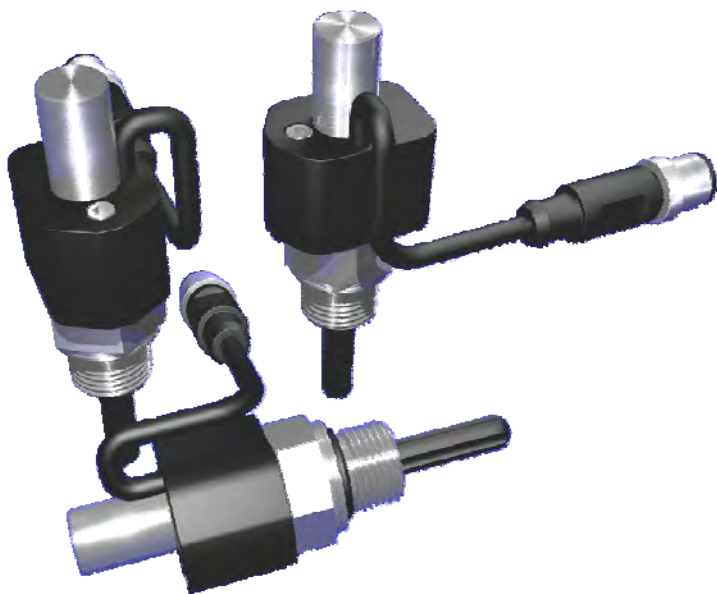


Penny+Giles have more than 50 years experience in the design and manufacture of high integrity position sensors and have introduced a **new capability using the latest Hall effect sensor technology**, which has been developed to meet the demands of OEM valve manufacturers and machine hydraulics.

The **VPT210** spool feedback sensor has been designed for the hydraulic spool valve market - particularly for new generation hydraulics fitted to on- and off-highway vehicles. New machine safety directives require a cost effective alternative to costly LVDT and LVIT inductive technologies that require additional control electronics fitted in separate enclosures.

The **VPT210** is a fully integrated transducer package that includes a non-contact position sensor in a pressure sealed enclosure, with on-board signal conditioning - eliminating the need for additional control cards and separate enclosures.

We offer a full custom design service for high volume valve and mobile hydraulics manufacturers, with our design team working to develop integrated packages to suit your specific application.



Key Features

- Non-contact Hall effect technology
- Suitable for measurement range of $\pm 3\text{mm}$ to $\pm 11\text{mm}$
- Single channel output (dual channel OEM option)
- On-board signal conditioning
- Supply voltage 6.5 to 34Vdc
- Outputs 0.5 to 4.5Vdc or PWM
- Burst pressure rating 600 Bar (8400psi)
- Working pressure rating 420 Bar (5880psi)

If you are an OEM and wish to discuss this product, custom engineered options and availability; you should contact our industrial sensors product sales team

VPT210

VALVE POSITION TRANSDUCER

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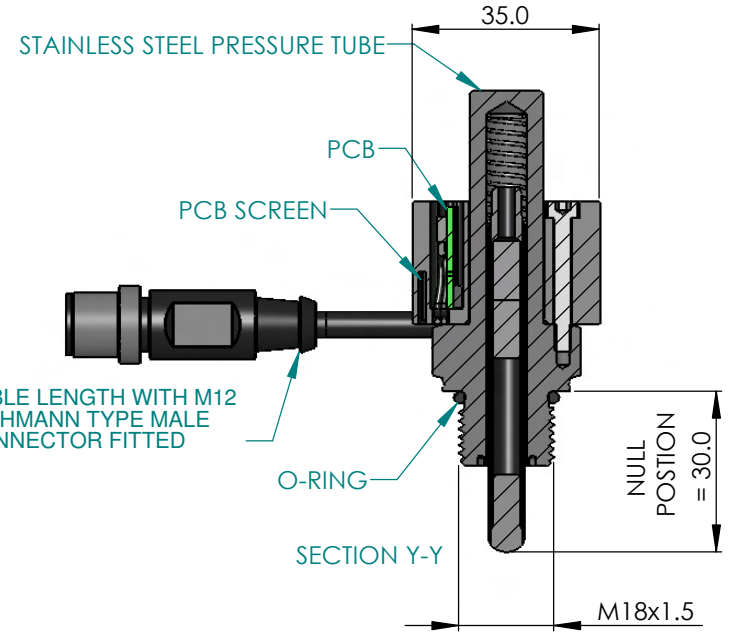
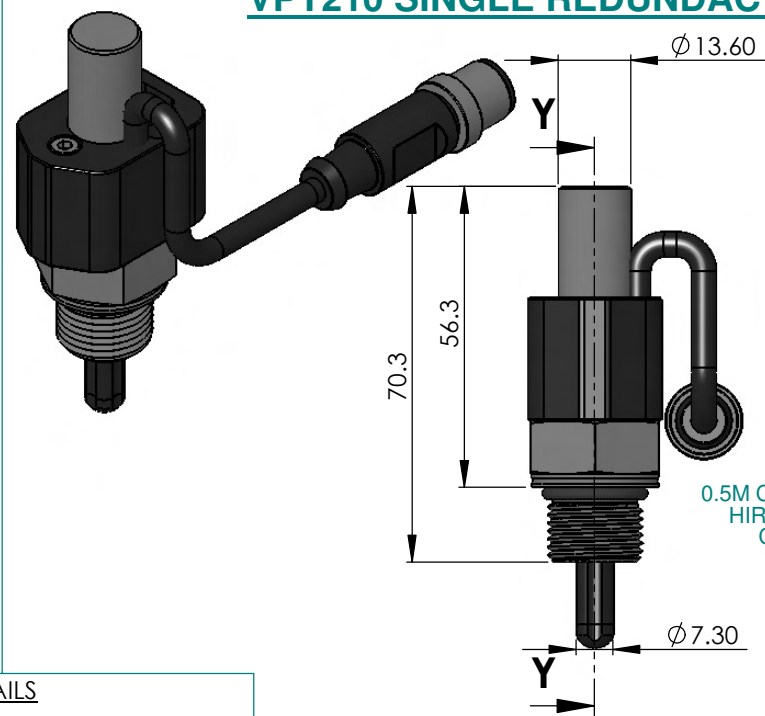
VPT210 SINGLE REDUNDANCY

ISS	DATE	DRAWN	ECR No.	CHK	APP
E	26/06/08	D.R.			

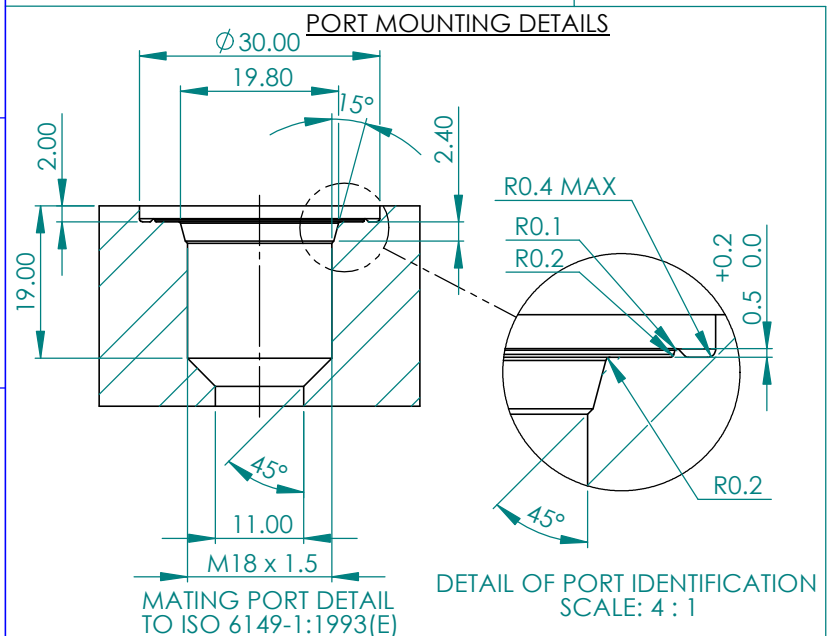
METRIC
IF IN DOUBT ASK

TARGET SPECIFICATION

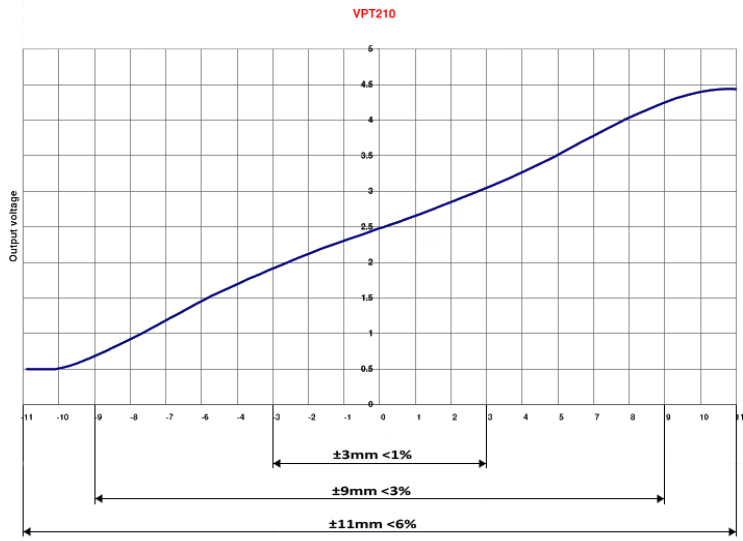
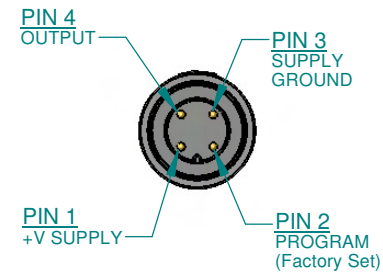
STROKE	MECHANICAL	25mm
	ELECTRICAL (MAX)	22mm
LINEARITY		±3%
±3mm		<-1% Code D
±6mm		<-3% Code C
±9mm		<-3% Code B
±11mm		<-6% Code A
OUTPUT LIMITS		±1% TBV
LOW LEVEL		0.5V Typ
NEUTRAL '0mm' POSITION		2.5V Typ
HIGH LEVEL		4.5V Typ
RESOLUTION		12 Bit (4096 Parts of full stroke)
OPERATING TEMPERATURE		-40° TO 115°C
SUPPLY VOLTAGE		6.5V TO 34V
OUTPUT VOLTAGE SPAN		4V OVER ±2mm UP TO ±12.5mm Stroke
SUPPLY CURRENT		<10mA
OUTPUT DRIVE CAPABILITY		<5mA
SPRING FORCE (MAX)		5.6N
WORKING PRESSURE (MAX)		5880psi (420 Bar)
BURST PRESSURE (MAX)		8400psi (600 Bar)
SEALING PROTECTION		IP66-IP69K (TBC)
LIFE		3 MILLION CYCLES (TBV)
DITHER LIFE		600 MILLION CYCLES (TBV)
EMC		100V/M
TEMP COEFFICIENT (MAX)		100ppm per °C (TBV)
OUTPUT NOISE		<5mVAC
TRANSIEM TRANSMISSION		1507637-1/2/3
TIGHTENING TORQUE		70Nm



0.5M CABLE LENGTH WITH M12 HIRSCHMANN TYPE MALE CONNECTOR FITTED



CONNECTOR PIN CONFIGURATION



VPT210 ORDERING CODE:

- VPT210/D - STROKE ±3mm
- VPT210/C - STROKE ±6mm
- VPT210/B - STROKE ±9mm
- VPT210/A - STROKE ±11mm

SCALE 1:1 UNLESS STATED	IF CONTROL DIMENSIONS (Kc) ARE SPECIFIED THEY ARE TO BE SUBJECT TO 100% INSPECTION OR STATISTICAL PROCESS CONTROL.	D No D46107	MATERIAL PRESSURE TUBE - 316 ST/STEEL BODY - PBT	TOLERANCES: IN-LINE WITH PENNY & GILES STANDARDS 55-301 SURFACE TEXTURE VALUES IN MICROMETRES (µm) TO BS1134PT2. ALL MACHINED SURFACES TO BE $\sqrt{1.6}$	TITLE VPT210 LINEAR HALL EFFECT TRANSDUCER	PENNY + GILES	A3	
THIRD ANGLE PROJECTION TO BS 8888	MASS (g) 125.26	VOL. (mm ³) 33931.61	FINISH	ALL SCREW THREADS TO BS3643 PT.2: EXTERNAL CLASS: 6g INTERNAL CLASS: 6H		PART NUMBER:	SHT 1 OF 1 SHTS	
				ANGULAR ± 1°	LINEAR 0. mm 0.0 mm 0.00mm 0.000mm	(MACHINING) ±0.5 mm ±0.2 mm ±0.1mm ±0.01mm	BREAK EDGE 0.05 - 0.15mm FILLET RADS 0.1 - 0.3mm	UNLESS OTHERWISE STATED