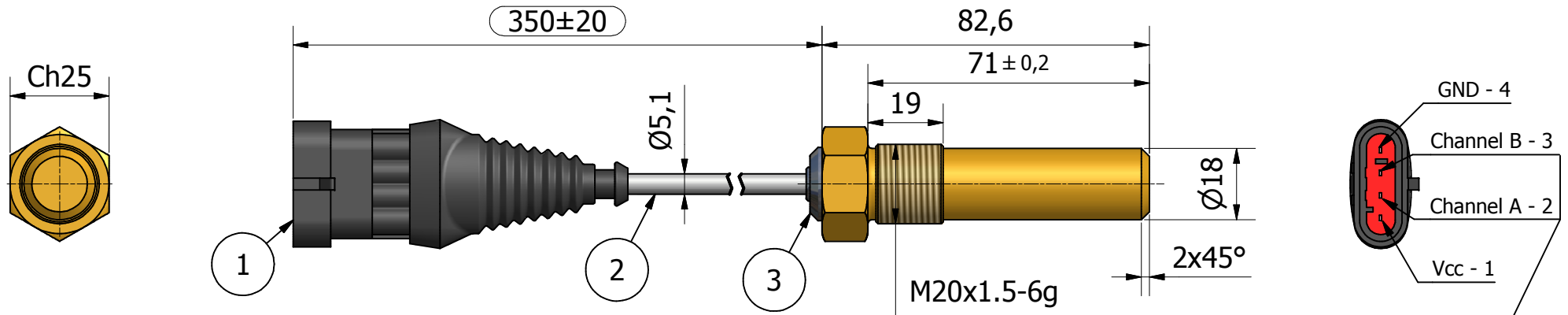


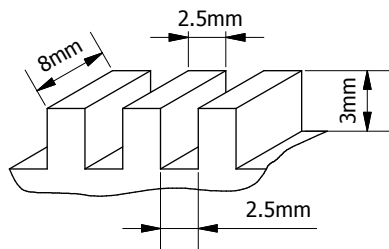
SENSORE RIDONDANTE EFFETTO HALL NPN PER LA MISURA DI GIRI/VELOCITA' IN RUOTE FONICHE O DENTATE
NPN REDUNDANT HALL EFFECT SENSOR FOR MEASUREMENT OF SPEED/RPM FROM PHONIC WHEEL OR GEAR WHEEL



RIF.	DESCRIZIONE	TEMPERATURA DI FUNZ. (°C)
1	TYCO SUPERSEAL 1.5series 4Pin CONTACT	-40 / +125
2	CAVO Ø5.1mm UL 2464 - CSA C 22-2 AWM	-30 / +80
3	TAPPO NYLON 6.6 NYLON 6.6 CAP	-30 / +130

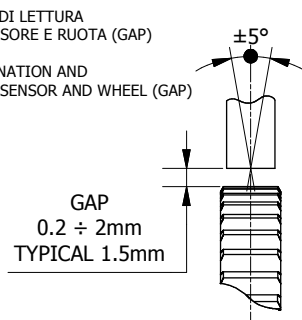
Sfasatura segnali A e B: 0°±180°
 Phase difference A and B signals: 0°±180°

DIMENSIONI MINIME DELLA RUOTA FERROMAGNETICA
 MINIMUM FERROMAGNETIC WHEEL SIZE



INCLINAZIONE ASSE DI LETTURA
 E DISTANZA TRA SENSORE E RUOTA (GAP)

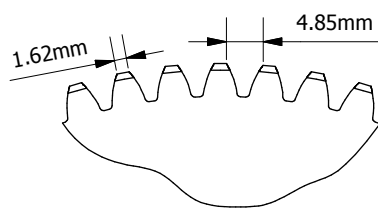
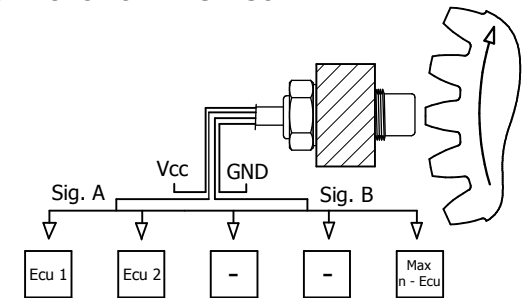
READING AXIS INCLINATION AND
 DISTANCE BETWEEN SENSOR AND WHEEL (GAP)



APPLICAZIONI TIPICHE - SENSORE PER USO AUTOMOTIVE
 TYPICAL APPLICATIONS - AUTOMOTIVE SENSOR

GAP: Min=0.2mm
 Max=2mm

SENSORE PER ALBERO A CAMME
 CAMSHAFT SENSOR
 SENSORE PER RUOTA DENTATA
 GEARTOOTH SENSOR
 ENCODER LINEARE
 LINEAR ENCODER
 ENCODER ROTATIVO
 ROTARY ENCODER



CARATTERISTICHE RUOTA DI TEST ELEN
 TEST WHEEL ELEN CHARACTERISTICS

z=66
 m=2
 Øp=132
 MATERIALE/MATERIAL= ACCIAIO/STEEL C45

REV.	DATA	FIRMA	DESCR. ULT. REV.
			ELEN srl Viale Forlanini 71 Garbagnate Milanese (MI)
			DATA: 25/10/2011
			SCALA: 1:1.5
			DIS.: Fabio S.
			UNITA DI MISURA: mm
			DENOMINAZIONE: SENSORE GIRI EFF. HALL M20x1.5 TYCO
			CODICE PRODOTTO: AA.08.0003 1/3
			Quote senza indicazione di tolleranza : ISO 2768 - m

CARATTERISTICHE:

SENSORE ZERO SPEED

ALIMENTAZIONE: Min 4.5 Vcc Max 30 Vcc

CORRENTE IN USCITA: Max 350 mA

FREQUENZA: 10 kHz

PROTEZIONE DA INVERSIONE DI POLARITA'

USCITA SEGNALE (FREQ.): OPEN COLLECTOR NPN

RESISTENZE DI PULL-UP ESTERNE

GRADO DI PROTEZIONE: IP67

STRESS DA VIBRAZIONE: 1mm/80Hz (~4g)

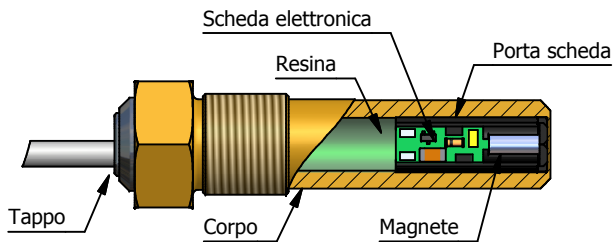
TEMPERATURA DI UTILIZZO: -40°C ÷ +150°C

FORZA DI SERRAGGIO: 25 Nm

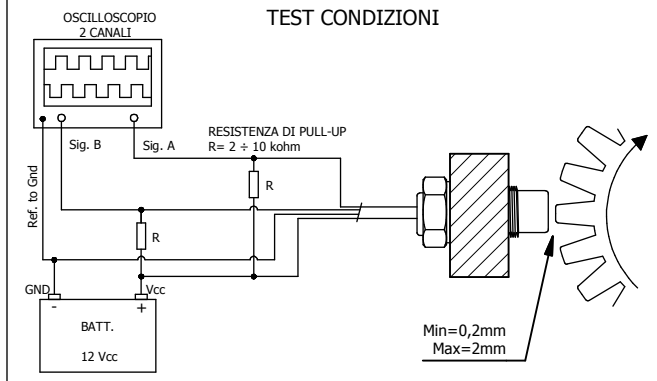
MATERIALE CORPO: OT58 TORNITO

TEMPERATURA DI FUNZIONAMENTO:	-40°C ÷ +150°C VALORE RIFERITO AL CASE INSERITO A RIDOSSO DELLA RUOTA	EN 60068-2-1;EN 60068-2-2 EN 60068-2-30;EN 60068-2-14
TEMPERATURA DI STOCCAGGIO:	-50°÷ +150°C	EN 60068-2-1;EN 60068-2-2 EN 60068-2-30;EN 60068-2-14
RESISTENZA A VIBRAZIONI:	1mm / 80Hz (~4g)	EN 60068-2-6
GRADO DI PROTEZIONE:	IP 67	IEC 60529
COMPATIBILITA' EMC:	BCI - CLASS "A" - 100mA ; 1÷400 MHz	ISO 11452-4 (2005)
PROTEZIONE DA INVERSIONE DI POLARITA':	-30Vcc PER 1h	PROCEDURA ELEN
PROTEZIONE DA SOVRACCARICO:	420mA PER 5'	PROCEDURA ELEN
PROTEZIONE DA SOVRATENSIONE:	36V PER 5'	PROCEDURA ELEN
PROTEZIONE DA CORTOCIRCUITO:	VERSO MASSA PER 5' VERSO VCC PER 5'	PROCEDURA ELEN
TENSIONE DI ALIMENTAZIONE:	Min. 4,5 Vcc Max. 30 Vcc	PROCEDURA ELEN
USCITE PROTETTE PER SCARICHE ELETTROSTATICHE FINO A 2000 V SECONDO MODELLO HBM		RIF. : MIL-STD-883; method 3015.

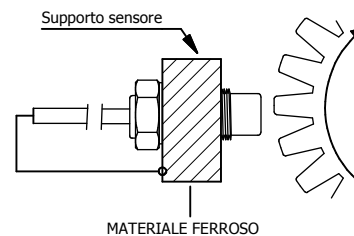
Vista in sezione



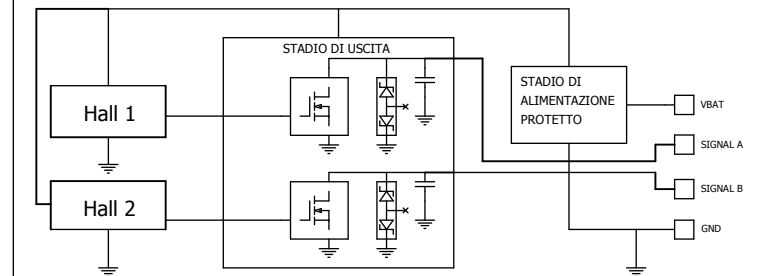
TEST CONDIZIONI



VERNICIATURA ELETTROSTATICA:
COLLEGARE TUTTI I CONTATTI AL SUPPORTO SENSORE



SCHEMA FUNZIONALE SENSORE



NOTE: LA ELEN SI RISERVA DI INSERIRE MIGLIORAMENTI/VARIAZIONI DI PRODOTTO, DANDONE COMUNQUE COMUNICAZIONE AL CLIENTE.
LA ELEN NON SI ASSUME ALCUNA RESPONSABILITA' SULL'USO NON APPROPRIATO DEL PRODOTTO O PER APPLICAZIONI FUORI SPECIFICA.

CHARACTERISTICS:

ZERO SPEED SENSOR

POWER SUPPLY: Min 4.5 Vdc Max 30 Vdc

OUTPUT CURRENT: Max 350 mA

FREQUENCY: 10 kHz

PROTECTED BY POLARITY INVERSION

OUTPUT SIGNAL (FREQ.): OPEN COLLECTOR NPN

EXTERNAL PULL-UP RESISTORS

DEGREE OF PROTECTION: IP67

VIBRATION STRESS: 1mm/80Hz (~4g)

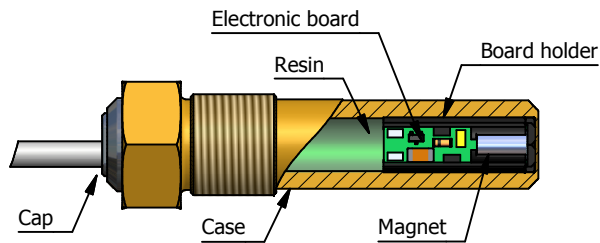
OPERATING TEMPERATURE: -40°C ÷ +150°C

TIGHTENING TORQUE: 25 Nm

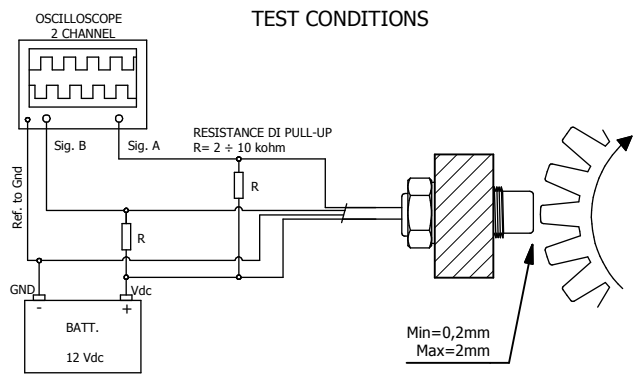
BODY MATERIALS: OT58 LATHED

OPERATING TEMPERATURE:	-40°C ÷ +150°C VALUE REFERRED TO A CASE MOUNTED BEHIND THE WHEEL	EN 60068-2-1;EN 60068-2-2 EN 60068-2-30;EN 60068-2-14
STORAGE TEMPERATURE:	-50°÷ +150°C	EN 60068-2-1;EN 60068-2-2 EN 60068-2-30;EN 60068-2-14
VIBRATIONS RESISTANCE:	1mm / 80Hz (~4g)	EN 60068-2-6
DEGREE OF PROTECTION:	IP 67	IEC 60529
EMC COMPATIBILITY:	BCI - CLASS "A" - 100mA ; 1÷400 MHz	ISO 11452-4 (2005)
REVERSE POLARITY PROTECTION:	-30Vdc PER 1h	ELEN PROCEDURE
OVERLOAD PROTECTION:	420mA PER 5'	ELEN PROCEDURE
OVERVOLTAGE PROTECTION:	36V PER 5'	ELEN PROCEDURE
SHORTCIRCUIT PROTECTION:	TO GROUND FOR 5' TO VDC FOR 5'	ELEN PROCEDURE
POWER SUPPLY:	Min. 4,5 Vdc Max. 30 Vdc	ELEN PROCEDURE
OUTPUT PINS ARE PROTECTED AGAINST 2000V ELECTROSTATIC DISCHARGE ACCORDING TO HBM		RIF. : MIL-STD-883; method 3015.

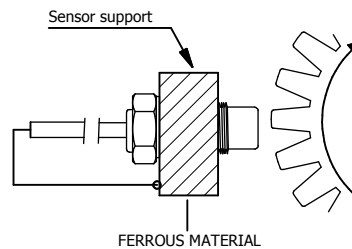
Sectional view



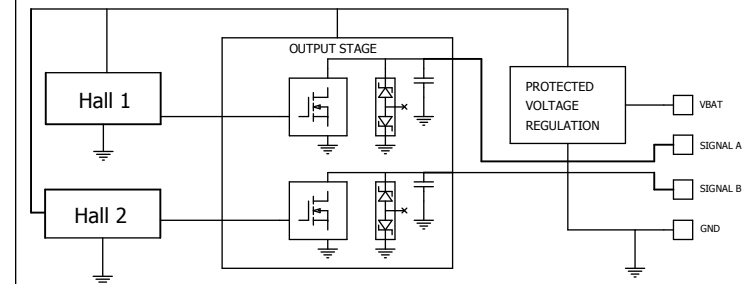
TEST CONDITIONS



ELECTROSTATIC PAINTING:
CONNECT ALL CONTACTS TO SENSOR SUPPORT



SENSOR FUNCTIONAL SCHEME



NOTES: ELEN SRL RESERVES THE RIGHT TO MAKE MODIFICATIONS/ENHANCEMENTS TO ITS PRODUCTS, GIVING NOTICE TO THE CUSTOMERS.
ELEN SRL ASSUMES NO LIABILITY FOR NON PROPER USE OF ITS PRODUCTS AND FOR APPLICATIONS OUTSIDE OF THE INDICATED SPECIFICATIONS.

AA.08.0003

Pag. 3/3