

Емкостные датчики KAS-70-M32, KAS-80-M32

Технические характеристики

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Смоленск (4812)29-41-54
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Capacitive Sensors

Series 70 - NPN

Series 80 - PNP



Housing M 32 x 1.5

- Housing material: Brass
- Sensing distance 0.5...30 mm adjustable

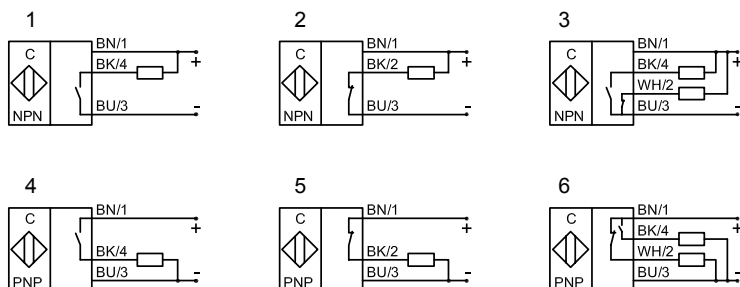
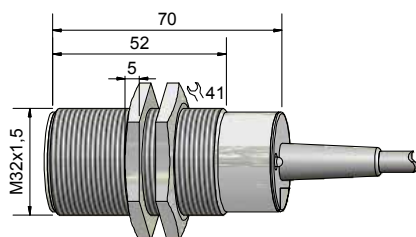
Certificate:



QuattroEtcProtect™

Technical data	Flush mountable	Flush mountable
Operating distance S_n	20 mm	20 mm
Operating distance min. / max. adjustable	0.5...30 mm	0.5...30 mm
Electrical version	3-wire DC	4-wire DC
Output function	Normally open	Antivalent
Type NPN	KAS-70-30-S-M32-PTFE/MS-Z02-1-HP	KAS-70-30-A-M32-PTFE/MS-Z02-1-HP
Art.-No.	716 200	715 800
Connection diagram No.	1	3
Type PNP	KAS-80-30-S-M32-PTFE/MS-Z02-1-HP	KAS-80-30-A-M32-PTFE/MS-Z02-1-HP
Art.-No.	816 200	815 800
Connection diagram No.	4	6
Operating voltage (U_B)	10...35 V DC	10...35 V DC
Output current max. (I_o)	250 mA	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V	≤ 2.0 V
Permitted residual ripple max.	10%	10%
No-load current (I_o)	Typ. 15 mA	Typ. 15 mA
Frequency of operating cycles max.	200 Hz	200 Hz
Permitted ambient temperature	-25...+70 °C	-25...+70 °C
LED-display	Green / yellow	Green / yellow
Protective circuit	Built-in	Built-in
Degree of protection IEC 60529	IP 67*	IP 67*
Norm	EN 60947-5-2	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0.75 mm ²	2 m, PVC, 4 x 0.5 mm ²
Housing material	Brass	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO	PA / PPO
Media optimized	Yes	Yes
Accessories (is delivered with the sensor)	2 nuts M 32	2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors

Series 70 - NPN

Series 80 - PNP



Housing M 32 x 1.5

- Housing material: Brass
- Sensing distance 0.5...30 mm adjustable
- With flange connector M 12 x 1

Certificate:



QuattroEtcProtect™

Technical data

Flush mountable

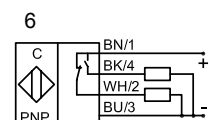
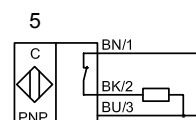
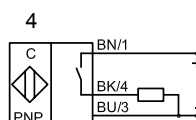
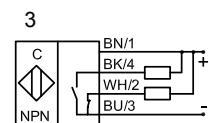
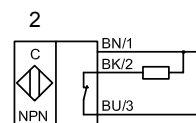
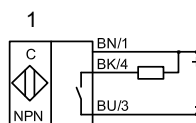
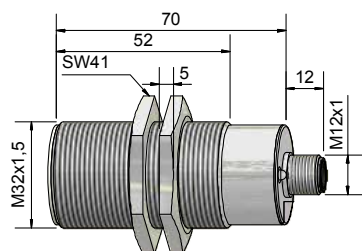
Operating distance S_n	20 mm
Operating distance min. / max. adjustable	0.5...30 mm
Electrical version	4-pin DC
Output function	Antivalent
Type NPN	KAS-70-30-A-M32-PTFE/MS-Y5-1-HP
Art.-No.	716 000
Connection diagram No.	3
Type PNP	KAS-80-30-A-M32-PTFE/MS-Y5-1-HP
Art.-No.	816 000
Connection diagram No.	6
Operating voltage (U_b)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	200 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1
Housing material	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes

Accessories (is delivered with the sensor)

2 nuts M 32

For matching connectors please see our selection of accessories.

* With sealed potentiometer screw





Capacitive Sensors Series 2000 - **quattro**³

Housing M 32 x 1.5

- Housing material: Brass
- Sensing distance 2...25 mm adjustable
- Multifunction sensor: NPN / PNP;
NO / NC function switchable

Certificate:



Quattro³Protect™

Technical data

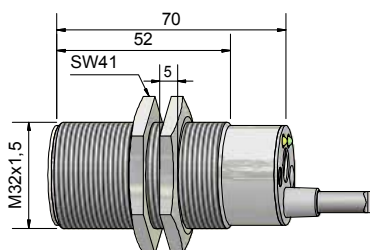
Flush mountable

Operating distance S_n	20 mm
Operating distance min. / max. adjustable	2...25 mm
Electrical version	3-wire DC
Output function	NO / NC switchable
Type NPN / PNP switchable	KAS-2000-30-P-M32-PTFE/MS-Z02-1
Art.-No.	770 600
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	400 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green & yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0.75 mm ²
Housing material	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO

Accessories (is delivered with the sensor)

2 nuts M 32

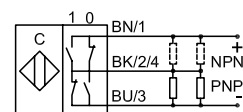
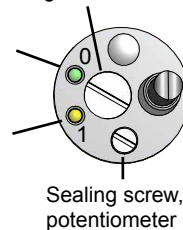
* With sealed potentiometer screw



Sealing screw, change-over switch

LED green
standby

LED yellow
operating state





Capacitive Sensors Series 2000 - **quattro**³

Housing M 32 x 1.5

- Housing material: Brass
- Sensing distance 2...25 mm adjustable
- Multifunction sensor: NPN / PNP;
NO / NC function switchable
- With flange connector M 12 x 1

Certificate:



Quattro³ **ELC** ProtectTM

Technical data

Flush mountable

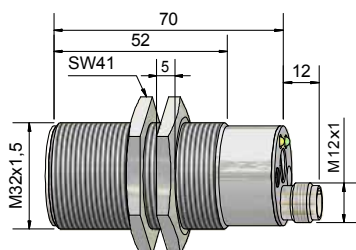
Operating distance S_n	20 mm
Operating distance min. / max. adjustable	2...25 mm
Electrical version	3-pin DC
Output function	NO / NC switchable
Type NPN / PNP switchable	KAS-2000-30-P-M32-PTFE/MS-Y3-1
Art.-No.	770 603
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	400 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green & yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1
Housing material	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO

Accessories (is delivered with the sensor)

2 nuts M 32

For matching connectors please see our selection of accessories.

* With sealed potentiometer screw

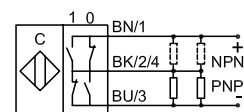


Sealing screw, change-over switch

LED green
standby

LED yellow
operating state

Sealing screw,
potentiometer





Capacitive Sensors Series 90 - AC / DC

Housing M 32 x 1.5

- Housing material: PA / PPO
- Sensing distance 2...20 mm adjustable

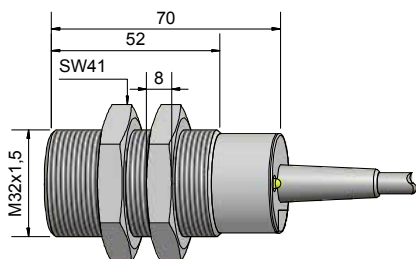
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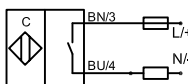
QuattroEtcProtect™

Technical data	Flush mountable	Flush mountable
Operating distance S_n	15 mm	15 mm
Operating distance min. / max. adjustable	2...20 mm	2...20 mm
Electrical version	2-wire AC / DC	2-wire AC / DC
Output function	Normally open	Normally closed
Type	KAS-90-30-S-M32-PPO-Z02-1	KAS-90-30-Ö-M32-PPO-Z02-1
Art.-No.	901 800	901 900
Connection diagram No.	1	2
Operating voltage (U_B)	20...250 V AC / DC	20...250 V AC / DC
Output current max. (I_e)	330 mA (ETL = 250 mA)	330 mA (ETL = 250 mA)
Load current min.	5 mA	5 mA
Voltage drop max. (U_o)	≤ 6 V	≤ 6 V
No-load current (I_o)	Typ. 2.5 mA	Typ. 2.5 mA
Frequency of operating cycles max.	25 Hz	25 Hz
Permitted ambient temperature	-25...+70 °C (ETL = +60 °C)	-25...+70 °C (ETL = +60 °C)
LED-display	Yellow	Yellow
Protective circuit	Built-in	Built-in
Degree of protection IEC 60529	IP 67*	IP 67*
Norm	EN 60947-5-2	EN 60947-5-2
Connection cable	2 m, PVC, 2 x 0.75 mm ²	2 m, PVC, 2 x 0.75 mm ²
Housing material	PA / PPO	PA / PPO
Active surface	PA / PPO	PA / PPO
Lid	PA / PPO	PA / PPO
Accessories (is delivered with the sensor)	2 nuts M 32	2 nuts M 32

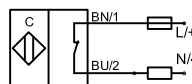
* With sealed potentiometer screw



1



2





Capacitive Sensors Series 80 - PNP



Housing M 32 x 1.5

- Housing material: PTFE
- Ideal for detection of chemically aggressive media
- Also ideal for food applications
- Sensing distance 0.5...30 mm adjustable
- Option: Total chemical resistance is given when ordering the sensor with PTFE cable and PTFE- protection set Art.-No. 196301

Certificate:



Technical data

Flush mountable

Operating distance S_n	20 mm
Operating distance min. / max. adjustable	0.5...30 mm
Electrical version	4-wire DC
Output function	Antivalent

Type NPN

Art.-No.

Connection diagram No.

Type PNP

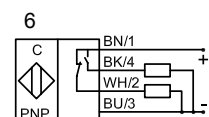
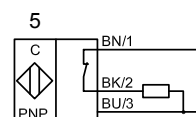
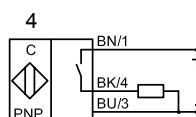
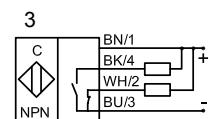
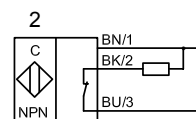
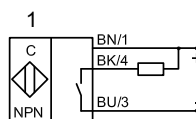
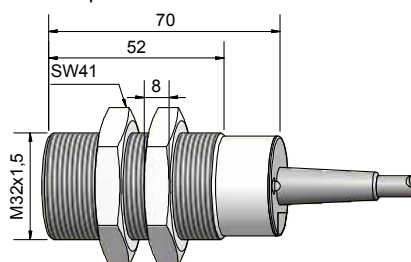
KAS-80-30-A-M32-PTFE-Z02-1-HP

Art.-No.	815 830
Connection diagram No.	6
Operating voltage (U_b)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	200 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.50 mm ²
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes

Accessories (is delivered with the sensor)

2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors Series 90 - AC / DC

Housing M 32 x 1.5

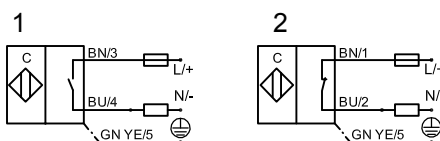
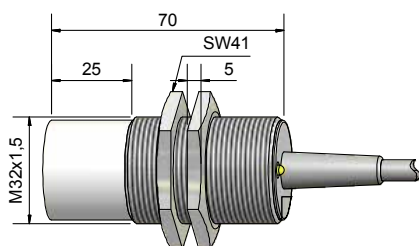
- Housing material: Brass
- Sensing distance 3...25 mm adjustable

Certificate:



Technical data	Non-flush mountable	Non-flush mountable
Operating distance S_n	20 mm	20 mm
Operating distance min. / max. adjustable	3...25 mm	3...25 mm
Electrical version	2-wire AC / DC	2-wire AC / DC
Output function	Normally open	Normally closed
Type	KAS-90-35-S-M32-PTFE/MS-Z02-1	KAS-90-35-Ö-M32-PTFE/MS-Z02-1
Art.-No.	903 200	903 300
Connection diagram No.	1	2
Operating voltage (U_B)	20...250 V AC / DC	20...250 V AC / DC
Output current max. (I_e)	330 mA (ETL = 250 mA)	330 mA (ETL = 250 mA)
Load current min.	5 mA	5 mA
Voltage drop max. (U_o)	≤ 6 V	≤ 6 V
No-load current (I_o)	Typ. 2.5 mA	Typ. 2.5 mA
Frequency of operating cycles max.	25 Hz	25 Hz
Permitted ambient temperature	-25...+70 °C (ETL = +60 °C)	-25...+70 °C (ETL = +60 °C)
LED-display	Yellow	Yellow
Protective circuit	Built-in	Built-in
Degree of protection IEC 60529	IP 67*	IP 67*
Norm	EN 60947-5-2	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0.75 mm ²	2 m, PVC, 3 x 0.75 mm ²
Housing material	Brass	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO	PA / PPO
Accessories (is delivered with the sensor)	2 nuts M 32	2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors

Series 70 - NPN

Series 80 - PNP



Housing M 32 x 1.5

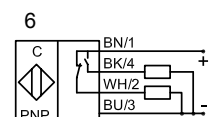
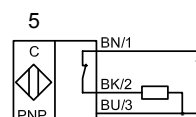
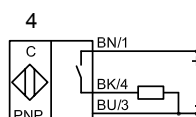
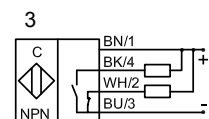
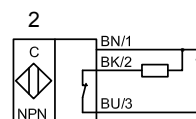
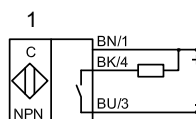
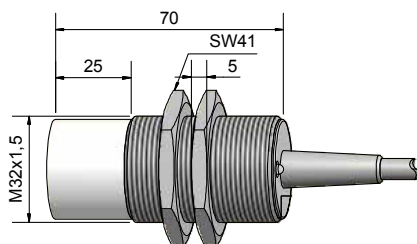
- Housing material: Stainless steel VA
- Sensing distance 1...40 mm adjustable

Certificate:



Technical data	Non-flush mountable	Non-flush mountable
Operating distance S_n	25 mm	25 mm
Operating distance min. / max. adjustable	1...40 mm	1...40 mm
Electrical version	3-wire DC	4-wire DC
Output function	Normally open	Antivalent
Type NPN	KAS-70-35-S-M32-PTFE/VAb-Z02-1-HP	KAS-70-35-A-M32-PTFE/VAb-Z02-1-HP
Art.-No.	718 600	KA 0041
Connection diagram No.	1	3
Type PNP	KAS-80-35-S-M32-PTFE/VAb-Z02-1-HP	KAS-80-35-A-M32-PTFE/VAb-Z02-1-HP
Art.-No.	818 600	818 540
Connection diagram No.	4	6
Operating voltage (U_b)	10...35 V DC	10...35 V DC
Output current max. (I_o)	250 mA	2 x 250 mA
Voltage drop max. (U_d)	$\leq 2,0$ V	$\leq 2,0$ V
Permitted residual ripple max.	10 %	10 %
No-load current (I_o)	Typ. 15 mA	Typ. 15 mA
Frequency of operating cycles max.	50 Hz	50 Hz
Permitted ambient temperature	-25...+70 °C	-25...+70 °C
LED-display	Green / yellow	Green / yellow
Protective circuit	Built-in	Built-in
Degree of protection IEC 60529	IP 67*	IP 67*
Norm	EN 60947-5-2	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0.75 mm ²	2 m, PVC, 4 x 0.50 mm ²
Housing material	VA No. 1.4305	VA No. 1.4305
Active surface	PTFE (FDA 21 CFR 177.1550)	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO	PA / PPO
Media optimized	Yes	Yes
Accessories (is delivered with the sensor)	2 nuts M 32	2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors

Series 70 - NPN

Series 80 - PNP



Housing M 32 x 1.5

- Housing material: Stainless steel VA
- Sensing distance 1...40 mm adjustable
- With flange connector M 12 x 1



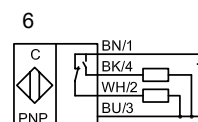
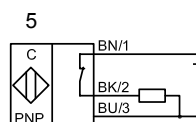
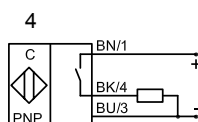
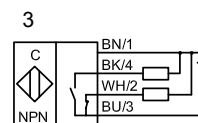
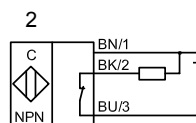
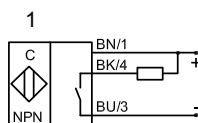
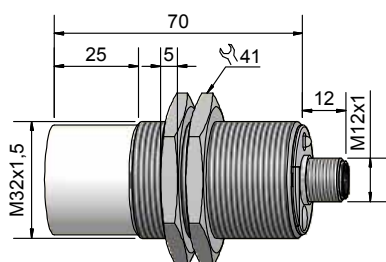
Certificate:

Technical data

Non-flush mountable

Operating distance S_n	25 mm
Operating distance min. / max. adjustable	1...40 mm
Electrical version	4-pin DC
Output function	Antivalent
Type NPN	KAS-70-35-A-M32-PTFE/VAb-Y5-1-HP
Art.-No.	718 555
Connection diagram No.	3
Type PNP	KAS-80-35-A-M32-PTFE/VAb-Y5-1-HP
Art.-No.	818 555
Connection diagram No.	6
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1
Housing material	VA No. 1.4305
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes
Accessories (is delivered with the sensor)	2 nuts M 32
For matching connectors please see our selection of accessories.	

* With sealed potentiometer screw





Capacitive Sensors

Series 2000 - **quattro**

Housing M 32 x 1.5

- Housing material: Stainless steel VA
 - Sensing distance 3...30 mm adjustable
- Multifunction sensor: NPN / PNP
NO / NC function switchable

Certificate:



Quattro^{ETC}Protect™

Technical data

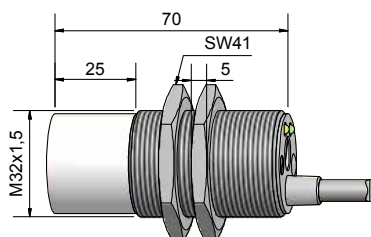
Non-flush mountable

Operating distance S_n	25 mm
Operating distance min. / max. adjustable	3...30 mm
Electrical version	3-wire DC
Output function	NO / NC switchable
Type NPN / PNP switchable	KAS-2000-35-P-M32-PTFE/VAb-Z02-1
Art.-No.	771 000
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	400 mA
Voltage drop max. (U_d)	≤ 2,0 V
Permitted residual ripple max.	10%
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green & yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0,75 mm ²
Housing material	VA No. 1.4305
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO

Accessories (is delivered with the sensor)

2 nuts M 32

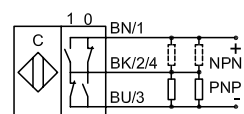
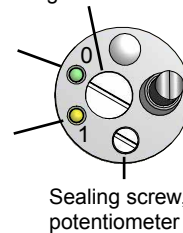
* With sealed potentiometer screw



Sealing screw, change-over switch

LED green
standby

LED yellow
operating state





Capacitive Sensors

Series 70 - NPN

Series 80 - PNP



Housing M 32 x 1.5

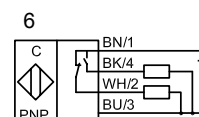
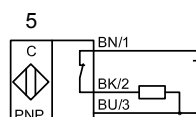
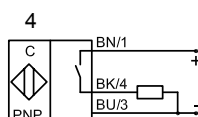
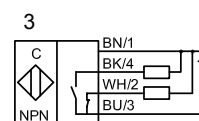
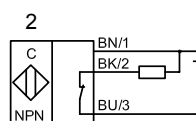
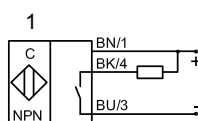
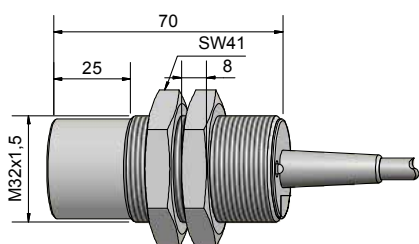
- Housing material: PA / PPO
- Sensing distance 1...40 mm adjustable

Certificate:



Technical data	Non-flush mountable	Non-flush mountable
Operating distance S_n	25 mm	25 mm
Operating distance min. / max. adjustable	1...40 mm	1...40 mm
Electrical version	3-wire DC	4-wire DC
Output function	Normally open	Antivalent
Type NPN	KAS-70-35-S-M32-PPO-Z02-1-HP	KAS-70-35-A-M32-PPO-Z02-1-HP
Art.-No.	720 600	720 200
Connection diagram No.	1	3
Type PNP	KAS-80-35-S-M32-PPO-Z02-1-HP	KAS-80-35-A-M32-PPO-Z02-1-HP
Art.-No.	820 600	820 200
Connection diagram No.	4	6
Operating voltage (U_B)	10...35 V DC	10...35 V DC
Output current max. (I_o)	250 mA	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V	≤ 2.0 V
Permitted residual ripple max.	10 %	10 %
No-load current (I_o)	Typ. 15 mA	Typ. 15 mA
Frequency of operating cycles max.	50 Hz	50 Hz
Permitted ambient temperature	-25...+70 °C	-25...+70 °C
LED-display	Green / yellow	Green / yellow
Protective circuit	Built-in	Built-in
Degree of protection IEC 60529	IP 67*	IP 67*
Norm	EN 60947-5-2	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0.75 mm ²	2 m, PVC, 4 x 0.5 mm ²
Housing material	PA / PPO	PA / PPO
Active surface	PA / PPO	PA / PPO
Lid	PA / PPO	PA / PPO
Media optimized	Yes	Yes
Accessories (is delivered with the sensor)	2 nuts M 32	2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors

Series 70 - NPN

Series 80 - PNP



Housing M 32 x 1.5

- Housing material: PA / PPO
- Sensing distance 1...40 mm adjustable
- With flange connector M 12 x 1



Certificate:

Technical data

Non-flush mountable

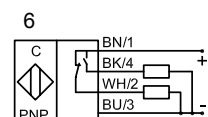
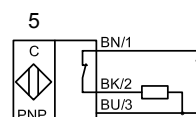
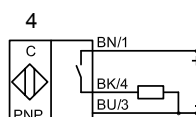
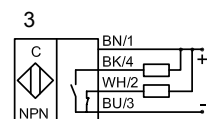
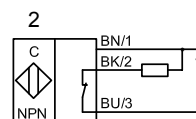
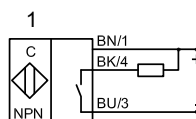
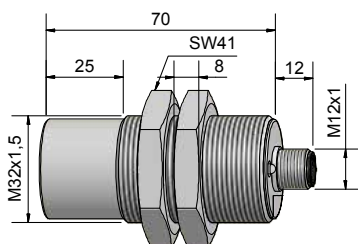
Operating distance S_n	25 mm
Operating distance min. / max. adjustable	1...40 mm
Electrical version	4-pin DC
Output function	Antivalent
Type NPN	KAS-70-35-A-M32-PPO-Y5-1-HP
Art.-No.	720 400
Connection diagram No.	3
Type PNP	KAS-80-35-A-M32-PPO-Y5-1-HP
Art.-No.	820 400
Connection diagram No.	6
Operating voltage (U_b)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10%
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1
Housing material	PA / PPO
Active surface	PA / PPO
Lid	PA / PPO
Media optimized	Yes

Accessories (is delivered with the sensor)

2 nuts M 32

For matching connectors please see our selection of accessories.

* With sealed potentiometer screw





Capacitive Sensors Series 2000 - **quattro**³

Housing M 32 x 1.5

- Housing material: PA / PPO
- Sensing distance 3...30 mm adjustable
- Multifunction sensor: NPN / PNP;
NO / NC function switchable

Certificate:



Quattro^{ETC}Protect⁴™

Technical data

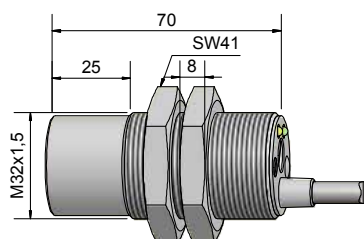
Non-flush mountable

Operating distance S_n	25 mm
Operating distance min. / max. adjustable	3...30 mm
Electrical version	3-wire DC
Output function	NO / NC switchable
Type NPN / PNP switchable	KAS-2000-35-P-M32-PPO-Z02-1
Art.-No.	770 800
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	400 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green & yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 3 x 0.75 mm ²
Housing material	PA / PPO
Active surface	PA / PPO
Lid	PA / PPO

Accessories (is delivered with the sensor)

2 nuts M 32

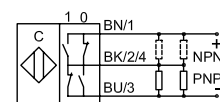
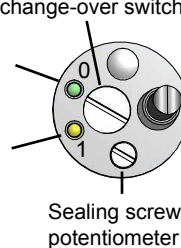
* With sealed potentiometer screw



Sealing screw, change-over switch

LED green
standby

LED yellow
operating state





Capacitive Sensors Series 90 - AC / DC

Housing M 32 x 1.5

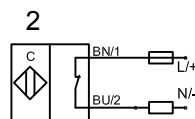
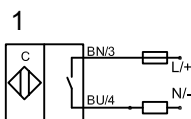
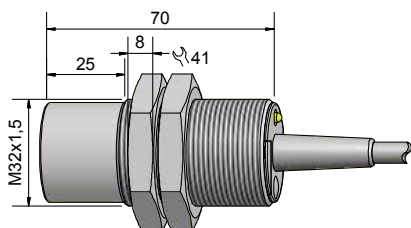
- Housing material: PA / PPO
- Sensing distance 3...25 mm adjustable

Certificate:



Technical data	Non-flush mountable	Non-flush mountable
Operating distance S_n	20 mm	20 mm
Operating distance min. / max. adjustable	3...25 mm	3...25 mm
Electrical version	2-wire AC / DC	2-wire AC / DC
Output function	Normally open	Normally closed
Type	KAS-90-35-S-M32-PPO-Z02-1	KAS-90-35-Ö-M32-PPO-Z02-1
Art.-No.	902 400	902 500
Connection diagram No.	1	2
Operating voltage (U_b)	20...250 V AC/DC	20...250 V AC / DC
Output current max. (I_e)	330 mA (ETL = 250 mA)	330 mA (ETL = 250 mA)
Load current min.	5 mA	5 mA
Voltage drop max. (U_d)	≤ 6 V	≤ 6 V
No-load current (I_o)	Typ. 2.5 mA	Typ. 2.5 mA
Frequency of operating cycles max.	25 Hz	25 Hz
Permitted ambient temperature	-25...+70 °C (ETL = +60 °C)	-25...+70 °C (ETL = +60 °C)
LED-display	Yellow	Yellow
Protective circuit	Built-in	Built-in
Degree of protection IEC 60529	IP 67*	IP 67*
Norm	EN 60947-5-2	EN 60947-5-2
Connection cable	2 m, PVC, 2 x 0.75 mm ²	2 m, PVC, 2 x 0.75 mm ²
Housing material	PA / PPO	PA / PPO
Active surface	PA / PPO	PA / PPO
Lid	PA / PPO	PA / PPO
Accessories (is delivered with the sensor)	2 nuts M 32	2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors Series 80 - PNP



Housing M 32 x 1.5

- Housing material: PTFE
- Ideal for detection of chemically aggressive media
- Also suitable for food applications
- Sensing distance 1...40 mm adjustable
- Option: Total chemical resistance is given when ordering the sensor with PTFE cable and PTFE- protection set Art.-No. 196301



Certificate:

Technical data

Non-flush mountable

Operating distance S_n	25 mm
Operating distance min. / max. adjustable	1...40 mm
Electrical version	4-wire DC
Output function	Antivalent

Type NPN

Art.-No.

Connection diagram No.

Type PNP

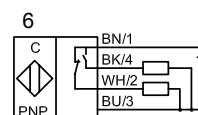
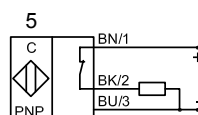
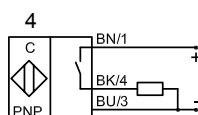
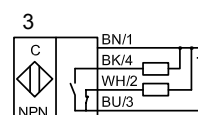
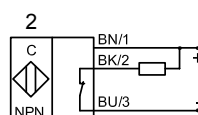
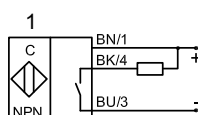
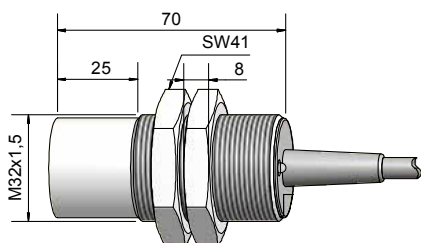
KAS-80-35-A-M32-PTFE-Z02-1-HP

Art.-No.	820 300
Connection diagram No.	6
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.5 mm ²
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes

Accessories (is delivered with the sensor)

2 nuts M 32

* With sealed potentiometer screw





Capacitive Sensors Series 80 - PNP

Housing Ø 34 mm

- Housing material: PA / PPO
- Sensing distance 0.5...30 mm adjustable



Certificate:



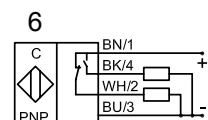
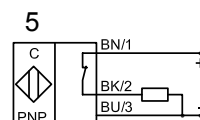
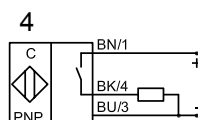
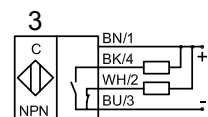
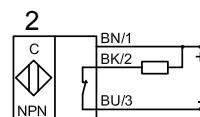
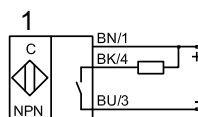
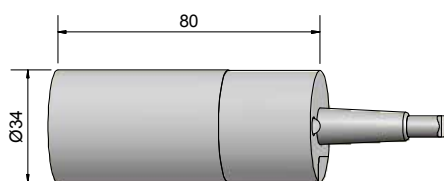
Technical data

Flush mountable

Operating distance S_n	20 mm
Operating distance min. / max. adjustable	0.5...30 mm
Electrical version	4-wire DC
Output function	Antivalent
Type NPN	
Art.-No.	
Connection diagram No.	
Type PNP	
KAS-80-37-A-D34-PPO-Z02-1-HP	
Art.-No.	
824 500	
Connection diagram No.	
6	
Operating voltage (U_b)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	150 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.5 mm ²
Housing material	PA / PPO
Active surface	PA / PPO
Lid	PA / PPO
Media optimized	Yes

Assessors for mounting (is not delivered with the sensor) please see our selection of accessories.

* With sealed potentiometer screw





Capacitive Sensors Series 80 - PNP

Housing Ø 34 mm

- Housing material: PA / PPO
- Sensing distance 1...40 mm adjustable



Certificate:



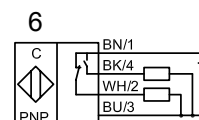
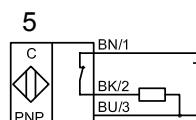
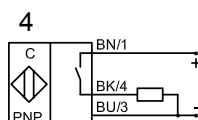
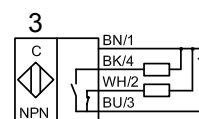
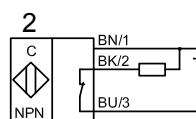
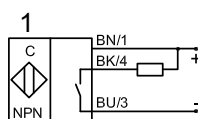
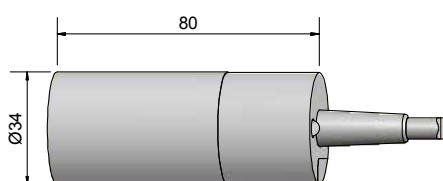
Technical data

Non-flush mountable

Operating distance S_n	25 mm
Operating distance min. / max. adjustable	1...40 mm
Electrical version	4-wire DC
Output function	Antivalent
Type NPN	
Art.-No.	
Connection diagram No.	
Type PNP	
KAS-80-38-A-D34-PPO-Z02-1-HP	
Art.-No.	
825 300	
Connection diagram No.	6
Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.5 mm ²
Housing material	PA / PPO
Active surface	PA / PPO
Lid	PA / PPO
Media optimized	Yes

Assessors for mounting (is not delivered with the sensor) please see our selection of accessories.

* With sealed potentiometer screw





Capacitive Sensors Series 90 - AC / DC

Housing Ø 34 mm

- Housing material: PA / PPO
- Sensing distance 3...30 mm adjustable

Certificate:



QuattroE_{TC}Protect™

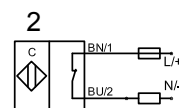
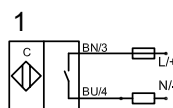
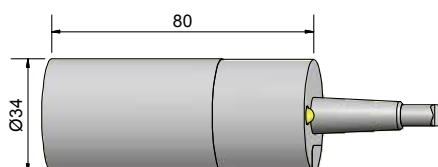
Technical data

Non-flush mountable

Operating distance S_n	20 mm
Operating distance min. / max. adjustable	3...30 mm
Electrical version	2-wire AC / DC
Output function	Normally open
Type	KAS-90-38-S-D34-PPO-Z02-1
Art.-No.	904 000
Connection diagram No.	1
Operating voltage (U_B)	20...250 V AC / DC
Output current max. (I_e)	330 mA (ETL = 250 mA)
Load current min.	5 mA
Voltage drop max. (U_d)	≤ 6 V
No-load current (I_o)	Typ. 2.5 mA
Frequency of operating cycles max.	25 Hz
Permitted ambient temperature	-25...+70 °C (ETL = +60 °C)
LED-display	Yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 2 x 0.75 mm ²
Housing material	PA / PPO
Active surface	PA / PPO
Lid	PA / PPO

Assessors for mounting (is not delivered with the sensor) please see our selection of accessories.

* With sealed potentiometer screw





Capacitive Sensors Series 80 - PNP

Housing Ø 50 mm

- Housing material: PA / PPO
- Sensing distance 1...50 mm adjustable
- With flange connector M 12 x 1



Certificate:



Technical data

Flush mountable

Operating distance S_n	30 mm
Operating distance min. / max. adjustable	1...50 mm
Electrical version	4-pin DC
Output function	Antivalent

Type NPN

Art.-No.

Connection diagram No.

Type PNP

KAS-80-50-A-D50-PPO-Y5-1-HP

Art.-No.

825 510

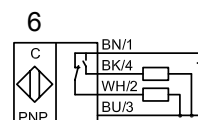
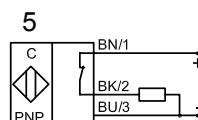
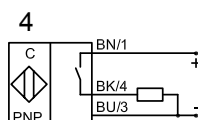
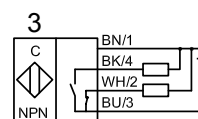
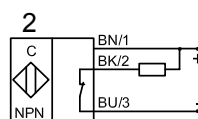
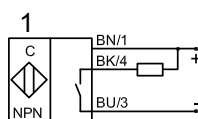
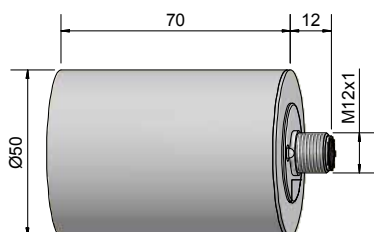
Connection diagram No.

6

Operating voltage (U_B)	10...35 V DC
Output current max. (I_o)	2 x 250 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	100 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1
Housing material	PA / PPO
Active surface	PA / PPO
Lid	PA / PPO
Media optimized	Yes

Assessors for mounting (is not delivered with the sensor) please see our selection of accessories.

* With sealed potentiometer screw





Capacitive Sensors Series 80 - PNP

Housing Ø 64 mm

- Housing material: PA / PPO
- Sensing distance 5...70 mm adjustable



Certificate:



Quattro^{ETC}Protect™

Technical data

Non-flush mountable

Operating distance S_n	40 mm
Operating distance min. / max. adjustable	5...70 mm
Electrical version	4-wire DC
Output function	Antivalent

Type NPN

Art.-No.

Connection diagram No.

Type PNP

KAS-80-61-A-D64-PPO-Z02-1-HP

Art.-No.

828 100

Connection diagram No.

6

Operating voltage (U_B)

10...35 V DC

Output current max. (I_o)

2 x 250 mA

Voltage drop max. (U_d)

≤ 2.0 V

Permitted residual ripple max.

10 %

No-load current (I_o)

Typ. 15 mA

Frequency of operating cycles max.

50 Hz

Permitted ambient temperature

-25...+70 °C

LED-display

Green / yellow

Protective circuit

Built-in

Degree of protection IEC 60529

IP 67*

Norm

EN 60947-5-2

Connection cable

2 m, PVC, 4 x 0.5 mm²

Housing material

PA / PPO

Active surface

PA / PPO

Lid

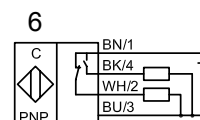
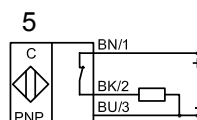
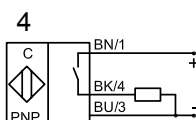
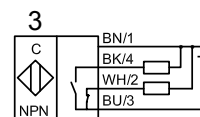
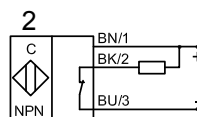
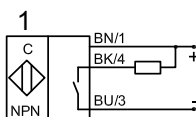
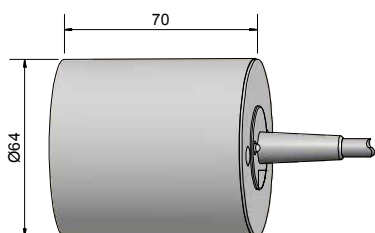
PA / PPO

Media optimized

Yes

Assessors for mounting (is not delivered with the sensor) please see our selection of accessories.

* With sealed potentiometer screw



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