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First Revision, Sign and Date <b>Bln 2009-11-08</b>	Updated Revision, Sign and Date <b>Bln 2020-03-17</b>	Document Status and Sign <b>Approved Lan</b>
Document and Product Description <b>Description VGX360 Pnr. 20-615-6</b>		Page <b>1 (3)</b>

### Part # 20-615-6

VGX360 is a high resolution contactless rotary sensor with a fitted waterproof SureSeal connector.

Normally used as a barrel sensor on sequential gearboxes.

Directly connects to both TTT802 Gearshift Controller and TTT031 Gear Indicator cable harness.

**Note:** Some older TTT031 Gear Indicators might need a hardware upgrade if the VGX360 is to be used. Details about the upgrade can be found in a pdf document on our website.

**Weight:**  
43 grams



VGX360	0,3 m	3-pole SureSeal Female
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#### Connector: 3-pole SureSeal Female

Cable Length: 300mm

Marking: Pnr & Snr Length: 30mm

Clear crimp tube over marking length: 45mm Type: 6 / 2

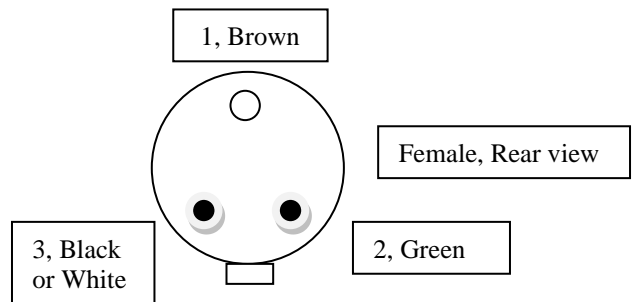
Crimp tube length: 30mm Type: ATUM 9 / 3

Brown – con 1 (socket) – Gnd

Green – con 2 (pin) – + 5 Volt

Black or White – con 3 (pin) – Signal

Yellow – Not used



**Note:** Some older sensors from Contelec have completely different wire-colors.

Blue – con 1 (socket) – Gnd

Brown – con 2 (pin) – + 5 Volt

Yellow/Green – con 3 (pin) – Signal



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### Description

Case	High grade, temperature-resistant plastic
Shaft	Stainless steel
Bearings	Bronze sleeve bearings
Sensor technology	Contactless, magnetic
Electrical range	360 degrees
Internal resolution	12 Bit
Electrical connection	High temp cable



### Environmental Data

Temperature range	-40...+125	C
Vibration	5...2000 $A_{max} = 0.75$ $a_{max} = 20$	Hz mm g
Life	>50 x 10 <sup>6</sup> (mechanical)	movement
Protection class	IP 65	

### Mechanical Data

Mounting	with 2 M4 fillister-head screws + washer	
Mechanical travel	360 continuous	degrees
Permitted shaft loading (axial and radial)	20	N
Torque	0.5	Ncm
Maximum operational speed	120	min <sup>-1</sup>
Weight	Aprox. 50	grams

### Electrical Data

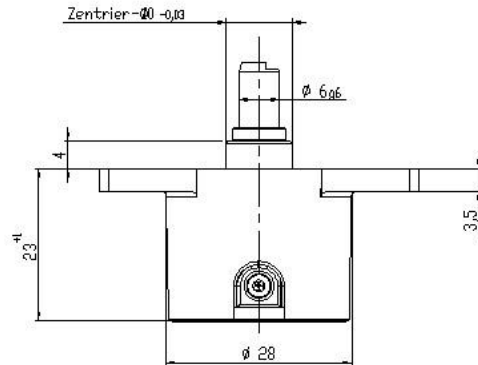
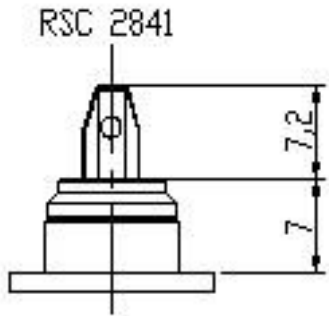
Supply voltage	4.5 – 5.5	VDC
No-load supply current	15 typical	mA
Reverse voltage	yes, only feeder	
Short circuit protection	yes	
Measuring range	360	degrees
Repeatability	Better than 0.03 % □ of signal range	V
Independent linearity	+/- 0.5 % of signal range	V
Output signal	ratiometric 5 – 95 % of supply voltage	V
TC of output signal	Better than 100 ppm/K □ □	V
RH of output signal	Better than 10 ppm/% □	
Insulation resistance (500 VDC, 1 bar, 2 s)	Better than 10 Mohm	
Conductor area	AWG22	

**Note:** Some older sensors from Contelec have output signal 10 – 90 % of supply voltage.



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### Mechanical drawings



When the shaft marking is pointing to cable, the sensor is located in an electrical center position.

