Throttle Controllers Engine Speed Control







- Hand-operated, rotary speed control
- Compatible with ECU-based industrial engines
- Environmentally sealed

Product Description

The Multi-Turn Hand Throttle Control is the tech- nically enhanced next generation of a recognized industry standard control. It is intended for use with electronic engines as a remote, hand operated control for engine RPM. Designed for ease of installation and flexibility for ergonomic positioning and mounting per a customer's specifications, this product is adaptable for a wide range of electronic throttle applications requiring a robust, durable design, with finite adjustment capabilities. Product applications include buses, fire trucks, generator sets, trucks, agricultural tractors, and construction equipment.

AT A GLANCE

- Innovative design allows for ease of installation regardless of application or configuration
- Adjustable locking collar friction mechanism holds position resistant to vibration
- Patented vSENSE[™] Hall effect non-contact sensor provides finite accuracy and reliability for low and high RPM settings
- Industry leading cycle life
- Fully sealed and resistant to environmental and chemical intrusion
- Clockwise and Counter-clockwise available
- "Quick" return to idle feature

The compact, fully sealed single component system provides extended service life in the harshest environments. With multiple sensor output options, the industry leading Kongsberg Automotive vSense non-contact sensor can be calibrated to meet the customer's exact requirements.

This device can be used as a stand alone product or it can be used in conjunction with other Kongsberg Automotive Power Products Systems products to create a complete control system for virtually any type of heavy duty vehicle.

HANDS-ON CONTROL





Product Specifications

Parameters

- Operating Voltage:
- Output Range (programmable) within:
- Wide Open Throttle (WOT):
- Operating Temperatures:
- Storage Temperature:
- Salt Spray:
- Solid Objects and Water
- Ingress:
- Connector:
- Specification Compliances:

Specifications

Analog - 5V +/- 0.5V PWM - 7.5V to 32V Minimum >7% of supply voltage Maximum <90% of supply voltage

-40°C to +85°C -54°C to +85°C

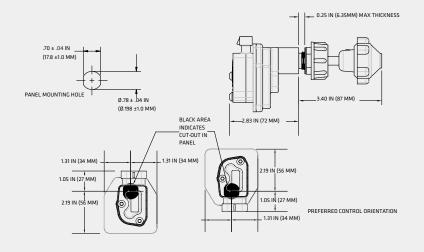
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96 Hours

Metripack connector standard (harness provides options) ASTM B633; ASTM B117-97, SAE J726, SAE J1843, SAE J1455, KA PS-462, PS-00522

ENGINE	PREVIOUS MULTI-TURN P/N	RDMMH	# TURNS	TURN DIRECTION (IDLE TO FULL THROTTLE)	NOMINAL IDLE (DUTY CYCLE OR %VREF)	NOMINAL WOT (DUTY CYCLE OR %VREF)	OUTPUT	HARNESS (IF REQ'D)
	310730 (1)	310730	1.75	CCW	16%	82%	Single PWM	Not Required
Caterpillar	311421 (2)	317902-10CP-27	2	CCW	16%	82.5%	Single PWM	318080-7002 (A)
	311421-001 (2)	317902-10CP-63	2	CCW	7.5%	92.5%	Single PWM	318080-7002 (A)
	310714-008 (3)	310714-008	2.25	CW	10%	90%	Single Analog	Not Required
Navistar	310714-001 (4)	317901-10CS-61	2	CW	10%	75%	Single Analog	318307-1002CW1 (C)
	310714-004 (5)	317902-10CS-64	2	CCW	10%	90%	Single Analog	318308-1002CCW1 (C)
	310714-001	317901-10CS-61	2	CW	10%	75%	Single Analog	318307-1002CW1 (C)
	310714-001	317901-10CS-64	2	CW	10%	90%	Single Analog	318307-1002CW1 (C)
Cummins	310714-004	317902-10CS-61	2	CCW	10%	75%	Single Analog	318308-1002CCW1 (C)
	310714-004	317902-10CS-64	2	CCW	10%	90%	Single Analog	318308-1002CCW1 (C)
	311440	317902-10CI-01	2	CCW	10%	75%	Single w/IVS	318311 (B)
	n/a	317901-10CD-00	2	CW	Idle #1 22%	WOT #1 84% WOT #2 42%	Dual Analog	n/a n/a
			_		Idle #1 22%	WOT #1 84%	Dual Analog	n/a
	n/a	317902-10CD-00	2	CCW	Idle #2 11%	WOT #2 42%		n/a
	310714-002	317901-10CS-03	2	CW	12%	88%	Single Analog	alog 318307-1002CW1 (C)
John Deere	310714-005	317902-10CS-03	2	CCW	12%	88%	Single Analog	318308-1002CCW1 (C)
	310714-007	317901-10CS-03	2	CW	12%	88%	Single Analog	318307-1002CW1 (C)
	310714-001	317901-10CS-64	2	CW	10%	90%	Single Analog	318307-1002CW1 (C)
Detroit Diesel	310714-004	317902-10CS-64	2	CCW	10%	90%	Single Analog	318308-1002CCW1 (C)
	310714-008	310714-008	2.25	CW	10%	90%	Single Analog	Not Required

Model: (1) 8VDC Input (2) 24VDC PWM = Pulse Width Modulation Max Input Connectors: (A) 3-Pin Round Deutsch, (B) 6-Pin Deutsch, (C) 3-Pin Weatherpack MH-2000 utilizes a hall effect sensor; therefore, resistance is N/A.



Options

- Industry leading and patented vSENSE™ Hall effect noncontact sensor provides finite accuracy and reliability for low and high RPM settings.
- Analog and PWM sensors available
- Robust, durable design
- Adjustable locking collar friction mechanism holds position resistant to vibration
- Clockwise and Counterclockwise available
- (2)Turns from Idle to WOT
- "Quick" return to idle
- Dynamic IP67 Sensor
- Optional outputs available
- Multiple connector options





HANDS-ON CONTROL

Hands-On Control

MH-2000 Multi-Turn Hand Throttle Control Pin-Outs

SINGLE	IULTI-TURN THROTTLE CONTROL OUTPUT I INFORMATION
6 (A)	APS SIGNAL
5 (B)	GND
4 (C)	APS SUPPLY 5V
3 (D)	
2 (E)	
1 (F)	
	ole Part Numbers 0CS-61 and 317902-10CS-61

317901-10CS-64 and 317902-10CS-64

317901-10CS-03 and 317902-10CS-03

DUAL C	MULTI-TURN THROTTLE CONTROL I UTPUT T INFORMATION
6 (A)	APS SIGNAL 1
5 (B)	GND 1
4 (C)	APS SUPPLY 5V
3 (D)	APS SUPPLY 5V
2 (E)	APS SIGNAL 2
1 (F)	GND 2
	ble Part Numbers 10CD-00, 317902-10CD-00

RDMH MULTI-TURN THROTTLE CONTROL SINGLE w/IVS OUTPUT PIN-OUT INFORMATION 6 (A) APS SIGNAL 5 (B) GND APS SUPPLY 5V 4 (C) 3 (D) IVS 3 2 (E) IVS 2 IVS GND 1 (F) **Applicable Part Numbers** 317901-10Ci-01, 317902-10Ci-01

-114-001	INFORMATION
6 (A)	
5 (B)	GND
4 (C)	APS SUPPLY 7.5 - 32V
3 (D)	
2 (E)	
1 (F)	APS SIGNAL
Annlicat	ole Part Numbers

SEE PIN-OUT IN SUMMARY TABLE

Benefits

- Innovative design allows for ease of installation regardless of application or configuration
- Fully sealed and resistant to environmental and chemical intrusion in the harshest environments
- Industry leading cycle life

Options

- Sensor output
- Connector type
- Utilizes Metri-Pack connector as standard connector
- Lead length