

NELES

Quartz™ limit switches and Axiom™ on/off valve controllers

Welcome and thank you for participating in this event

October 4, 2021



NELES

Quartz

Limit switches for on/off valves
For most Ex and Non Ex applications



Quartz

Overall capabilities

- Readily adaptable to most actuators
 - Mounting kits available to fit most quarter-turn / linear actuators
- Approved for most hazardous areas
 - Class I & II Div. 1, 2
 - Ex d IIC Zone 1, 2
 - Ex i IIC Zone 0,1,2
- Wide variety of electrical options
 - Solid State AC/DC, Reed, Mechanical, Intrinsically Safe, Fieldbus networks
- Rugged enclosure made of epoxy-coated anodized aluminum or 316L stainless steel
- QC Low temp models available with ratings to -55C

NELES



QX - AI



QX - SS



QC



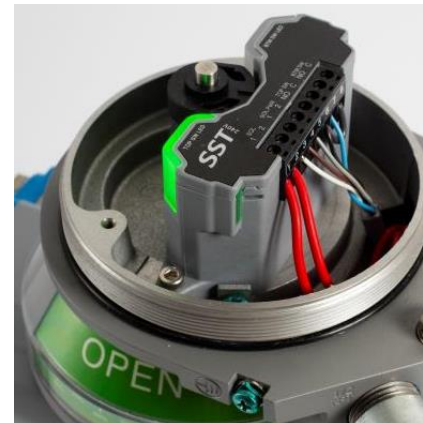
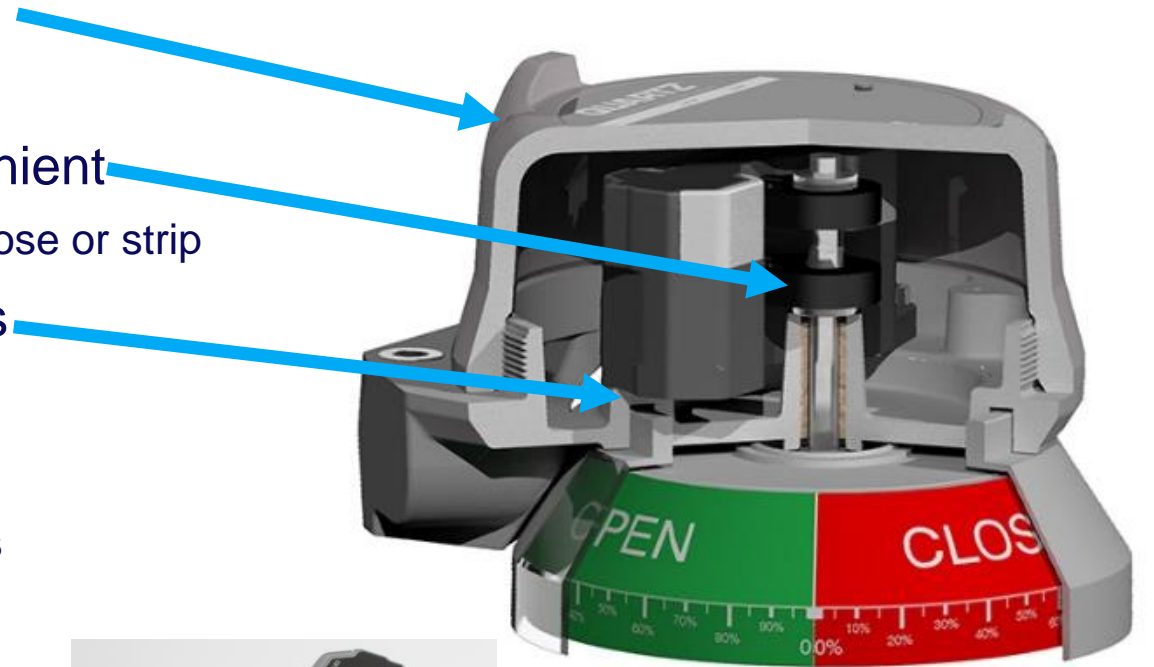
QN



QG

Features and benefits

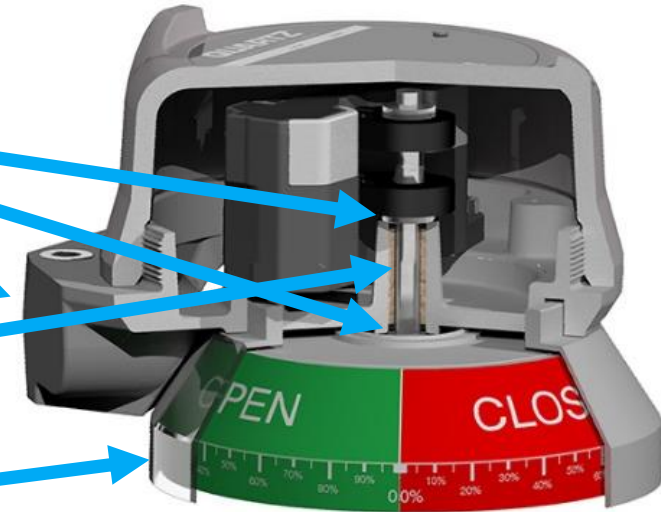
- Quick access screw-on cover is vapor tight
 - No lost screws or crimped gaskets
- Quick set cam system is secure and convenient
 - Push / Pull cam system, no set screws to vibrate loose or strip
- Stainless steel internal fasteners and plates
 - Corrosion resistant
- Stainless steel grounding inserts
 - Prevents intermittent contact in harsh environments



Quartz

Features and benefits

- O-ring sealed shaft at top and bottom
 - Limits external contaminants
- Up to 3 conduit entries for solenoid termination
 - Enables multiple solenoids
- Oil impregnated bronze bushing
 - Prevents shaft seizure
- Space saving visual indicator
 - Protected, easy to see
 - Low profile
- Convenient wiring with pre-labeled terminal strip
 - Easy field wiring

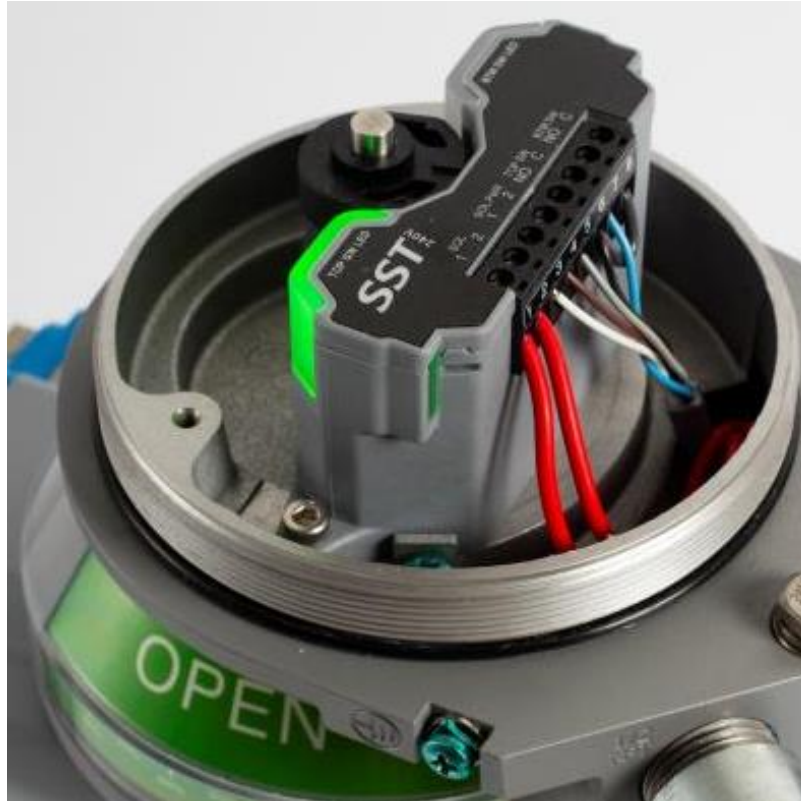


Quartz – Recent updates

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Mag sensors

- Enhanced position sensing technology
 - Mag Res sensor
 - **BRIGHT** LED indication
- Universal voltage capability
 - 24VDC – 250VAC
- Wide temp range
 - From -40C to +80C
 - Ultra-cold temp -55C option



Quartz

Position transmitters

- New non-contact transmitter with push button settings and LED indication now available
- Used on modulating valves to tell control system exact position of valve
 - Can be used on rotation less than 90 deg (37 deg min)
 - Cycle life: 2 million standard or 50 million high cycle
- Can be used for both quarter-turn and linear valves
 - Mounting kits easily convert linear to rotary rotation
- 4 to 20 mA output



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Quartz Digital 4-20mA Position Transmitter

NELES

Features and Benefits

- Non-contact mag sensor → Long life in rough applications
- Easy push button calibration → Fast & easy Set-up / Calibration
- Red /Green LED's → Bold LED position indication
- Precision feedback → Reliable precision position confirmation
- Fully sealed and potted module → Durable and moisture tolerant
- QR code on sensor module → Easy access to installation manual



TO	4-20 mA non-contact with no switches
TT	4-20 mA non-contact with SST (35) NO switching sensor dual module
TR	4-20 mA non-contact with NAMUR (45) dual module (EN 60947-5-6; I.S.)

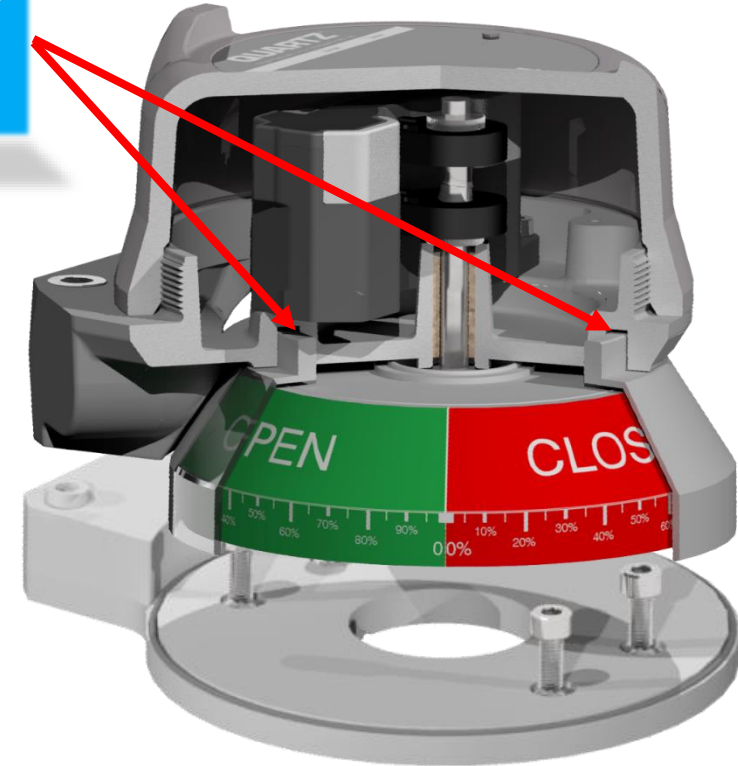


Quartz

Shaft options

- Neles Shaft = Output option “H”
- Short indicator = Output option “S”
- Extended VI = Output option “N”
- “N” option offers
 - Larger indication
 - Direct / flush mount when used with new mounting
 - Better moisture prevention
 - More tolerant to vibration

New o-ring seal at the top of the “N” and “H” VI cover (October 2020)

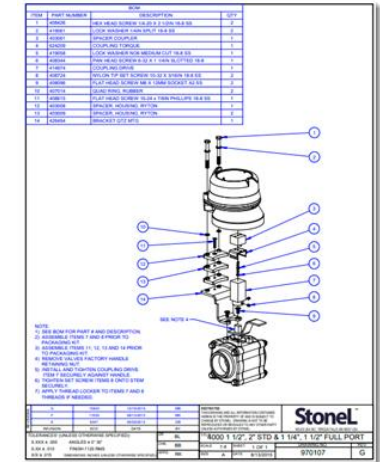



OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler

Quartz

Mounting Kits

- Neles “H” Shaft
 - Kits available from Helsinki, similar to ND9 kits
- Short indicator “S” shaft and Extended VI “N” shaft options
 - Kits available for > 150 brands of valves and actuators
 - www.stonel.mountingkitsonline.com



Stonel  1 (218) 739-5774 U.S.A

[Return to home](#) **Mounting Kit Database**

Select Valve or Actuator Brand

1 Select the Brand 2 Select the Product

Brand	Model	Category	Product	Notes	Kit Number (Select to view diagram)
Neles	B1CU 11	1/4 Turn Actuator	Quartz - Short and Extended Indicator	Raised Namur size 1	ST960108
Neles	B1CU 13	VDI / VDE 3845 (NAMUR)	Quartz - Short and Extended Indicator	Raised Namur size 3	ST960115
Neles	B1CU 17	VDI / VDE 3845 (NAMUR)	Quartz - Short and Extended Indicator	Raised Namur size 3	ST960115
Neles	B1CU 20	VDI / VDE 3845 (NAMUR)	Quartz - Short and Extended Indicator	Raised Namur size 3	ST960115
Neles	B1CU 25	1/4 Turn Actuator	Quartz - Short and Extended Indicator		ST970168
Neles	B1CU 32	1/4 Turn Actuator	Quartz - Short and Extended Indicator		ST970169

Typecodes

Model selector	
SERIES	
QX	Explosionproof dual modules and VCTs
FUNCTIONS	
Sensor/switching modules (proximity type)	
35	SST Universal NO switching sensor dual module
45	NAMUR dual module (EN 60947-5-6; I.S.)
Valve Communication Terminals (VCTs)	
92	DeviceNet™
93	Foundation Fieldbus (bus powered; I.S.)
96	AS-Interface
97	AS-Interface (with extended addressing)
ENCLOSURE	
B	Aluminum North American (NEC/CEC)
K	Aluminum International (IEC)
G	Aluminum Brazilian
V	Aluminum Russian
J*	Stainless steel North American (NEC/CEC)
74	HP with NAMUR (44) dual module (EN 60947-5-6; I.S.)
TO	4-20 mA non-contact with no switches
TT	4-20 mA non-contact with SST (35) NO switching sensor dual module
TR	4-20 mA non-contact with NAMUR (45) dual module (EN 60947-5-6; I.S.)

Model selector	
SERIES	
QX	Explosionproof proximity switches
FUNCTIONS	
Sensors	
2E	(2) P+F special 3-wire NPN sensor; NBB2-V3-E0-V5
2F	(2) PNP solid state 3-wire P+F sensor; NBB2-V3-E2-V5
2G	(2) SPDT Maxx-Guard (low current)
2H	(2) SPDT Maxx-Guard (3 amp)
2L	(2) SPST Maxx-Guard (LED)
2P	(2) SPST Maxx-Guard
2S	(2) SPDT Maxx-Guard (LED)
4G	(4) SPDT Maxx-Guard (low current)
4H	(4) SPDT Maxx-Guard (3 amp)
4L	(4) SPST Maxx-Guard (LED)
4P	(4) SPST Maxx-Guard
4S	(4) SPDT Maxx-Guard (LED)
ENCLOSURE	
ENCLOSURE	
K	Aluminum International (IEC)
V	Aluminum Russian
N*	Stainless steel International (IEC)

Mounting instructions, accessories and cables are available separately. Identification suffix.

Mounting instructions, accessories and cables are available separately. 5-digit identification suffix.

Model selector	
SERIES	
QN Nonincendive dual modules and VCTs	
FUNCTIONS	
Sensor/switching modules (proximity type)	
35	SST Universal NO switching sensor dual module
Valve Communication Terminals (VCTs)	
92	DeviceNet™
93	Foundation Fieldbus (bus powered) [intrinsically safe]
96	AS-interface
97	AS-interface with extended addressing
ENCLOSURE	
Clear cover	
P	North American (NEC/CEC)
A	International (IEC)
CONDUIT ENTRIES	
02	(1) 3/4" NPT & (1) 1/2" NPT
03	(1) 3/4" NPT & (2) 1/2" NPT
05	(2) M20
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR [see chart on page 17]	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
OM	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QN 35 P 02 N DM -	OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

Model selector	
SERIES	
QN Nonincendive proximity switches	
FUNCTION	
Sensors	
2F	(2) PNP solid state 3-wire P+F sensor, NBB2-V3-E2-V5
2G	(2) SPDT Maxo-Guard (low current)
2H	(2) SPDT Maxo-Guard (3 amp)
2L	(2) SPST Maxo-Guard (LED)
2P	(2) SPST Maxo-Guard
2S	(2) SPDT Maxo-Guard (LED)
4G	(4) SPDT Maxo-Guard (low current)
4H	(4) SPDT Maxo-Guard (3 amp)
4L	(4) SPST Maxo-Guard (LED)
4P	(4) SPST Maxo-Guard
4S	(4) SPDT Maxo-Guard (LED)
4X	(4) SST sensor (LED)
ENCLOSURE	
Clear cover	
P	North American (NEC/CEC)
A	International (IEC)
CONDUIT ENTRIES	
02	(1) 3/4" NPT & (1) 1/2" NPT
03	(1) 3/4" NPT & (2) 1/2" NPT
05	(2) M20
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR [see chart on page 17]	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
OM	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QN 2G P 02 N DM -	OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

Model selector	
SERIES	
QN Intrinsically safe (I.S.) proximity switches and position transmitters	
FUNCTIONS	
Sensor/switching modules (proximity type)	
45	NAMUR dual module (EN 60947-5-6; I.S.)
Sensor	
2A	(2) P+F; NI2-12GK-SN
2B	(2) P+F; NI5-30GK-S1N
2I	(2) SPST (passive)
2M	(2) SPDT (passive)
2N	(2) P+F NAMUR sensor; NI2-V3-N
4I	(4) SPST (passive)
4M	(4) SPDT (passive)
4N	(4) P+F NAMUR sensors; NI2-V3-N
Position transmitters	
50	Standard with no switches
70	High performance (HP) with no switches
TO	4-20 mA non-contact with no switches
TR	4-20 mA non-contact with NAMUR (4S) dual module (EN 60947-5-6; I.S.)
ENCLOSURE	
Clear cover	
P	North American (NEC/CEC)
H	Russian
A	International (IEC)
Aluminum cover [not explosion proof]	
B	North American (NEC/CEC)
K	International (IEC)
G	Brazilian
L	Russian
CONDUIT ENTRIES	
02	(1) 3/4" NPT & (1) 1/2" NPT
03	(1) 3/4" NPT & (2) 1/2" NPT
05	(2) M20
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR [see chart on page 17]	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
OM	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QN 45 P 02 N DM -	OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

Model selector	
SERIES	
QN Nonincendive proximity switches and position transmitters	
FUNCTIONS	
Position transmitters	
50	Standard with no switches
5G	Standard with (2) SPDT Maxo-Guard (low current)
70	High performance (HP) with no switches
7G	High performance (HP) with (2) SPDT Maxo-Guard (low current)
TO	4-20 mA non-contact with no switches
TT	4-20 mA non-contact with SST (3S) NO switching sensor dual module
ENCLOSURE	
Clear cover	
P	North American (NEC/CEC)
A	International (IEC)
CONDUIT ENTRIES	
02	(1) 3/4" NPT & (1) 1/2" NPT
03	(1) 3/4" NPT & (2) 1/2" NPT
05	(2) M20
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR [see chart on page 17]	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
OM	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QN 50 P 02 N DM -	OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

Model selector	
SERIES	
QC	Low temperature, explosionproof dual modules
FUNCTIONS	
Sensor/switching modules (proximity type)	
35	SST Universal NO switching sensor dual module
45	NAMUR dual module (EN 60947-5-6; I.S.)
ENCLOSURE	
B	Aluminum North American (NEC/CEC)
K	Aluminum International (IEC)
V	Aluminum Russian
J	Stainless steel North American (NEC/CEC)
N	Stainless steel International (IEC)
L	Stainless steel Russian
CONDUIT ENTRIES	
03	(1) 3/4" NPT & (2) 1/2" NPT
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
0M	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QC 35 B 02 N DM -	OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

Model selector	
SERIES	
QC	Low temperature, explosionproof mechanical switches
FUNCTIONS	
Mechanical switches	
2V	(2) SPDT switches
2W	(2) SPDT switches, gold contact
4V	(4) SPDT switches
4W	(4) SPDT switches, gold contact
ENCLOSURE	
B	Aluminum North American (NEC/CEC)
K	Aluminum International (IEC)
V	Aluminum Russian
J	Stainless steel North American (NEC/CEC)
N	Stainless steel International (IEC)
L	Stainless steel Russian
CONDUIT ENTRIES	
03	(1) 3/4" NPT & (2) 1/2" NPT
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
0M	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QC 2V B 02 N DM -	OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

Quartz QG

Typecodes

Model selector	
SERIES	
QG	General purpose mechanical switches (clear cover)
FUNCTION	
Mechanical switches	
2V	(2) SPDT switches
2W	(2) SPDT switches, gold contact
4V	(4) SPDT switches
4W	(4) SPDT switches, gold contact
14	(2) DPDT switches
ENCLOSURE	
P	General purpose, universal
CONDUIT ENTRIES	
02	(1) 3/4" NPT & (1) 1/2" NPT
03	(1) 3/4" NPT & (2) 1/2" NPT
05	(2) M20
06	(3) M20
OUTPUT	
S	Short visual indicator
N	Extended visual indicator
H	Neles "H" coupler
VISUAL INDICATOR	
DM	Red closed/green open
NM	Green closed/red open
SM	T-1 three way flow path
TM	T-2 three way flow path
UM	T-3 three way flow path
VM	T-4 three way flow path
WM	T-5 three way flow path
0M	No mechanical indication
XM	Special
AM	Continuous
Model number example	
QG	2V P 02 N DM - OPTIONAL
MODEL NUMBER	PARTNERSHIP ID
Mounting hardware required and sold separately.	Some models may include 5-digit identification suffix.

NELES

Axiom AN

Integrated limit switches and
SOV pneumatic control for on/off valves
For most Exi and Non Ex application



Axiom AN

Overall construction

- Rugged epoxy-coated anodized aluminum Housing / Manifold with Polycarbonate cover
 - Corrosion resistant
- Internal manual override on pilot
 - Easy to operate manually
- High visibility, space saving visual mechanical indication
 - Easy to see from distance



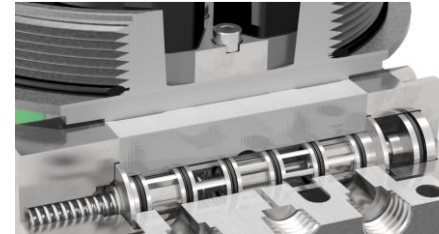
Axiom AN

Overall capabilities

- Non-contact all solid state “C-module” position sensing system with push button settings
 - Easy set point adjustment
 - No cams or set screws to adjust
- Ultra reliable Mag sensors
- High-flow integrated pneumatic spool valve
 - Exceptional tolerance to dirty air and high flow rate (AN Cv = 0.8 or 1.2)
 - Ideal for most standard ¼ turn on/off valve actuators
- Space-saving efficient design
 - Consolidates all monitoring into a smaller automated valve package
- Non-contact drive system
 - No shaft or bushings to bind or wear out



Push button setting



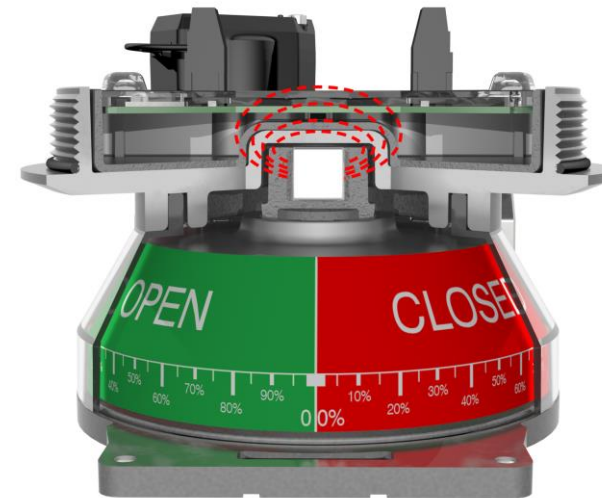
Pneumatic control



Axiom C-Module

Sensing and communication

- Push button settings
 - Lock in open and closed valve position with $< 1^\circ$ of repeatability
- Solenoid valve power LED's
- High visibility, dual LED indicators
- Non-contact drive system
 - Not affected by actuator shaft wear or eccentricity; no bushings or shaft to bind or wear
- Solid state sensors
 - Enables 24VDC, 120 / 240 VAC monitoring feedback and solenoid input.
 - Wide variety of electronic monitoring and control options
 - Inputs can be combined

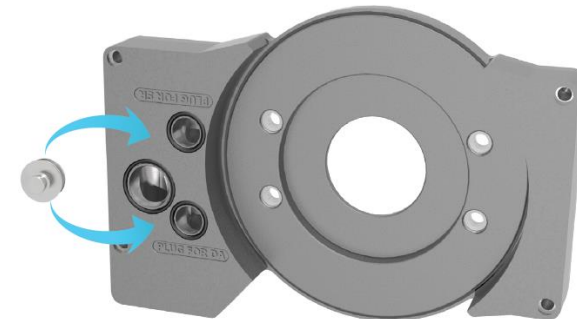
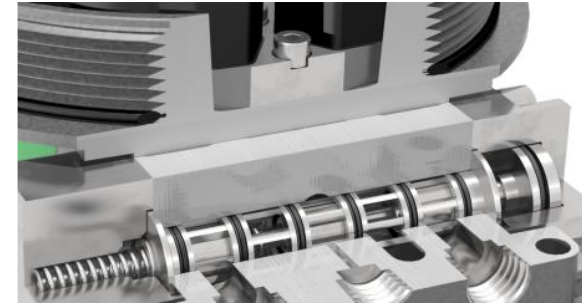


Axiom AN

NELES

Integrated pneumatic control

- 5-way, 2-position configuration
 - Capable of operating both double-acting and spring return actuators
 - Cycle life >1 million cycles; easy to replace o-rings for additional life
- Pre-filtered burn-out proof solenoid pilot
 - Low power consumption & short circuit protection
- Single or dual coil shuttle piston available
 - Suitable for spring return or fail last actuators



Conveniently remove and reinsert pneumatic plug as needed to select operation for spring return or double acting actuators

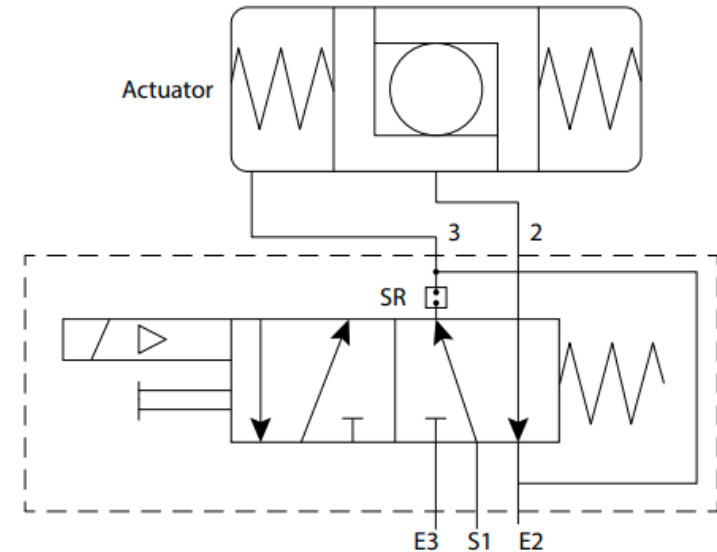
Axiom AN

Integrated pneumatic control

- Rebreather capability
 - Recirculates air from the pressure side of the actuator to fill the spring side.
 - Prevents contaminants from entering spring side of actuator
- Standard internal & optional external overrides
 - Enable manual repositioning of process valve



Fig. 1 Single pilot spring return pneumatic valve on spring return actuator with rebreather open

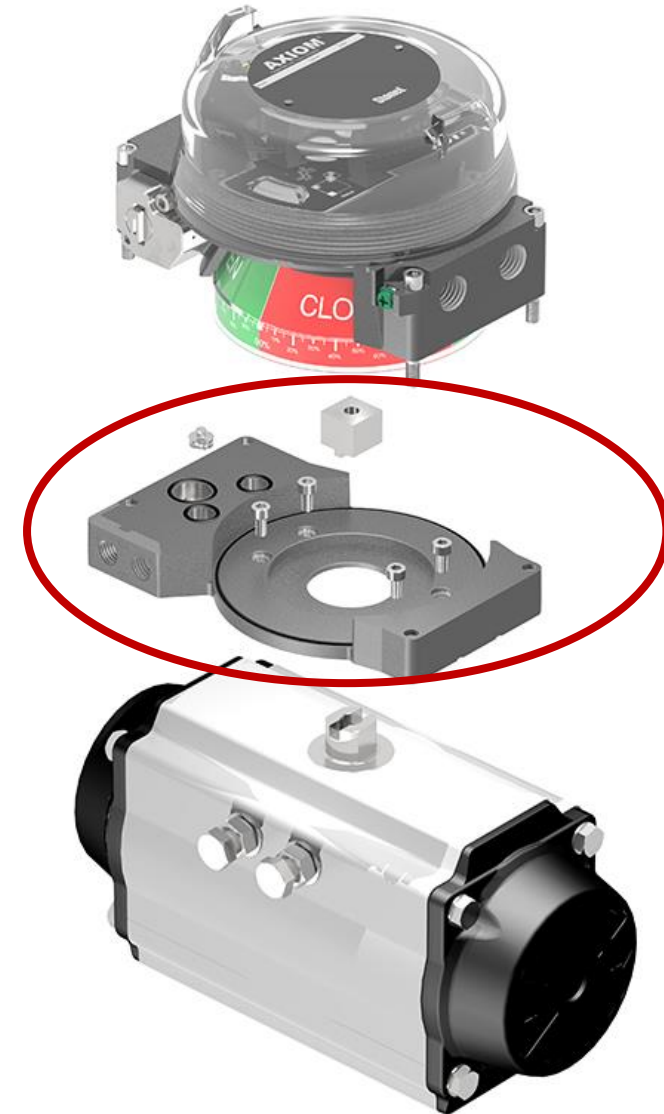


Axiom

Mounting/manifold system

NELES

- Adapts directly to VDI/VDE 3845 standard (NAMUR)
 - No additional mounting needed, low profile
 - Adaptability to most ¼ turn actuators
- All fasteners and coupler are 316 SS
 - Corrosion resistant
- Unit may be removed by turning off pneumatics and unbolting from actuator
 - No electrical disconnects or power down are needed
- AN, AX and AMI mounting/manifold are **NOT** interchangeable



Axiom AN Versions

Model options

NELES

Model selector		
SERIES		
AN Nonincendive or intrinsically safe		
FUNCTIONS		
Sensor/ switching modules		Valve communication Terminals (VCTs)
355 SST Universal; 20 - 250 volt (NO sensor)		92S DeviceNet™
455 NAMUR module (EN 60947-5-6; I.S.) [not available with any dual pilot option]		92W DeviceNet™ with Wireless Link
		97S AS-Interface with extended addressing
		97W AS-Interface with extended addressing and Wireless Link
PNEUMATIC OVERRIDE / CV [standard pneumatic pilot and valve -40° C to 80° C]		
For single pilot		For dual pilot
1N Internal momentary override only / 0.8 Cv		2N Internal momentary override only / 0.8 Cv
1M External momentary & internal override / 0.8 Cv		2M External momentary & internal override / 0.8 Cv
1L External latching & internal override / 0.8 Cv		2L External latching & internal override / 0.8 Cv
1E Internal momentary override only / 1.2 Cv		2E Internal momentary override only / 1.2 Cv
1Y External momentary & internal override / 1.2 Cv		2Y External momentary & internal override / 1.2 Cv
1G External latching & internal override / 1.2 Cv		2G External latching & internal override / 1.2 Cv
9N No pneumatics		
ENCLOSURE		
Clear cover		Aluminum cover
C North American (NEC/CEC)		A North American (NEC/CEC)
D International (IEC)		V International (IEC)
CONDUIT/CONNECTORS		
Standard	Mini-connectors	Micro-connectors (M12)
02 (2) 1/2" NPT	10 (1) 4-pin	13 (1) 4-pin
05 (2) M20	11 (1) 5-pin	15 (1) 5-pin
	19 (1) 6-pin	17 (1) 6-pin
	20 (1) 7-pin	18 (1) 8-pin
	21 (1) 8-pin	
VISUAL INDICATOR		
RM Red closed/green open	1M Three-way 1	XM Special
GM Green closed/red open	2M Three-way 2	



DeviceNet™

Visual indicator designations

DESIGNATION	0°	90°
R	RED CLOSED	GREEN OPEN
G	GREEN CLOSED	RED OPEN
1		
2		
X	Specialty configuration - please consult factory	

Axiom AN vs the competition

NELES

Competition



and early



Competition

Common Issues

- Massive bulky enclosure typically 5” to 10” above actuator surface with mounting
- Double-bushings on shaft (to visual indicator and to housing)
- Painted aluminum enclosure
- Large number of bolts to secure cover and attach to actuator
- O-ring seals on each shaft bushing



NELES

Axiom with Wireless Link

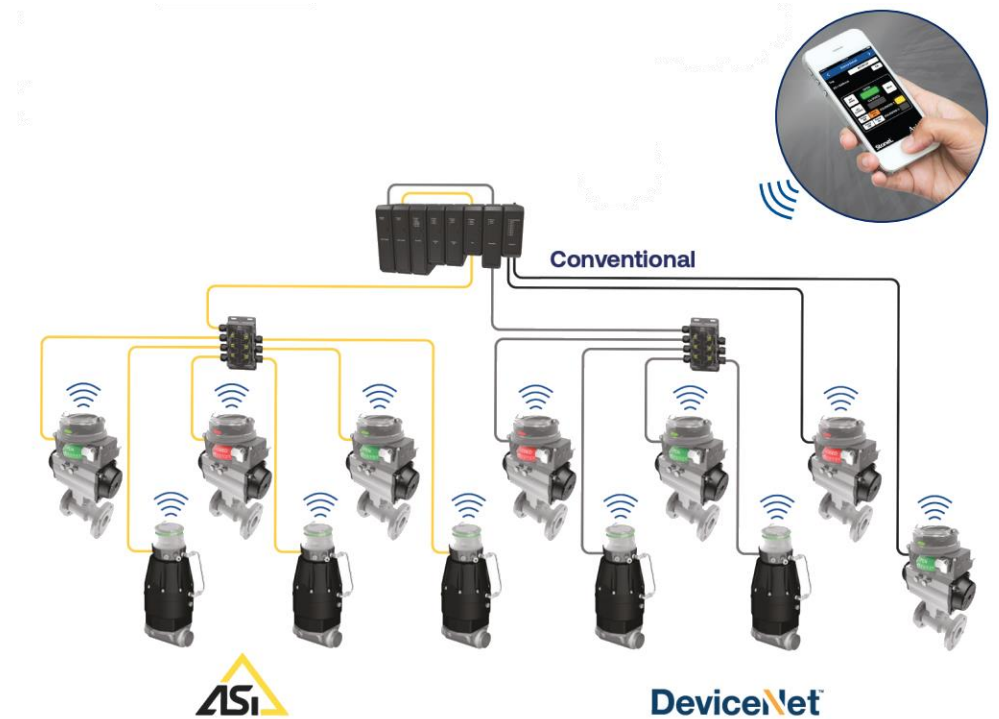
Easy commissioning and remote access to
powerful valve diagnostics



The need

Accessing automated valves in the field

- Many automated valves are difficult to access
- Changes in switch settings must have enclosures opened
- Plant personnel may be endangered in order to gain direct access.
- Addresses for VCTs are difficult to view
- Diagnostic information is difficult to retrieve or not available
- Automated valve part models and serial numbers are difficult to catalog and retrieve with assembly tag number.



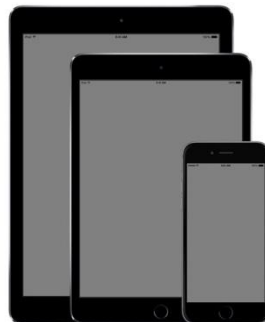
Axiom AN Wireless Link

Convenient, safe link from up to 50 meters!

- Uses Bluetooth® wireless technology
- The Axiom AN with AS-Interface and DeviceNet are available as a Bluetooth® enabled device
- Interfaces to Apple devices including
 - iPhone® version 4S or later
 - iPad® version 3.0 and later
 - iPad™ mini all versions



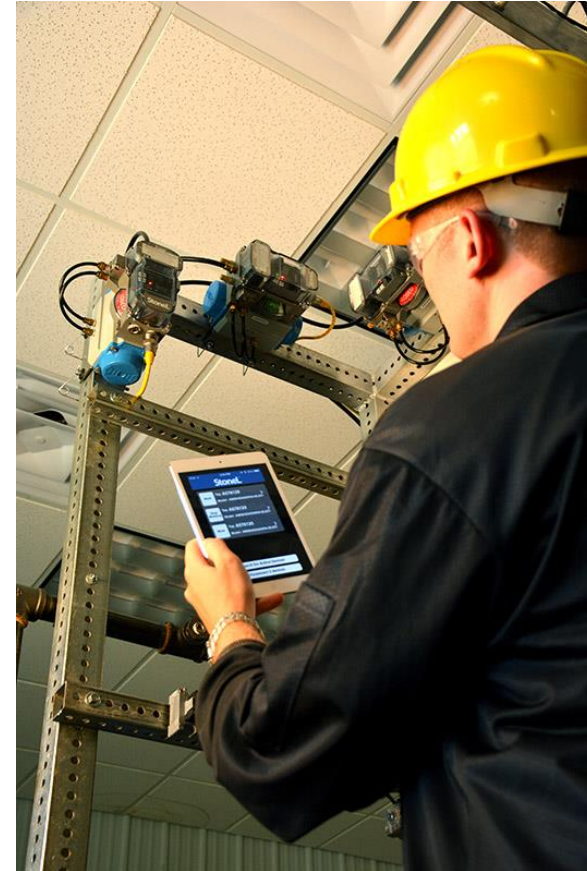
DeviceNet™



Axiom AN with Wireless Link

Benefits

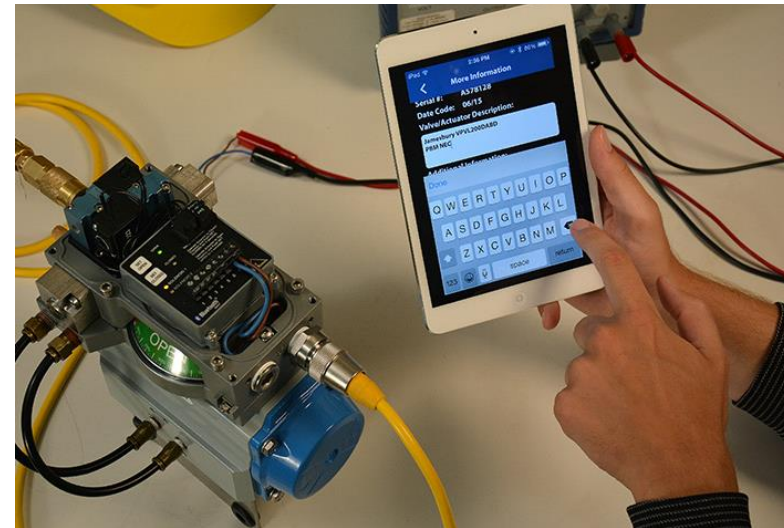
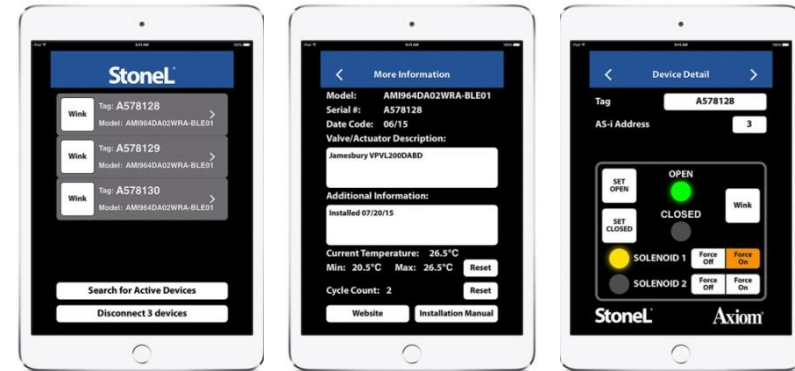
1. Lower network support costs
 - *Standard 24 VDC power supply may be used*
 - *No special hand-helds or gateway/masters required*
2. Increased safety
 - *No climbing or reaching is needed to access or manually control*
 - *Able to keep a safe distance from equipment or confined spaces*
3. Reduce maintenance costs
 - *Access multiple valves from one location*
 - *Retrieve assembly models and serial numbers with tag*
4. Faster network commissioning & start up time
 - *Addresses may be set in the field with tag numbers*
 - *Functionality may be quickly confirmed for each assembly*



Axiom AN with Wireless Link

Capabilities

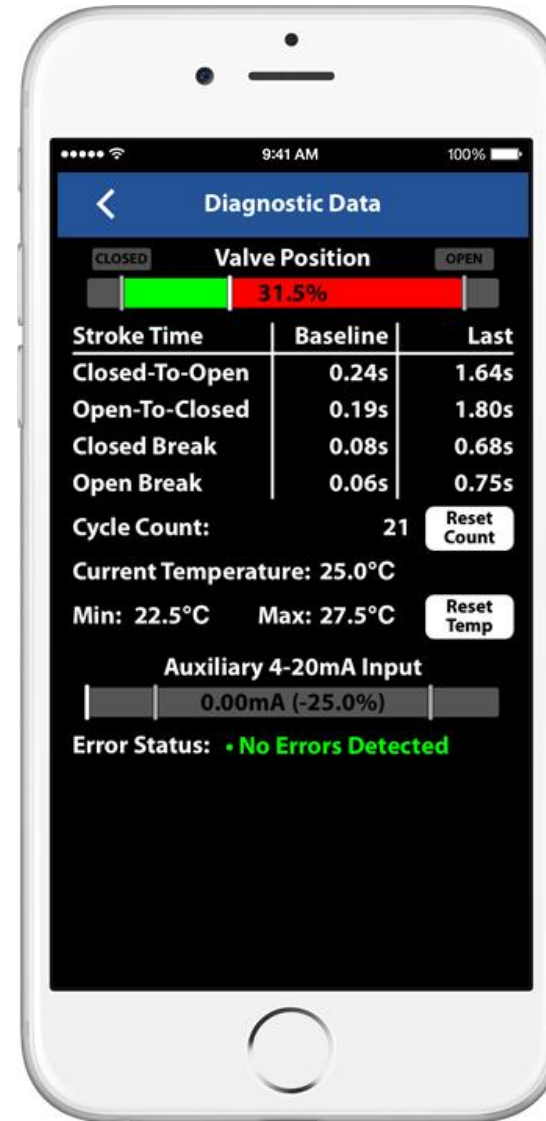
- Remote monitoring
 - Switch positions (Open & Closed)
 - Solenoid valve status
 - Network address
 - Electronics actual, maximum and minimum temperatures
 - Cycle count
- Remotely operate/change (if enabled)
 - Switch positions (Open & Closed)
 - Solenoid valve
 - Network address



Axiom AN with Wireless Link

Additional Capabilities

- Actual valve position (%)
- Stroke times
 - Baseline and last for comparison
- Breakaway times
 - Baseline and last for comparison
- Auxiliary input state indication (if applicable)



Axiom AN with Wireless Link

Capabilities

- Axiom model, serial number entered during manufacturing at the factory
- Valve assembly identification
- Maintenance or other information
- Quick links to the Axiom installation manual & the product web site page



Axiom AN with Wireless Link

Operation & Set-up

- Devices are wired the same as standard AS-Interface or DeviceNet devices.
- Wireless link provides a local User Interface to the valve controllers
- Wireless link application:
 1. Download on the App store (free download)
 2. Start the application in your Apple device
 3. Touch “Search for active devices” (all devices will come up that are powered-up in range)
 4. Push wink to positively confirm device (Open & Closed LEDs will flash)
 5. Drill into specific device by touching arrow of desired tag



Axiom AN with Wireless Link

Import and Export to MS Excel

- Save time during commissioning
 - Set address, tag, text info to all devices within range.
- Retrieve diagnostic and status information from all devices in range to view in Excel



Security

- Devices are **locked** in normal operation. No address, switch setting or solenoid control changes may be made.
- Monitoring capability is fully enabled at all times
- Axiom is unlocked for remote setting and control when:
 - Only 24 VDC signal is applied (no communication)
 - AS-I power supply jumper set to “IR addressing mode”
 - Gateway set to off-line mode
- Individual devices can be unlocked by writing an output bit from the control system

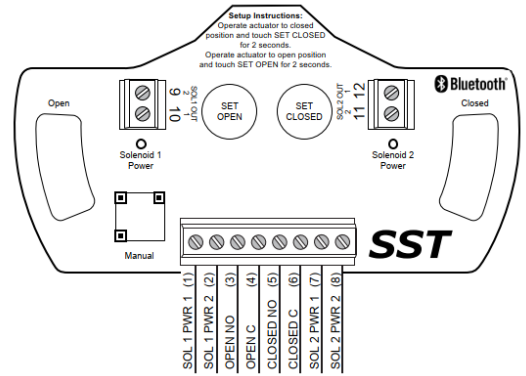
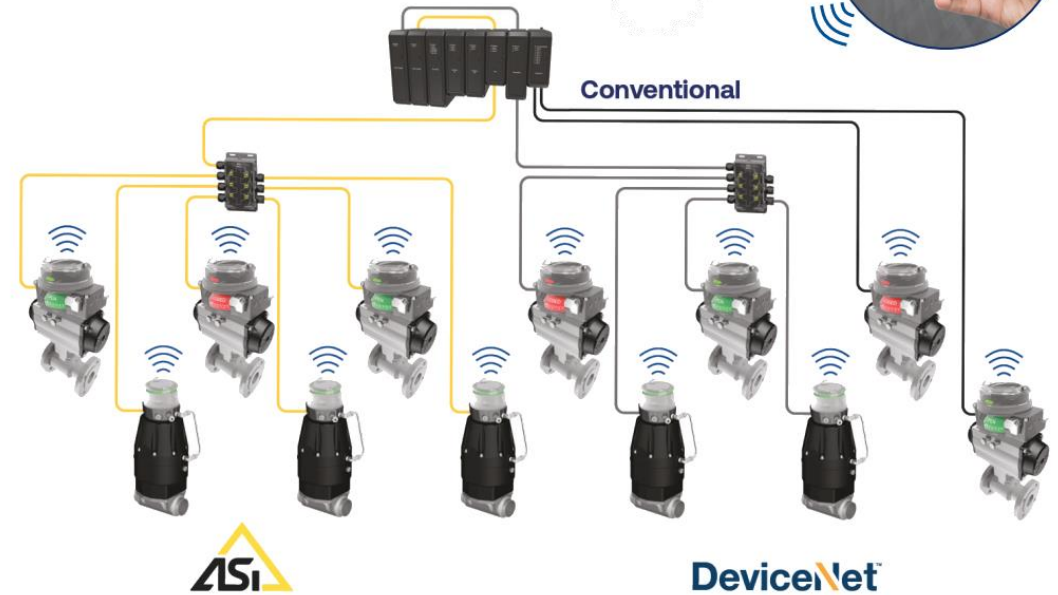


Introducing AN35W

Axiom with Bluetooth Wireless Link for conventionally wired valve controllers

Introduced July 7, 2021

- Wireless Link feature, formerly only available for AS-Interface and DeviceNet users is NOW available for more common conventionally wired applications.
- Suitable for 24VDC, 120VAC or 220VAC applications.
- Quick and easy access to diagnostics and usage data.



Axiom AN35W with Wireless Link Capabilities

NELES

- Remote monitoring
 - Switch status (Open & Closed)
 - Solenoid valve status
 - Tag #



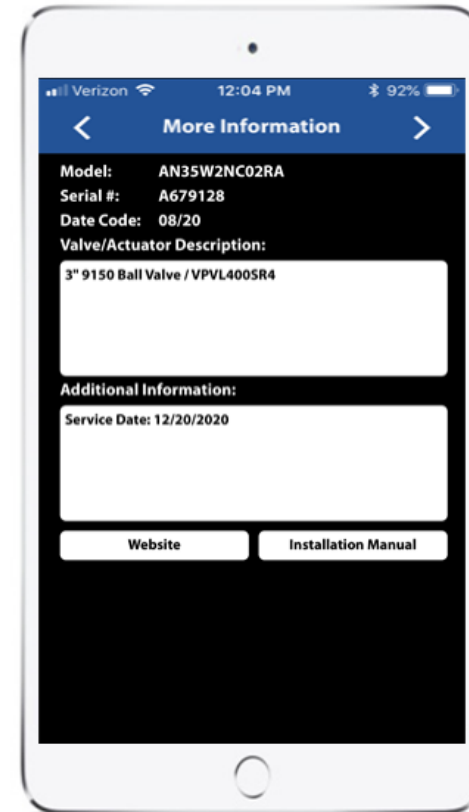
Axiom AN35W with Wireless Link Capabilities

Fixed Information from Factory

- Model number
- Serial number
- Date when Manufactured
- Quick links to web site & installation manuals

Entered Later

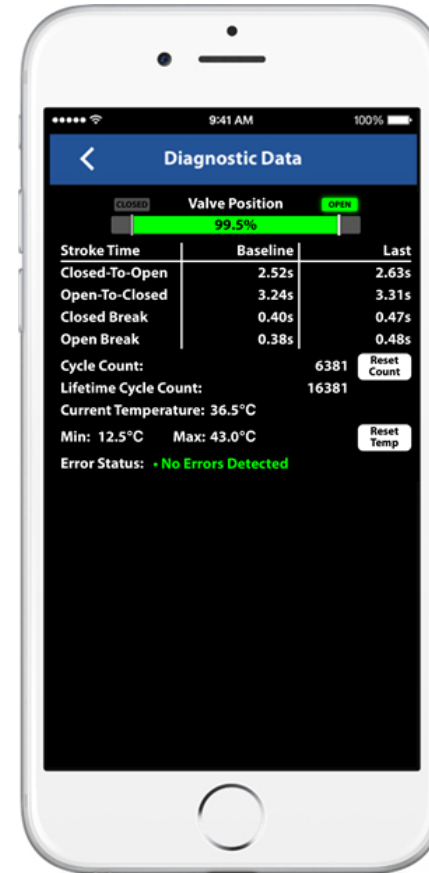
- Valve assembly description
- Maintenance or other information



Axiom AN35W with Wireless Link

Diagnostics Capabilities

- View actual valve position (%)
 - See changes from initial setpoint
 - Changes may indicate valve or actuator issues
- Review stroke times
 - Baseline and last for comparison
 - Changes may indicate valve or actuator issues
- Breakaway times
 - Baseline and last for comparison
 - Changes may indicate valve or actuator issues
- Cycle count
- Max, min & current temperature



Axiom AN35W with Wireless Link Security

- Axiom AN35W is always locked. No switch setting or solenoid control changes may be made via the app.
- Monitoring capability is always enabled



Axiom AN35W

Model codes

Model selector	
SERIES	
AN	Nonincendive or intrinsically safe
FUNCTIONS	
Sensor/ switching modules	
35S	SST Universal; 20 - 250 volt (NO sensor)
35W	SST Universal; 20 - 250 volt (NO sensor) with Wireless Link*
45S	NAMUR module (EN 60947-5-6; I.S.)
Valve communication Terminals (VCTs)	
92S	DeviceNet™
92W	DeviceNet™ with Wireless Link*
97S	AS-Interface with extended addressing
97W	AS-Interface with extended addressing and Wireless Link*
PNEUMATIC OVERRIDE / CV [standard pneumatic pilot and valve -40°C to 80°C]	
For single pilot	
1N	Internal momentary override only / 0.8 Cv
1M	External momentary & internal override / 0.8 Cv
1L	External latching & internal override / 0.8 Cv
1E	Internal momentary override only / 1.2 Cv
1Y	External momentary & internal override / 1.2 Cv
1G	External latching & internal override / 1.2 Cv
9N	No pneumatics
For dual pilot	
2N	Internal momentary override only / 0.8 Cv
2M	External momentary & internal override / 0.8 Cv
2L	External latching & internal override / 0.8 Cv
2E	Internal momentary override only / 1.2 Cv
2Y	External momentary & internal override / 1.2 Cv
2G	External latching & internal override / 1.2 Cv
ENCLOSURE	
Clear cover	
C	North American (NEC/CEC)
D	International (IEC)
Aluminum cover	
A	North American (NEC/CEC)
V	International (IEC)

Axiom AN35W with Wireless Link

Standardize your customers on AN35W

- Easy → Commissions and installs just like standard Axiom AN35S
- Powerful → Provide your customers with easy access to valve status and valve diagnostics
- Useful → Provide your customers with convenient access to tag numbers, model & serial numbers and installation manuals



Axiom AN35W with Wireless Link

We are ready to take orders!

- Order a demo now
 - AN35W1LC11RM-DM168 AN35W on Demo plate
 - ST604488 Battery pack
- cFMus and SIL certificates are complete and posted.
- IMO and brochures are updated and posted to StoneL.com
- Send your orders to orders@stonel.com



NELES

Introducing: Axiom™ ANX

Integrated limit switches and
SOV pneumatic control for on/off valves
For XP / Exd applications

Introduced August 5, 2021



Axiom ANX

Axiom for Exd and XP applications

- Axiom ANX is the latest addition to the Axiom platform
- Designed for hazardous locations Exd and Class I Division 1 XP applications
- Built on the successful Axiom AN platform with many improvements and enhancement over the previous AX
- Designed to be faster and easier to manufacture
 - Lower cost and shorter lead times than AX
- Shared mounting kits with AN
 - Easier for us to maintain stock
 - Easier for distributors or end-users to stock



Axiom ANX

Overall construction

- Rugged epoxy-coated anodized aluminum housing, manifold and cover
 - Corrosion resistant
 - Low copper aluminum
- Same great sensor module and solenoid options as AN

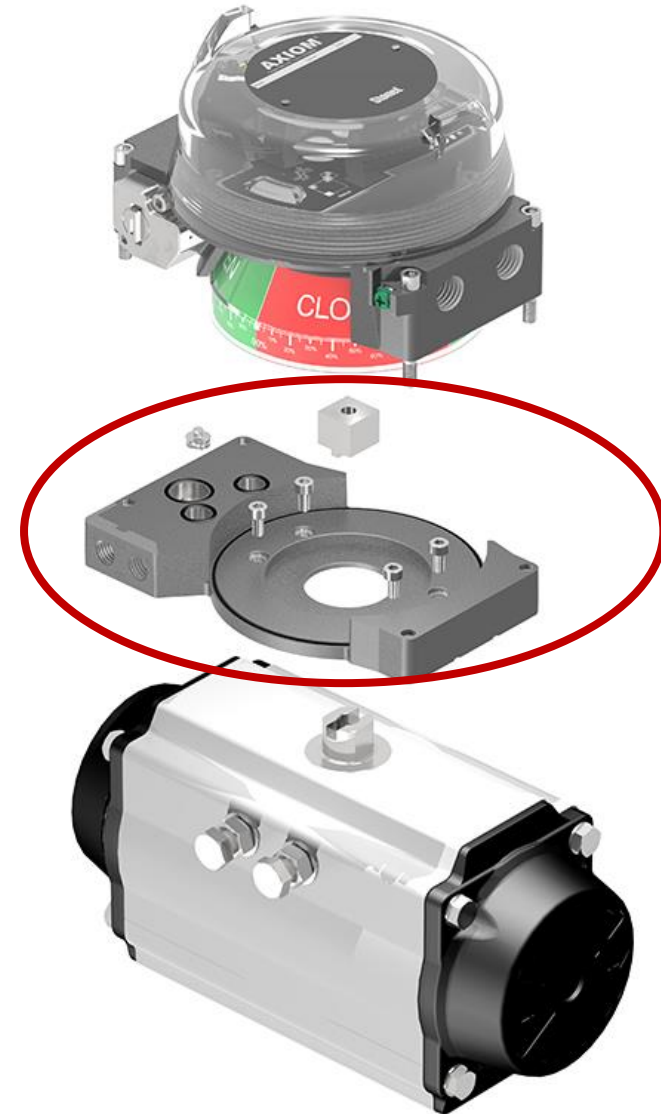


Axiom AN /ANX

Mounting/manifold system

NELES

- Adapts directly to VDI/VDE 3845 standard (NAMUR)
 - No additional mounting needed, low profile
 - Adaptability to most ¼ turn actuators
- All fasteners and coupler are 316 SS
 - Corrosion resistant
- Unit may be removed by turning off pneumatics and unbolting from actuator
 - No electrical disconnects or power down are needed
- AN, ANX mounting/manifold **ARE** interchangeable



Axiom ANX Versions

Model options

Model selector	
SERIES	
ANX Explosionproof, nonincendive or intrinsically safe	
FUNCTIONS	
Sensor/ switching modules	Valve communication Terminals (VCTs)
35S SST Universal; 20 - 250 volt (NO sensor)	92S DeviceNet™
45S NAMUR module (EN 60947-5-6; LS)	97S AS-Interface with extended addressing
PNEUMATIC OVERRIDE / CV [standard pneumatic pilot and valve -40° C to 80° C]	
For single pilot	For dual pilot
1N Internal momentary override only / 0.8 Cv	2N Internal momentary override only / 0.8 Cv
1M External momentary & internal override / 0.8 Cv	2M External momentary & internal override / 0.8 Cv
1L External latching & internal override / 0.8 Cv	2L External latching & internal override / 0.8 Cv
1E Internal momentary override only / 1.2 Cv	2E Internal momentary override only / 1.2 Cv
1Y External momentary & internal override / 1.2 Cv	2Y External momentary & internal override / 1.2 Cv
1G External latching & internal override / 1.2 Cv	2G External latching & internal override / 1.2 Cv
9N No pneumatics	
ENCLOSURE	
Aluminum cover	
A North American (NEC/CEC)	
V International (IEC)	
CONDUIT/CONNECTORS	
Standard	
08 (2) ¾" NPT	
09 (2) M25	

Axiom ANX vs the competition

NELES

Competition



Competition

Common Issues

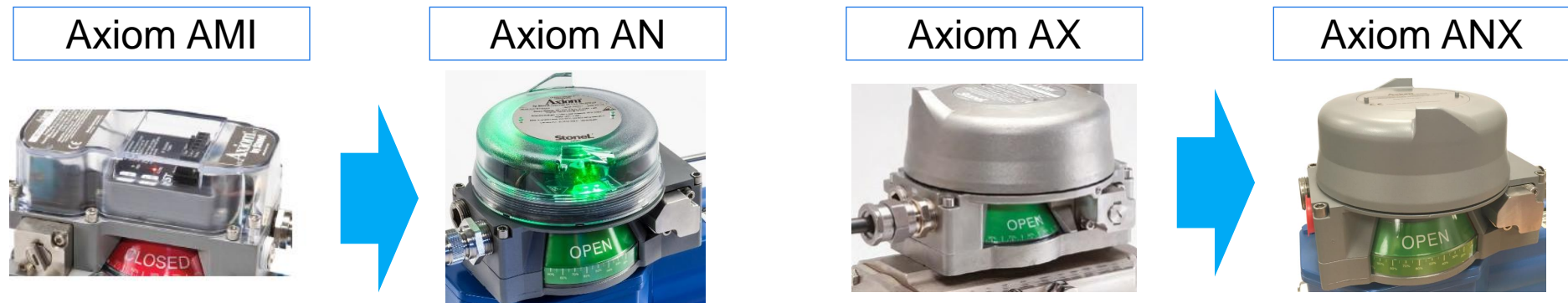
- Massive bulky enclosure typically 5” to 10” above actuator surface with mounting
- Indicators can break
- Painted aluminum enclosure
- Large number of bolts to secure cover and attach to actuator.
- Bolts can seize
- Shafts can seize due to misalignment



Axiom Platform

Life cycle development

- AN was developed to replace Axiom AMI. Axiom AN was introduced in 2016.
- Axiom AMI has been ramping down. Versions that overlap with AN - AMI33 AMI44, AMI96 etc, have been phased out already.
- Axiom AMI71 (Hart) , AMI80 (Expeditor), and AMI96___D AS-I version with diagnostics will be obsolete 12/31/21. This leaves only AMI93 Foundation Fieldbus remaining in AMI platform.
- ANX is now available! ANX is the XP version of AN with aluminum cover. AX will begin phasing out in 2022
- **AN and ANX share the same mounting kits!!!**



Axiom ANX

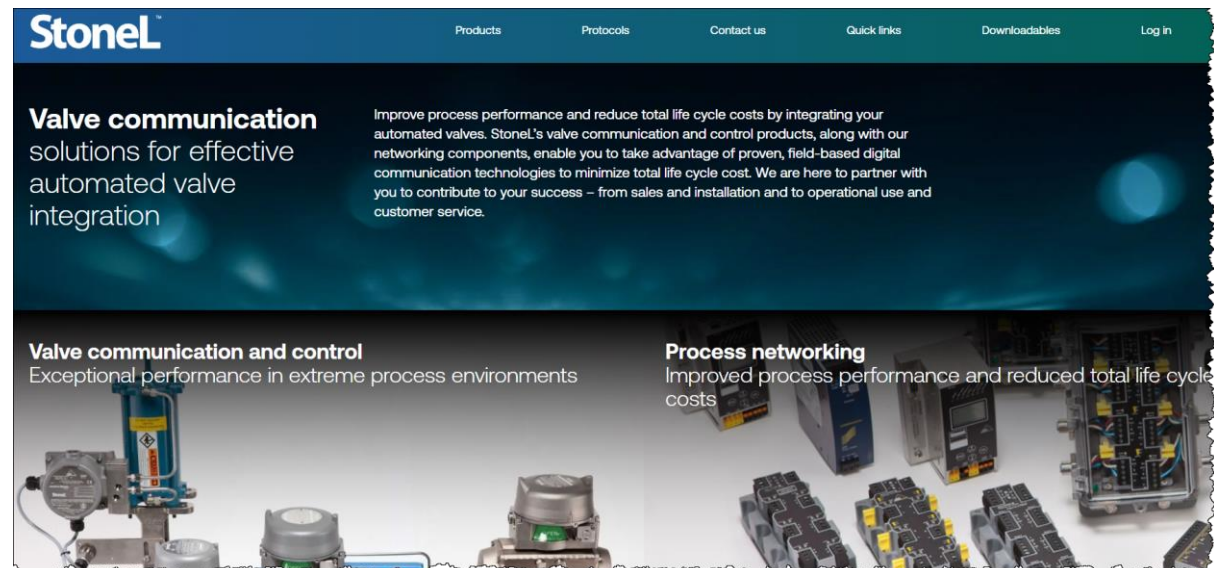
Ready for orders!

- Website has been updated, pricing has been included in the July 1, 2021 pricebook
- ANX list price is lower than AX with many significant improvements. For AS-Interface and DeviceNet the price differential is even greater.
- Manufacturing is ready!
- ANX ATEX / IECEx Exd and cFMus approvals are complete, certificates posted
- AN/ANX SIL certificates are completed and posted
- Send orders to orders@stonel.com

New StoneL.com Website

Launched April 21, 2021

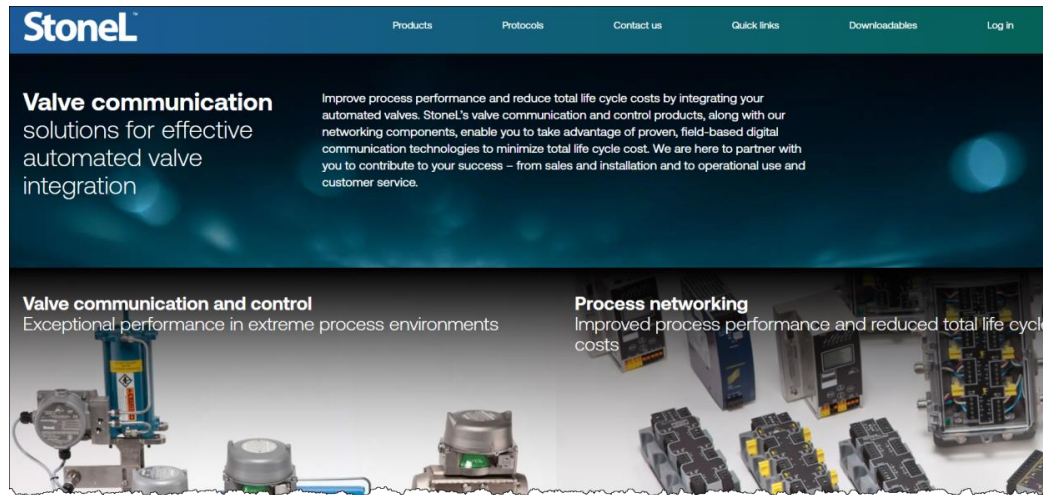
- StoneL.com was developed in a more modern platform. → Easy to maintain and better access to analytics
- StoneL.com has same great content and easy navigation → Easy to find what you need
- Distributor portals were moved to new URL (mn.stonel.com) → Same great content, same credentials
- Stonel.mountingkitsonline.com is still the best place to go for mounting kits → New tool just built last year



For additional information visit StoneL.com

StoneL.com

- For product data sheets, IMO's, drawings, approval certificates, etc. visit stonel.com and click on [Products](#)
- To find contact info, click [Contacts](#). There you will find knowledgeable sales contacts for your area
- [Stonel.mountingkitsonline.com](#) is still the best place to go for mounting kits
- To order literature, check current lead times, or download pricebooks visit the distributor portal by clicking the [Log in](#) link. Use your credentials or request access.
- To order products, send your order via Pipeline or send it by e-mail to orders@stonel.com.



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