



## Safety sensor 671 with ATEX approval according to guideline 2014/34/EU

Safety sensors 671 with ATEX approval are intended for use in areas subject to explosion hazards due to gases or dust. The sensors are designed in such a way that no sparks and no hazardous increase in temperature can occur. The housing can be earthed by optional selection of a potential clamp.

Typical uses are the monitoring of movable guards in mills used in the production of foods and pharmaceuticals, and also in oil and gas processing plants (e.g. painting lines).

### Technical specifications

- Protection class IP68 (up to 10 bar) ideal for applications in process industries
- Matching actuators 30420000V, 30420000VS, 30420000VH, 30420000SH
- Variants in intrinsically safe version for 1G/1D (Zone 0 / 20)
- Variants in non-intrinsically safe version for 2G/2D (Zone 1 / 21)

### Technical drawing

IMAGE 1/2

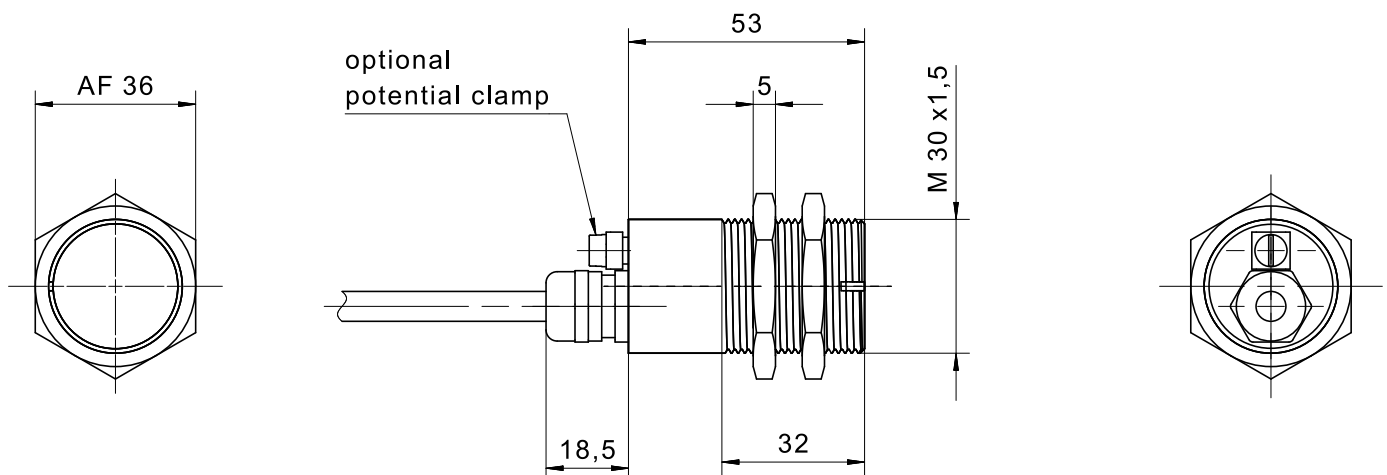
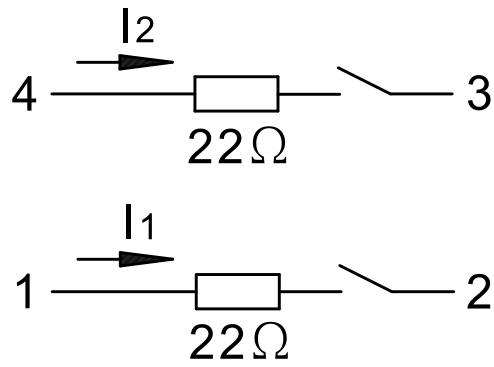
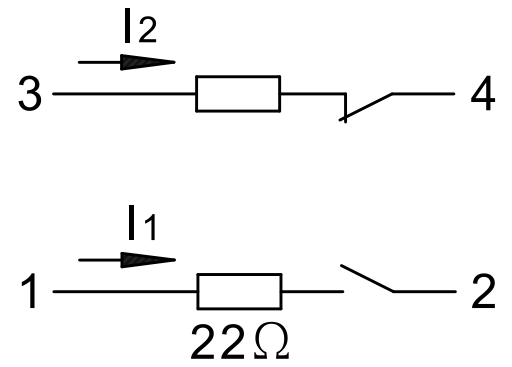


IMAGE 2/2

671V62..0  
671V62..012

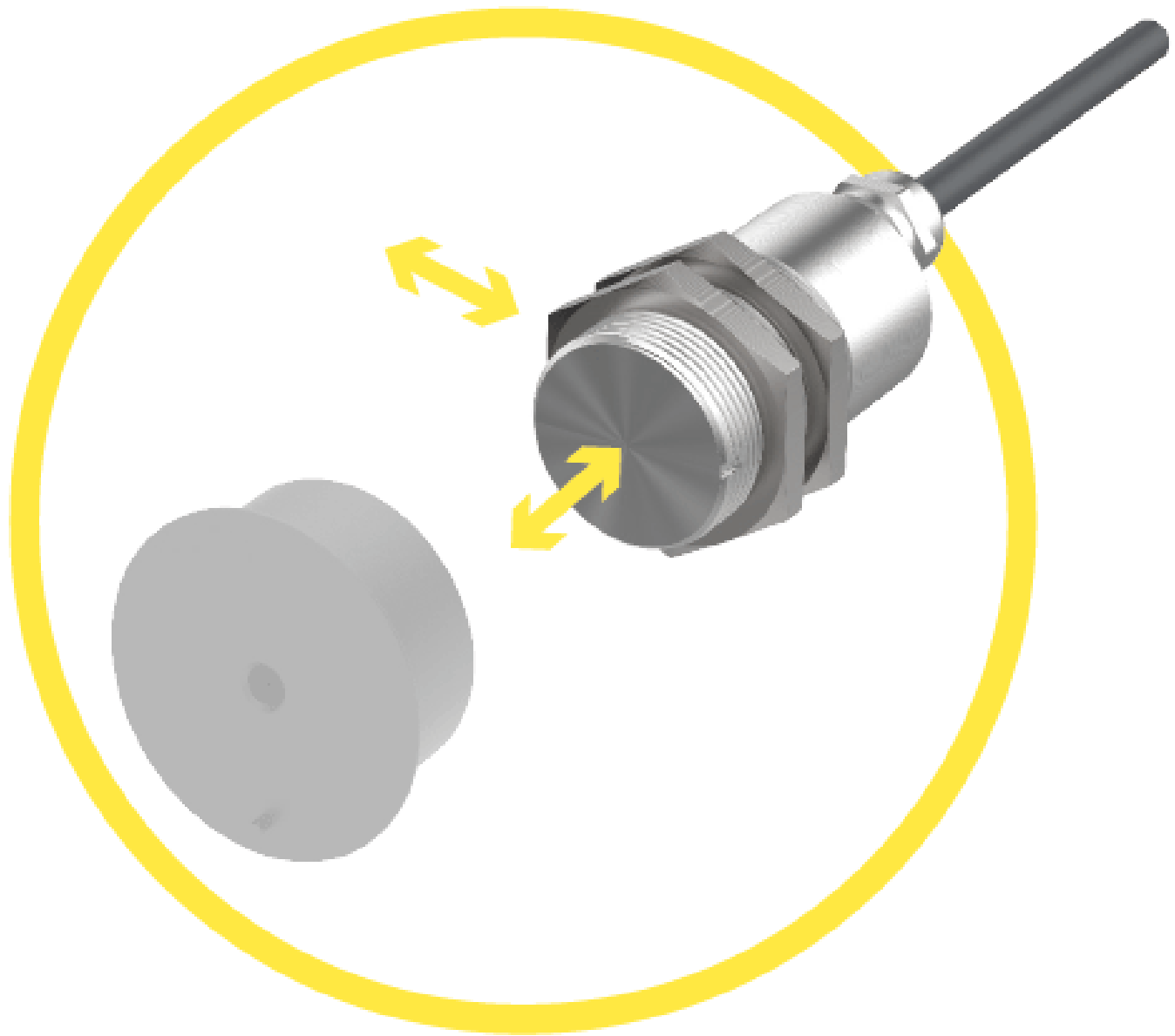


671271..0  
671271..012



### Product options

IMAGE 1/3



**Suitable for front and side actuation.  
Offset: max.  $\pm 2$  mm (depending on magnet  
system).**

IMAGE 2/3

**ORDERING KEY**

	671V62I40	671V62K40	671V62MU0	671V62M40	671V62NU0
<b>Stainless steel housing M30</b>	X	X	X	X	X
<b>Certified in accordance with Directive 2014/34/EU</b>	X	X	X	X	X
<b>Nickel-plated brass cable gland</b>	X	X	X	X	X
<b>Cable PVC Y-UL2517, UL-approved 1m *)</b>	-	-	X	-	X
<b>Cable PVC LIYCYW shielded, 1m *)</b>	X	X	-	X	-
<b>Encapsulated (mb), without potential clamp</b>	-	-	X	X	-
<b>Encapsulated (mb), with potential clamp</b>	-	-	-	-	X
<b>Intrinsically safe (ia), without potential clamp</b>	X	-	-	-	-
<b>Intrinsically safe (ia), with potential clamp</b>	-	X	-	-	-
<b>N.O./N.O. contacts</b>	X	X	X	X	X
<b>N.O./N.C. contacts</b>	-	-	-	-	-
<b>Coded</b>	X	X	X	X	X
<b>Uncoded</b>	-	-	-	-	-

	671V62N40	671271IU012	671271I40	671271K40	671271MU0
<b>Stainless steel housing M30</b>	X	X	X	X	X
<b>Certified in accordance with Directive 2014/34/EU</b>	X	X	X	X	X
<b>Nickel-plated brass cable gland</b>	X	X	X	X	X
<b>Cable PVC Y-UL2517, UL-approved 1m *)</b>	-	X	-	-	X
<b>Cable PVC LIYCYW shielded, 1m *)</b>	X	-	X	X	-
<b>Encapsulated (mb), without potential clamp</b>	-	-	-	-	X
<b>Encapsulated (mb), with potential clamp</b>	X	-	-	-	-
<b>Intrinsically safe (ia), without potential clamp</b>	-	X	X	-	-
<b>Intrinsically safe (ia), with potential clamp</b>	-	-	-	X	-
<b>N.O./N.O. contacts</b>	X	-	-	-	-
<b>N.O./N.C. contacts</b>	-	X	X	X	X
<b>Coded</b>	X	X	X	X	X
<b>Uncoded</b>	-	-	-	-	-

\* Other cable lengths on request

IMAGE 3/3

## MATCHING ACTUATORS

Actuators	Actuation direction	671V62I40			671V62K40		
		$S_{o\ min}$	$S_{ao}$	$S_{ar}$	$S_{o\ min}$	$S_{ao}$	$S_{ar}$
<b>304 200 00 V</b>	Front	0.5	4	14	0.5	4	16
<b>304 200 00 VH</b>		0.5	4	14	0.5	4	16
<b>304 200 00 VS</b>		3	7	20	3	7	23
<b>304 200 00 SH</b>		3	7	20	3	7	23

$S_{o\ min}$  = minimum switching distance (mm),  $S_{ao}$  = operating distance (mm),  $S_{ar}$  = assured switch-off distance (mm)

## Article characteristics

Attribute	671V62I40	671271M40	671V62M40	671271IU012	671271I40	671271K40 ▶
Guideline	2014/34/EU					
Type examination certificate	BVS 03 ATEX E 126 X					
Actuators (standard)	304 200 00V; 304 200 00VH (hygienic version)					
Notified body QM	CE 0123					
Actuators (amplified)	304 200 00VS; 304 200 00SH (hygienic version)					
Version gas	EX II 1G Ex ia IIC T6/T5 Ga	EX II 2G Ex mb IIC T6/T5 Gb		EX II 1/2G Ex ia IIC T6/T5 Ga/Gb	EX II 1G Ex ia IIC T6/T5 Ga	
Contact form	NO/NO	NO/NC	NO/NO	NO/NC		
Version dust	EX II 1D Ex ia IIIC IP68 T <sub>200</sub> <sup>105°C</sup> Da	EX II 2D Ex mb IIIC IP68 T105°C Db		EX II 1D Ex ia IIIC IP68 T <sub>200</sub> <sup>105°C</sup> Da		
Actuation	front					
Switching principle	magnetic					
Technology	Reed					
Ambient temperature range Ta, (Ii total: 0 ... 60 mA)	T6: -25°C...+70°C T5:T105°C: - 25°C...+75°C	-		T6: -25°C...+70°C T5:T105°C: -25°C...+75°C		
Ambient temperature range Ta, (Ii total: 60 ... 150 mA)	T6: -25°C...+50° T5:T105°C: - 25°C...+70°C	-		T6: -25°C...+50° T5:T105°C: -25°C...+70°C		
Ambient temperature range Ta, (In total: 0 ... 60 mA)	-	T6: -25°C...+70°C T5:T105°C: - 25°C...+75°C		-		
Ambient temperature range Ta, (In total: 60 ... 150 mA)	-	T6: -25°C...+50°C T5:T105°C: - 25°C...+70°C		-		
Use in zone (EX)	0, 1, 2 and 20, 21, 22	1, 2 and 21, 22		0/1, 1, 2 and 20, 21, 22	0, 1, 2 and 20, 21, 22	
Switching frequency	5 Hz					
Pollution degree	3					
Effective internal capacitance (Ci)	2 nF	-		2 nF		
Effective internal inductance (Li)	10 µH	-		10 µH		
Series resistor	22 Ohm					
Rated voltage Un (mb)	-	24 V AC/DC		-		
Max. input voltage Ui (i)	24 V AC/DC	-		24 V AC/DC		
Structure acc. to EN ISO 13849-1	Two-channel					
Coding acc. to EN ISO 14119	Low					

Attribute	671V62I40	671271M40	671V62M40	671271IU012	671271I40	671271K40 ▶
B10d acc. to EN ISO 13849-1	4000000	20000000	4000000	20000000		
Type acc. to EN ISO 14119	4					
Mission time in years	20 a					
Assured switching distance (Sao) with actuator (standard)	4 mm					
Assured switching distance (Sao) with actuator (amplified)	7 mm					
Minimum switching distance (So min) with actuator (standard)	0.5 mm					
Minimum switching distance (So min) with actuator (amplified)	3 mm					
Assured switch-off distance (Sar) with actuator (standard)	16 mm					
Assured switch-off distance (Sar) with actuator (amplified)	20 mm	23 mm	20 mm	23 mm		
Housing design	cylindrical					
Minimum installation distance (between two sensors)	50 mm					
Dimensions	M30 x 53 mm					
Detent present	no					
Earth terminal	no					yes
Housing material	Edelstahl					
Cable material	PVC					
Housing colour	silber					
Nut material	Edelstahl					
Protection class	IP68 10bar					
Min. storage temperature	-25 °C					
Max. storage temperature	75 °C					
Shock resistance (Norm)	30g / 11ms					
Vibration resistance (Norm)	10 ... 55 Hz					
Mounting type	Fastening nut					
Thread	M30					

Attribute	671V62I40	671271M40	671V62M40	671271IU012	671271I40	671271K40 ▶
Cable type	LIYCYW			Y - UL 2517	LIYCYW	
Cable colour	grau			schwarz	grau	
Cable length	1 m					



Attribute	671271MU0	671271NU0	671271N40	671V62MU0	671V62NU0	671V62N40 ▶
Guideline	2014/34/EU					
Type examination certificate	BVS 03 ATEX E 126 X					
Actuators (standard)	304 200 00V; 304 200 00VH (hygienic version)					
Notified body QM	CE 0123					
Actuators (amplified)	304 200 00VS; 304 200 00SH (hygienic version)					
Version gas	EX II 2G Ex mb IIC T6/T5 Gb					
Contact form	NO/NC			NO/NO		
Version dust	EX II 2D Ex mb IIIC IP68 T105°C Db					
Actuation	front					
Switching principle	magnetic					
Technology	Reed					
Ambient temperature range Ta, (Ii total: 0 ... 60 mA)	-					
Ambient temperature range Ta, (Ii total: 60 ... 150 mA)	-					
Ambient temperature range Ta, (In total: 0 ... 60 mA)	T6: -25°C..+70°C T5:T105°C: -25°C..+75°C					
Ambient temperature range Ta, (In total: 60 ... 150 mA)	T6: -25°C..+50°C T5:T105°C: -25°C..+70°C					
Use in zone (EX)	1 , 2 and 21, 22					
Switching frequency	5 Hz					
Pollution degree	3					
Effective internal capacitance (Ci)	-					
Effective internal inductance (Li)	-					
Series resistor	22 Ohm					
Rated voltage Un (mb)	24 V AC/DC					
Max. input voltage Ui (i)	-					
Structure acc. to EN ISO 13849-1	Two-channel					
Coding acc. to EN ISO 14119	Low					
B10d acc. to EN ISO 13849-1	20000000					
Type acc. to EN ISO 14119	4					
Mission time in years	20 a					

Attribute	671271MU0	671271NU0	671271N40	671V62MU0	671V62NU0	671V62N40 ▶
Assured switching distance (Sao) with actuator (standard)	4 mm					
Assured switching distance (Sao) with actuator (amplified)	7 mm					
Minimum switching distance (So min) with actuator (standard)	0.5 mm					
Minimum switching distance (So min) with actuator (amplified)	3 mm					
Assured switch-off distance (Sar) with actuator (standard)	16 mm					
Assured switch-off distance (Sar) with actuator (amplified)	23 mm			20 mm		
Housing design	cylindrical					
Minimum installation distance (between two sensors)	50 mm					
Dimensions	M30 x 53 mm					
Detent present	no					
Earth terminal	no	yes		no	yes	
Housing material	Edelstahl					
Cable material	PVC					
Housing colour	silber					
Nut material	Edelstahl					
Protection class	IP68 10bar					
Min. storage temperature	-25 °C					
Max. storage temperature	75 °C					
Shock resistance (Norm)	30g / 11ms					
Vibration resistance (Norm)	10 ... 55 Hz					
Mounting type	Fastening nut					
Thread	M30					
Cable type	Y - UL 2517		LIYCYW	Y - UL 2517		LIYCYW
Cable colour	schwarz		grau	schwarz		grau
Cable length	1 m					

Attribute	ED671V62I40	ED671V62MU0	ED671V62M40	ED671V62NU0	ED671V62N40	ED671271IU012 ▶
Guideline				-		
Type examination certificate				-		
Actuators (standard)				-		
Notified body QM				-		
Actuators (amplified)				-		
Version gas				-		
Contact form				-		
Version dust				-		
Actuation				-		
Switching principle				-		
Technology				-		
Ambient temperature range Ta, (Ii total: 0 ... 60 mA)				-		
Ambient temperature range Ta, (Ii total: 60 ... 150 mA)				-		
Ambient temperature range Ta, (In total: 0 ... 60 mA)				-		
Ambient temperature range Ta, (In total: 60 ... 150 mA)				-		
Use in zone (EX)				-		
Switching frequency				-		
Pollution degree				-		
Effective internal capacitance (Ci)				-		
Effective internal inductance (Li)				-		
Series resistor				-		
Rated voltage Un (mb)				-		
Max. input voltage Ui (i)				-		
Structure acc. to EN ISO 13849-1				-		
Coding acc. to EN ISO 14119				-		
B10d acc. to EN ISO 13849-1				-		
Type acc. to EN ISO 14119				-		
Mission time in years				-		

Attribute	ED671V62I40	ED671V62MU0	ED671V62M40	ED671V62NU0	ED671V62N40	ED671271IU012 ▶
Assured switching distance (Sao) with actuator (standard)				-		
Assured switching distance (Sao) with actuator (amplified)				-		
Minimum switching distance (So min) with actuator (standard)				-		
Minimum switching distance (So min) with actuator (amplified)				-		
Assured switch-off distance (Sar) with actuator (standard)				-		
Assured switch-off distance (Sar) with actuator (amplified)				-		
Housing design				-		
Minimum installation distance (between two sensors)				-		
Dimensions				-		
Detent present				-		
Earth terminal				-		
Housing material				-		
Cable material				-		
Housing colour				-		
Nut material				-		
Protection class				-		
Min. storage temperature				-		
Max. storage temperature				-		
Shock resistance (Norm)				-		
Vibration resistance (Norm)				-		
Mounting type				-		
Thread				-		
Cable type				-		
Cable colour				-		
Cable length				-		

Attribute	ED671271I40	ED671271K40	ED671271MU0	ED671271M40	ED671271NU0	ED671271N40
Guideline				-		
Type examination certificate				-		
Actuators (standard)				-		
Notified body QM				-		
Actuators (amplified)				-		
Version gas				-		
Contact form				-		
Version dust				-		
Actuation				-		
Switching principle				-		
Technology				-		
Ambient temperature range Ta, (Ii total: 0 ... 60 mA)				-		
Ambient temperature range Ta, (Ii total: 60 ... 150 mA)				-		
Ambient temperature range Ta, (In total: 0 ... 60 mA)				-		
Ambient temperature range Ta, (In total: 60 ... 150 mA)				-		
Use in zone (EX)				-		
Switching frequency				-		
Pollution degree				-		
Effective internal capacitance (Ci)				-		
Effective internal inductance (Li)				-		
Series resistor				-		
Rated voltage Un (mb)				-		
Max. input voltage Ui (i)				-		
Structure acc. to EN ISO 13849-1				-		
Coding acc. to EN ISO 14119				-		
B10d acc. to EN ISO 13849-1				-		
Type acc. to EN ISO 14119				-		
Mission time in years				-		
Assured switching distance (Sao) with actuator (standard)				-		

Attribute	ED671271I40	ED671271K40	ED671271MU0	ED671271M40	ED671271NU0	ED671271N40
Assured switching distance (Sao) with actuator (amplified)				-		
Minimum switching distance (So min) with actuator (standard)				-		
Minimum switching distance (So min) with actuator (amplified)				-		
Assured switch-off distance (Sar) with actuator (standard)				-		
Assured switch-off distance (Sar) with actuator (amplified)				-		
Housing design				-		
Minimum installation distance (between two sensors)				-		
Dimensions				-		
Detent present				-		
Earth terminal				-		
Housing material				-		
Cable material				-		
Housing colour				-		
Nut material				-		
Protection class				-		
Min. storage temperature				-		
Max. storage temperature				-		
Shock resistance (Norm)				-		
Vibration resistance (Norm)				-		
Mounting type				-		
Thread				-		
Cable type				-		
Cable colour				-		
Cable length				-		