

## HOD Series :

The HOD Series is a high quality all stainless steel Pressure Transmitter, this is intended to measure gases and liquids compatible with stainless steel.

The HOD Series is suitable for Automotive, Industrial Hydraulics, Refrigeration, Off-Road Construction, and Agricultural Applications.

With additional EMI/RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the HOD Series assures trouble free operation at temperatures up to °125C.

The HOD Series piezo resistive sensing element coupled with the latest ASIC circuitry, assures excellent accuracy, choice of high level outputs and long stability, protected within a rugged, stainless steel housing.

The HOD Series high strength stainless steel construction contains no silicone oil and no internal O-rings. Measurements are available in gauge and absolute pressure, with ranges up to 4,000bar and are backed by a one-year warranty.

Code	Output	Range
HODH1600FLCK	4-20 mA	0 ~ 1600 bar
HODH2000FLCK	4-20 mA	0 ~ 2000 bar
HOD4000FLCK	4-20 mA	0 ~ 4000 bar

### Applications

- air compressor
- Crane
- Press
- Plastic Machinery
- Level control
- Pump control
- Building installations

### Technical Specifications

Protection standard	IP66
Operating temperature	-25 To +125
Body Material	Stainless steel 304
Connection Type	1/4 inch
Weight	60g
Diameter	22mm
During the sensor	66mm
Response Time	Less than 1 ms
The initial pressure	To 4 times the rated
Proper functioning	Up to 2 times rated
Shake	25 G, 20 ~ 2000Hz
Shock	100G, 11 msec, 1 / 2sine



## HOD H 0004 F M C K

### Model Name

HOT Series (Normal Pressure Transmitters)  
 HOX Series (Explosion Proof Pressure Transmitters)  
 HOF Series (Flush Diaphragm Pressure Transmitters)  
 HOM Series (Milli Bar Pressure Transmitters)  
 HOD Series (High Pressure, Pressure Transmitters)

### Output

H : 2 Wire 4 ~ 20 MA  
 HC : 2 Wire 4 ~ 20 MA Compound  
 J : 3 Wire 0 ~ 10 V  
 JC : 3 Wire 0 ~ 10 V Compound  
 F : 3 Wire 0 ~ 5 V

### Pressure Range

HOT Series : 0 ~ 600 Mbar, -1 ~ 1000 Bar  
 HOX Series : 0 ~ 2000 Bar  
 HOF Series : 0 ~ 200 Bar  
 HOM Series : 0 ~ 500 Mbar  
 HOD Series : 0 ~ 4000 Bar

### Type of Pressure Measurement

K : Gauge

### Connector

C : DIN EN 803 - 175301 Connector

### Pressure Port

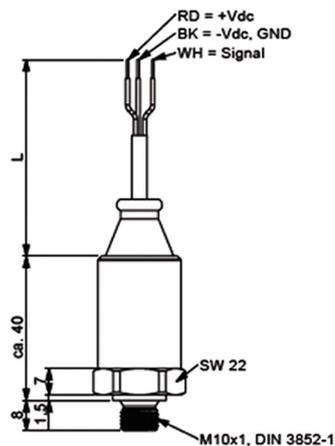
L : NPT 1/4"  
 W : G 1/2" (Flush Diaphragm)  
 G : G 1/4" (Normal Type)  
 M : M18x1.5" (High Pressure)

### Pressure Unit

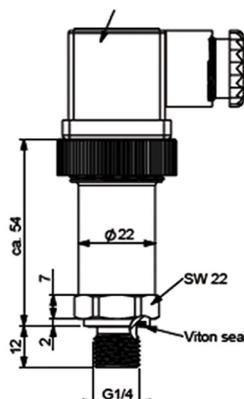
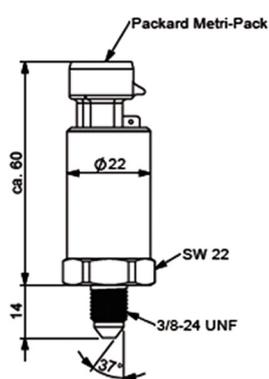
F : BAR  
 R : KPA  
 P : PSI

## Dimensions :

### Cable assembly



### Packard Metripac Connector DIN EN 175301 - 803 Connector



## Performance :

Accuracy @ RT	% of the range < 0.5 BFSL ≤ 0.125	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)
Non-linearity	% of the range ≤ 0.15	
Repeatability	% of the range ≤ 0.10	
Stability/year	% of the range ≤ 0.10	
For pressure ranges above 2000 bar:		
Accuracy @ RT	% of the range < 1.0 BFSL ≤ 0.5	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)
Non-linearity	% of the range ≤ 0.30	
Repeatability	% of the range ≤ 0.20	
Stability/year	% of the range ≤ 0.20	
Response time	(10..90%) t(ms) <1	
Overrange pressure	up to 2x rated pressure	
Burst pressure	up to 5x rated pressure	
Pressure cycles	> 10 million	

## Environment :

Temperature [°C]:	
Measuring medium	-40...125
Ambience	-40...105
Storage	-40...125
Compensated range	-20...85
Temperature coefficient within the compensated range:	
Mean TC offset	% of the range ≤ 0,15 / 10K
Mean TC range	% of the range ≤ 0,15 / 10K
Shock	1000 G, 11 msec., 1/2 Sine
Sealing	IP 66, optional IP69K

## Electronics :

Excitation	5 VDC for 0.5 – 4.5 V output, 10 - 32 VDC for 0 - 5 V, 1 - 5 V, 4...20 mA output 12 - 32 VDC for 0 – 10V output
Output impedance	< 100 Ω
Current consumption	< 10 mA
Reverse voltage protection	Yes

## Mechanics :

Housing incl. wetted parts	304 stainless steel
Pressure port	see select table
Electrical connection	see select table
Weight	ca. 60g

Type	Output	PIN 1	PIN 2	PIN 3	PIN 4
 <b>DIN EN 175301-8 03-A and C</b>	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
	4 .. 20 mA	+ Supply	Current Output -	N / A	-
	I <sup>2</sup> C	N / A	N / A	N / A	-
 <b>Round connector M12x1 A</b>	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	+ Supply	N / A	- Supply	Output +
	4 .. 20 mA	+ Supply	N / A	Current Output -	N / A
	I <sup>2</sup> C	1   V +	2   V -	3   SCL	4   SDA
 <b>Packard Metripac</b>	Output	PIN A	PIN B	PIN C	-
	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	- Supply	+ Supply	Output +	-
	4 .. 20 mA	Current Output -	+ Supply	N / A	-
<b>Cable assembly</b>	Output	Red	Black	White	Green
	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
	4 .. 20 mA	+ Supply	Current Output -	N / A	-
	I <sup>2</sup> C	V +	V -	SCL	SDA

- Flush mount stainless steel design
- Up to 200 Bar pressure range
- High precision - <math>\lt; 0.25\% \text{ F.S}</math>
- Wide choice of output signals

## HOF Series :

The HOF range of pressure transmitters guarantee a wide application field in a high accuracy, robust and compact design. The stainless steel membrane is completely vacuum-sealed, extremely burst resistant and applicable for all standard media across Hydraulics, Pneumatics, Environmental Engineering, Process Technology, Semiconductor Technology and Automotive Engineering.

As part of the stringent manufacturing process, all HOF pressure transducers are individually pressure and temperature tested to conform to DIN EN ISO 9001:2008.

With compensation and adjustment performed electronically, these pressure transmitters are characterized by a very low total error and excellent long-term stability. With the precision of modern electronics, the measured data is captured and processed very accurately.



**HOF H 0004 F W C K**

<b>Model Name</b>	<b>HOF</b>	<b>H</b>	<b>0004</b>	<b>F</b>	<b>W</b>	<b>C</b>	<b>K</b>
HOT Series (Normal Pressure Transmitters) HOX Series (Explosion Proof Pressure Transmitters) HOF Series (Flush Diaphragm Pressure Transmitters) HOM Series (Milli Bar Pressure Transmitters) HOD Series (High Pressure , Pressure Transmitters)							<b>Type of Pressure Measurement</b> K : Gauge
<b>Output</b>							<b>Connector</b> C : DIN EN 803 - 175301 Connector
H : 2 Wire 4 ~ 20 MA HC : 2 Wire 4 ~ 20 MA Compound J : 3 Wire 0 ~ 10 V JC : 3 Wire 0 ~ 10 V Compound F : 3 Wire 0 ~ 5 V							<b>Pressure Port</b> L : NPT 1/4" W: G 1/2"(Flush Diaphragm) G: G 1/4"(Normal Type) M: M18x1.5"(High Pressure)
<b>Pressure Range</b>							<b>Pressure Unit</b> F : BAR R : KPA P : PSI
HOT Series : 0 ~ 600 Mbar , -1 ~ 1000 Bar HOX Series : 0 ~ 2000 Bar HOF Series : 0 ~ 200 Bar HOM Series : 0 ~ 500 Mbar HOD Series : 0 ~ 4000 Bar							

## Performance :

Pressure ranges	bar	0.25, 0.4, 0.6, 1.0, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60, 100, 160,
Over pressure	bar	200
Burst pressure	bar	Max. 1.5 times / 1.2 times - depending on pressure range
Kind of pressure		2 times / 1.5 times - depending on pressure range
Wetted parts :		gauge pressure, absolute pressure on request
Weight	g	Stainless steel
Supply voltage		under construction
Output signals		12..30 V at 4..20 mA / 14...30 V at 0...10V 4...20 mA - 2 wire, 0...5 V - 3 wire, 0...10V - 3 wire, Digital optional, Others on request
Adjustability of zero		Straightforward zero correction by using a magnet or via interface and PC programming kit
Adjustability of span		1:4 with pressure ranges (FS) via interface and software
Adjustability time constant		via interface and software
Accuracy	% FS	0.3 Optional 0.25 (Including non-linearity, zero point and full scale error, hysteresis, non-linearity and repeatability). Compensation
Non-linearity	% FS	measurement and adjustment for vertical mounting position
Repeatability	% FS	2 BFSL
Long-term stability	% FS	0,1
	°C	0,1 1-year stability at reference conditions
Permissible temperatures	°C	-20...+ 100 ( -20 ... +150 ) with cooling element
	°C	-20....+ 80
Compensated temp. range	°C	-20....+ 100
Temperature coefficient	% FS	-20...+ 80
	% FS	0,15 / 10K
CE-conformity		0,15 / 10K 97/23/EG
	g	89/336/EEC emission (class B) immunity according to EN61326
	g	1000 to IEC 60068-2-27 mechanical
	VDC	20 to IEC 60068-2-6 resonance
Wiring protection		32 Out+ / UB- (for 1s) UB+ / UB-

## HOM Series :

- Pressure Ranges from 500 / 0-10mbar
- Durable, rugged stainless steel design
- Competitive price

The HOM Series offers the robust design with stainless steel housing of the HOT Series but uses a silicon based sensitive measuring cell for low pressure applications from 10 mbar to 500mbar.

With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the HOM Series assures trouble free operation at temperatures up to °85C.



**HOM H 0004 F G C K**

<b>Model Name</b>	<b>HOM</b>	<b>H</b>	<b>0004</b>	<b>F</b>	<b>G</b>	<b>C</b>	<b>K</b>
HOT Series (Normal Pressure Transmitters) HOX Series (Explosion Proof Pressure Transmitters) HOF Series (Flush Diaphragm Pressure Transmitters) HOM Series (Milli Bar Pressure Transmitters) HOD Series (High Pressure , Pressure Transmitters)							<b>Type of Pressure Measurement</b> K : Gauge
<b>Output</b>							<b>Connector</b> C : DIN EN 803 - 175301 Connector
H : 2 Wire 4 ~ 20 MA HC : 2 Wire 4 ~ 20 MA Compound J : 3 Wire 0 ~ 10 V JC : 3 Wire 0 ~ 10 V Compound F : 3 Wire 0 ~ 5 V							<b>Pressure Port</b> L : NPT 1/4" W: G 1/2"(Flush Diaphragm) G: G 1/4"(Normal Type) M: M18x1.5"(High Pressure)
<b>Pressure Range</b>							<b>Pressure Unit</b> F : BAR R : KPA P : PSI
HOT Series : 0 ~ 600 Mbar , -1 ~ 1000 Bar HOX Series : 0 ~ 2000 Bar HOF Series : 0 ~ 200 Bar HOM Series : 0 ~ 500 Mbar HOD Series : 0 ~ 4000 Bar							

## Performance :

### Performance :

Accuracy < +/-1.0% at RT  
 Stability (1 Year) < ± 0.15 %  
 Overrange pressure up to 2x rated pressure  
 Burst pressure up to 5x rated pressure  
 Pressure cycles > 10 million

## Environment :

Temperature °20- to °85C  
 Shock 1000 G, 11 msec., 2/1 Sine  
 Vibration 25 G peak, 20 to 2000 Hz  
 Sealing IP 66, optional IP69K

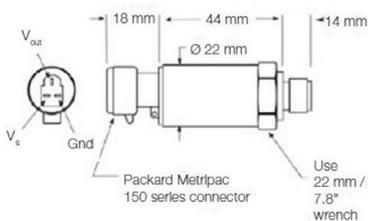
## Electronics :

Excitation 5 VDC for 4.5 – 0.5 V output,  
 32 - 10 VDC for 5 - 0 V, 5 - 1 V, 20...4 mA output  
 32 - 12 VDC for 10 – 0V output  
 Output impedance < 100 Ω  
 Current consumption < 10 mA  
 Reverse voltage protection Yes

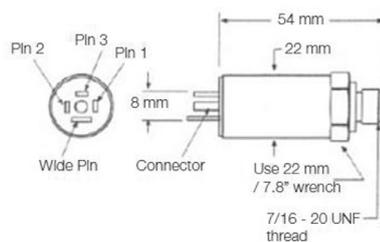
## Mechanics :

Housing incl. wetted parts Silicon, Aluminium,  
 304 stainless steel  
 Pressure port see select table  
 Electrical connection see select table  
 Weight ca. 60 g

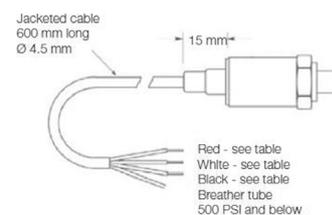
## Dimensions :



Packard Metrifax connector



DIN EN 175301-803 connector



Red - see table  
 White - see table  
 Black - see table  
 Breather tube  
 500 PSI and below

## Wiring :

Type	Output	PIN 1	PIN 2	PIN 3	PIN 4
DIN EN 175301- 803-A and C	0,5 - 4,5V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
	4..20mA	+ Supply	Current output -	N/A	-
Round connector M12x1 B	0,5 - 4,5V , 1 - 5 V , 0 - 10 V	+ Supply	N/A	- Supply	Output +
	4..20mA	+ Supply	N/A	Current output -	N/A
	Output	PIN A	PIN B	PIN C	-
Packard Metripac	0,5 - 4,5V , 1 - 5 V , 0 - 10 V	- Supply	+ Supply	Output +	-
	4..20mA	Current output -	+ Supply	N/A	-
	Output	Red	Black	White	-
Cable assembly	0,5 - 4,5V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
	4..20mA	+ Supply	Current output -	N/A	-

## HOT Series:

The HOT Series is a high quality all stainless steel pressure transmitter, intended for use in the measurement of gases and liquids compatible with stainless steel.

The HOT Series is suitable for automotive, industrial hydraulics, refrigeration, off-road, construction and agricultural applications.

With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the HOT Series assures trouble free operation at temperatures up to °125C.

The HOT Series piezo resistive sensing element coupled with the latest ASIC circuitry, assures excellent accuracy, choice of high level outputs and long stability, protected within a rugged, stainless steel housing.

The HOT Series high strength stainless steel construction contains no silicone oil and no internal O- rings. Measurements are available in gauge and absolute pressure, with ranges up to 4,000 bar and are backed by a one-year warranty.

Technical Specifications	
Protection standard	IP66
Operating temperature	-25 To +125
Body Material	Stainless steel 304
Connection Type	1/4 inch
Weight	60g
Diameter	22mm
During the sensor	66mm
Response Time	Less than 1 ms
The initial pressure	To 4 times the rated
Proper functioning	Up to 2 times rated
Shake	25 G, 20 ~ 2000Hz
Shock	100G, 11 msec, 1 / 2sine

Applications	
<ul style="list-style-type: none"> <li>• air compressor</li> <li>• Crane</li> <li>• Press</li> <li>• Plastic Machinery</li> <li>• Level control</li> </ul>	<ul style="list-style-type: none"> <li>• Pump control</li> <li>• Building installations</li> </ul>

Code	Output	Range
HOTH000.6FLCK	4-20 mA	0 ~ 600 Mb
HOTH0004FLCK	4-20 mA	0 ~ 4 bar
HOTH0006FLCK	4-20 mA	0 ~ 6 bar
HOTH0010FLCK	4-20 mA	0 ~ 10 bar
HOTH0016FLCK	4-20 mA	0 ~ 16 bar
HOTH002.5FLCK	4-20 mA	0 ~ 2/5 bar
HOTH0025FLCK	4-20 mA	0 ~ 25 bar
HOTH0040FLCK	4-20 mA	0 ~ 40 bar
HOTH0100FLCK	4-20 mA	0 ~ 100 bar
HOTH0160FLCK	4-20 mA	0 ~ 160 bar
HOTH0250FLCK	4-20 mA	0 ~ 250 bar
HOTH0400FLCK	4-20 mA	0 ~ 400 bar
HOTH0600FLCK	4-20 mA	0 ~ 600 bar
HOTH0C0001FLCK	4-20 mA	-1 ~ 1 bar
HOTH0C0004FLCK	4-20 mA	-1 ~ 4 bar
HOTF0010FLCK	0-5 V	0 ~ 10 bar
HOTF0016FLCK	0-5 V	0 ~ 16 bar
HOTH0800FLCK	4-20 mA	0 ~ 800 bar
HOTH01000FLCK	4-20 mA	0 ~ 1000 bar
HOTJ0010FLCK	0-10 V	0 ~ 10 bar
HOTJ0016FLCK	0-10 V	0 ~ 16 bar
HOTJ0025FLCK	0-10 V	0 ~ 25 bar
HOTJ0040FLCK	0-10 V	0 ~ 40 bar
HOTJ0250FLCK	0-10 V	0 ~ 250 bar



**HOT H 0004 F L C K**

**Model Name**

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 HOX Series (Explosion Proof Pressure Transmitters)  
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 HOM Series (Milli Bar Pressure Transmitters)  
 HOD Series (High Pressure , Pressure Transmitters)

**Output**

H : 2 Wire 4 ~ 20 MA  
 HC : 2 Wire 4 ~ 20 MA Compound  
 J : 3 Wire 0 ~ 10 V  
 JC : 3 Wire 0 ~ 10 V Compound  
 F : 3 Wire 0 ~ 5 V

**Pressure Range**

HOT Series : 0 ~ 600 Mbar , -1 ~ 1000 Bar  
 HOX Series : 0 ~ 2000 Bar  
 HOF Series : 0 ~ 200 Bar  
 HOM Series : 0 ~ 500 Mbar  
 HOD Series : 0 ~ 4000 Bar

**Type of Pressure Measurement**

K : Gauge

**Connector**

C : DIN EN 803 - 175301 Connector

**Pressure Port**

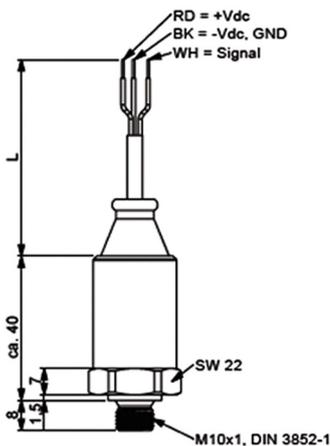
L : NPT 1/4"  
 W: G 1/2"(Flush Diaphragm)  
 G: G 1/4"(Normal Type)  
 M: M18x1.5"(High Pressure)

**Pressure Unit**

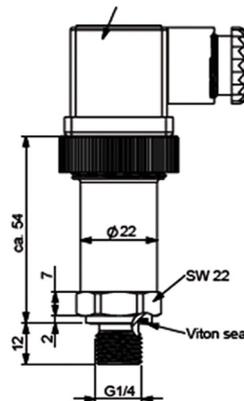
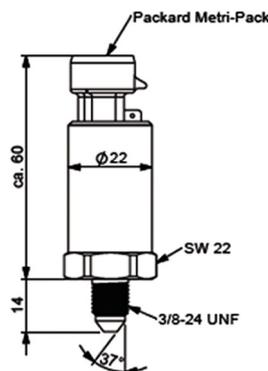
F : BAR  
 R : KPA  
 P : PSI

## Dimensions :

**Cable assembly**



**Packard Metripac Connector DIN EN 175301 - 803 Connector**



## Performance :

Accuracy @ RT	% of the range < 0.5 BFSL ≤ 0.125	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)
Non-linearity	% of the range ≤ 0.15	
Repeatability	% of the range ≤ 0.10	
Stability/year	% of the range ≤ 0.10	
For pressure ranges above 2000 bar:		
Accuracy @ RT	% of the range < 1.0 BFSL ≤ 0.5	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final
Non-linearity	% of the range ≤ 0.30	
Repeatability	% of the range ≤ 0.20	
Stability/year	% of the range ≤ 0.20	
Response time	(10..90%) t(ms) <1	
Overrange pressure	up to 2x rated pressure	
Burst pressure	up to 5x rated pressure	
Pressure cycles	> 10 million	

## Environment :

Temperature [°C]:	
Measuring medium	-40...125
Ambience	-40...105
Storage	-40...125
Compensated range	-20...85
Temperature coefficient within the compensated range:	
Mean TC offset	% of the range ≤ 0,15 / 10K
Mean TC range	% of the range ≤ 0,15 / 10K
Shock	1000 G, 11 msec., 1/2 Sine
Sealing	IP 66, optional IP69K

## Electronics :

Excitation	5 VDC for 0.5 – 4.5 V output, 10 - 32 VDC for 0 - 5 V, 1 - 5 V, 4...20 mA output 12 - 32 VDC for 0 – 10V output
Output impedance	< 100 Ω
Current consumption	< 10 mA
Reverse voltage protection	Yes

## Mechanics :

Housing incl. wetted parts	304 stainless steel
Pressure port	see select table
Electrical connection	see select table
Weight	ca. 60g

Type	Output	PIN 1	PIN 2	PIN 3	PIN 4
 <b>DIN EN 175301-8 03-A and C</b>	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
	4 .. 20 mA	+ Supply	Current Output -	N / A	-
	I <sup>2</sup> C	N / A	N / A	N / A	-
 <b>Round connector M12x1 A</b>	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	+ Supply	N / A	- Supply	Output +
	4 .. 20 mA	+ Supply	N / A	Current Output -	N / A
	I <sup>2</sup> C	1   V +	2   V -	3   SCL	4   SDA
 <b>Packard Metripac</b>	Output	PIN A	PIN B	PIN C	-
	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	- Supply	+ Supply	Output +	-
	4 .. 20 mA	Current Output -	+ Supply	N / A	-
<b>Cable assembly</b>	Output	Red	Black	White	Green
	0.5 - 4.5 V , 1 - 5 V , 0 - 10 V	+ Supply	- Supply	Output +	-
	4 .. 20 mA	+ Supply	Current Output -	N / A	-
	I <sup>2</sup> C	V +	V -	SCL	SDA