

General Purpose Transmitter**Features**

- Measuring ranges from 100mbar to 600bar
- Absolute, gauge and sealed gauge
- Accuracy: $\pm 0.5\%$ FSO(Typ.), $\pm 0.25\%$ FSO
- Calibrated and temperature compensated
- Stainless steel pressure sensor
- Variety of Pressure & Electrical connections
- Output 4...20mA, I²C, MODBUS, HART and other

Application

- Hydraulic and pneumatic
- Machine building
- Pumps
- Chemical industry

All specs are subject to change without notice

General Purpose Transmitter

Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data																																																																																																																																							
Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:																																																																																																																																							
<p>Measuring ranges G: Gauge pressure A: Absolute pressure</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Range [bar]</th> <th>Type</th> </tr> </thead> <tbody> <tr><td>0001</td><td>-0.6...0</td><td>G</td></tr> <tr><td>0002</td><td>-0.4...0</td><td>G</td></tr> <tr><td>0003</td><td>-0.25...0</td><td>G</td></tr> <tr><td>0004</td><td>-0.1...0</td><td>G</td></tr> <tr><td>0005</td><td>-1...0</td><td>G</td></tr> <tr><td>0006</td><td>-1...+1</td><td>G</td></tr> <tr><td>0007</td><td>-1...+3</td><td>G</td></tr> <tr><td>0008</td><td>-1...+9</td><td>G</td></tr> <tr><td>0009</td><td>-1...+15</td><td>G</td></tr> <tr><td>0010</td><td>-1...+16</td><td>G</td></tr> <tr><td>0011</td><td>0...0.1</td><td>G</td></tr> <tr><td>0012</td><td>0...0.16</td><td>G</td></tr> <tr><td>0013</td><td>0...0.25</td><td>G</td></tr> <tr><td>0014</td><td>0...0.4</td><td>G</td></tr> <tr><td>0015</td><td>0...0.5</td><td>G</td></tr> <tr><td>0016</td><td>0...1</td><td>G</td></tr> <tr><td>0017</td><td>0...1.6</td><td>G</td></tr> <tr><td>0018</td><td>0...2.5</td><td>G</td></tr> <tr><td>0019</td><td>0...4</td><td>G</td></tr> <tr><td>0020</td><td>0...6</td><td>G</td></tr> <tr><td>0021</td><td>0...10</td><td>G</td></tr> <tr><td>0022</td><td>0...16</td><td>G</td></tr> <tr><td>0023</td><td>0...25</td><td>G</td></tr> <tr><td>0024</td><td>0...40</td><td>G</td></tr> <tr><td>0025</td><td>0...60</td><td>G</td></tr> <tr><td>0026</td><td>0...100</td><td>G</td></tr> <tr><td>0027</td><td>0...160</td><td>G</td></tr> <tr><td>0028</td><td>0...200</td><td>G</td></tr> <tr><td>0029</td><td>0...250</td><td>G</td></tr> <tr><td>0030</td><td>0...300</td><td>G</td></tr> <tr><td>0031</td><td>0...400</td><td>G</td></tr> <tr><td>0032</td><td>0...600</td><td>G</td></tr> <tr><td>0033</td><td>0...0.4</td><td>A</td></tr> <tr><td>0034</td><td>0...0.6</td><td>A</td></tr> <tr><td>0035</td><td>0...1</td><td>A</td></tr> <tr><td>0036</td><td>0...1.6</td><td>A</td></tr> <tr><td>0037</td><td>0...2</td><td>A</td></tr> <tr><td>0038</td><td>0...2.5</td><td>A</td></tr> <tr><td>0039</td><td>0...4</td><td>A</td></tr> <tr><td>0040</td><td>0...6</td><td>A</td></tr> <tr><td>0041</td><td>0...10</td><td>A</td></tr> <tr><td>0042</td><td>0...16</td><td>A</td></tr> <tr><td>0043</td><td>0...25</td><td>A</td></tr> <tr><td>0044</td><td>0.8...1.2</td><td>A</td></tr> </tbody> </table>												Code	Range [bar]	Type	0001	-0.6...0	G	0002	-0.4...0	G	0003	-0.25...0	G	0004	-0.1...0	G	0005	-1...0	G	0006	-1...+1	G	0007	-1...+3	G	0008	-1...+9	G	0009	-1...+15	G	0010	-1...+16	G	0011	0...0.1	G	0012	0...0.16	G	0013	0...0.25	G	0014	0...0.4	G	0015	0...0.5	G	0016	0...1	G	0017	0...1.6	G	0018	0...2.5	G	0019	0...4	G	0020	0...6	G	0021	0...10	G	0022	0...16	G	0023	0...25	G	0024	0...40	G	0025	0...60	G	0026	0...100	G	0027	0...160	G	0028	0...200	G	0029	0...250	G	0030	0...300	G	0031	0...400	G	0032	0...600	G	0033	0...0.4	A	0034	0...0.6	A	0035	0...1	A	0036	0...1.6	A	0037	0...2	A	0038	0...2.5	A	0039	0...4	A	0040	0...6	A	0041	0...10	A	0042	0...16	A	0043	0...25	A	0044	0.8...1.2	A
Code	Range [bar]	Type																																																																																																																																																
0001	-0.6...0	G																																																																																																																																																
0002	-0.4...0	G																																																																																																																																																
0003	-0.25...0	G																																																																																																																																																
0004	-0.1...0	G																																																																																																																																																
0005	-1...0	G																																																																																																																																																
0006	-1...+1	G																																																																																																																																																
0007	-1...+3	G																																																																																																																																																
0008	-1...+9	G																																																																																																																																																
0009	-1...+15	G																																																																																																																																																
0010	-1...+16	G																																																																																																																																																
0011	0...0.1	G																																																																																																																																																
0012	0...0.16	G																																																																																																																																																
0013	0...0.25	G																																																																																																																																																
0014	0...0.4	G																																																																																																																																																
0015	0...0.5	G																																																																																																																																																
0016	0...1	G																																																																																																																																																
0017	0...1.6	G																																																																																																																																																
0018	0...2.5	G																																																																																																																																																
0019	0...4	G																																																																																																																																																
0020	0...6	G																																																																																																																																																
0021	0...10	G																																																																																																																																																
0022	0...16	G																																																																																																																																																
0023	0...25	G																																																																																																																																																
0024	0...40	G																																																																																																																																																
0025	0...60	G																																																																																																																																																
0026	0...100	G																																																																																																																																																
0027	0...160	G																																																																																																																																																
0028	0...200	G																																																																																																																																																
0029	0...250	G																																																																																																																																																
0030	0...300	G																																																																																																																																																
0031	0...400	G																																																																																																																																																
0032	0...600	G																																																																																																																																																
0033	0...0.4	A																																																																																																																																																
0034	0...0.6	A																																																																																																																																																
0035	0...1	A																																																																																																																																																
0036	0...1.6	A																																																																																																																																																
0037	0...2	A																																																																																																																																																
0038	0...2.5	A																																																																																																																																																
0039	0...4	A																																																																																																																																																
0040	0...6	A																																																																																																																																																
0041	0...10	A																																																																																																																																																
0042	0...16	A																																																																																																																																																
0043	0...25	A																																																																																																																																																
0044	0.8...1.2	A																																																																																																																																																
<p>Performance Specifications General Pressure Range [bar] 100 mbar to 600 bar Overpressure [bar] 1.5xFS (FS≤250bar), 1.2xFS(FS≥300bar)</p> <p>Environmental Medium Temp. Range [°C] -20 to +85°C, 0 to 125 °C Compensated Temp. Range [°C] -10 to +70°C Vibration 20 gRMS(20 to 2000Hz) Shock 100 g(10ms) Cycles 10x10⁵ cycles</p> <p>Electrical @25°C Output Signal 4...20 mA, 1...5 VDC, 0.5...4.5 VDC, 0...10 VDC 0...2.5 VDC, RS485, 1°C, HART 12...36VDC, 5VDC, 3.3VDC Load Resistance <(Vs-12)/0.02A [for current output] Insulation Resistance 100 MΩ@50VDC EMC Test IEC61000-6-2/IEC61000-6-3</p> <p>Physical Specifications Housing 304 stainless steel/ 316 stainless steel Diaphragm 316L stainless steel/Titanium alloy/Tantalum Protection IP65/IP66/IP67/IP68</p> <p>Performance Accuracy¹ [% FSO] ±0.5[typ.], ±0.75[<i>max.</i>] Temp. Coeff - Zero [% FSO] ±0.75[typ.], ±1.5[<i>max.</i>] Temp. Coeff - Span [% FSO] ±0.75[typ.], ±1.5[<i>max.</i>] Long-Term Stability [% FSO] ±0.3[typ.], ±0.5[<i>max.</i>]</p> <p>Notes 1. All values measured at 25°C 2. Including non-linearity, hysteresis and repeatability. The listed specifications and dimensions are subject to change without prior notice.</p>																																																																																																																																																		
<table border="1"> <tr> <td>Prep. Dis. C. FORLANI</td> <td rowspan="2"> <p style="text-align: center;">ELECTRONSYSTEM MD S.r.l.</p> </td> <td rowspan="2"> <p style="text-align: center;">SGM/D PRESSURE TRANSMITTER</p> </td> </tr> <tr> <td>App. P. GUZZETTI</td> </tr> <tr> <td>Res. Dep. Resp. Dep. Uff. Resp.</td> <td>Technical Dept.</td> <td>The Approv. Approv. N° Dec. 43931275</td> </tr> <tr> <td>First issue: 09.02.2021</td> <td></td> <td>Scale 1:1</td> </tr> <tr> <td colspan="3">NOTE :</td> </tr> </table>												Prep. Dis. C. FORLANI	<p style="text-align: center;">ELECTRONSYSTEM MD S.r.l.</p>	<p style="text-align: center;">SGM/D PRESSURE TRANSMITTER</p>	App. P. GUZZETTI	Res. Dep. Resp. Dep. Uff. Resp.	Technical Dept.	The Approv. Approv. N° Dec. 43931275	First issue: 09.02.2021		Scale 1:1	NOTE :																																																																																																																												
Prep. Dis. C. FORLANI	<p style="text-align: center;">ELECTRONSYSTEM MD S.r.l.</p>	<p style="text-align: center;">SGM/D PRESSURE TRANSMITTER</p>																																																																																																																																																
App. P. GUZZETTI																																																																																																																																																		
Res. Dep. Resp. Dep. Uff. Resp.	Technical Dept.	The Approv. Approv. N° Dec. 43931275																																																																																																																																																
First issue: 09.02.2021		Scale 1:1																																																																																																																																																
NOTE :																																																																																																																																																		

All specs are subject to change without notice

General Purpose Transmitter

Rev./Mod Descrizione:	Rev./Mod Descrizione:	Rev./Mod Descrizione:	Rev./Mod Descrizione:	Rev./Mod Descrizione:	Rev./Mod Descrizione:																																			
<p>Pressure connections All dimensions in mm</p>																																								
<p>Connection diagrams</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>2-wire</p> </div> <div style="text-align: center;"> <p>3-wire</p> </div> </div>																																								
<p>DIN175301-803A/DIN43650</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>2-wire</th> <th>3-wire</th> <th>4-wire</th> <th>4-wire</th> </tr> </thead> <tbody> <tr> <td>Supply+</td> <td>1</td> <td>1</td> <td>2</td> <td>1</td> </tr> <tr> <td>Supply-</td> <td>2</td> <td>2</td> <td>1</td> <td>2</td> </tr> <tr> <td>Signal+</td> <td>-</td> <td>3</td> <td>3</td> <td>-</td> </tr> <tr> <td>Signal-</td> <td>-</td> <td>-</td> <td>3</td> <td>-</td> </tr> <tr> <td>SDA</td> <td>-</td> <td>-</td> <td>3</td> <td>3</td> </tr> <tr> <td>SCL</td> <td>-</td> <td>-</td> <td>-</td> <td>3</td> </tr> </tbody> </table>							2-wire	3-wire	4-wire	4-wire	Supply+	1	1	2	1	Supply-	2	2	1	2	Signal+	-	3	3	-	Signal-	-	-	3	-	SDA	-	-	3	3	SCL	-	-	-	3
	2-wire	3-wire	4-wire	4-wire																																				
Supply+	1	1	2	1																																				
Supply-	2	2	1	2																																				
Signal+	-	3	3	-																																				
Signal-	-	-	3	-																																				
SDA	-	-	3	3																																				
SCL	-	-	-	3																																				
<p>Circular connector M12x1 (4-pin)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>2-wire</th> <th>3-wire</th> <th>4-wire</th> <th>4-wire</th> </tr> </thead> <tbody> <tr> <td>Supply+</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>Supply-</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Signal+</td> <td>-</td> <td>4</td> <td>2</td> <td>-</td> </tr> <tr> <td>Signal-</td> <td>-</td> <td>-</td> <td>4</td> <td>-</td> </tr> <tr> <td>SDA</td> <td>-</td> <td>-</td> <td>4</td> <td>2</td> </tr> <tr> <td>SCL</td> <td>-</td> <td>-</td> <td>-</td> <td>4</td> </tr> </tbody> </table>							2-wire	3-wire	4-wire	4-wire	Supply+	1	1	1	1	Supply-	3	3	3	3	Signal+	-	4	2	-	Signal-	-	-	4	-	SDA	-	-	4	2	SCL	-	-	-	4
	2-wire	3-wire	4-wire	4-wire																																				
Supply+	1	1	1	1																																				
Supply-	3	3	3	3																																				
Signal+	-	4	2	-																																				
Signal-	-	-	4	-																																				
SDA	-	-	4	2																																				
SCL	-	-	-	4																																				
<p>Packard connector</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>2-wire</th> <th>3-wire</th> <th>4-wire</th> <th>4-wire</th> </tr> </thead> <tbody> <tr> <td>Supply+</td> <td>A</td> <td>A</td> <td>-</td> <td>-</td> </tr> <tr> <td>Supply-</td> <td>B</td> <td>B</td> <td>-</td> <td>-</td> </tr> <tr> <td>Signal+</td> <td>-</td> <td>C</td> <td>-</td> <td>-</td> </tr> <tr> <td>Signal-</td> <td>-</td> <td>-</td> <td>C</td> <td>-</td> </tr> <tr> <td>SDA</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>SCL</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>							2-wire	3-wire	4-wire	4-wire	Supply+	A	A	-	-	Supply-	B	B	-	-	Signal+	-	C	-	-	Signal-	-	-	C	-	SDA	-	-	-	-	SCL	-	-	-	-
	2-wire	3-wire	4-wire	4-wire																																				
Supply+	A	A	-	-																																				
Supply-	B	B	-	-																																				
Signal+	-	C	-	-																																				
Signal-	-	-	C	-																																				
SDA	-	-	-	-																																				
SCL	-	-	-	-																																				
<p>Cable outlet</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>2-wire</th> <th>3-wire</th> <th>4-wire</th> <th>4-wire</th> </tr> </thead> <tbody> <tr> <td>Supply+</td> <td>RD</td> <td>RD</td> <td>RD</td> <td>RD</td> </tr> <tr> <td>Supply-</td> <td>BK</td> <td>BK</td> <td>BK</td> <td>BK</td> </tr> <tr> <td>Signal+</td> <td>-</td> <td>GN</td> <td>-</td> <td>-</td> </tr> <tr> <td>Signal-</td> <td>-</td> <td>-</td> <td>GN</td> <td>-</td> </tr> <tr> <td>SDA</td> <td>-</td> <td>-</td> <td>WH</td> <td>-</td> </tr> <tr> <td>SCL</td> <td>-</td> <td>-</td> <td>-</td> <td>GN</td> </tr> </tbody> </table>							2-wire	3-wire	4-wire	4-wire	Supply+	RD	RD	RD	RD	Supply-	BK	BK	BK	BK	Signal+	-	GN	-	-	Signal-	-	-	GN	-	SDA	-	-	WH	-	SCL	-	-	-	GN
	2-wire	3-wire	4-wire	4-wire																																				
Supply+	RD	RD	RD	RD																																				
Supply-	BK	BK	BK	BK																																				
Signal+	-	GN	-	-																																				
Signal-	-	-	GN	-																																				
SDA	-	-	WH	-																																				
SCL	-	-	-	GN																																				




NOTE :

Prep. Dis.	C. FORLANI	ELECTRONSYSTEM MD S.r.l.
App.	P. GUZZETTI	
First issue:	09.02.2021	SGM/D PRESSURE TRANSMITTER
Resp. Dep. Uff. Resp.	Technical Dept.	43931275
Theo. Approv. N° Dec.		

Il presente documento è riservato ai clienti di Electronsystem MD S.r.l. È vietata espressamente la ristampa o l'uso non autorizzato senza permesso scritto dalla Electronsystem MD S.r.l. È vietata espressamente la ristampa o l'uso non autorizzato senza permesso scritto dalla Electronsystem MD S.r.l. È vietata espressamente la ristampa o l'uso non autorizzato senza permesso scritto dalla Electronsystem MD S.r.l.

All specs are subject to change without notice

General Purpose Transmitter

Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data	Rev./Mod	Data																																												
Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:	Descrizione:																																												
<p>Ordering information</p> <table border="1"> <thead> <tr> <th>Order Nr.</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> </tr> </thead> <tbody> <tr> <td>Example</td> <td>sgm/d</td> <td>0010</td> <td>42</td> <td>51</td> <td>A3</td> <td>E1</td> <td>01</td> <td>M1</td> <td>L1</td> <td>5</td> <td>-</td> </tr> </tbody> </table>												Order Nr.	1	2	3	4	5	6	7	8	9	10	11	Example	sgm/d	0010	42	51	A3	E1	01	M1	L1	5	-																				
Order Nr.	1	2	3	4	5	6	7	8	9	10	11																																												
Example	sgm/d	0010	42	51	A3	E1	01	M1	L1	5	-																																												
<p>1 Model Pressure Transmitter</p>																																																							
<p>2 Pressure range See measuring ranges table [Pressure unit: kPa/psim/HzO/mh/HzO/kg/cm², etc.]</p>																																																							
<p>3 Output signal</p> <table border="1"> <tbody> <tr><td>42</td><td>4 to 20 mA</td></tr> <tr><td>24</td><td>20 to 4 mA</td></tr> <tr><td>02</td><td>0 to 20 mA</td></tr> <tr><td>05</td><td>0 to 5 VDC</td></tr> <tr><td>15</td><td>1 to 5 VDC</td></tr> <tr><td>45</td><td>0.5 to 4.5 VDC ratiometric</td></tr> <tr><td>25</td><td>0 to 2.5 VDC</td></tr> <tr><td>10</td><td>0 to 10 VDC</td></tr> <tr><td>R4</td><td>RS485 MODBUS RTU</td></tr> <tr><td>R2</td><td>4 to 20 mA with RS485 MODBUS RTU</td></tr> <tr><td>H2</td><td>4 to 20 mA with HART</td></tr> <tr><td>2C</td><td>I²C digital interface</td></tr> </tbody> </table>												42	4 to 20 mA	24	20 to 4 mA	02	0 to 20 mA	05	0 to 5 VDC	15	1 to 5 VDC	45	0.5 to 4.5 VDC ratiometric	25	0 to 2.5 VDC	10	0 to 10 VDC	R4	RS485 MODBUS RTU	R2	4 to 20 mA with RS485 MODBUS RTU	H2	4 to 20 mA with HART	2C	I ² C digital interface																				
42	4 to 20 mA																																																						
24	20 to 4 mA																																																						
02	0 to 20 mA																																																						
05	0 to 5 VDC																																																						
15	1 to 5 VDC																																																						
45	0.5 to 4.5 VDC ratiometric																																																						
25	0 to 2.5 VDC																																																						
10	0 to 10 VDC																																																						
R4	RS485 MODBUS RTU																																																						
R2	4 to 20 mA with RS485 MODBUS RTU																																																						
H2	4 to 20 mA with HART																																																						
2C	I ² C digital interface																																																						
<p>4 Power supply</p> <table border="1"> <tbody> <tr><td>S1</td><td>DC 12 to 30 V</td></tr> <tr><td>S2</td><td>DC 15 to 30 V [For 0 to 10VDC output]</td></tr> <tr><td>S3</td><td>DC 24 V</td></tr> <tr><td>S4</td><td>DC 12 V</td></tr> <tr><td>S5</td><td>DC 9 V</td></tr> <tr><td>S6</td><td>DC 5 V [For 0.5 to 4.5VDC output and I²C digital interface]</td></tr> <tr><td>S7</td><td>DC 3.3 V [For I²C digital interface]</td></tr> </tbody> </table>												S1	DC 12 to 30 V	S2	DC 15 to 30 V [For 0 to 10VDC output]	S3	DC 24 V	S4	DC 12 V	S5	DC 9 V	S6	DC 5 V [For 0.5 to 4.5VDC output and I ² C digital interface]	S7	DC 3.3 V [For I ² C digital interface]																														
S1	DC 12 to 30 V																																																						
S2	DC 15 to 30 V [For 0 to 10VDC output]																																																						
S3	DC 24 V																																																						
S4	DC 12 V																																																						
S5	DC 9 V																																																						
S6	DC 5 V [For 0.5 to 4.5VDC output and I ² C digital interface]																																																						
S7	DC 3.3 V [For I ² C digital interface]																																																						
<p>5 Accuracy</p> <table border="1"> <tbody> <tr><td>A1</td><td>0.1 %FS</td></tr> <tr><td>A2</td><td>0.25 %FS</td></tr> <tr><td>A3</td><td>0.5 %FS (standard)</td></tr> <tr><td>A4</td><td>1.0 %FS</td></tr> </tbody> </table>												A1	0.1 %FS	A2	0.25 %FS	A3	0.5 %FS (standard)	A4	1.0 %FS																																				
A1	0.1 %FS																																																						
A2	0.25 %FS																																																						
A3	0.5 %FS (standard)																																																						
A4	1.0 %FS																																																						
<p>6 Electrical Connection</p> <table border="1"> <tbody> <tr><td>E1</td><td>DIN1/PS01-803X/DIN43650/PS55</td></tr> <tr><td>E2</td><td>DIN1/PS01-805A with Circular connector M12x1.4-pin//PS5</td></tr> <tr><td>E3</td><td>Circular connector M12x1.4-pin//PS6</td></tr> <tr><td>E4</td><td>Hirschmann with Circular connector M12x1.4-pin//PS6</td></tr> <tr><td>E5</td><td>Bayonet connector//PS6</td></tr> <tr><td>E6</td><td>Pin-Hirschmann//PS6</td></tr> <tr><td>E7</td><td>Pin-Hirschmann//PS5</td></tr> <tr><td>E8</td><td>Packard connector//PS5</td></tr> <tr><td>E9</td><td>Cable outlet, 1.5m//PS6</td></tr> <tr><td>E0</td><td>1/2NPT conduit mate, with cable outlet, 1.5m//PS7</td></tr> <tr><td>BP</td><td>BP junction box//PS6</td></tr> </tbody> </table>												E1	DIN1/PS01-803X/DIN43650/PS55	E2	DIN1/PS01-805A with Circular connector M12x1.4-pin//PS5	E3	Circular connector M12x1.4-pin//PS6	E4	Hirschmann with Circular connector M12x1.4-pin//PS6	E5	Bayonet connector//PS6	E6	Pin-Hirschmann//PS6	E7	Pin-Hirschmann//PS5	E8	Packard connector//PS5	E9	Cable outlet, 1.5m//PS6	E0	1/2NPT conduit mate, with cable outlet, 1.5m//PS7	BP	BP junction box//PS6																						
E1	DIN1/PS01-803X/DIN43650/PS55																																																						
E2	DIN1/PS01-805A with Circular connector M12x1.4-pin//PS5																																																						
E3	Circular connector M12x1.4-pin//PS6																																																						
E4	Hirschmann with Circular connector M12x1.4-pin//PS6																																																						
E5	Bayonet connector//PS6																																																						
E6	Pin-Hirschmann//PS6																																																						
E7	Pin-Hirschmann//PS5																																																						
E8	Packard connector//PS5																																																						
E9	Cable outlet, 1.5m//PS6																																																						
E0	1/2NPT conduit mate, with cable outlet, 1.5m//PS7																																																						
BP	BP junction box//PS6																																																						
<p>7 Pressure Connection</p> <table border="1"> <tbody> <tr><td>01</td><td>G1/4 male</td></tr> <tr><td>02</td><td>G1/2 male</td></tr> <tr><td>03</td><td>G3/4 male</td></tr> <tr><td>04</td><td>G1/8 male</td></tr> <tr><td>05</td><td>G3/8 male</td></tr> <tr><td>06</td><td>G1/4 female</td></tr> <tr><td>07</td><td>G3/8 female</td></tr> <tr><td>08</td><td>3/4NPT female</td></tr> <tr><td>09</td><td>3/4NPT male</td></tr> <tr><td>10</td><td>3/4NPT male</td></tr> <tr><td>11</td><td>PT1/2 male</td></tr> <tr><td>12</td><td>PT3/4 male</td></tr> <tr><td>13</td><td>PT1/2 male</td></tr> <tr><td>14</td><td>R1/4 male</td></tr> <tr><td>14</td><td>R3/8 male</td></tr> <tr><td>15</td><td>R1/2 male</td></tr> <tr><td>16</td><td>M20x1.5 male</td></tr> <tr><td>17</td><td>M12x1.5 male</td></tr> <tr><td>18</td><td>7/16-20 UNF with 74° taper</td></tr> <tr><td>19</td><td>7/16-20 UNF with 90° taper</td></tr> <tr><td>20</td><td>Flange connection. (Please specify flange specifications)</td></tr> <tr><td>99</td><td>99 - Custom requirements</td></tr> </tbody> </table>												01	G1/4 male	02	G1/2 male	03	G3/4 male	04	G1/8 male	05	G3/8 male	06	G1/4 female	07	G3/8 female	08	3/4NPT female	09	3/4NPT male	10	3/4NPT male	11	PT1/2 male	12	PT3/4 male	13	PT1/2 male	14	R1/4 male	14	R3/8 male	15	R1/2 male	16	M20x1.5 male	17	M12x1.5 male	18	7/16-20 UNF with 74° taper	19	7/16-20 UNF with 90° taper	20	Flange connection. (Please specify flange specifications)	99	99 - Custom requirements
01	G1/4 male																																																						
02	G1/2 male																																																						
03	G3/4 male																																																						
04	G1/8 male																																																						
05	G3/8 male																																																						
06	G1/4 female																																																						
07	G3/8 female																																																						
08	3/4NPT female																																																						
09	3/4NPT male																																																						
10	3/4NPT male																																																						
11	PT1/2 male																																																						
12	PT3/4 male																																																						
13	PT1/2 male																																																						
14	R1/4 male																																																						
14	R3/8 male																																																						
15	R1/2 male																																																						
16	M20x1.5 male																																																						
17	M12x1.5 male																																																						
18	7/16-20 UNF with 74° taper																																																						
19	7/16-20 UNF with 90° taper																																																						
20	Flange connection. (Please specify flange specifications)																																																						
99	99 - Custom requirements																																																						
<p>8 Diaphragm Material</p> <table border="1"> <tbody> <tr><td>M1</td><td>SUS316L stainless steel (standard)</td></tr> <tr><td>M2</td><td>Titanium alloy</td></tr> <tr><td>M3</td><td>Tantalum</td></tr> </tbody> </table>												M1	SUS316L stainless steel (standard)	M2	Titanium alloy	M3	Tantalum																																						
M1	SUS316L stainless steel (standard)																																																						
M2	Titanium alloy																																																						
M3	Tantalum																																																						
<p>9 Sealing structure</p> <table border="1"> <tbody> <tr><td>L1</td><td>NBR seal O-ring (standard)</td></tr> <tr><td>L2</td><td>VITON seal O-ring</td></tr> <tr><td>L3</td><td>Welding seal</td></tr> </tbody> </table>												L1	NBR seal O-ring (standard)	L2	VITON seal O-ring	L3	Welding seal																																						
L1	NBR seal O-ring (standard)																																																						
L2	VITON seal O-ring																																																						
L3	Welding seal																																																						
<p>10 Label</p> <table border="1"> <tbody> <tr><td>S</td><td>Standard</td></tr> <tr><td>N</td><td>Neutral packing</td></tr> <tr><td>C</td><td>Custom label</td></tr> </tbody> </table>												S	Standard	N	Neutral packing	C	Custom label																																						
S	Standard																																																						
N	Neutral packing																																																						
C	Custom label																																																						
<p>11 Accessory (Optional)</p> <table border="1"> <tbody> <tr><td>A1</td><td>DP-4 DIN43650 LCD display/head</td></tr> <tr><td>A2</td><td>DP-5 DIN43650 LED display/head</td></tr> <tr><td>A3</td><td>DP-6 DIN43650 LCD display/head</td></tr> <tr><td>A4</td><td>DP-7 DIN43650 LCD display/head</td></tr> <tr><td>A5</td><td>DP-10 External display instrument</td></tr> <tr><td>A6</td><td>Cooling element (Temperature<125°C)</td></tr> </tbody> </table>												A1	DP-4 DIN43650 LCD display/head	A2	DP-5 DIN43650 LED display/head	A3	DP-6 DIN43650 LCD display/head	A4	DP-7 DIN43650 LCD display/head	A5	DP-10 External display instrument	A6	Cooling element (Temperature<125°C)																																
A1	DP-4 DIN43650 LCD display/head																																																						
A2	DP-5 DIN43650 LED display/head																																																						
A3	DP-6 DIN43650 LCD display/head																																																						
A4	DP-7 DIN43650 LCD display/head																																																						
A5	DP-10 External display instrument																																																						
A6	Cooling element (Temperature<125°C)																																																						
<p>NOTE :</p>																																																							
<table border="1"> <tr> <td>Prep. Dis. C. FORLANI</td> <td colspan="2"> <p>ELECTRONSYSTEM MD S.r.l.</p> </td> </tr> <tr> <td>App. P. GUZZETTI</td> <td>Resp. Dep. Technical Dept.</td> <td>The Apparatus Approve SGM/D PRESSURE TRANSMITTER</td> </tr> <tr> <td>First Issue: 09.02.2021</td> <td>Uff. Resp.</td> <td>Doc. No. 43931275</td> </tr> <tr> <td colspan="2"> <p>Scale 1:1</p> </td> <td>  </td> </tr> </table>												Prep. Dis. C. FORLANI	<p>ELECTRONSYSTEM MD S.r.l.</p>		App. P. GUZZETTI	Resp. Dep. Technical Dept.	The Apparatus Approve SGM/D PRESSURE TRANSMITTER	First Issue: 09.02.2021	Uff. Resp.	Doc. No. 43931275	<p>Scale 1:1</p>																																		
Prep. Dis. C. FORLANI	<p>ELECTRONSYSTEM MD S.r.l.</p>																																																						
App. P. GUZZETTI	Resp. Dep. Technical Dept.	The Apparatus Approve SGM/D PRESSURE TRANSMITTER																																																					
First Issue: 09.02.2021	Uff. Resp.	Doc. No. 43931275																																																					
<p>Scale 1:1</p>																																																							

All specs are subject to change without notice

General Purpose Transmitter

MODBUS-RTU Protocol

Serial port setup:
 Parity bit: N ; Data bits: 8; Stop bit:1; Baud Rate:9600;
 CRC Check Polynomial:0xA001
 The communication protocol can transfer the Signed Integer Arithmetic and also transfer the Floating-Point Arithmetic

1. Communication format:

Signed Integer Arithmetic output

A. Send Command(Read Data)

address	Function code	Data start bit (H)	Data start bit (L)	Data number (H)	Data number (L)	Data (L)	CRC16 (L)	CRC16 (H)
0X01	0X03	0X00	0X00	0X00	0X01	0X01	0X84	0X0A

B. Receive Command(Read Data)

address	Function code	Data length	Data (H)	Data (L)	CRC16 (L)	CRC16 (H)
0X01	0X03	0X02	0X00	0X01	0X79	0X84

C. Send Command(Modify Data)

address	Function code (H)	Data start bit (L)	Data (H)	Data (L)	CRC16 (L)	CRC16 (H)
0X01	0X06	0X00	0X00	0X02	0X08	0X0B

D. Receive Command(Modify Data)

address	Function code (H)	Data start bit (L)	Data (H)	Data (L)	CRC16 (L)	CRC16 (H)
0X01	0X06	0X00	0X00	0X02	0X08	0X0B

E. Return of abnormal response

address	Function code	Abnormal Code	CRC16 (L)	CRC16 (H)
0X01	0X80+Function code	0X01 (Illegal function) 0X02 (Illegal address) 0X03 (Illegal data)		

Integer supported commands and meaning of command

Function code (Decimal)	Data number	byte	data area	meaning of command
0X03 Function code read data				
Read area of Integer Arithmetic				
0X03	0	1	1-255	Slave Address
0X03	1	1	0-1200 1-2400	Baud Rate
0X03	1	2	2-4800	

0X03	2	1	2	0- No check 1- ODD 2- EVEN	0- No check 1- Odd check 2- EVEN check
0X03	3	1	2	0- Kpa 1- Mpa 2- Ma 3- % 4- InH2o 5- FtH2o 6- MmH2O 7- MmHg 8- PSI 9- Bar 10- Mbar 11- Kg/cm2 12- Pa 13- Torr 14- Atm 15- 16- M 17- Cm 18- Mm 19- inHg 20- mHg 21- Mh2O 22- °C	Pressure Unit
0X03	4	1	2	0-#### 1-#### 2-#### 3-#### 4-####	Decimal point
0X03	5	1	2	0-30	Filtering Coefficient
0X03	6				
The above is operation of Integer Arithmetic					
Floating-Point Arithmetic read area					
Function code(Hexa)	Offset address (Decimal)	length	byte	Data area	Remarks

All specs are subject to change without notice

General Purpose Transmitter

decimal)								
0x03	22-23	2	4	4 byte	Pressure measurement			
0x03	24-25	2	4	4 byte	Master variable of Pressure offset			
0x03	26-27	2	4	4 byte	Range minimum of Pressure Transmitter			
0x03	28-29	2	4	4 byte	Range maximum of Pressure Transmitter			
0x03	30-31	2	4	4 byte	Range minimum of Pressure Sensor			
0x03	32-33	2	4	4 byte	Range maximum of Pressure Sensor			
0x03	38-39	2	4	4 byte	PT100 measured value			
0x03	42-43	2	4	4 byte	Gain coefficient of main variable of Pressure			
0x03	166-167	2	4	4 byte	Zero clearing of Pressure Transmitter			
The above is Floating-Point Arithmetic read area								
0x06 Function code Modify data								
0x06/0x10	0	1	2	1-255	Modify slave address			
0x06/0x10	1	1	2	0-1200 1-2400 2-4800 3-9600 4-19200 5-38400 6-57600 7-115200	Modify Baud Rate			
0x06/0x10	2	1	2	0- NO check 1- ODD 2- EVEN	Modify Check mode			
0x06/0x10	24-25	2	4	4 byte	Zero offset value: Pressure value-measured value+Zero Offset value			
0x06/0x10	166-167	2	4	4 byte	Zero clearing value of Pressure Transmitter			
SAVE								

0x06	65535	1	2	0- Save to user zone	Write this address to 0, save the data to the user area and save the power off. If you do not send the power down save instruction, then modify the data off the electricity loss.
0x06	65533	1	2	Password service area	Address, checksum, baud rate modification without password, and other data changes should first write to this address, data 0x1294 is allowed to modify.
0x06	65532	1	2	0-Go back to Factory calibration status	The user writes this address to 0 to restore the factory data. It is all data recovery. Both the user setting data and the calibration data will be restored to the factory status.

For the transmission of floating-point Arithmetic, refer to the provisions of the MODBUS-RTU protocol regarding the transfer of multi byte floating point Arithmetic.

Read the pressure command, for example: (HEX)

- 1x:01 03 00 16 00 02 25 CF**
- 01 slave address,
- 03 Function code,
- 00 16 Offset address,
- 00 02 Data number

Rx:01 03 04 BE 40 E6 12 15 A2

- 01 slave address
 - 03 Function code
 - 04 Bytes
 - BE 40 E6 12(-0.188378, IEEE 754 Standard for Floating-Point Arithmetic)
- Note the distinction between the data in the protocol, such as the offset address 22 (Decimal), and the Hexadecimal notation of 16. Note the difference.

All specs are subject to change without notice

General Purpose Transmitter

STORAGE

If the complex must be storage before use, please keep dry and repaired.

Do not leave outdoor.

Device is strongly sensitive to humidity hence avoid to store where relative humidity is more than 90%

STORAGE TEMPERATURE: $-30^{\circ}\text{C} \div +70^{\circ}\text{C}$

RELATIVE HUMIDITY: max 90% @ $+40^{\circ}\text{C}$

MAINTENANCE

Maintenance of transmitter must be done compulsory in factory. We recommend every 5 years to send back transmitter for calibration check and inspection.

WARRANTY

Device is covered by 24 months after installation or max 36 months after delivery.

In case of service the transmitter must be sent back to factory for inspection.

WARNINGS

CAUTION

Do not drop or hit the transmitter. The sensor is fragile and may break from sudden shock.

When transporting the transmitter, use the original shipping box from Electronsistem.

NOTE

Keep the transmitter dry and clean.

Do not remove the transparent transport protection caps before you are ready to install the transmitter.

General Purpose Transmitter

INSTALLATION

1. Remove the transport caps when you are ready to install the transmitter. Check o-ring is clean without dust and properly assembled.
2. Install the transmitter to the mechanical coupling and tighten gently by hand. Then use a wrench to tighten the connection. Use a sufficient force to achieve a tight installation (recommended 10-15Nm) . The system must be leak-free for accurate measurement.
3. Connect proper circular wiring into the output port checking the correct polarization of the connector then turn firmly the rotating crown of the cable.
Use a cable with a suitable outdoor IP67 connector for your installation (straight or angled)

DISCLAIMER NOTE:

While we provide application assistance it is up to the customer to determine the suitability for its use.

Specification may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However we assume no responsibility for its use.

The quality of ElectronsistemMD products is guaranteed by a Quality, Safety and Environmental management system certified by DNV according to ISO 9001, ISO 18001 and ISO 14001. Electronsistem MD works in partnership with its customers in designing customized executions in order to meet specific requirements, please contact us.

All specs are subject to change without notice