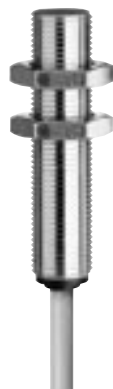


M12

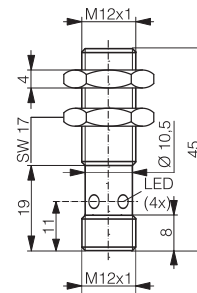
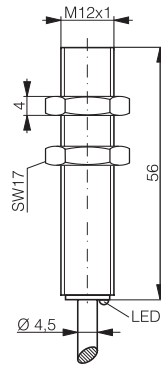
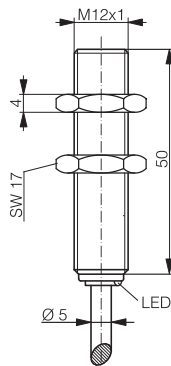
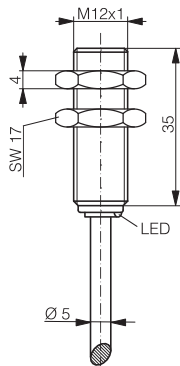
Housing size

Operating distance mm	2		2		2		2	
Housing material	Chrome-plated brass		Chrome-plated brass		Nickel-plated brass		Chrome-plated brass	
Connection ¹⁾	PVC cable type 8		PVC cable type 8		PUR cable type 5		Connector S12	
Degree of protection	IP 67		IP 67		IP 67		IP 67	
Mounting	Embeddable		Embeddable		Embeddable		Embeddable	
Max. switching frequency	3,000 Hz	3,000 Hz	3,000 Hz	3,000 Hz	25Hz (AC)/1,200Hz (DC)	3,000 Hz	3,000 Hz	
Technical data ²⁾	Table 1	Table 11	Table 1	Table 11	Table 4	Table 1	Table 11	
Wiring ³⁾	Diagram 1	Diagram 7	Diagram 1	Diagram 7	Diagram 3	Diagram 2	Diagram 7	
LED	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	
Supply voltage range	10 ... 30 VDC	10 ... 65 VDC	10 ... 30 VDC	10 ... 65 VDC	20...265VAC/20...320VDC	10 ... 30 VDC	10 ... 65 VDC	
Ambient temperature range	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +85 °C**	-25 ... +70 °C*	-25 ... +70 °C*	
Output current	≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 200 mA	≤ 100 mA	

¹⁾ Standard cable length 2 m.
Non-standard cable lengths and types on request.
²⁾ see page 76
³⁾ see page 77
⁴⁾ see page 146



Dimensions:



Part references:

(**bold**: preferred types)

NPN N.O.	DW-AD-601-M12-120	DW-AD-601-M12	DW-AS-601-M12-120
NPN N.C.	DW-AD-602-M12-120	DW-AD-602-M12	DW-AS-602-M12-120
PNP N.O.	DW-AD-603-M12-120	DW-AD-603-M12	DW-AS-603-M12-120
PNP N.C.	DW-AD-604-M12-120	DW-AD-604-M12	DW-AS-604-M12-120
DC 2-wire N.O.	DW-DD-605-M12-120	DW-DD-605-M12	DW-DS-605-M12-120
AC/DC 2-wire N.O.			DW-AD-607-M12
AC/DC 2-wire N.C.			DW-AD-608-M12
Compatible connectors ⁴⁾			G...N (N.O.);K...N (N.C.) G...N

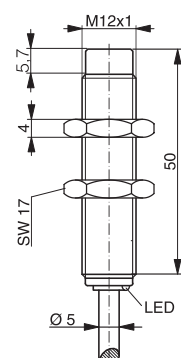
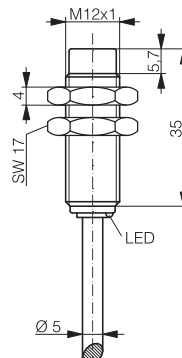
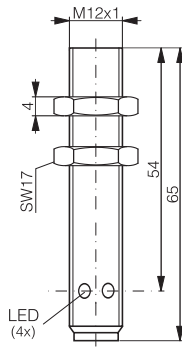
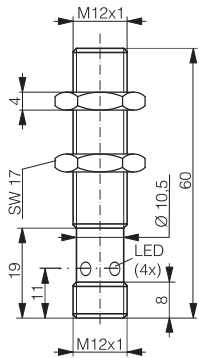
* -13 ... +158 °F

** -13 ... +185 °F

SERIES 600

M12

2		2	4		4	
Chrome-plated brass		Nickel-plated brass	Chrome-plated brass		Chrome-plated brass	
Connector S12		Connector S12	PVC cable type 8		PVC cable type 8	
IP 67		IP 67	IP 67		IP 67	
Embeddable		Embeddable	Non-embeddable		Non-embeddable	
3,000 Hz	3,000 Hz	25Hz (AC)/1,200Hz (DC)	2,000 Hz	2,500 Hz	2,000 Hz	2,500 Hz
Table 1	Table 11	Table 4	Table 1	Table 11	Table 1	Table 11
Diagram 2	Diagram 7	Diagram 3	Diagram 1	Diagram 7	Diagram 1	Diagram 7
Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
10 ... 30 VDC	10 ... 65 VDC	20...265VAC/20...320VDC	10 ... 30 VDC	10 ... 65 VDC	10 ... 30 VDC	10 ... 65 VDC
-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +85 °C**	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*
≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 100 mA



DW-AS-601-M12			DW-AD-611-M12-120		DW-AD-611-M12
DW-AS-602-M12			DW-AD-612-M12-120		DW-AD-612-M12
DW-AS-603-M12			DW-AD-613-M12-120		DW-AD-613-M12
DW-AS-604-M12			DW-AD-614-M12-120		DW-AD-614-M12
	DW-DS-605-M12			DW-DD-615-M12-120	DW-DD-615-M12
		DW-AS-607-M12			
		DW-AS-608-M12			
G...N (N.O.); K...N (N.C.)	G ... N	M, N			

* -13 ... +158 °F

** -13 ... +185 °F

M12

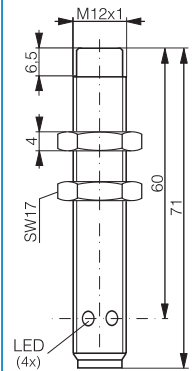
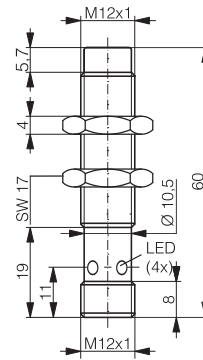
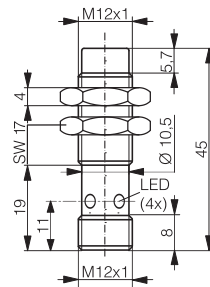
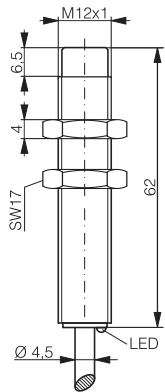
Housing size

Operating distance mm	4	4	4	4	4	4
Housing material	Nickel-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Nickel-plated brass
Connection ¹⁾	PUR cable type 5	Connector S12	Connector S12	Connector S12	Connector S12	Connector S12
Degree of protection	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Mounting	Non-embeddable	Non-embeddable	Non-embeddable	Non-embeddable	Non-embeddable	Non-embeddable
Max. switching frequency	25 Hz (AC) / 900 Hz (DC)	2,000 Hz	2,500 Hz	2,000 Hz	2,500 Hz	25 Hz (AC) / 900 Hz (DC)
Technical data ²⁾	Table 4	Table 1	Table 11	Table 1	Table 11	Table 4
Wiring ³⁾	Diagram 3	Diagram 2	Diagram 7	Diagram 2	Diagram 7	Diagram 3
LED	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
Supply voltage range	20...265 VAC / 20...320 VDC	10 ... 30 VDC	10 ... 65 VDC	10 ... 30 VDC	10 ... 65 VDC	20...265 VAC/20...320 VDC
Ambient temperature range	-25 ... +85 °C**	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +85 °C**
Output current	≤ 200 mA	≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 100 mA	≤ 200 mA

¹⁾ Standard cable length 2 m.
Non-standard cable lengths
and types on request.
²⁾ see page 76
³⁾ see page 77
⁴⁾ see page 146



Dimensions:



Part references:
(**bold**: preferred types)

NPN N.O.		DW-AS-611-M12-120		DW-AS-611-M12	
NPN N.C.		DW-AS-612-M12-120		DW-AS-612-M12	
PNP N.O.		DW-AS-613-M12-120		DW-AS-613-M12	
PNP N.C.		DW-AS-614-M12-120		DW-AS-614-M12	
DC 2-wire N.O.			DW-DS-615-M12-120		DW-DS-615-M12
AC/DC 2-wire N.O.	DW-AD-617-M12				DW-AS-617-M12
AC/DC 2-wire N.C.	DW-AD-618-M12				DW-AS-618-M12
Compatible connectors ⁴⁾		G..N(N.O.);K..N(NC.)	G ... N	G..N(N.O.);K..N(NC.)	G ... N
					M, N

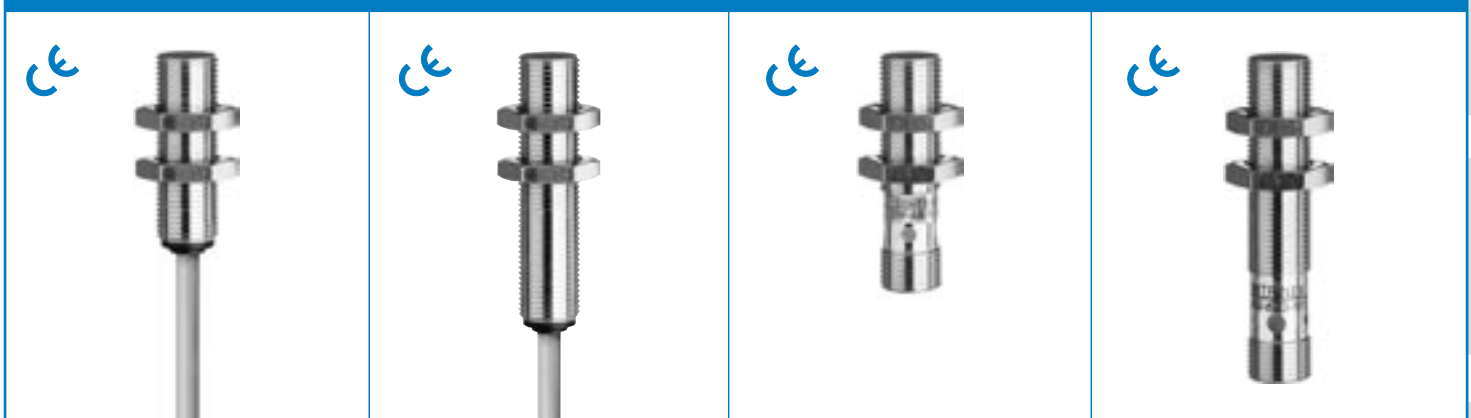
** -13 ... +185 °F

* -13 ... +158 °F

SERIES 620

M12

4		4		4		4	
Chrome-plated brass		Chrome-plated brass		Chrome-plated brass		Chrome-plated brass	
PVC cable type 8		PVC cable type 8		Connector S12		Connector S12	
IP 67		IP 67		IP 67		IP 67	
Embeddable		Embeddable		Embeddable		Embeddable	
2,500 Hz	2,000 Hz	2,500 Hz	2,000 Hz	2,500 Hz	2,000 Hz	2,500 Hz	2,000 Hz
Table 1	Table 11	Table 1	Table 11	Table 1	Table 11	Table 1	Table 11
Diagram 1	Diagram 7	Diagram 1	Diagram 7	Diagram 2	Diagram 7	Diagram 2	Diagram 7
Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
10 ... 30 VDC	10 ... 65 VDC	10 ... 30 VDC	10 ... 65 VDC	10 ... 30 VDC	10 ... 65 VDC	10 ... 30 VDC	10 ... 65 VDC
-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*	-25 ... +70 °C*
≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 100 mA	≤ 200 mA	≤ 100 mA

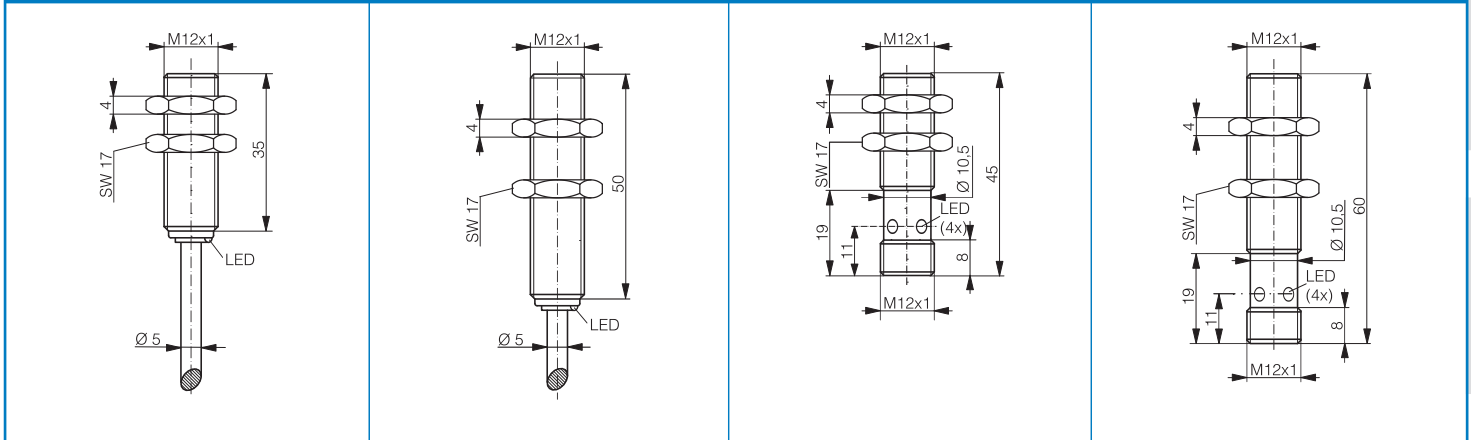


increased distance

increased distance

increased distance

increased distance





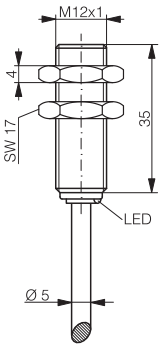
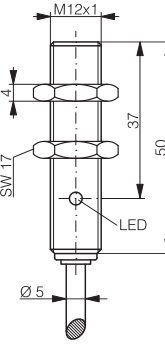
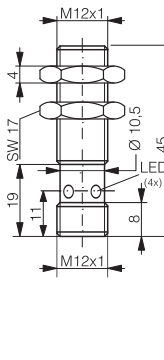
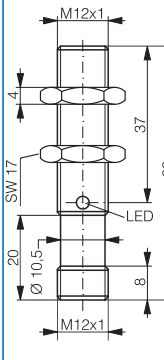


DW-AD-621-M12-120	DW-AD-621-M12	DW-AS-621-M12-120	DW-AS-621-M12
DW-AD-622-M12-120	DW-AD-622-M12	DW-AS-622-M12-120	DW-AS-622-M12
DW-AD-623-M12-120	DW-AD-623-M12	DW-AS-623-M12-120	DW-AS-623-M12
DW-AD-624-M12-120	DW-AD-624-M12	DW-AS-624-M12-120	DW-AS-624-M12
	DW-DD-625-M12-120	DW-DD-625-M12	DW-DS-625-M12-120
			DW-DS-625-M12
		G...N (N.O.);K...N (N.C.)	G ... N
			G...N (N.O.);K...N (N.C.)
			G ... N


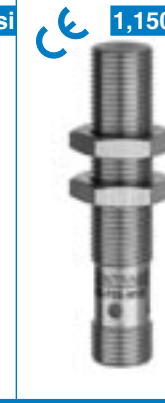
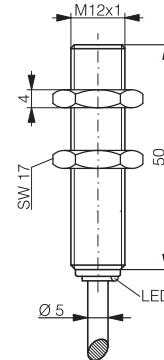
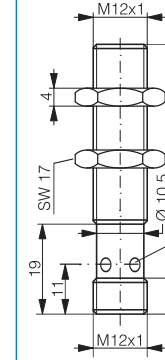
* -13 ... +158 °F

M12

M12

Housing size	M12			
Operating distance mm	6	6	6	6
Housing material	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass
Connection ¹⁾	PVC cable type 8	PVC cable type 8	Connector S12	Connector S12
Degree of protection	IP 67	IP 67	IP 67	IP 67
Mounting	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable	Quasi-embeddable
Max. switching frequency	800 Hz	800 Hz	800 Hz	800 Hz
Technical data ²⁾	Table 1	Table 1	Table 1	Table 1
Wiring ³⁾	Diagram 1	Diagram 1	Diagram 2	Diagram 2
LED	Built-in	Built-in	Built-in	Built-in
Supply voltage range	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**
Output current	≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA
¹⁾ Standard cable length 2 m. Non-standard cable lengths and types on request. ²⁾ see page 76 ³⁾ see page 77 ⁴⁾ see page 146				
	long distance	long distance	long distance	long distance
				
	Part references: (bold: preferred types)	DW-AD-501-M12-120	DW-AD-501-M12	DW-AS-501-M12-120
NPN N.O.	DW-AD-502-M12-120	DW-AD-502-M12	DW-AS-502-M12-120	DW-AS-502-M12
NPN N.C.	DW-AD-503-M12-120	DW-AD-503-M12	DW-AS-503-M12-120	DW-AS-503-M12
PNP N.O.	DW-AD-504-M12-120	DW-AD-504-M12	DW-AS-504-M12-120	DW-AS-504-M12
PNP N.C.				
DC 2-wire N.O.				
AC/DC 2-wire N.O.				
AC/DC 2-wire N.C.				
Compatible connectors ⁴⁾			G...N(N.O.); K...N(N.C.)	G...N(N.O.); K...N(N.C.)

** -13 ... +158 °F

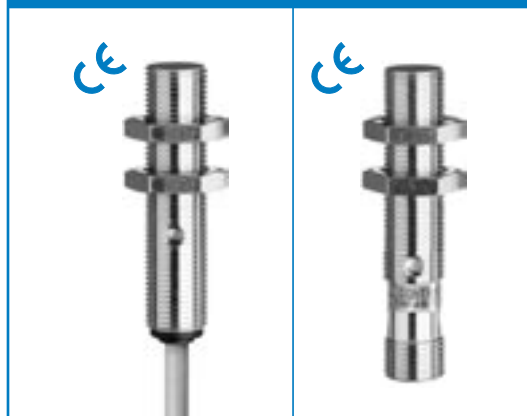
Housing size	M12	
Operating distance mm	6*	6*
Housing material	Stainless steel V2A	Stainless steel V2A
Connection ¹⁾	PUR cable type 11	Connector S12
Degree of protection	IP 68	IP 67
Mounting	Embeddable	Embeddable
Max. switching frequency	400 Hz	400 Hz
Technical data ²⁾	Table 1	Table 1
Wiring ³⁾	Diagram 1	Diagram 2
LED	Built-in	Built-in
Supply voltage range	10 ... 30 VDC	10 ... 30 VDC
Ambient temperature range	-25 ... +70 °C**	-25 ... +70 °C**
Output current	≤ 200 mA	≤ 200 mA
 	1,150 psi	1,150 psi
	all-metal	all-metal
		
Part references: (bold: preferred types)	DW-AD-701-M12	DW-AS-701-M12
NPN N.O.	DW-AD-702-M12	DW-AS-702-M12
NPN N.C.	DW-AD-703-M12	DW-AS-703-M12
PNP N.O.	DW-AD-704-M12	DW-AS-704-M12
PNP N.C.		
DC 2-wire N.O.		
AC/DC 2-wire N.O.		
AC/DC 2-wire N.C.		
Compatible connectors ⁴⁾		G...N(N.O.); K...N(N.C.)

* versions with 2 mm operating distance on request

SERIES 520

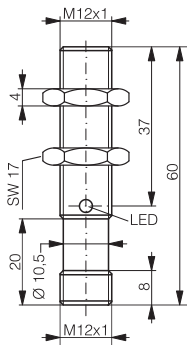
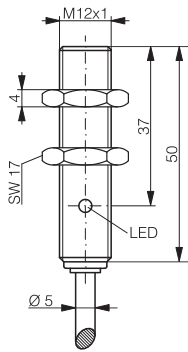
M12

8	8
Chrome-plated brass	Chrome-plated brass
PVC cable type 8	Connector S12
IP 67	IP 67
Quasi-embeddable	Quasi-embeddable
400 Hz	400 Hz
Table 1	Table 1
Diagram 1	Diagram 2
Built-in	Built-in
10 ... 30 VDC	10 ... 30 VDC
-25 ... +70 °C**	-25 ... +70 °C**
≤ 200 mA	≤ 200 mA



4 x distance

4 x distance



DW-AD-521-M12

DW-AS-521-M12

DW-AD-522-M12

DW-AS-522-M12

DW-AD-523-M12

DW-AS-523-M12

DW-AD-524-M12

DW-AS-524-M12

G ... N (N.O.); K ... N (N.C.)

SERIES 500

M12

10	10	10	10
Chrome-plated brass	Chrome-plated brass	Chrome-plated brass	Chrome-plated brass
PVC cable type 8	PVC cable type 8	Connector S12	Connector S12
IP 67	IP 67	IP 67	IP 67
Non-embeddable	Non-embeddable	Non-embeddable	Non-embeddable
400 Hz	400 Hz	400 Hz	400 Hz
Table 1	Table 1	Table 1	Table 1
Diagram 1	Diagram 1	Diagram 2	Diagram 2
Built-in	Built-in	Built-in	Built-in
10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC	10 ... 30 VDC
-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**	-25 ... +70 °C**
≤ 200 mA	≤ 200 mA	≤ 200 mA	≤ 200 mA

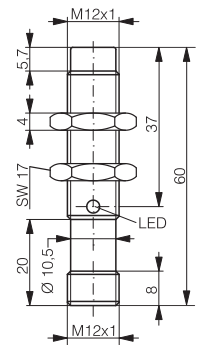
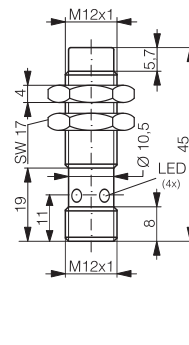
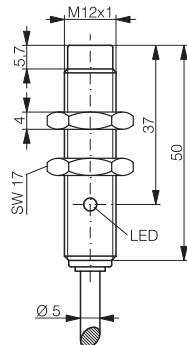
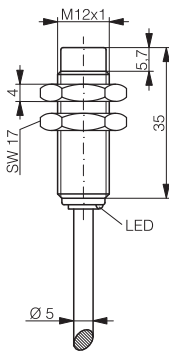


long distance

long distance

long distance

long distance



DW-AD-511-M12-120

DW-AD-511-M12

DW-AS-511-M12-120

DW-AS-511-M12

DW-AD-512-M12-120

DW-AD-512-M12

DW-AS-512-M12-120

DW-AS-512-M12

DW-AD-513-M12-120

DW-AD-513-M12

DW-AS-513-M12-120

DW-AS-513-M12

DW-AD-514-M12-120

DW-AD-514-M12

DW-AS-514-M12-120

DW-AS-514-M12



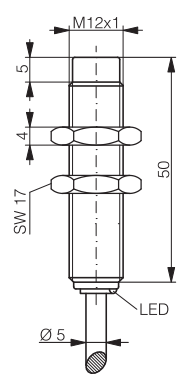
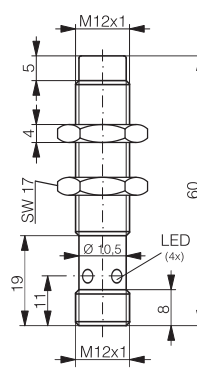
G ... N (N.O.); K ... N (N.C.) G ... N (N.O.); K ... N (N.C.)


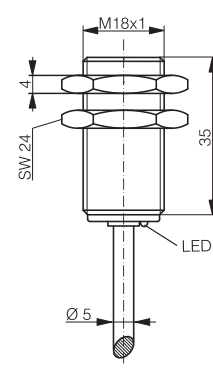
** -13 ... +158 F

- 1 Inductive proximity switches
- 2 Photoelectric proximity switches
- 3 Optical fibers
- 4 Ultrasonic proximity switches
- 5 Connecting cables
- 6 Accessories
- 7 Glossary
- 8 Index

M12

M18

Housing size	M12	
Operating distance mm	10*	10*
Housing material	Stainless steel V2A	Stainless steel V2A
Connection ¹⁾	PUR cable type 11	Connector S12
Degree of protection	IP 68	IP 67
Mounting	Non-embeddable	Non-embeddable
Max. switching frequency	400 Hz	400 Hz
Technical data ²⁾	Table 1	Table 1
Wiring ³⁾	Diagram 1	Diagram 2
LED	Built-in	Built-in
Supply voltage range	10 ... 30 VDC	10 ... 30 VDC
Ambient temperature range	-25 ... +70 °C**	-25 ... +70 °C**
Output current	≤ 200 mA	≤ 200 mA
¹⁾ Standard cable length 2 m. Non-standard cable lengths and types on request. ²⁾ see page 76 ³⁾ see page 77 ⁴⁾ see page 146		
	all-metal	all-metal
Dimensions:		
Part references: (bold : preferred types)		
NPN N.O.	DW-AD-711-M12	DW-AS-711-M12
NPN N.C.	DW-AD-712-M12	DW-AS-712-M12
PNP N.O.	DW-AD-713-M12	DW-AS-713-M12
PNP N.C.	DW-AD-714-M12	DW-AS-714-M12
DC 2-wire N.O.		
AC/DC 2-wire N.O.		
AC/DC 2-wire N.C.		
Compatible connectors ⁴⁾		G ... N (N.O.); K ... N (N.C.)

Housing size	M18	
Operating distance mm	5	
Housing material	Chrome-plated brass	
Connection ¹⁾	PVC cable type 8	
Degree of protection	IP 67	
Mounting	Embeddable	
Max. switching frequency	2,000 Hz	1,500 Hz
Technical data ²⁾	Table 1	Table 11
Wiring ³⁾	Diagram 1	Diagram 7
LED	Built-in	Built-in
Supply voltage range	10 ... 30 VDC	10 ... 65 VDC
Ambient temperature range	-25 ... +70 °C**	-25 ... +70 °C**
Output current	≤ 200 mA	≤ 100 mA
¹⁾ Standard cable length 2 m. Non-standard cable lengths and types on request. ²⁾ see page 76 ³⁾ see page 77 ⁴⁾ see page 146		
	all-metal	
Dimensions:		
Part references: (bold : preferred types)		
NPN N.O.	DW-AD-601-M18-120	
NPN N.C.	DW-AD-602-M18-120	
PNP N.O.	DW-AD-603-M18-120	
PNP N.C.	DW-AD-604-M18-120	
DC 2-wire N.O.		
AC/DC 2-wire N.O.		
AC/DC 2-wire N.C.		
Compatible connectors ⁴⁾		DW-DD-605-M18-120

* versions with 4 mm operating distance on request ** -13 ... +158 °F