



Safety sensor 171

The most common version on the market: magnetically actuated safety sensors in M30 housing. The large number of variants available from elobau provide solutions for almost all applications.

Technical specifications

- Protection class IP6K9K ideal for wash down applications
- Available connection types: cable outlet and M12 housing connector
- Simple diagnosis through optional LED and control contact

Technical drawing

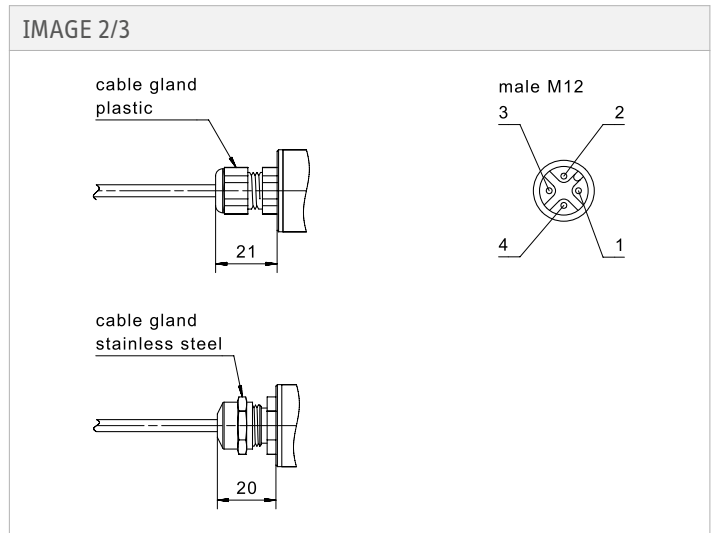
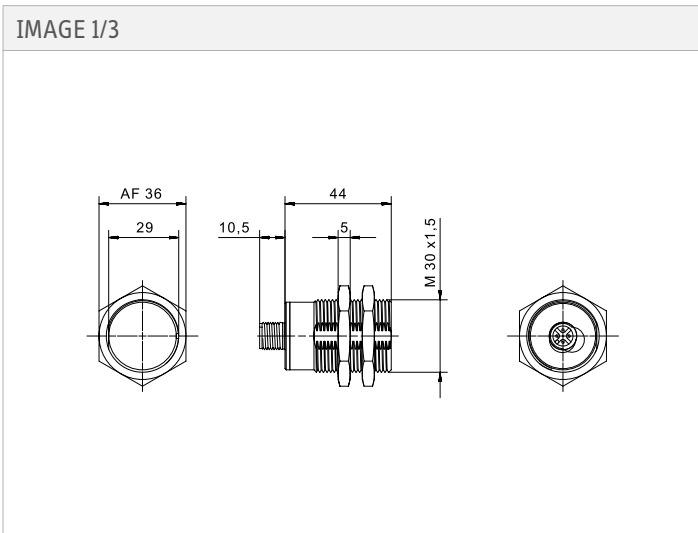
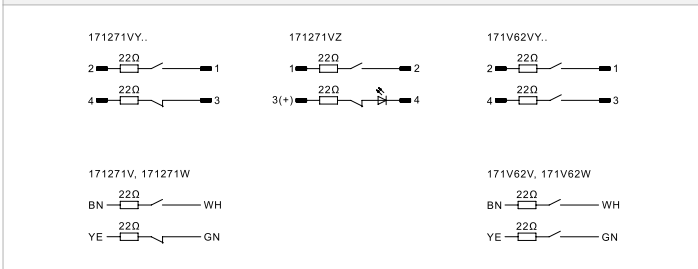
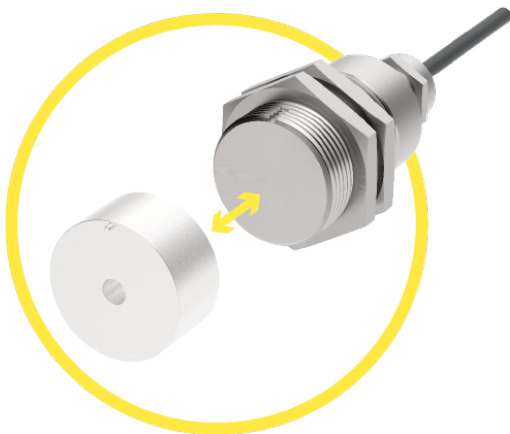


IMAGE 3/3



Product options

IMAGE 1/3



Suitable for front actuation. Offset with magnet system (coded) 304 200 00: max. 2 mm. Assured switching distance (Sao) of 4 mm with standard actuators, 7 mm with extended-range actuators. Assured switch-off distance (Sar) of 17 mm with standard actuators, of 23 mm with extended-range actuators.

IMAGE 2/3

ORDERING KEY

	171V62V	171V62VY	171V62VY01	171V62W	171271V
Stainless steel housing M30	x	x	x	x	x
Plastic cable gland	x	-	-	-	x
Nickel-plated brass cable gland	-	-	-	-	-
Stainless steel cable gland	-	-	-	x	-
M12x1 connector, 4-pin, plastic	-	-	-	-	-
M12x1 connector, 4-pin, nickel-plated brass	-	x	-	-	-
M12x1 connector, 4-pin, stainless steel	-	-	x	-	-
Connection cable 1m*	x	-	-	x	x
N.O./N.C. contacts	x	x	x	x	-
N.O./N.C. contacts	-	-	-	-	x
LED in series to N.C.	-	-	-	-	-
Coded	x	x	x	x	x
Uncoded	-	-	-	-	-

	171271VY01	171271VY03	171271VZ	171271W
Stainless steel housing M30	x	x	x	x
Plastic cable gland	-	-	-	-
Nickel-plated brass cable gland	-	-	-	-
Stainless steel cable gland	-	-	-	x
M12x1 connector, 4-pin, plastic	-	-	x	-
M12x1 connector, 4-pin, nickel-plated brass	x	-	-	-
M12x1 connector, 4-pin, stainless steel	-	x	-	-
Connection cable 1m*	-	-	-	x
N.O./N.C. contacts	-	-	-	-
N.O./N.C. contacts	x	x	x	x
LED in series to N.C.	-	-	x	-
Coded	x	x	x	x
Uncoded	-	-	-	-

* Other cable lengths, cable materials and connector types on request

IMAGE 3/3

MATCHING ACTUATORS

Actuators	Actuation direction	171V82V			171V82VY			171V82VY01			171V82W			171Z71V		
		S ₀	S ₁	S ₂	S ₀	S ₁	S ₂	S ₀	S ₁	S ₂	S ₀	S ₁	S ₂	S ₀	S ₁	S ₂
304 200 00	Front	0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16
304 200 00 V		0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16
304 200 00 H		0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16
304 200 00 S		3	7	20	3	7	20	3	7	20	3	7	20	3	7	23
304 200 00 VS		3	7	20	3	7	20	3	7	20	3	7	20	3	7	23
304 200 00 SH	3	7	20	3	7	20	3	7	20	3	7	20	3	7	23	

Actuators	Actuation direction	171Z71V01			171Z71V03			171Z71V2			171Z71W		
		S ₀	S ₁	S ₂	S ₀	S ₁	S ₂	S ₀	S ₁	S ₂	S ₀	S ₁	S ₂
304 200 00	Front	0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16
304 200 00 V		0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16
304 200 00 H		0.5	4	16	0.5	4	16	0.5	4	16	0.5	4	16
304 200 00 S		3	7	23	3	7	23	3	7	23	3	7	23
304 200 00 VS		3	7	23	3	7	23	3	7	23	3	7	23
304 200 00 SH	3	7	23	3	7	23	3	7	23	3	7	23	

S₀ = minimum switching distance (mm), S₁ = operating distance (mm), S₂ = assured switch-off distance (mm)

Electrical data

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Min. switching voltage	19.2 V DC					
Max. switching voltage	28.8 V DC					
Max. switching current	0.1 A					
Max. switching current with LED	-					
Max. switching power	3 W					
Switching frequency	5 Hz					
Assured switching distance (Sao)	4 mm					
Assured switch-off distance (Sar)	16 mm					
Minimum switching distance (S0 min)	0.5 mm					
LED display	No					
Actuation	front					
Switching principle	magnetic					
Series resistor	22 Ohm					
Technology	Reed					
Contact form	NO/NO				NO/NC	
Pollution degree	3					
Protection class	III					

Electrical data

Attribute	171271VY03	171271VZ	171271W
Min. switching voltage	19.2 V DC		
Max. switching voltage	28.8 V DC		
Max. switching current	0.1 A		
Max. switching current with LED	-	0.02 A	-
Max. switching power	3 W		
Switching frequency	5 Hz		
Assured switching distance (Sao)	4 mm		
Assured switch-off distance (Sar)	16 mm		
Minimum switching distance (SO min)	0.5 mm		
LED display	No	single-coloured	No
Actuation	front		
Switching principle	magnetic		
Series resistor	22 Ohm		
Technology	Reed		
Contact form	NO/NC		
Pollution degree	3		
Protection class	III		

Safety-related characteristics

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
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					
Structure acc. to EN ISO 13849-1	Two-channel					

Safety-related characteristics

Attribute	171271VY03	171271VZ	171271W
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		
Structure acc. to EN ISO 13849-1	Two-channel		

Mechanical data

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Housing design	cylindrical					
Dimensions	M30 x 44 mm					
Minimum installation distance (between two sensors)	50 mm					-
cannot be mounted flush	yes					
Detent present	no					

Mechanical data

Attribute	171271VY03	171271VZ	171271W
Housing design	cylindrical		
Dimensions	M30 x 44 mm		
Minimum installation distance (between two sensors)	50 mm	-	50 mm
cannot be mounted flush	yes		
Detent present	no		

Material information

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Housing material	Edelstahl , Kabelverschraubung Kunststoff	Edelstahl		Edelstahl , Kabelverschraubung Edelstahl	Edelstahl , Kabelverschraubung Kunststoff	Edelstahl
Cable material	PVC	-		PVC		-
Nut material	Edelstahl					
Housing colour	silber					

Material information

Attribute	171271VY03	171271VZ	171271W
Housing material	Edelstahl		Edelstahl , Kabelverschraubung Edelstahl
Cable material	-		PVC
Nut material	Edelstahl		
Housing colour	silber		

Environmental conditions

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Protection class	IP69K DIN 40050 - IP68 5bar DIN EN 60529	IP67 DIN EN 60529	IP68 DIN EN 60529	IP69K DIN 40050 - IP68 5bar DIN EN 60529		IP67 DIN EN 60529
Protection class, connector	-	IP67 / IP69K DIN EN 60529	IP68 DIN EN 60529	-		IP67 DIN EN 60529
Operating temperature min.	-25 °C					
Max. operating temperature	75 °C					
Min. cable temperature range, moving	-5 °C	-		-5 °C		-
Max. cable temperature range, moving	70 °C	-		70 °C		-
Min. cable temperature range, fixed installation	-25 °C	-		-25 °C		-
Max. cable temperature range, fixed installation	70 °C	-		70 °C		-
Shock resistance (Norm)	30g / 11ms					
Vibration resistance (Norm)	10 - 55Hz					
Min. storage temperature	-25 °C					
Max. storage temperature	75 °C					

Environmental conditions

Attribute	171271VY03	171271VZ	171271W
Protection class	IP68 DIN EN 60529	IP67 DIN EN 60529	IP69K DIN 40050 - IP68 5bar DIN EN 60529
Protection class, connector	IP68 DIN EN 60529	IP67 DIN EN 60529	-
Operating temperature min.	-25 °C		
Max. operating temperature	75 °C		
Min. cable temperature range, moving	-		-5 °C
Max. cable temperature range, moving	-		70 °C
Min. cable temperature range, fixed installation	-		-25 °C
Max. cable temperature range, fixed installation	-		70 °C
Shock resistance (Norm)	30g / 11ms		
Vibration resistance (Norm)	10 - 55Hz		
Min. storage temperature	-25 °C		
Max. storage temperature	75 °C		

Installation

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Mounting type	Fastening nut					
Thread	M30					
Torque for nuts	50 N m					
Installation	arbitrary					

Installation

Attribute	171271VY03	171271VZ	171271W
Mounting type	Fastening nut		
Thread	M30		
Torque for nuts	50 N m		
Installation	arbitrary		

Connection

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Connector type	-	M12x1 - 4 polig		-		M12x1 - 4 polig
Cable length	1 m	-		1 m		-
Number of strands	4	-		4		-
Wire cross section	0.25 mm ²	-		0.25 mm ²		-
Cable type	LiYY 4x0,25	-		LiYY 4x0,25		-
Cable colour	grau	-		grau		-

Connection

Attribute	171271VY03	171271VZ	171271W
Connector type	M12x1 - 4 polig		-
Cable length	-		1 m
Number of strands	-		4
Wire cross section	-		0.25 mm ²
Cable type	-		LiYY 4x0,25
Cable colour	-		grau

Approvals

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Certified in accordance with	CE				ETL	-
CE label	yes					

Approvals

Attribute	171271VY03	171271VZ	171271W
Certified in accordance with	CE	-	CE
CE label	yes		

Operating data

Attribute	171V62V	171V62VY	171V62VY01	171V62W	171271V	171271VY01 ▶
Possible actuators	30420000					

Operating data

Attribute	171271VY03	171271VZ	171271W
Possible actuators	30420000		