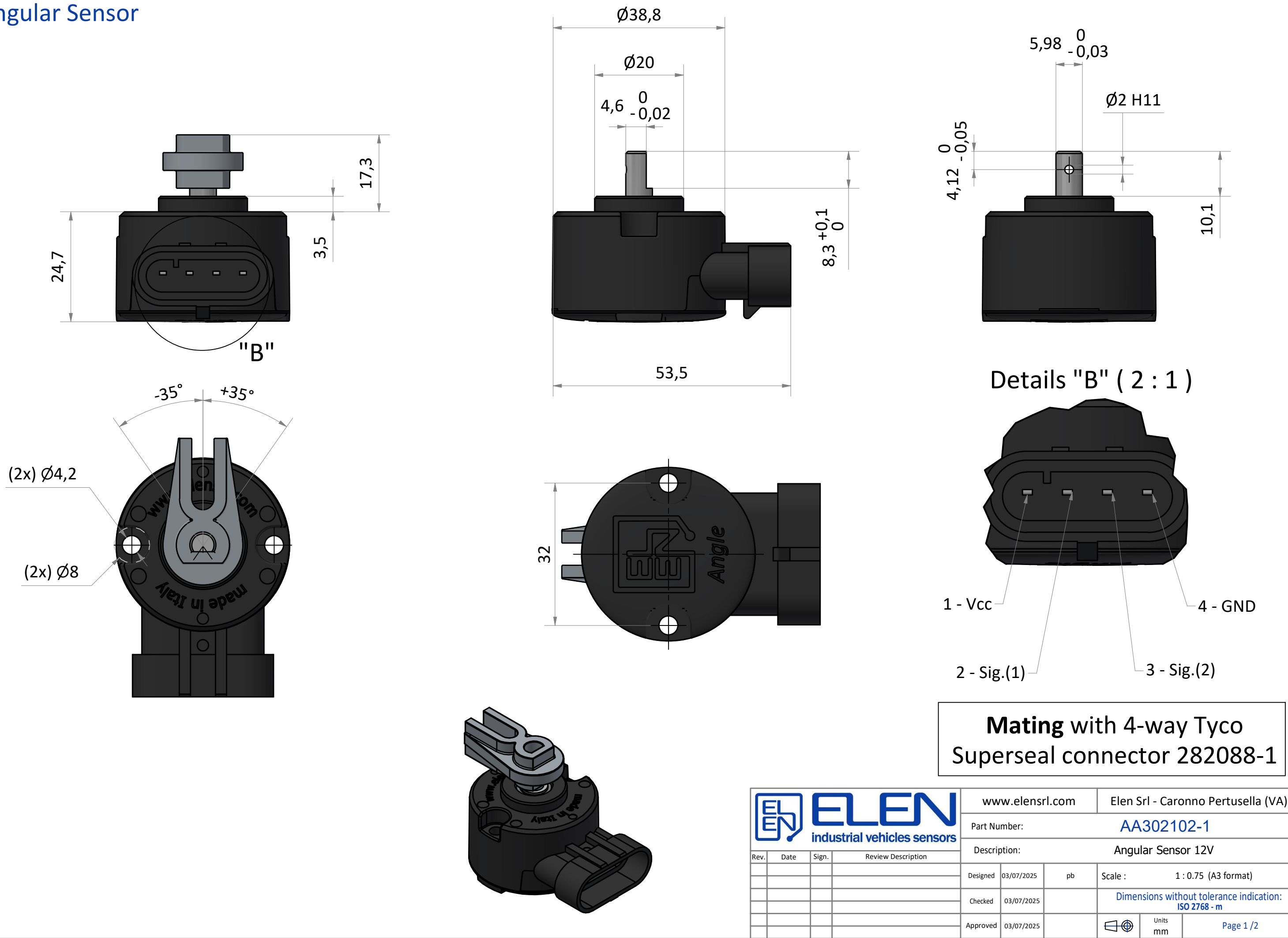


■ Angular Sensor

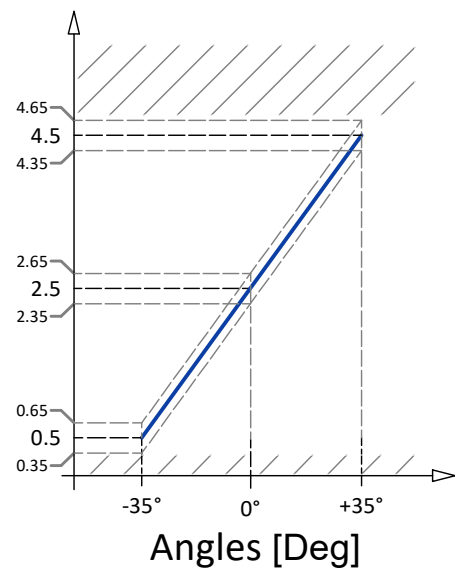


 ELEN industrial vehicles sensors			
Rev.	Date	Sign.	Review Description

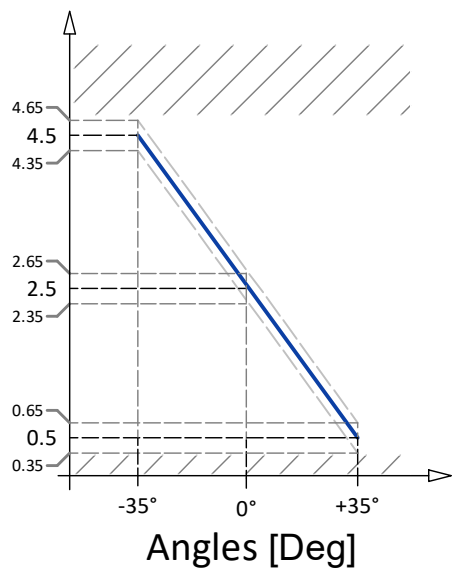
www.elensrl.com		Elen Srl - Caronno Pertusella (VA)	
Part Number:		AA302102-1	
Description:		Angular Sensor 12V	
Designed	03/07/2025	pb	Scale : 1 : 0.75 (A3 format)
Checked	03/07/2025		Dimensions without tolerance indication: ISO 2768 - m
Approved	03/07/2025		Units mm
		Page 1 / 2	

■ Output Signal

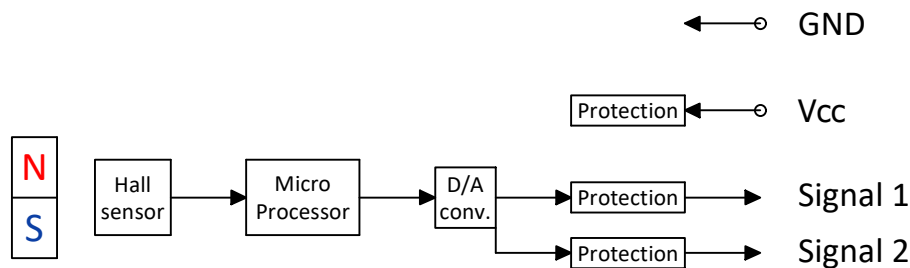
Signal 1 (V) @Vin = 12V



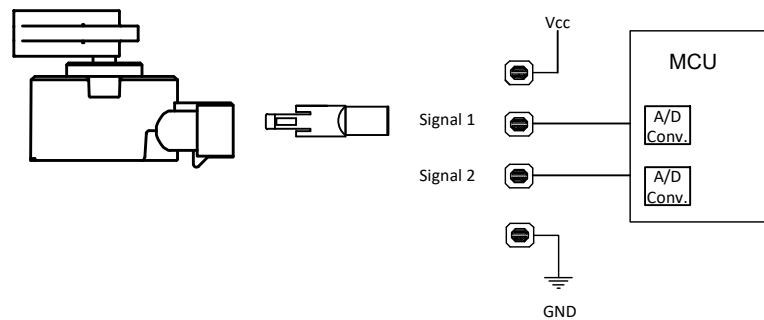
Signal 2 (V) @Vin = 12V



■ Functional Scheme



■ Typical Application



■ Technical Specifications

	Specific	Value	Standard Reference
Electrical	Supply voltage (Vcc)	Min 10V - Max 30V	ELEN PDV Rev. 3 - 5.1
	Supply Current (No Load)	30 mA Max	-
	Output Signal 1	0.5V@-35° ÷ 4.5V@+35° (2.5V @0°)	-
	Output Signal 2	4.5V@-35° ÷ 0.5V@+35° (2.5V @0°)	-
	Output Current	20 mA Max	-
	Resolution	< 0.1°	-
	Linearity error	< ±1%	-
	Reverse Polarity Protection	-30V For 1h (-36 V)	ELEN PDV Rev. 3 - 5.3
	Overload Protection	24mA For 1h (50mA)	ELEN PDV Rev. 3 - 5.6
	Overvoltage Protection	36V For 1h	ELEN PDV Rev. 3 - 5.7
	Output Short Circuit Protection	To Ground For 5' To VDC For 5'	ELEN PDV Rev. 3 - 5.4
	Dielectric Rigidity	750V@50Hz For 60s	ELEN PDV Rev. 3 - 5.11
	Insulation Resitance	1000 MOhm@500V	ELEN PDV Rev. 3 - 5.10
	Temperature Operating Voltage	5.5V@105°C For 1h	ELEN PDV Rev. 3 - 5.8
Environmental	ESD Protection	±8kV Contact , ±15 kV Air	EN 61000-4-2
	EMC Compatibility	BCI - Class "A" - 100mA ; 1~400 MHz	ISO 11452-4
	EMC Compatibility - Magn.Field Imm.	15Hz ÷ 150 kHz	ISO 11452-8 : 2007
	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 ÷ +115°C	IEC 60068-2-1 ; IEC 60068-2-2 ; IEC 60068-2-30 ;IEC60068-2-14
	Degree Of Protection	IP 67	IEC 60529
	Vibrations Resistance - Sine	(5÷12.87) Hz@dis±15mm ,(12,87÷200) Hz@dis<±15mm@5g, 1 Octave/min , 20 Sweep Cycles	IEC 60068-2-6 ISO15998
	Vibrations Resistance - Random	f=10Hz@PSD=1.44 g2/Hz ; f=100Hz@PSD=3.85 g2/Hz ; f=1000Hz@PSD=3.85 g2/Hz ; f=2000Hz@PSD=0.96 g2/Hz ; 3 Axis - 24h For Axis	IEC 60068-2-64 ENS0310 Rev.J
Mech.	Body Material	Nylon 6.6 + 30% G.F.	-
	Shaft Material	Stainless Steel	-
	MTTFd	391,5 Years	ISO 13849-1:2006(E)