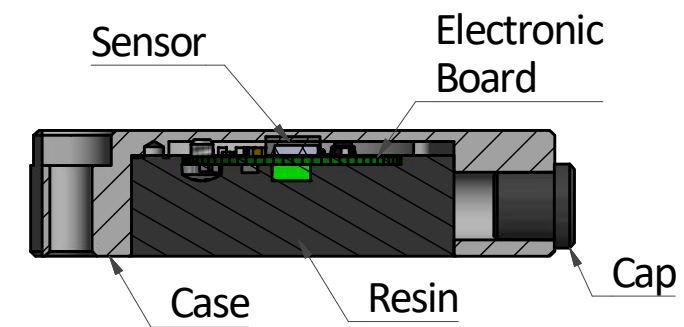
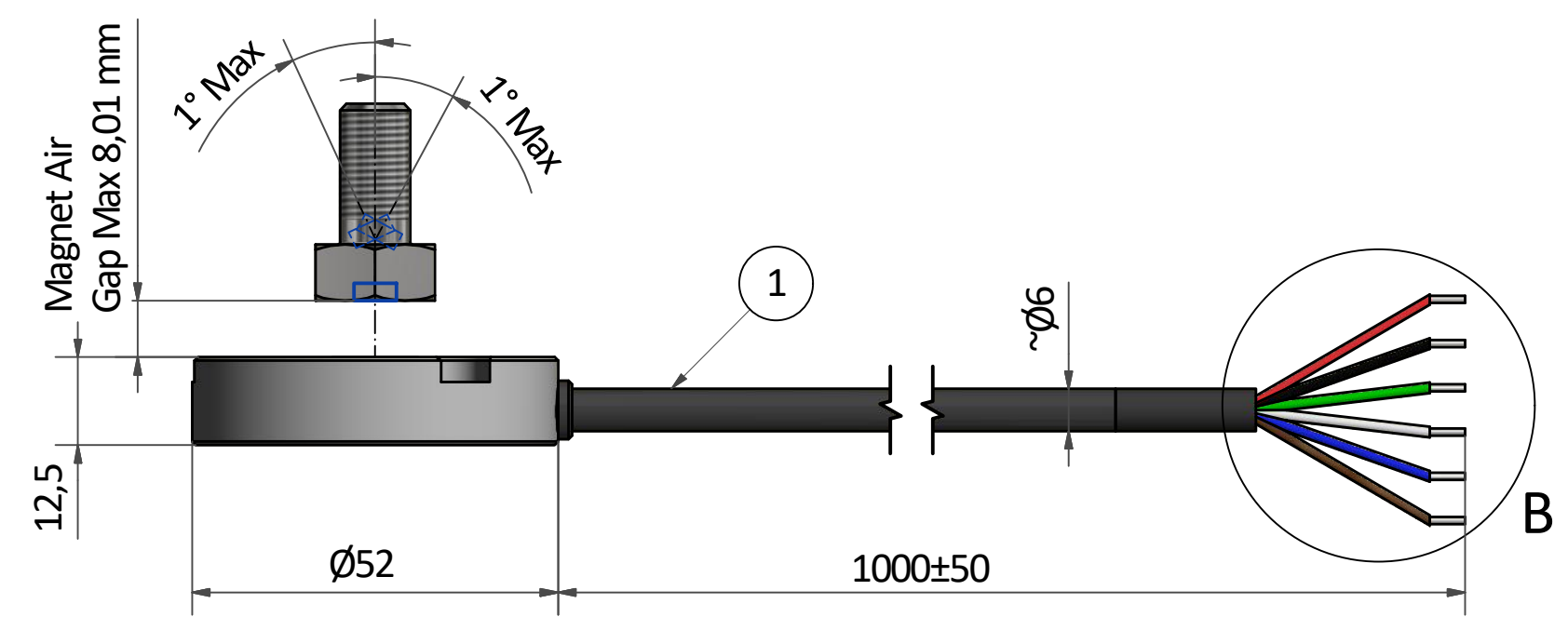
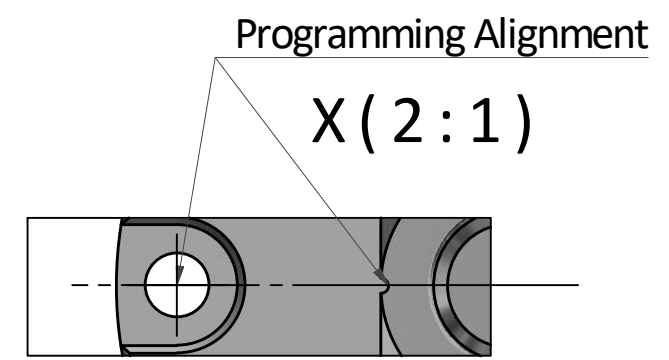
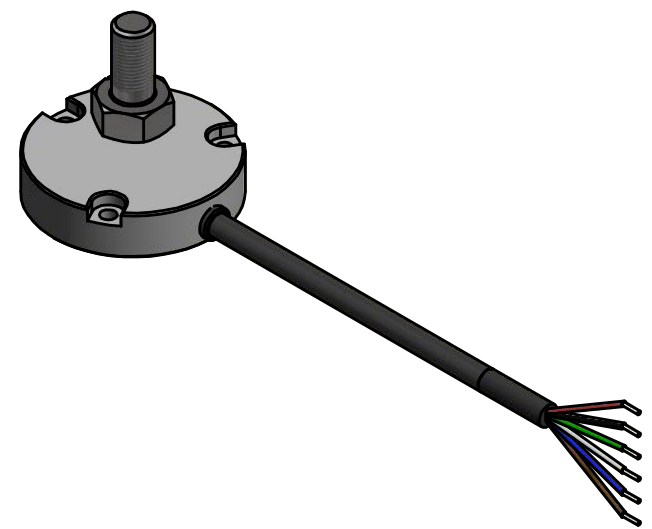
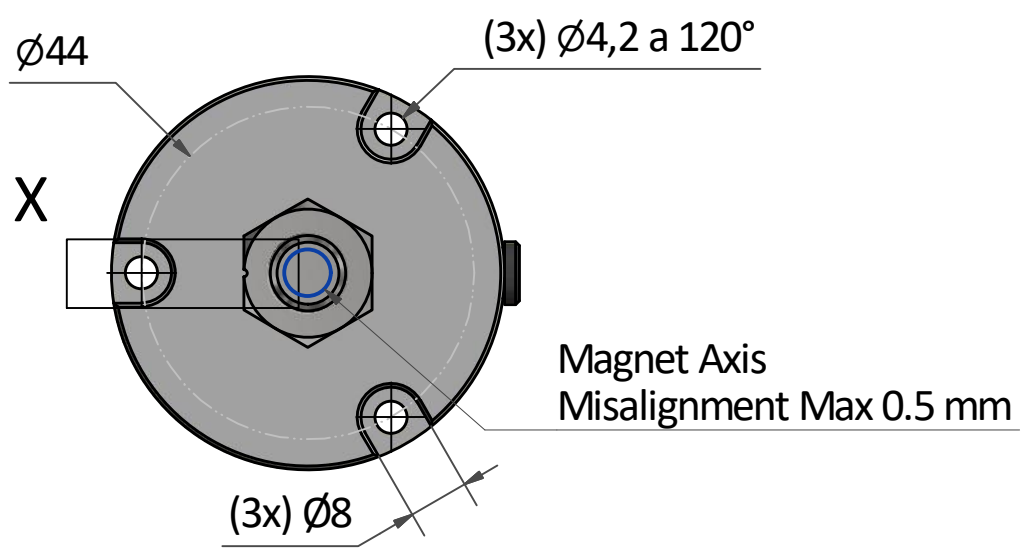
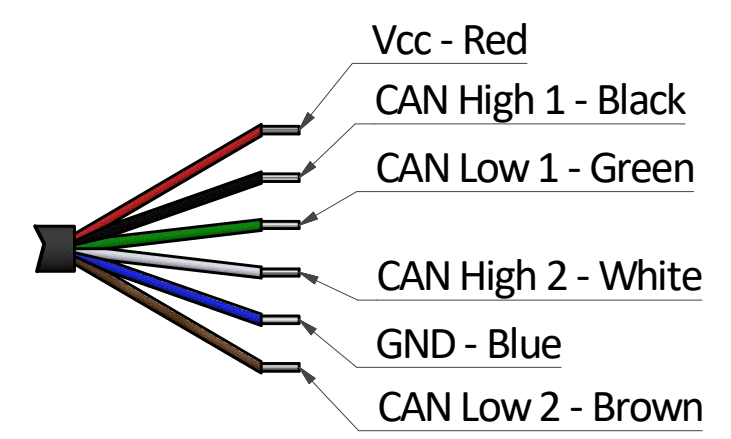


■ Contactless Angular Sensor



View from "B"



Preliminary

Ref.	Description	Operating Temperature °C
1	Cable HT 105°C	-25 / +105



industrial vehicles sensors

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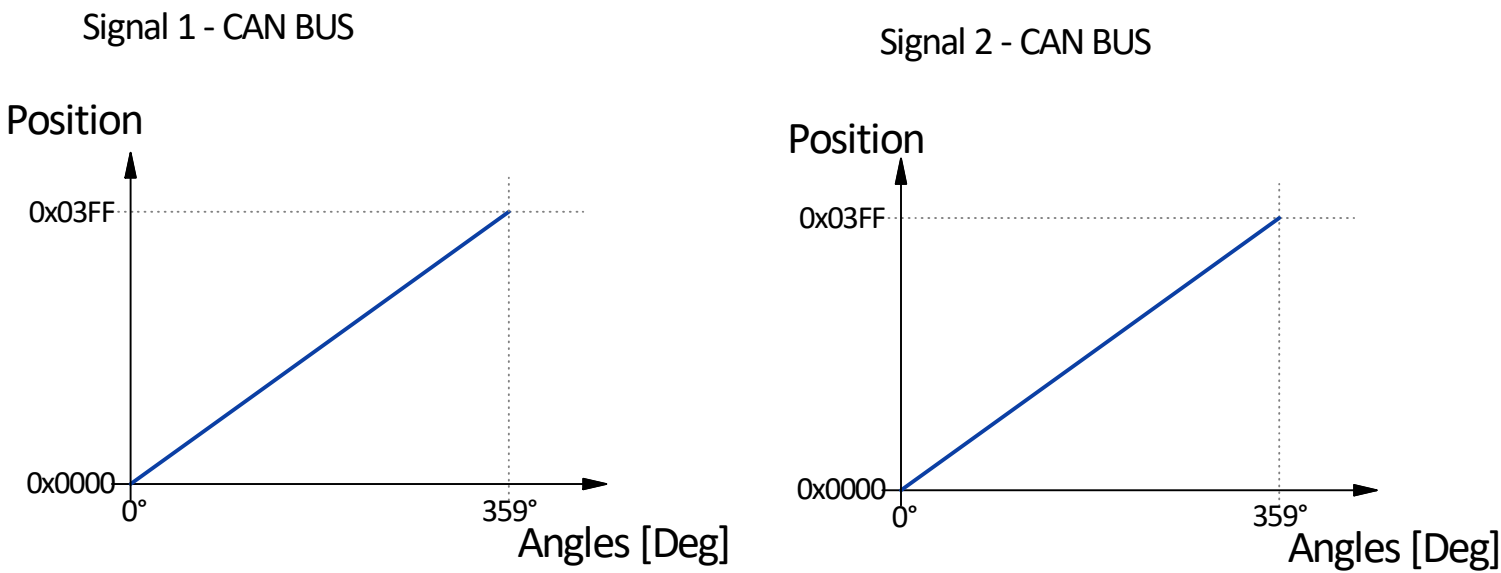
Part Number: **AA344005**

Description: Contactless Angular Sens. +359° 9÷32V CAN BUS

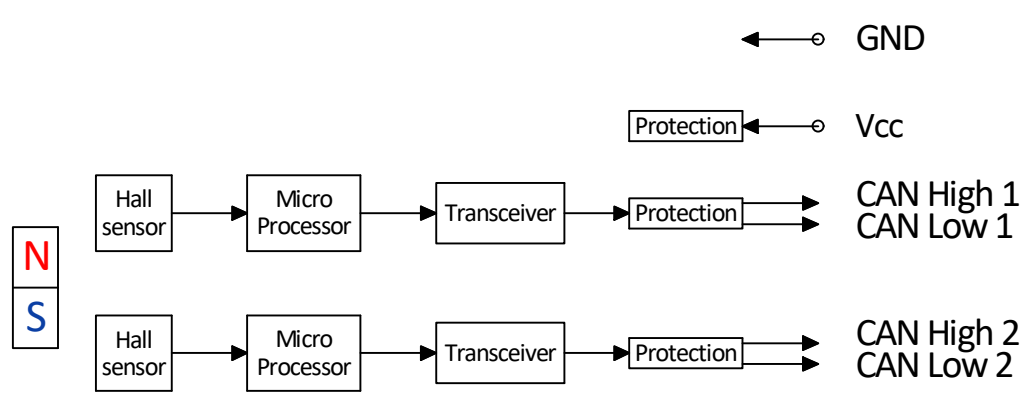
Designed	24/07/2024	Giulia M.	Scale:	1 : 1 (A3 format)
Checked	24/07/2024		Dimensions without tolerance indication: ISO 2768 - m	
Approved	24/07/2024		Units: mm	Page 1 / 3

Elen Srl - Garbagnate Milanese (MI)

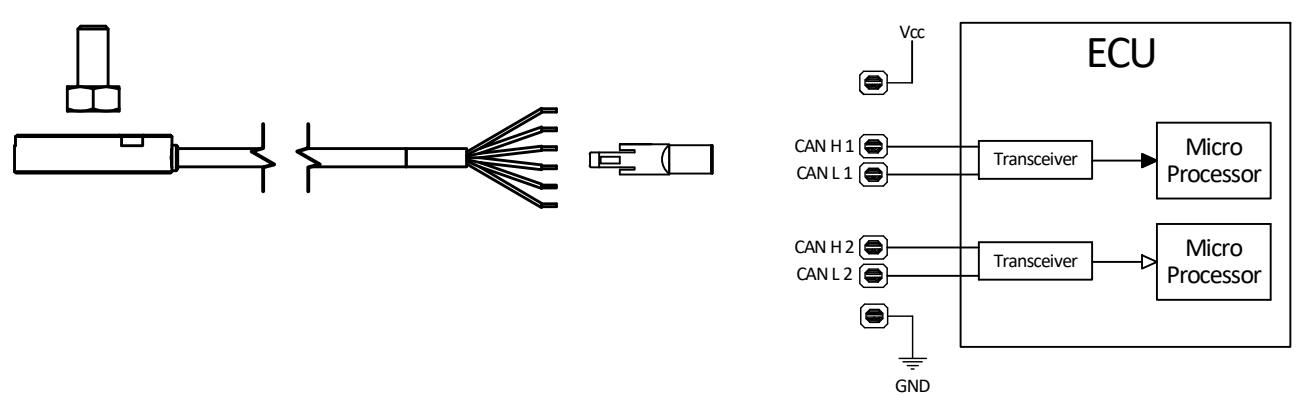
■ Output Signal



■ Functional Scheme



■ Typical Application



■ Technical Specifications

	Specific	Value	Standard Reference
Electrical	Power Supply (Vcc)	9V Min ÷ 32V Max	PDV Rev. 3 - P. 5.1;
	Supply Current (No Load)	30 mA Max	PDV Rev. 3 - P. 5.2;
	Overvoltage Protection	Max 38V for 1h	PDV Rev. 3 - P. 5.7;
	Temperature Operating Voltage	32V @105°C	PDV Rev. 3 - P. 5.8;
	Signal Output 1	CAN J1939 Default Baudrate 250 kb/s Default message cadence 10ms	-
	Signal Output 2	CAN J1939 Default Baudrate 250 kb/s Default message cadence 10ms	-
	Reverse Polarity Protection	-32V For 1h	PDV Rev. 3 - P. 5.3;
	Shortcircuit Protection	To Ground For 5' ; To Supply For 5'	PDV Rev. 3 - P. 5.4;
	Insulation Resistance	1000MΩ@500V	PDV Rev. 3 - P. 5.10;
	Dielectric Rigidity	750V@50Hz For 60s	PDV Rev. 3 - P. 5.11;
	ESD Protection	±8kV Contact; ±15kV Air	EN 61000-4-2;
	Linearity	±1%	-
Environmental	Operating Temperature (for Electronic Components)	-40°C ÷ +105°C	IEC 60068-2-1 ; IEC 60068-2-2 ; IEC 60068-2-30 ; IEC60068-2-14
	Storage Temperature (for the Assembly)	-40°C ÷ +105°C	IEC 60068-2-1 ; IEC 60068-2-2 ; IEC 60068-2-30 ; IEC60068-2-14
	Degree Of Protection	IP67	IEC 60529
	Vibrations Resistance - Random	f=10Hz@PSD=1.44g ² /Hz; f=100Hz@PSD=3.85 g ² /Hz; f=1000Hz@PSD=3.85g ² /Hz; f=2000Hz@PSD=0.96g ² /Hz; 3 Axes - 24h for Axis	IEC 60068-2-64; ENS 0310 Rev J;
	Vibrations Resistance - Sine	(5÷12.87)Hz@Displacement=±15mm, (12.87÷200)Hz@dis≤±15mm@5g, 1Octave/min, 20 Sweep Cycles	IEC 60068-2-6;ISO 15998;
	EMC Compatibility - Magnetic Field Imm.	15Hz ÷ 150 kHz	ISO11452-8:2007;
Mech.	EMC Compatibility - BCI	BCI Class "A" - 100mA; (1÷400)MHz	ISO11452-4;
	Body Material	Aluminium With Antioxidant Treatment	-

Preliminary

■ Protocol Description

Characteristics		
Cycle Time	10 ms	-
Identifier CAN 1	0x88	-
Identifier CAN 2	0x89	-
Lenght	8	Byte

CAN 1 / CAN 2 - Message Structure			
BYTE 1	bit 8...7 : 11	Not Used	-
	bit 6...5 : 00	SPN 696	Driveline
	bit 4...3 : 10	SPN 897	High Priority
	bit 2...1 : 01	SPN 695	Speed Control
BYTE 2	-	Lo byte	Angular Position
BYTE 3	-	Hi byte	Angular Position
BYTE 4	11111111	Not Used	-
BYTE 5	bit 8...4 : 00000	SPN 3350	Sensor Control
	bit 4...1 : 111	SPN 3349	TSC1 Cyclic 10 ms
BYTE 6	bit 8...5 : 1111	Not Used	-
	bit 4...1 : 1111	SPN 4191	N.A.
BYTE 7	11111111	Not Used	-
BYTE 8	bit 8...5 : xxxx	SPN 4207	Message Checksum
	bit 4...1 : xxxx	SPN 4206	Message Rolling Counter

0x0000 = 0°
0x03FF = 359°

Preliminary