ADVANCED ACTUATORS

+44 (0) 1535 655151
sales@advanced-actuators.com

GLOBAL LEADERS IN THE DESIGN & MANUFACTURE OF PRECISION VALVE CONTROL SOLUTIONS & INSTRUMENTATION

HYCONTROL®

[Ex d] 4-20mA POSITIONER (A-HC) / (A-HCR incl. Feedback)



HYCONTROL® is an intelligent position controller that provides closed-loop control, accurate valve positioning, actuator diagnostics, and HPU control.

It is designed for modulating positional control valves operated by hydraulic or pneumatic actuators, and is operated via suitable solenoid valves or a DC reversing motor. The valve status and position are shown on a graphic LCD, behind the enclosure window. With a rugged IP66-rated, 316L stainless steel construction, it is suitable for numerous harsh applications.

Our **HYCONTROL®** positioners can also be configured with an integrated **HYTRACK®** position transmitter built in.



KEY FEATURES

- Simple two-step calibration & manual operation
- 4-20 mA Command/4-20 mA Feedback, HART 7
- System performance monitoring
- Stepping mode with adjustable On/Off times
- Selectable solenoid drive sense for failsafe operation
- Selectable operation on command/feedback signal break
- Fault output: Relay contacts
- External fault contact monitoring and status logging
- Integral rotary position sensor and proximity switches

Our positioners and position transmitters feature magnetic-type buttons, ensuring that the integrity of hazardous environment enclosures can be maintained.

Mechanical Position Indicator

FOR ROTARY ACTUATORS

(OPTIONAL)



IMAGES ARE REPRESENTATIVE ONLY AND SUBJECT TO CHANGE

www.advanced-actuators.com
RYEFIELD WAY, SILSDEN, WEST YORKSHIRE, BD20 0EF

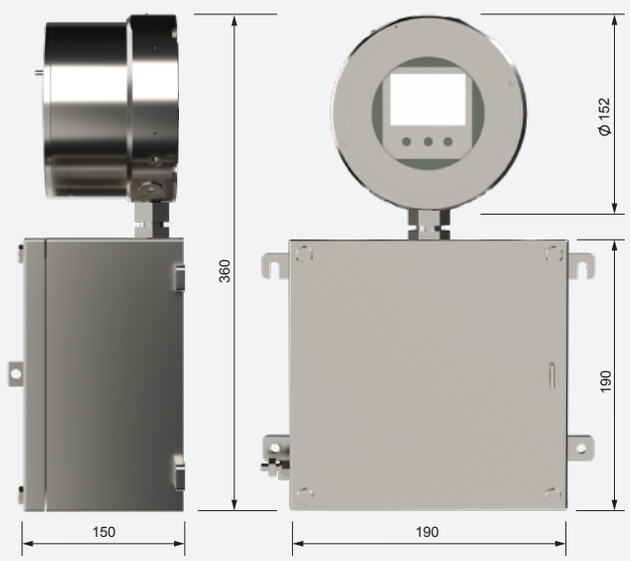
ADVANCED ENGINEERING GROUP
POWER • MOTION • CONTROL

SPECIFICATIONS

HYCONTROL® CORE

MECHANICAL & ENVIRONMENTAL

HOUSING MATERIAL	SS316L
APPROX. WEIGHT	10 kg
DIMENSIONS	Ø 150mm x 135mm
ENTRY THREAD	3 x M20 x 1.5P (Option: 3 x ½" NPT)
STORAGE TEMP.	-40°C to 100°C
AMBIENT TEMP.	-40°C to 50°C
INGRESS PROTECTION	IP66 / NEMA 4X



JUNCTION BOX REQUIREMENT SUBJECT TO SETUP

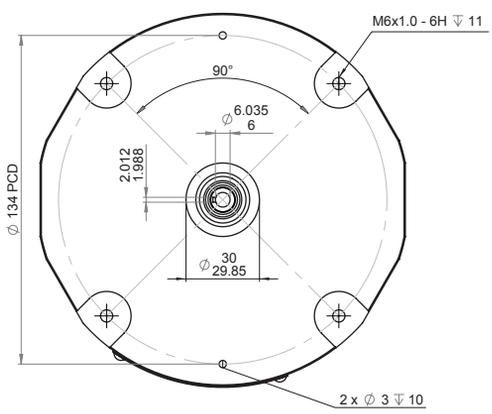
HAZARDOUS AREA

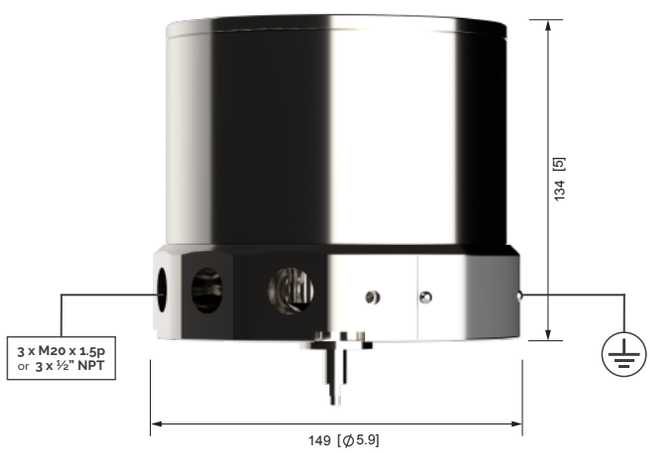
Ex MARKINGS	II 2 G Ex db IIC T6 Gb	
	II 2 D Ex tb IIIC T85°C Db	
TA	-40°C to 50°C	
ATEX	22 ATEX 1354 X	*ExVeritas*
IECEX	EXV 22.0040 X	*ExVeritas*
UK EX	22 UKEX 1347 X	*ExVeritas*
INMETRO	CPEx 24.1587 X	*ExVeritas*
NOBO		*ExVeritas UK*
N. AMERICAN	CSA80210798	*CSA*

OPERATIONAL

POWER SUPPLY	24 V DC 0.1 A (17-30 V DC supply range)
DIGITAL INPUTS	3 x 24V DC isolated, oil/fault monitoring
RELAY OUTPUTS	2 x Changeover contacts, 24 V 1A
SOLENOID OUTPUTS	24 V DC 1 A, low side switching
COMMAND SIGNAL	4-20 mA (voltage drop 5 V) isolated
RETRANSMITTED SIGNAL	4-20 mA external loop powered
PUMP SPEED SIGNAL	0-5 V DC
VALVE FEEDBACK	4-20 mA or integral rotary sensor (isolated)
DEAD ZONE	0-5% Pulsing Zone 0-10%
ACTUATED VALVE ACTION	Fail Open, Fail Close, Stay put
HYDRAULIC PUMP CONTROL	Pressure or Demand

MOUNTING & SHAFT DETAIL (A-HCR)





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[Ex d] POSITIONER (A-HC) / (A-HCR incl. Feedback)

HYCONTROL® CORE

CORE CONTROLLER:

OPTION	DESCRIPTION
A-HCH3M	Head only, 3 x M20 entries
A-HCH3N	Head only, 3 x ½" NPT entries
A-HCH3MB	Head + 316 SS Ex terminal box

COMMON CONFIGURATIONS:

HYCONTROL® can be fitted with integrated feedback, with NAMUR connection and mechanical position indicator, shown below. Entry and terminal-box options are selected separately, denoted by *-XXX*

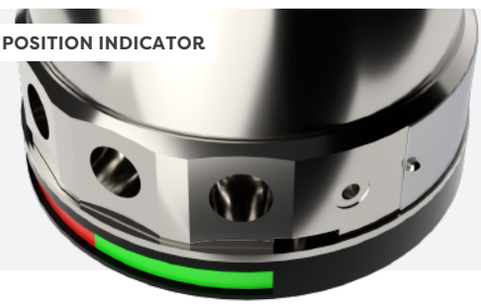
FEEDBACK/OUTPUT	SWITCH TYPE	MECHANICAL INDICATOR	*2-SWITCH* MODEL NO.	*4-SWITCH* MODEL NO.
Controller + Switches	Mechanical	✓ Yes	**A-HC-SH2M***XXX*-623	**A-HC-SH4M***XXX*-623
Controller + Switches	Proximity	✓ Yes	**A-HC-SH2P***XXX* -623	**A-HC-SH4P***XXX*-623
Controller + Feedback + Switches	Mechanical	✓ Yes	**A-HCR-SH2M***XXX*-623	**A-HCR-SH4M***XXX*-623
Controller + Feedback + Switches	Proximity	✓ Yes	**A-HCR-SH2P***XXX*-623	**A-HCR-SH4P***XXX*-623

PLATFORM APPROVALS:

Ex · IECEx · CSA US · INMETRO · UKCA · 316 Stainless Steel · IP66 · NEMA 4X

MECHANICAL POSITION INDICATOR

FOR ROTARY ACTUATORS
(OPTIONAL)



IMAGES ARE REPRESENTATIVE ONLY. FINAL MODEL NUMBER, CERTIFICATION, AND CONFIGURATION TO BE CONFIRMED AT ORDER PLACEMENT.