

Melt Pressure Transducer

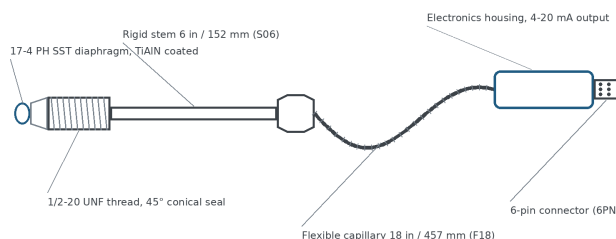
Dynisco Echo™ Series | Model

ECHO-MA4-BAR-R22-UNF-6PN-S06-F18-NTR

The Dynisco Echo™ Series melt pressure transducer measures the pressure of molten polymer at temperatures up to 400 °C (752 °F). A 350-ohm four-arm bonded-foil strain-gauge Wheatstone bridge produces a 4-20 mA output proportional to melt pressure, and an internal shunt calibration (R-Cal) simulates 80% of full scale for fast scaling of connected instrumentation without a pressure source. The 18-inch flexible capillary places the electronics away from radiant barrel heat, making this configuration well suited to extrusion and polymer processing lines where space is limited.

Dynisco Echo™ Melt Pressure Transducer

ECHO-MA4-BAR-R22-UNF-6PN-S06-F18-NTR | 0-500 bar | 4-20 mA



Configuration illustration (schematic) - not a photograph. Dimensions not to scale.

General / Identification

Product type	Melt pressure transducer (transmitter), strain-gauge type
Series / brand	Echo™ Series, Dynisco
Model / part number	ECHO-MA4-BAR-R22-UNF-6PN-S06-F18-NTR
Pressure range	0-500 bar (7,500 psi; 500 kg/cm ² ; 50 MPa) — range code R22, calibrated in bar
Output signal	4-20 mA, proportional to melt pressure (output code MA4)
Sensing technology	350-ohm four-arm bonded-foil strain-gauge Wheatstone bridge
Internal shunt calibration (R-Cal)	80% FSO ±1.0% FSO

Performance

Accuracy (combined error)	±0.5% FS (linearity per ISA-S37.1, BSL)
Repeatability	±0.2% FSO
Overload pressure rating	1.5 x FSO
Maximum melt / diaphragm temperature	400 °C (752 °F) — flexible-capillary version
Zero balance adjustment	±20% FS
Zero balance setting	±0.5% FS
Insulation resistance	100 M-ohm at 50 VDC

Electrical

Supply voltage (excitation)	14-30 VDC
Output, analog	4-20 mA
Electronics operating temperature, max	85 °C (185 °F)
Electrical connection	6-pin connector (mating connector: Dynisco P/N 711600)

Mechanical & Materials

Process connection	1/2-20 UNF thread with 45° conical seal
Rigid stem (snout) length	6 in (152 mm) — code S06
Flexible capillary length	18 in (457 mm), ±10% nominal — code F18
Diaphragm / wetted parts	17-4 PH stainless steel
Diaphragm coating	Titanium aluminium nitride (TiAlN), standard
Fill medium	Mercury (standard fill; NaK alternative-fill version available as “-N”)
Mounting torque	250 in-lb (approx. 28 N-m) maximum
Integral temperature sensor	None fitted (code NTR — no thermocouple or RTD)

Specifications are taken from the manufacturer's published data and are subject to change without notice. Confirm against the current manufacturer manual before rated or safety-critical use. All brand names, trademarks, logos and part numbers are the property of their respective owners and are used here for identification and reference only. We are not an authorised distributor or agent of the manufacturer unless expressly stated otherwise.

Compliance & Ordering

CE	EMC compliance declared by manufacturer (Declaration of Conformity "ECHO mA Output")
Environmental declarations	RoHS and REACH Declarations of Conformity published by Dynisco
Quality system	Manufactured under ISO 9001:2015 certified quality system
Warranty	2 years (manufacturer)
Recommended accessories	Mating connector P/N 711600; mounting-hole tool kit P/N 200925; electronics mounting bracket P/N 200941

Typical Applications

Melt pressure measurement and over-pressure monitoring on single- and twin-screw extruders, blown film, sheet, pipe and profile lines, compounding and recycling machinery, and other polymer processing equipment.