

All welded Stainless Steel Industrial Pressure Transducer Type IPS6 and IPS6S

FEATURES

- ATEX Intrinsically-Safe approval
- Thin film sensor technology
- Ranges from 6 through 600 bar
- IP65, IP67 or 68 Ingress rating
- Accuracy 0.5 % of span
- Welded pressure sensor
- High overpressure ranges and pressure peak insensitivity

TYPICAL USES

- Construction machinery
- Medical equipment
- Plant and Engine monitoring
- Hydraulic & pneumatic sensing
- Renewable Energy
- Refrigeration



IPS6
Industrial Transducer



PERFORMANCE SPECIFICATIONS

Reference Temperature:	21 °C ±2 °C (70 °F ±2 °F)
Static Accuracy:	±0.50 % of span Point Method includes: hysteresis, linearity, repeatability, offset and span acc. IEC 60770
Durability:	10 ⁸ load cycles
Stability:	≤±0.2 % of span/year at reference conditions

PHYSICAL SPECIFICATION

Process Connection	G 1/2 B or G 1/4 B (EN 837)
Size:	1/4 NPT Male
Ranges:	See all available ranges at page 2 table 1
Ingress Rating:	IP65 (with mating connectors) IP67 (with M12 or PVC cable connection) IP68 (with ventilated PVC cable)
Weight:	~140 g

ENVIRONMENTAL SPECIFICATIONS

Thermal Coefficients:	Span: ±0,3 % / 10 K of span
Temperature Limits:	Storage: -40 °C to 85 °C
	Operating: -40 °C to 85 °C (IPS6) -20 °C to 60 °C (IPS6S in zone 0) -40 °C to 70 °C (IPS6S in zone 1 or higher)
	Media: -25 °C to 125 °C
	Compensated: 0 °C to 85 °C
Humidity:	0-100 % R.H. (non-condensing)

FUNCTIONAL SPECIFICATIONS

Response Time:	2-wire:	≤ 10 ms
	3-wire:	≤ 3 ms
Gauge Pressure Ranges:	6 to 600 bar	(see Table 1 at page 2)
Shock: (DIN EN60068-2-27)	500 g, 1 ms	
Vibration: (DIN EN60068-2-6)	Random: 20 g RMS 25-2000 Hz	

KEY BENEFITS

- All welded stainless steel pressure sensor
- Superior material selection for the wetted components
- Robust design

ELECTRICAL SPECIFICATIONS

Electrical Connection:	Hirschmann EN175301-803 Form A M12x1 Cable outlet (2 m and PVC) optional ventilated Binder Series 723	
Permissible Load in Ohm [Ω]:	2-wire:	$R_{max} = [(V_s - V_{s min}) / 0.02 A] \Omega$
	3-wire: (voltage)	$R_{min} = 10 k\Omega$
Current Consumption:	2- or 3-wire:	max. 25 mA
	3-wire (Voltage):	max. 7 mA
Short-circuit:	Permanent protection	
Circuit Protection:	Reverse polarity protected	
Output Signal:	Supply Voltage: (unregulated)	
	Min.	Max
4-20 mA (2-wire)	8 Vdc	32 Vdc
	0-10 Vdc (3-wire)	14 Vdc
Cable:	2 m length, PVC insulated (-5 °C to 70 °C) optional ventilated other lengths and cable types on request	

WETTED COMPONENTS

Process Connection:	Stainless steel 316Ti (1.4571)
Diaphragm:	Stainless steel 17-4PH (1.4542)

NON-WETTED COMPONENTS

Housing:	Stainless steel 316L (1.4404)
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APPROVAL

CE	EMC Directive 2014/30/EU PED Directive 2014/68/EU (Module A) only applicable for ≥ 200 bar
REACH & RoHS	Directive 2011/65/EU and 2015/863
ATEX	EU-Type Examination Certificate IBExU22ATEX1002X II 1G Ex ia IIC T4 Ga II 1D Ex ia IIC T135°C Da application in zone 0 : Ta = -20 to +60 °C application in zone 1 and higher: Ta = -40 to +70 °C Used harmonized standards: EN IEC 60079-0:2018 EN 60079-11:2012 IEC 60079-0: 2011 Edition 6 IEC 60079-11: 2011 Edition 6

ORDERING CODE

EXAMPLE:

IPS6 5 MG2 42 FV X 10BR

Model

IPS6	All welded stainless steel OEM Pressure Transducer	IPS6
IPS6	All welded stainless steel OEM Pressure Transducer, intrinsically safe ATEX approval (with output signal 4-20 mA only)	

Accuracy

5	0.50 % of span	5
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Process Connection

MG2	G 1/4 B male (EN 837-1)	MG2
MG4	G 1/2 B male (EN 837-1)	
M02	1/4" NPT Male	

Electrical Output

42	4-20 mA (2-wire)	42
10	0-10 Vdc (3-wire)	

Electrical Connection (check pin configuration below at table 2)

DA	Hirschmann EN175301-803 Form A	IP65
EW	M12x1 (4-Pin)	IP67
FC	PVC cable (Cable colours acc. to IEC 60757)	IP67
FV	PVC cable, ventilated (Cable colours acc. to IEC 60757)	IP68
BI	Binder Type 723 5-Pin	IP67

Mating Connector

M	With mating connector	
X	Without mating connector	X

Ranges (all available ranges see below at table 1)

10BR	10 bar	10BR
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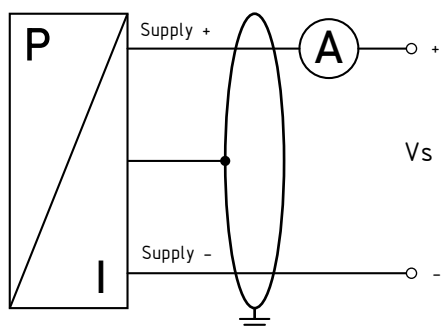
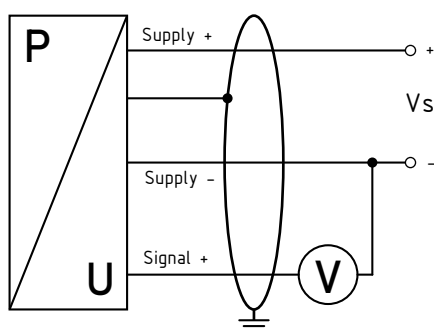
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**TABLE 1:
PROOF & BURST
PRESSURE**

Sensor Range	Proof	Burst
in bar and bar (absolute)		
6	12	30
10	20	50
16	32	80
25	50	125
40	80	200
60	120	300
100	200	500
160	320	800
250	500	1400
400	800	2000
600	1200	3000

TABLE 2: PIN CONFIGURATION

	DA	EW	FC/FV	BI
Supply +	1	1	White	3
Supply -	2	2	Brown	4
Signal + (3-wire only)	3	3	Green	1
Shield	Ground	4	Green/ Yellow	5

**ELECTRICAL WIRING
2-WIRE SYSTEM (CURRENT)**

**ELECTRICAL WIRING
3-WIRE SYSTEM (CURRENT/VOLTAGE)**


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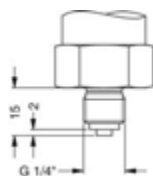
DIMENSIONS IN MM [INCH]

For reference only, consult Ashcroft for specific dimensional drawings

PROCESS CONNECTION

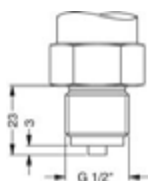
G 1/4 B-Male (EN837-1)

Code: MG2



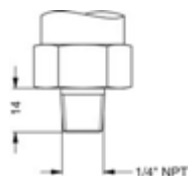
G 1/2 B-Male (EN837-1)

Code: MG4



1/4 NPT Male

Code: M02

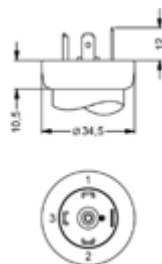


ELECTRICAL CONNECTION

**Hirschmann
EN 175301-803 Form A**

Code: DA – IP65

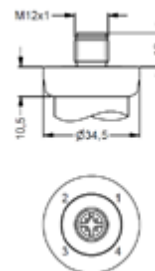
-40 °C to +85 °C



M12 4-Pin

Code: EW – IP67

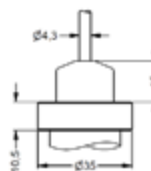
-40 °C to +85 °C



Over-Mold Cable

Code: FC – IP67

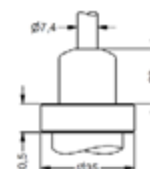
-5 °C to +70 °C



Ventilated Over-Mold Cable

Code: FV – IP68

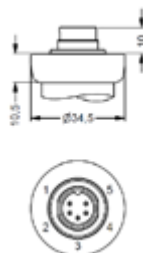
Temperature limit on request



**Binder Type 723
5-Pin**

Code: BI – IP67

-40 °C to +85 °C



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GENERAL DIMENSIONS IN MM [INCH]

For reference only, consult Ashcroft for specific dimensional drawings

