# SCC Inc.

# **Technical Instructions**

### Document No. SEN-4000 August 16, 2022

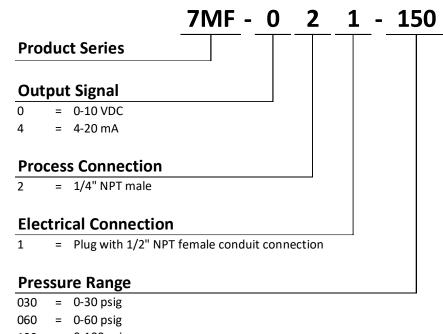
# **7MF Series**

Pressure Transduce	rs
Description	7MF series pressure transducers accurately measure the pressure of liquid, gas, or vapor.
Features	<ul> <li>Measuring accuracy of 0.25% of full scale</li> <li>Temperature-compensated measuring cell</li> <li>Suitable for aggressive and non-aggressive media</li> <li>20% glass reinforced nylon NEMA 4X housing</li> <li>1/2" NPT electrical connection</li> <li>Compact design</li> <li>UL and CE approved</li> </ul>

Application 7MF... series transducers measure the pressure of liquid, gas, or vapor. A selection of transducers is available for measuring pressures up to 750 PSI. 7MF... series pressure transducers produce either a 4-20 mA or 0-10 Vdc output signal that is linearly proportional to the input pressure.

#### **Product Part Numbers**

The part number structure includes output signal type and pressure range. The example part number is for a 0-10 Vdc pressure transducer with a pressure range of 0-150 psig.



000	-	0-00 psig
100	=	0-100 psig
150	=	0-150 psig

- 200 = 0-200 psig
- 300 = 0-300 psig
- 500 = 0-500 psig
- 750 = 0-750 psig

Droccuro Bongo	Output Signal		
Pressure Range	4-20 mA	0-10 Vdc	
0-30 PSI	7MF-421-030	7MF-021-030	
0-60 PSI	7MF-421-060	7MF-021-060	
0-100 PSI	7MF-421-100	7MF-021-100	
0-150 PSI	7MF-421-150	7MF-021-150	
0-200 PSI	7MF-421-200	7MF-021-200	
0-300 PSI	7MF-421-300	7MF-021-300	
0-500 PSI	7MF-421-500	7MF-021-500	
0-750 PSI	7MF-421-750	7MF-021-750	

## Specifications

Physical characteristics	Materials		
Thysical characteristics	-Housing	20% glass reinforced nylon	
	-Measuring cell	Stainless steel (17-4 PH)	
	-Electronics module	PA (nylon)	
	-Gasket	Nitrile	
	-Process connection	304 stainless steel	
	Media	Aggressive and non-aggressive	
		liquid, gas, or vapor that are	
		compatible with 304 & 17-4PH	
		stainless steel	
	Electrical connection	1/2" NPT	
	Process connection	1/4" NPT	
	NEMA rating	NEMA 4X and IP67	
	Accuracy	0.25% of full scale	
	Process temperature	-40 to 257 °F [-40 to 125 °C]	
	Ambient temperature	-40 to 257 °F [-40 to 125 °C]	
	Weight	0.2 lb [0.09 kg]	
	Overpressure rating		
	-Proof	2x range	
	-Burst	10x range	

#### Installation

- The output signal is linearly proportional to the input pressure.
- A steam syphon loop (pig tail) should be installed between the steam source and the pressure transducer as shown in Figure 1. As condensate forms in the syphon loop, it creates a water barrier to protect the transducer from heat and chemicals. On new installations, it is recommended to add water to the syphon loop to protect the transducer when condensate has not yet formed.

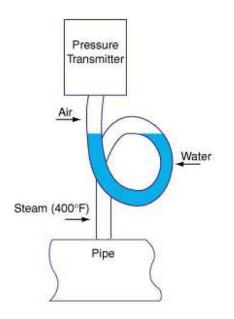


Figure 1: Example of a Syphon Loop

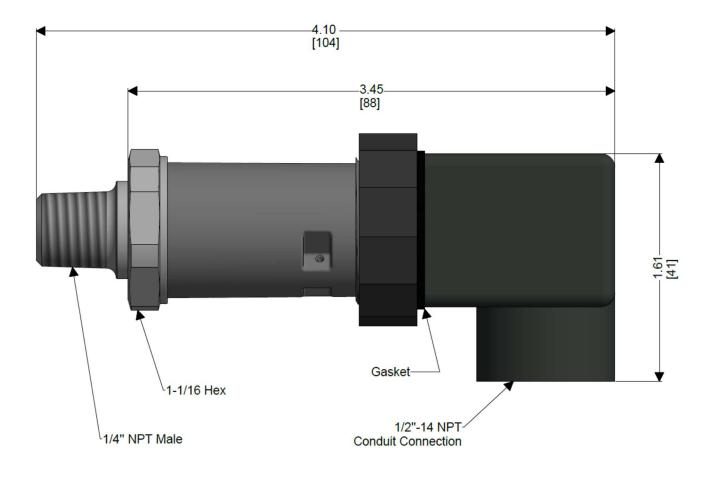
### Wiring

Table 2: 7MF Pressure Transducer Wiring				
Controller Type	<b>4-20 mA</b>	0-10 Vdc		
LMV5	7MFLMV5+ 1 $\bigcirc$ $\bigcirc$ X61.1- 2 $\bigcirc$ $\bigcirc$ X61.3 $\pm$ $\bigcirc$ $\bigcirc$ X61.5	$7MF LMV5$ $+ 1 \bigcirc 0 X61.1$ $- 2 \bigcirc X61.4$ Sig 3 $\bigcirc 0 X61.2$ $= \bigcirc 2 \bigcirc X61.5$		
RWF55	7MFRWF55+ 1 $\odot$ $\bigcirc$ G+- 2 $\odot$ $\bigcirc$ 12 $\pm$ $\odot$ $\bigcirc$ G- $\bigcirc$ 14	$7MF \qquad RWF55$ $+ 1 \bigcirc \bigcirc G+$ $- 2 \bigcirc \bigcirc G-$ $\bigcirc 14$ $Sig 3 \bigcirc \bigcirc \bigcirc 13$ $\pm \bigcirc \bigcirc =$		
RWF50	7MFRWF50+ 1 $\odot$ $\bigcirc$ G+- 2 $\odot$ $\bigcirc$ 12 $\pm$ $\odot$ $\bigcirc$ G- $\bigcirc$ 13	$7MF \qquad RWF50$ $+ 1 \bigcirc \bigcirc G+$ $- 2 \bigcirc \bigcirc G-$ $\bigcirc 13$ $Sig 3 \bigcirc \bigcirc 11$ $\pm \bigcirc \pm$		
RWF40	7MFRWF40+ 1 $\bigcirc$ $\bigcirc$ G+- 2 $\bigcirc$ $\bigcirc$ I1 $\pm$ $\bigcirc$ $\bigcirc$ G- $\bigcirc$ M1	7MF RWF40 + 1 ○		
RWF10	24  Vdc $+$	$24 \text{ Vdc}$ $\downarrow \overline{\circ} \overline{\circ}$ $7\text{MF}$ $+ 1 \overline{\circ}$ $- 2 \overline{\circ}$ $3 \overline{\circ}$ $\downarrow \overline{\circ}$ $\overline{\circ}$ $\overline$		

nedu or Wiri Table 2. 7ME D т.

#### Dimensions

Dimensions in inches; millimeters in brackets



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