




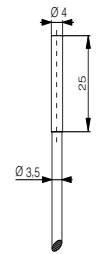
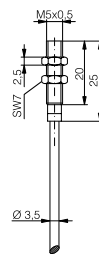
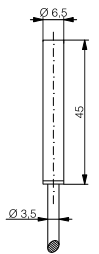
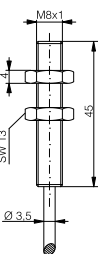
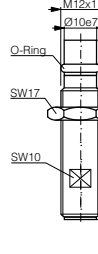


Size	Ø 4	M5	Ø 6.5	M8	
Operating distance mm	<b>0.6</b>	<b>0.6</b>	<b>2.5</b>	<b>2.5</b>	<b>1.5</b>
Max. operating pressure	20 bars	20 bars	20 bars	20 bars	500 bars
Housing material	Stainless steel V2A	Stainless steel V2A	Stainless steel V2A	Stainless steel V2A	Stainless steel V2A
Sensing face	Sapphire	Sapphire	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>
Connection <sup>1)</sup>	PUR cable type 3	PUR cable type 3	PUR cable type 3	PUR cable type 3	Connector S12
Degree of protection	IP 68	IP 68	IP 68	IP 68	IP 68
Mounting	Embeddable	Embeddable	Embeddable	Embeddable	Embeddable
Max. switching frequency	5,000 Hz	5,000 Hz	1,000 Hz	1,000 Hz	2,000 Hz
Technical data <sup>2)</sup>	Table 1	Table 1	Table 1	Table 1	Table 6
Wiring <sup>3)</sup>	Diagram 1	Diagram 1	Diagram 1	Diagram 1	Diagram 2
LED	---	---	---	---	---
Supply voltage range	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC
Ambient temperature range	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C	-25 ... +70 °C	-25 ... +80 °C
Output current	≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA
<sup>1)</sup> Standard cable length 2 m. Non-standard cable lengths and types on request. <sup>2)</sup> see page 68 <sup>3)</sup> see page 69 <sup>4)</sup> see page 112					
Dimensions:					
Part references: ( <b>bold</b> : preferred types)					
NPN N.O.	<b>DW-AD-401-04E</b>	<b>DW-AD-401-M5E</b>	<b>DW-AD-501-065E</b>	<b>DW-AD-501-M8E</b>	<b>DW-AS-501-P12-624</b>
NPN N.C.					
PNP N.O.	<b>DW-AD-403-04E</b>	<b>DW-AD-403-M5E</b>	<b>DW-AD-503-065E</b>	<b>DW-AD-503-M8E</b>	<b>DW-AS-503-P12-624</b>
PNP N.C.					
NAMUR					
AC/DC 2-wire N.O.					
AC/DC 2-wire N.C.					
Compatible connectors <sup>4)</sup>					G ... N

# HIGH-PRESSURE-RESISTANT SERIES P

P12				P18	P20	
<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>3</b>	<b>3</b>
500 bars	500 bars	500 bars	500 bars	500 bars	500 bars	500 bars
Stainless steel V2A	Stainless steel V2A	Stainless steel V2A	Stainless steel V2A	Stainless steel V2A	Stainless steel V4A	Stainless steel V4A
Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>	Ceramic ZrO <sub>2</sub>
Connector S12	Connector S12	Connector S12	Connector S12	Connector S12	PUR cable type 11	Connector S12
IP 68	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68
Embeddable	Embeddable	Embeddable	Embeddable	Embeddable	Embeddable	Embeddable
2,000 Hz	2,000 Hz	2,000 Hz	2,000 Hz	2,000 Hz	500 Hz	500 Hz
Table 6	Table 6	Table 6	Table 6	Table 6	Table 6	Table 6
Diagram 2	Diagram 2	Diagram 2	Diagram 2	Diagram 2	Diagram 1	Diagram 2
---	---	---	---	---	---	---
10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC
-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C	-25 ... +80 °C
≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA

1  
Inductive  
proximity switches

2  
Photoelectric  
proximity switches

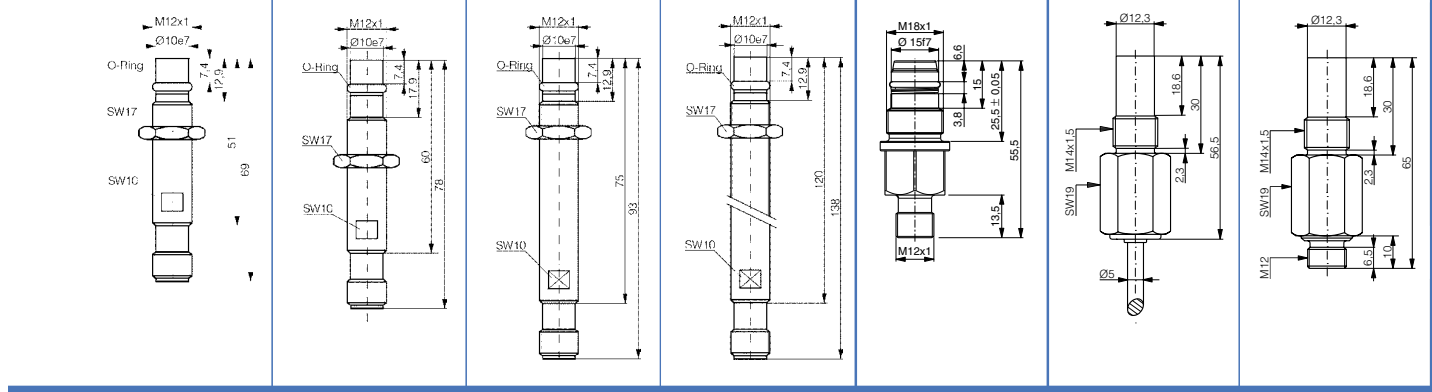
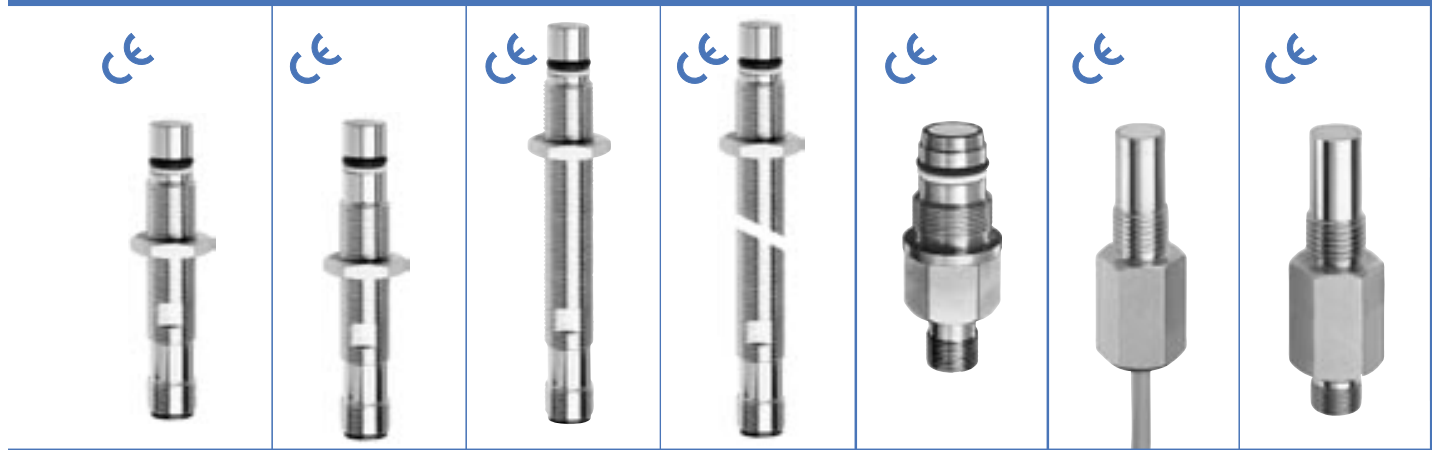
3  
Optical fibers

4  
Connecting cables

5  
Accessories







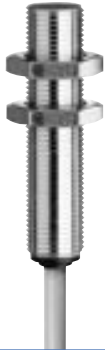



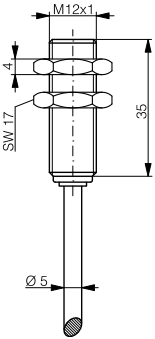
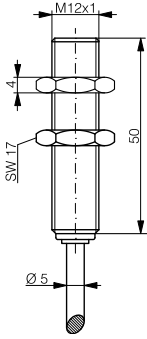
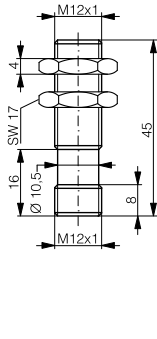
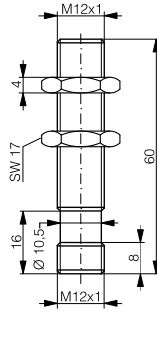
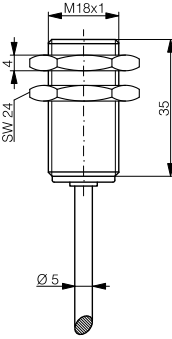
6  
Glossary

7  
Index



<b>DW-AS-501-P12</b>	<b>DW-AS-501-P12-627</b>	<b>DW-AS-501-P12-621</b>	<b>DW-AS-501-P12-622</b>	in preparation	<b>DW-AD-501-P20</b>	<b>DW-AS-501-P20</b>
<b>DW-AS-503-P12</b>	<b>DW-AS-503-P12-627</b>	<b>DW-AS-503-P12-621</b>	<b>DW-AS-503-P12-622</b>	<b>DW-AS-503-P18</b>	<b>DW-AD-503-P20</b>	<b>DW-AS-503-P20</b>
G ... N	G ... N	G ... N	G ... N	G ... N	G ... N	G ... N

For all these products, you will find detailed data sheets, application notes, dimensional drawings, cross-reference lists, part references, new items, special executions, extensive additional technical information, specifications concerning quality, safety and standards, as well as the addresses of our agents, and much more besides, on our Internet website at [www.contrinex.com](http://www.contrinex.com). The website contents are constantly up-dated and extended.

Size	M12				M18
Sensing range mm	<b>0 ... 6</b>	<b>0 ... 6</b>	<b>0 ... 6</b>	<b>0 ... 6</b>	<b>0 ... 10</b>
Housing material	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass
Connection <sup>1)</sup>	PUR cable type 7	PUR cable type 7	Connector S12	Connector S12	PUR cable type 7
Degree of protection	IP 67	IP 67	IP 67	IP 67	IP 67
Cut-off frequency -3dB	1,000 Hz	1,000 Hz	1,000 Hz	1,000 Hz	500 Hz
Mounting	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable
Technical data <sup>2)</sup>	Table 7	Table 7	Table 7	Table 7	Table 7
Voltage output	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V
Current output	1 ... 5 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA
Wiring <sup>3)</sup>	Diagram 5	Diagram 5	Diagram 5	Diagram 5	Diagram 5
Supply voltage range	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*
Ambient temperature range	-25 ... +70 °C	-25 ... +70 °C**	-25 ... +70 °C	-25 ... +70 °C**	-25 ... +70 °C**
<sup>1)</sup> Standard cable length 2 m. Non-standard cable lengths and types on request. <sup>2)</sup> see page 68 <sup>3)</sup> see page 69 <sup>4)</sup> see page 112					
					
Dimensions:					
Part references: ( <b>bold</b> : preferred types)					
Non-linearized:					
Outputs 0...5 V / 1...5 mA	<b>DW-AD-509-M12-120</b>	<b>DW-AD-509-M12</b>	<b>DW-AS-509-M12-120</b>	<b>DW-AS-509-M12</b>	<b>DW-AD-509-M18 -120</b>
Outputs 0...10 V / 4...20 mA	<b>DW-AD-509-M12-320***</b>	<b>DW-AD-509-M12-390</b>	<b>DW-AS-509-M12-320***</b>	<b>DW-AS-509-M12-390</b>	<b>DW-AD-509-M18 -320</b>
Compatible connectors <sup>4)</sup>			M, N	M, N	

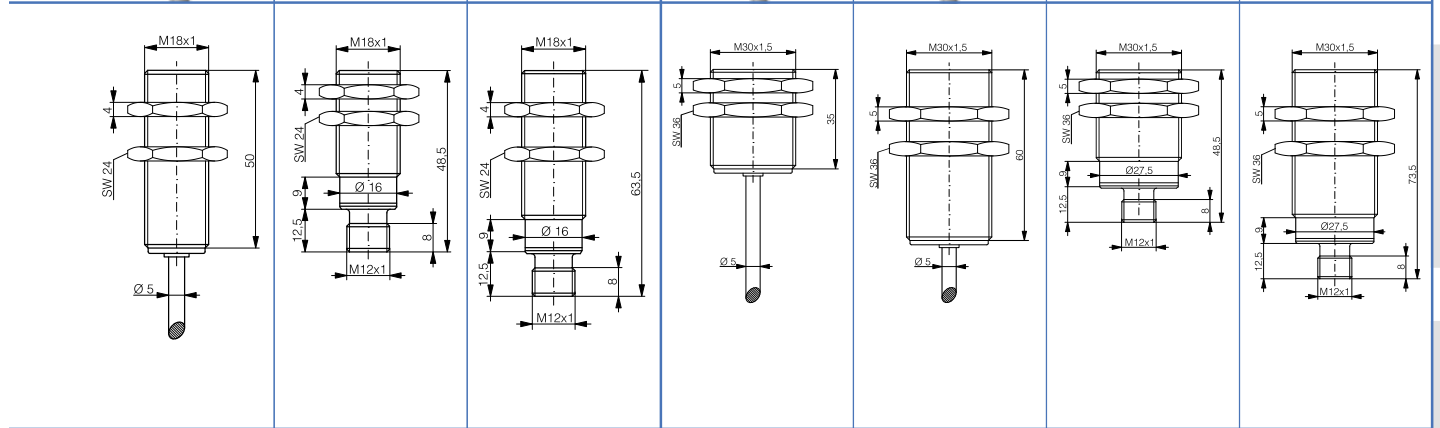
\* DW-A#-509-M##-320/390

\*\* Depending on operating conditions, limited temperature range for types DW-A#-509-M##-320/390 (see data sheets)

\*\*\* without current output

# ANALOG SERIES

M18			M30			
0 ... 10	0 ... 10	0 ... 10	0 ... 20	0 ... 20	0 ... 20	0 ... 20
Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass
PUR cable type 7	Connector S12	Connector S12	PUR cable type 7	PUR cable type 7	Connector S12	Connector S12
IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
500 Hz	500 Hz	500 Hz	200 Hz	200 Hz	200 Hz	200 Hz
Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable
Table 7	Table 7	Table 7	Table 7	Table 7	Table 7	Table 7
0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V	0 ... 5 V / 0 ... 10 V
1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA	1 ... 5 mA / 4 ... 20 mA
Diagram 5	Diagram 5	Diagram 5	Diagram 5	Diagram 5	Diagram 5	Diagram 5
10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*	10 ... 30 / 15 ... 30 VDC*
-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**



<b>DW-AD-509-M18</b>	<b>DW-AS-509-M18-120</b>	<b>DW-AS-509-M18-002</b>	<b>DW-AD-509-M30-120</b>	<b>DW-AD-509-M30</b>	<b>DW-AS-509-M30-120</b>	<b>DW-AS-509-M30-002</b>
<b>DW-AD-509-M18-390</b>	<b>DW-AS-509-M18-320</b>	<b>DW-AS-509-M18-390</b>	<b>DW-AD-509-M30-320</b>	<b>DW-AD-509-M30-390</b>	<b>DW-AS-509-M30-320</b>	<b>DW-AS-509-M30-390</b>
	M, N	M, N			M, N	M, N

\* DW-A#-509-M##-320/390 \*\* Depending on operating conditions, limited temperature range for DW-A#-509-M##-320/390 (see data sheets)

For all these products, you will find detailed data sheets, application notes, dimensional drawings, cross-reference lists, part references, new items, special executions, extensive additional technical information, specifications concerning quality, safety and standards, as well as the addresses of our agents, and much more besides, on our Internet website at [www.contrinex.com](http://www.contrinex.com). The website contents are constantly up-dated and extended.