

BlueLine Pressure- and Temperature Amplifier Type 5070A-2p2T-VARAN

- For Cavity Pressure Sensors and Cavity Temperature Sensors
- 2 measuring channels both for pressure and temperature measurements
- Connection to machine control via RT VARAN bus
- Automatic detection of pressure sensors mit PRIASED® (Automatic Sensitivity Detection)
- Signal input for thermo couples of types N, J, K, L
- Mechanically robust, space-saving and cascadable
- High resolution over the complete measuring range



Description

The PRIAMUS 5070A is a measuring amplifier for the combined measuring of temperature and pressure signals. The amplifier has 4 signal inputs for 2 temperature and 2 pressure sensors. The complete configuration and communication takes place digitally via the VARAN real-time bus. That allows, that any devices can be connected in a series. The data exchange with the control device takes place via the standardized EUROMAP75 protocol.

The 5070A amplifier is robustly built and especially designed for harsh conditions in the mold area of a plastic injection molding machine.

Functionally, the amplifier amplifies and converts the incoming analogue signals into digital signals. These measured values are converted to normalized and physical quantities which can be digitally selected.

Parallel to this signal processing, the determined measured values are further analysed to support the melt flow detection.

Applications

- Pressure and temperature monitoring
- Automatic switchover to holding pressure
- Real-time valve control
- Cascade control

Technical data

General

Property	Specification
Dimensions (L x W x H) without connectors with connectors	185.5 x 64 x 34.5 mm 185.5 x 101.6 x 34.5 mm
Working temperature range	0 ... 70 °C
Storage temperature range	0 ... 85 °C
Relative humidity	0 ... 80 %
Protection class	IP65
Power supply	18 ... 36 V
Power consumption	< 2.5 W
Max. ripple	2.5 Vpp
Max. current for cascade	2.0 A
Short-circuit protection	Yes
Revers polarity protection	Yes
Hot-Plug	Yes
Max. length of Bus cable	30 m
RoHS-compliant	Yes
Certification	CE, EN61326-1:2013

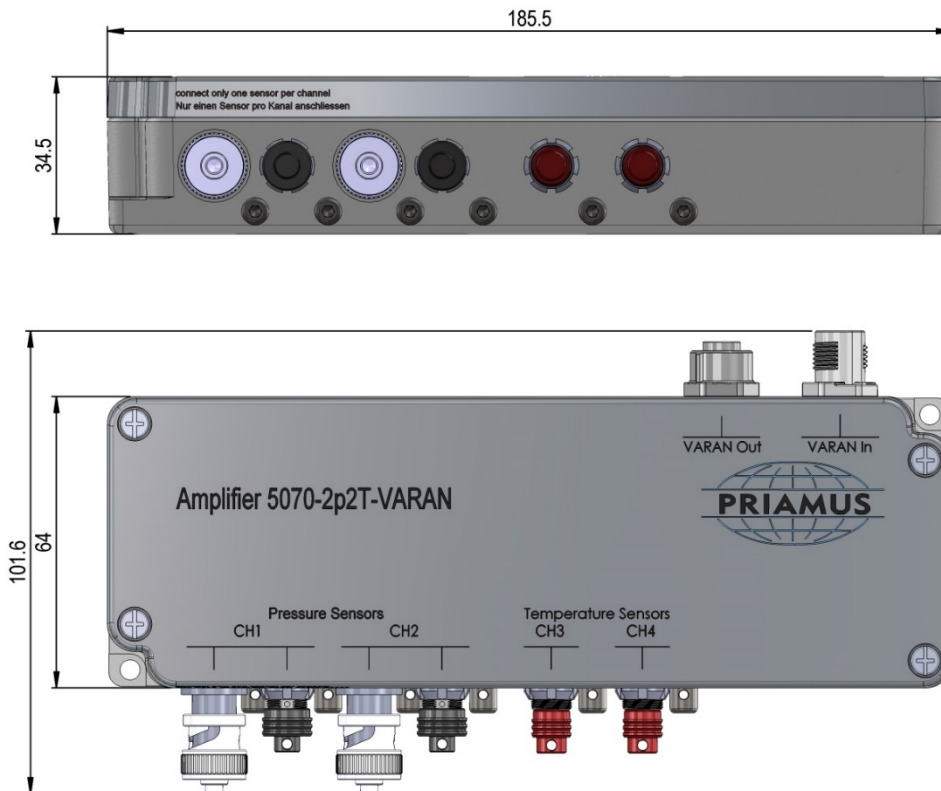
Charge Amplifier

Property	Specification
Resolution (range = 50'000 pC)	≈ 1 pC
Measuring error	< ±1 %
Linearity	< 0.02 %
Temperature-dependent gain error	< ± 150ppm/°C
Drift (at 20 °C)	< 0,03 pC/s
Reset time	≥ 10 ms
Reset-Operate	< 1 pC
Analog bandwidth	1 kHz
Min. signal rise time for automatic switchover	400 pC/s
Min. signal rise for automatic switchover	± 8 pC
Sensor sensitivity detection (PRIASED®)	Yes
Max. sensor cable length	10 m
Connector pressure sensor	2 x Fischer Type 102 TRIAX / BNC

Temperature amplifier

Property	Specification
Temperature range	0 ... 500 °C
Resolution (range: 500 °C)	0.15 °C
Electric isolation	±1 Vmax
Sensor	Type N, J, K, L
Automatic switchover	Type N
Measuring error	< ± 1%
Analog bandwidth	1 kHz
Min. signal rise for automatic switchover	± 1.5 °C
Cable break detection	Yes
Max. sensor cable length	10 m
Connector temperature sensor	2 × Fischer Type 101 TRIAX

Dimensions (in mm)



Accessories

Type number	Article
1041Ax	BlueLine connection cable for cavity pressure sensors Single-pin, with plastic sheath Both sides: Fischer connector type S 102 pos. TRIAX
1043Bx	BlueLine extension cable for cavity pressure sensors With metal sheath Side 1: Fischer connector type S 102 pos. TRIAX Side 2: Fischer connector type KBE 102 neg. TRIAX
1045Bx	BlueLine connection cable for cavity pressure sensors Multi-pin, with plastic sheath Side 1: Fischer connector type S 104 neg., 16-pin (Code 1) Side 2: 4 x Fischer connector type S 102 pos. TRIAX
1047Ax	BlueLine connection cable for cavity pressure sensors Multi-pin, with plastic sheath Side 1: Fischer connector type S 104 neg., 16-pin (Code 1) Side 2: Fischer connector type S 102 pos. TRIAX
1049Bx	BlueLine connection cable for cavity pressure sensors Single-pin, with plastic sheath Both sides: Fischer connector type S 102 pos. TRIAX
1054Bx	BlueLine connection cable for cavity pressure sensors Multi-pin, with plastic sheath Both sides: Fischer connector type S 104 neg., 16-pin (Code 1)
1141Ax	BlueLine connection cable for cavity temperature sensors Single-pin, with plastic sheath Both sides: Fischer connector type S 101 pos. TRIAX
1142Bx	BlueLine extension cable for cavity pressure sensors Single-pin, with metal sheath Side 1: Fischer connector type S 101 pos. TRIAX Side 2: Fischer connector type KBE 101 neg. TRIAX
1144Ax	BlueLine connection cable for cavity temperature sensors Multi-pin, with plastic sheath Both sides: Fischer connector type S 104 neg. 19-pin (Code 2)
1145Ax	BlueLine connection cable for cavity temperature sensors Multi-pin, with plastic sheath Side 1: Fischer connector type S 104 neg. 19-pin (Code 2) Side 2: Fischer connector type S 101 pos. TRIAX

Type number	Article
1147Bx	BlueLine connection cable for cavity temperature sensor Multi-pin, with plastic sheath Side 1: Fischer connector type S 104 neg. 19-pin (Code 2) Side 2: 4 x Fischer connector type S 101 pos. TRIAX
1149Bx	BlueLine connection cable for cavity temperature sensors Single-pin, with metal sheath Both sides: Fischer connector type S 101 pos. TRIAX
1194A-8T	BlueLine multi-channel connecting box for temperature signals For connecting a maximum of 8 cavity temperature sensors
1195A-8p	BlueLine multi-channel connecting box for pressure signals For connecting a maximum of 8 cavity pressure sensors
5080A-4p	BlueLine amplifier for cavity pressure signals with 4 channels 4 x single-channel connectors Fischer type 102 TRIAX
5080A-16p	BlueLine amplifier for cavity pressure signals with 16 channels 2 x multi-channel connectors Fischer type 104, 16-pin
5080A-4T	BlueLine amplifier for cavity temperature signals with 4 channels 4 x single-channel connectors Fischer type 101 TRIAX
5080A-16T	BlueLine amplifier for cavity temperature signals with 16 channels 2 x multi-channel connector Fischer type 104, 19-pin
8280C	BlueLine Core Control unit for monitoring and controlling of the injection molding process
8911A	BlueLine signal tester set Test device for checking cavity temperature and cavity pressure sensors. Complete set with numerous accessories in foam case
8952A	BlueLine signal tester Test device for checking cavity temperature and cavity pressure sensors.
8980C	BlueLine I/O Master Basic module for transmitting control signals between the injection molding machine and the BlueLine system.
8981A	BlueLine I/O Expander Extension module for transmitting control signals between the injection molding machine and the BlueLine system.
8982A	BlueLine Bus Interface Coupling module between I/O modules for mounting on top hat rail bus, for transmitting control signals between the injection molding machine and the BlueLine system.

Type number	Article
8983A	BlueLine Voltage Input Module For collecting voltage signals of the injection molding machine
8984A	BlueLine control cabinet Control cabinet with transparent front door for maximum 64 switching signals With 1 BlueLine I/O Master type 8980C and optionally 1–4 BlueLine I/O Expander type 8981A
8985A	BlueLine control cabinet Control cabinet with transparent front door for maximum 96 switching signals with 1 BlueLine I/O Master type 8980C and optionally 1–6 BlueLine I/O Expander type 8981A
9015A	BlueLine inductive switch for easy starting and measuring
9016A	BlueLine power supply unit for: - BlueLine amplifiers types 5080A - BlueLine Core type 8280C
9080A	BlueLine top hat rail bus For mounting of several interconnected BlueLine devices such as I/O Master or I/O Expander