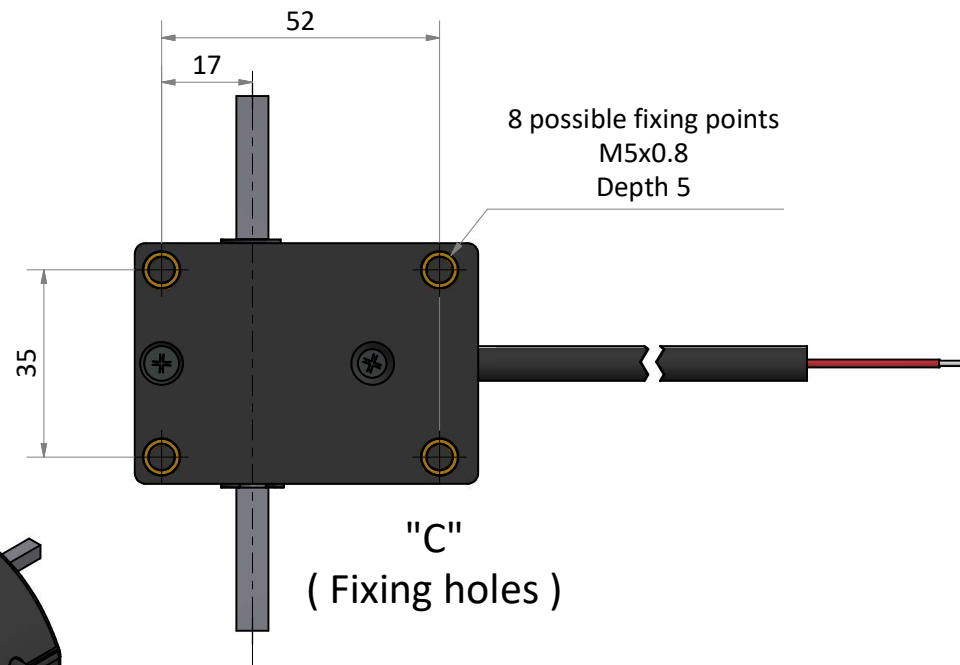
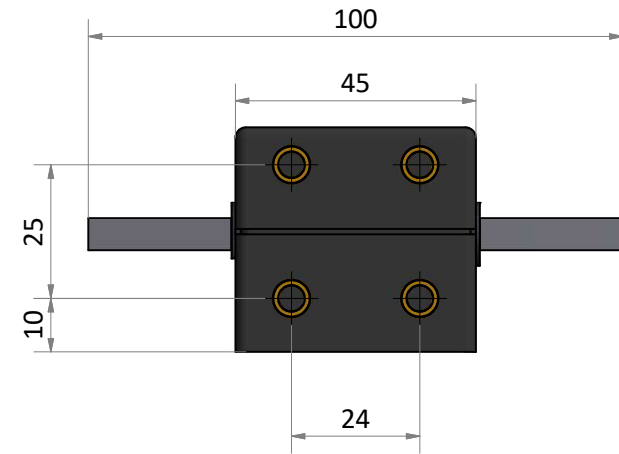
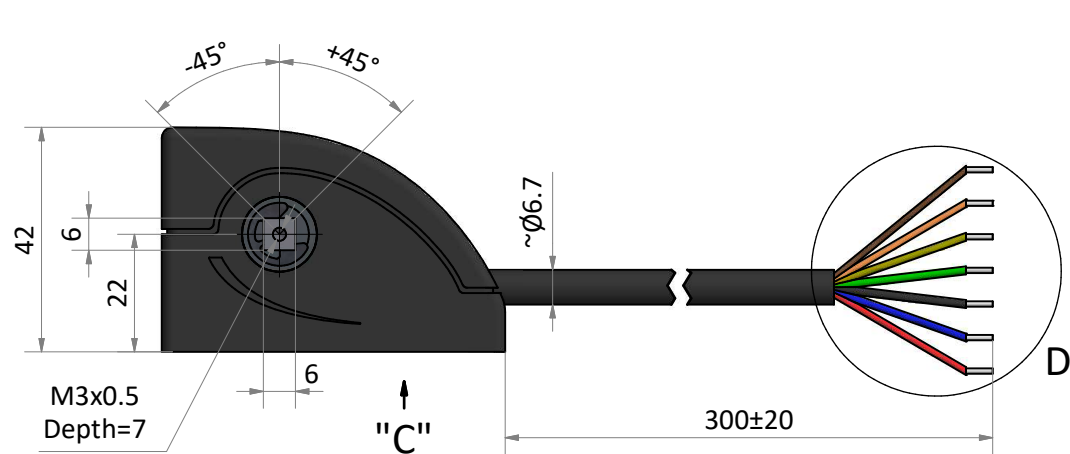
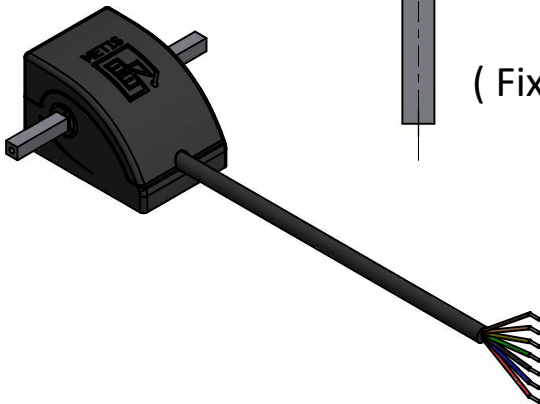
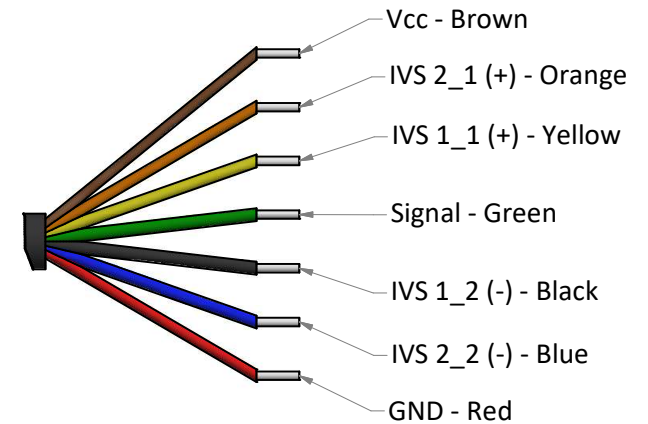


■ Hand Throttle - Metis Series



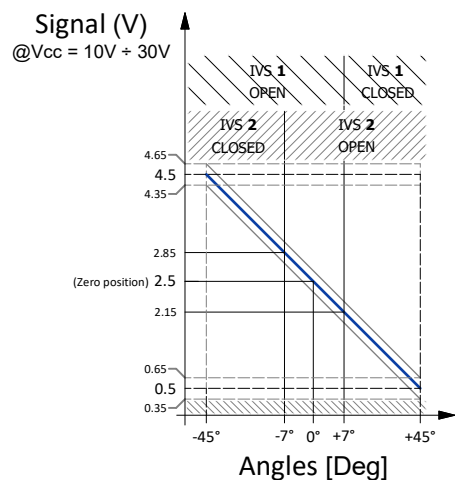
D (2 : 1.25)



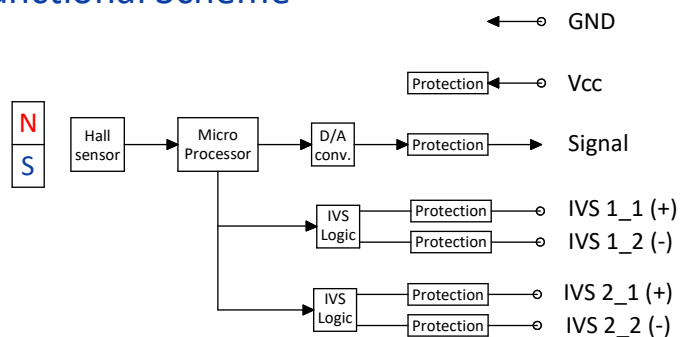
Ref.	Description	Operating temperature
1	HT105° Cable	-25 / +105

 ELEN industrial vehicles sensors				www.elensrl.com		Elen Srl - Garbagnate Milanese (MI)					
				Part Number:		AA311110-2					
				Description:		Accelerator knob Metis					
Rev.	Date	Sign.	Review Description								
				Designed	24/02/2021	Giulia M.	Scale :			1 : 1 (A3 format)	
				Checked	24/02/2021	Mauro Canavesi	Dimensions without tolerance indication: ISO 2768 - m				
				Approved	24/02/2021	Mauro Canavesi		Units mm		Page 1 / 2	

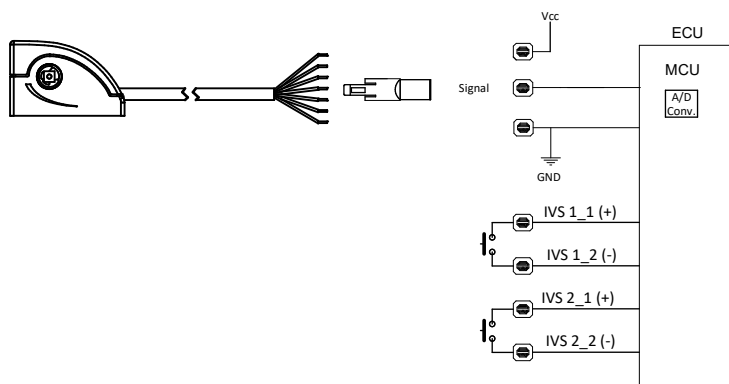
Output Signal



Functional Scheme



Typical Application



Technical Specifications

	Specific	Value	Standard Reference
Electrical	Power Supply Voltage (Vcc)	10V Min ÷ 30V Max	PDV Rev. 3 - P. 5.1;
	Supply Current (no load)	20mA Max	PDV Rev. 3 - P. 5.2;
	Output Signal	Linear: 4,5V@-45° ÷ 0,5V@+45°	-
	Signal Output Current	20mA Max	PDV Rev. 3 - P. 5.5;
	Overload Protection	24mA For 1h	PDV Rev. 3 - P. 5.6;
	Overvoltage Protection	36V for 1h	PDV Rev. 3 - P. 5.7;
	Temperature Operating Voltage	-30°C ÷ 80°C	PDV Rev. 3 - P. 5.8;
	Independent IVS 1 Circuit	Optoisolated, Closed@Signal<2.15V; Open@Signal>2.15V. 1A Max (Peak AC/DC)@60V Max (Peak AC/DC)	PDV Rev. 3 - P. 5.9;
	Independent IVS 2 Circuit	Optoisolated, Open@Signal <2.85V; Closed@Signal>2.85V. 1A Max (Peak AC/DC)@60V Max (Peak AC/DC)	PDV Rev. 3 - P. 5.9;
	Reverse Polarity Protection	-30V For 1h (-36 V)	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;
	Transient Voltage Protection	Pulses 1, 2A, 2B, 3A, 3B, 4, 5B	ISO 7637-2; 2011 ISO 16750-2; 2012
	Linearity	<±1%	-
	Resolution	<0.1°	-
Environmental	Operating Temperature (for Electronic Components)	-30°C ÷ +80°C	IEC 60068-2-14; IEC60068-2-1; IEC60068-2-2; IEC60068-2-30;
	Storage Temperature (for the Assembly)	-25°C ÷ +105°C	IEC 60068-2-14; IEC60068-2-1; IEC60068-2-2; IEC60068-2-30;
	Degree Of Protection	IP67	IEC 60529;
	Vibrations Resistance - Random	f=10Hz@PSD=1.44g ² /Hz; f=100Hz@PSD=3.85g 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@displacement=±15mm@5g, 10octave/min, 20 Sweep Cycles	IEC 60068-2-6;ISO 15998;
	EMC Compatibility - Magnetic Field Immunity	15Hz ÷ 150 kHz	ISO11452-8:2015;
Mech.	EMC Compatibility - BCI	BCI Class "A" - 100mA; (1÷400)MHz	ISO11452-4;
	Body Material	Nylon 6.6 GF	-
	Cover Material	Nylon 6.6 GF	-
	Shaft Material	Stainless steel	-
	Tightening Torque	2.3 Nm	-