directions.
With rotatable connector..

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 15 mm

Technical specifications

Class	Standard duty (PLC)		Standard duty (PLC)	
Number of wires	2-wire		2-wire	
Design	M30		Cubic 40 mm × 40 mm	
Installation in metal	Not flush		Flush	
Rated operating distance s_n	15 mm		15 mm	
Enclosure material	Brass, nickel-plated		Molded plastic	
Operating voltage				
• DC	V	15 ... 34	15 ... 34	
No-load supply current I_0				
• At 24 V DC	mA	≤ 1.5	≤ 1.5	
Rated operational current I_e				
• Continuous	mA	25	25	
Minimum load current	mA	2	2	
Switching frequency f	Hz	180	100	
Repeat accuracy R	mm	0.4	0.75	
Power-up delay t_v	ms	40	100	
Switching status display	Yellow LED		Yellow LED	
Precautions				
• Spurious signal suppression	•		•	
• Short-circuit-proof/overload-proof	—		—	
• Reverse-polarity protection	•		•	
• Wire-break protection	•		•	
• Inductive interference protection	•		•	
• Radio interference protection	•		•	
Degree of protection	IP67		IP65	

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Connector type ²⁾	Order No.	Order No.
With 2 m cable, PUR				
NO contact	15	▶ B	3RG40 24-0JB00	—
With M12 connector				
NO contact	6	E, F	3RG40 24-3JB00	—
With terminal box				
NO contact	22	—	▶	3RG40 31-6JB00

1) See page 2/242.

2) See from page 2/268.

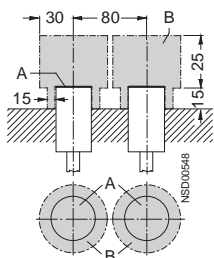
▶ Preferred type, available from stock.

B: Subject to export regulations AL = N and ECCN = EAR99.

Dimensions

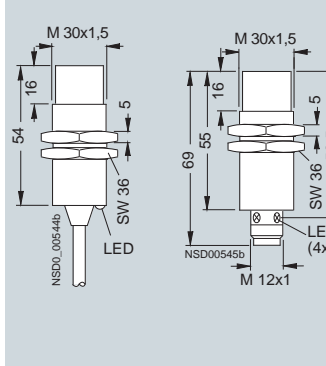
Mounting instructions

3RG40 24-0..00
3RG40 24-3..00



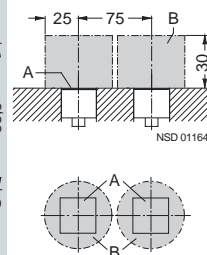
A = active surface
B = metal-free area

3RG40 24-0..00 3RG40 24-3..00



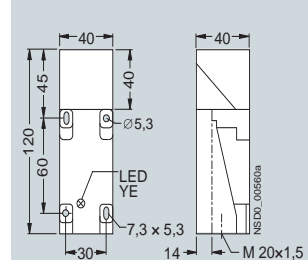
Mounting instructions

3RG40 31-6JB00



A = active surface
B = metal-free area

3RG40 31-6JB00



The active surface can be adjusted in 5 directions.

Technical specifications

Class		Standard duty	Standard duty
Number of wires		3-wire	4-wire
Design		Cubic 40 mm x 40 mm	Cubic 40 mm x 40 mm
Installation in metal		Not flush	Not flush
Rated operating distance s_n		20 mm	20 mm
Enclosure material		Molded plastic	Molded plastic
Operating voltage	V	15 ... 34	15 ... 34
No-load supply current I_0	mA	≤ 25 (24 V); ≤ 40 (34 V)	≤ 30 (24 V); ≤ 50 (34 V)
Rated operational current I_e	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)
Switching frequency f	Hz	75	75
Repeat accuracy R	mm	0.75	0.75
Power-up delay t_v	ms	100	100
LEDs			
• Switching status		Yellow LED	Yellow LED
• Supply voltage		Green LED	Green LED
Precautions			
• Spurious signal suppression		•	•
• Short-circuit-proof/overload-proof		•	–
• Reverse-polarity protection		•	•
• Wire-break protection		•	•
• Inductive interference protection		•	•
• Radio interference protection		•	•
Degree of protection		IP65	IP65

Selection and Ordering data

Switching output	Circuit diagram number ¹⁾	Order No.	Order No.
With terminal box			
NO contact, pnp	19	▶ 3RG40 41-6AG01	–
NC contact, pnp	20	3RG40 41-6AF01	–
NO contact, npn	21	3RG40 41-6GB00	–
NO contact and NC contact, pnp	18	–	▶ B 3RG40 41-6CD00

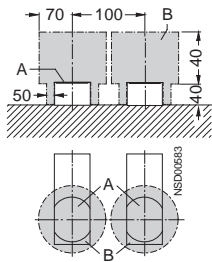
1) See page 2/242.

▶ Preferred type, available from stock.

B: Subject to export regulations AL = N and ECCN = EAR99.

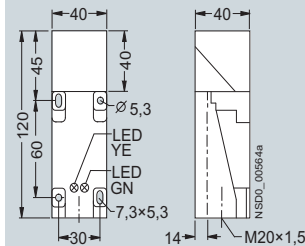
Dimensions

Mounting instructions



A = active surface
B = metal-free area

3RG40 41-6..0.



The active surface can be adjusted in 5 directions.

SIMATIC PXI inductive proximity switches

SIMATIC PXI200

Operating distance 20 mm

Technical specifications

Class	Standard duty (PLC)	
Number of wires	2-wire	
Design	Cubic 40 mm x 40 mm	
Installation in metal	Not flush	
Rated operating distance s_n	20 mm	
Enclosure material	Molded plastic	
Operating voltage		
• DC	V	15 ... 34
No-load supply current I_0		
• At 24 V DC	mA	≤ 1.5
Rated operational current I_e		
• Continuous	mA	25
Minimum load current	mA	2
Switching frequency f	Hz	75
Repeat accuracy R	mm	0.75
Power-up delay t_v	ms	100
LEDs		
• Switching status	Yellow LED	
Precautions		
• Spurious signal suppression	•	
• Short-circuit-proof/overload-proof	–	
• Reverse-polarity protection	•	
• Wire-break protection	•	
• Inductive interference protection	•	
• Radio interference protection	•	
Degree of protection	IP65	

Selection and Ordering data

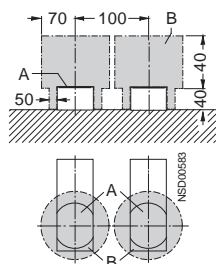
Switching output	Circuit diagram number ¹⁾	Order No.
With terminal box		0.5 ... 2.5 mm ²
NO contact	22	3RG40 41-6JB00

1) See page 2/242.

▶ Preferred type, available from stock.

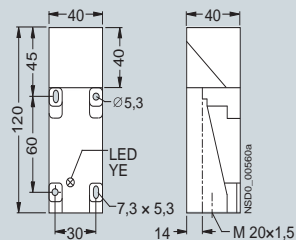
Dimensions

Mounting instructions



A = active surface
B = metal-free area

3RG40 41-6JB00



The active surface can be adjusted in 5 directions.

Operating distance 30 mm
Operating distance 40 mm

2

Technical specifications

Class	Standard duty		Standard duty	
Number of wires	4-wire		4-wire	
Design	Cubic 60 mm x 80 mm		Cubic 80 mm x 100 mm	
Installation in metal	Not flush		Not flush	
Rated operating distance s_n	30 mm		40 mm	
Enclosure material	Molded plastic		Molded plastic	
Operating voltage	15 ... 34		15 ... 34	
• DC	V	15 ... 34	15 ... 34	
No-load supply current I_0	≤ 30 (24 V); ≤ 50 (34 V)		≤ 30 (24 V); ≤ 50 (34 V)	
• At 24 V DC	mA	≤ 30 (24 V); ≤ 50 (34 V)	≤ 30 (24 V); ≤ 50 (34 V)	
Rated operational current I_e	200 (≤ 50 °C); 150 (≤ 85 °C)		200 (≤ 50 °C); 150 (≤ 85 °C)	
• Continuous	mA	200 (≤ 50 °C); 150 (≤ 85 °C)	200 (≤ 50 °C); 150 (≤ 85 °C)	
Switching frequency f	Hz	50	10	
Repeat accuracy R	mm	1.0	1.0	
Power-up delay t_v	ms	100	200	
LEDs	Yellow LED		Yellow LED	
• Switching status	Green LED		Green LED	
• Supply voltage				
Precautions				
• Spurious signal suppression	•		•	
• Short-circuit-proof/overload-proof	•		•	
• Reverse-polarity protection	•		•	
• Wire-break protection	•		•	
• Inductive interference protection	•		•	
• Radio interference protection	•		•	
Degree of protection	IP65		IP65	

Selection and Ordering data

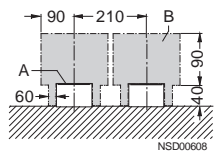
Switching output	Circuit diagram number ¹⁾	Order No.	Order No.
With terminal box		0.5 ... 2.5 mm ²	0.5 ... 2.5 mm ²
NO contact and NC contact, pnp	18	B 3RG40 42-6CD00	B 3RG40 43-6CD00

1) See page 2/242.
B: Subject to export regulations AL = N and ECCN = EAR99.

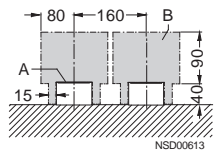
Dimensions

Mounting instructions

3RG40 42-6CD00

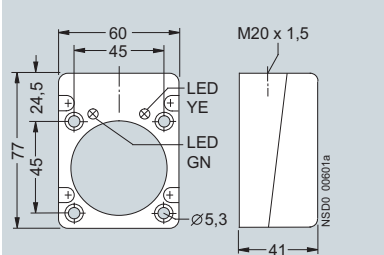


3RG40 43-6CD00



A = active surface
B = metal-free area

3RG40 42-6CD00



3RG40 43-6CD00

