

ISO/VDMA Actuators

HIGH PERFORMANCE ACTUATORS

Long Life  VDMA ISO6431
24562 RELIABLE

Flush mounted & integrated switches [ROBUST] low friction

Up to 3 metre stroke

ISO 15552

Compressed air saving potential

Port Size	Flow Rate (l/min)
1/2"	10
3/4"	15
1"	20
1 1/4"	25
1 1/2"	30
2"	40

MULTIPLE TECHNICAL VARIANTS

Extensive mounting AND selection

+80°C
+150°C

Customised options
SERVICABLE
READILY AVAILABLE

USE IN CHALLENGING ENVIRONMENTS

EMERGENCY STOP
STOP
START

BUILT IN SENSORS
ONE CONNECTION FOR ELECTRICAL



Engineering
GREAT Solutions

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Innovation,
products
and service



Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world's most demanding engineering challenges.

> **Reliability**

We deliver and support our high quality products through our global service network.

> **High performance products**

Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

> **Partnership & Problem Solving**

We get closer to our customers to understand their exact challenges.





ISO/VDMA Actuators

Our market leading range of ISO/VDMA actuators have been proven in the market over many years and in the most challenging environments. Backed by our standard warranty, the range comes in 11 different bore sizes and offers stroke lengths of up to 3 metres.

Running costs and total cost of ownership can be optimised using our low friction levels to operate at lower air pressures. In addition to our standard range, we offer up to 28 variants such as non-rotating, four position and alternative seal materials. Our extensive range of accessories includes reed and solid state switches and one of the largest ranges of mountings on the market.

Standard cylinders and mountings are available for immediate dispatch with many of the non-standard options manufactured within 24 hours.



Our ISO/VDMA ranges conform to the following international standards:

- > ISO 15552
- > ISO 6431
- > VDMA 24562
- > NFE 49-003-1

The ISO/VDMA Range

Industrial Cylinders

Tie Rod RA/8000

This classic cylinder is of robust tie-rod construction ideal for industrial applications. Available in all bore sizes with a wide choice of variants options and mountings, it can be adapted to solve the most difficult actuation problems.

Profile PRA/180000

The shaped profile barrel provides a clean appearance and enables direct assembly of flush-mounted switches.

IVAC industrial PRA/862000

IVAC incorporates proven valve and flow regulation technologies to reduce energy consumption, weight and installation space. Anodised end covers give additional environmental protection and ATEX versions are available for hazardous applications.



Cleanline Cylinders

Smoothline PRA/822000

The anodised barrel and end covers and option of single rear air connection give this cylinder its smooth profile. Switches can be directly flush mounted to maintain the appearance.

Cleanline PRA/842000

This cylinder is hygienically designed according to EN1672-2 with an IP67 protection class for wash down in packaging and food applications.

IVAC Cleanline PRA/882000

The pilot valve module maintains the IP67 protection class of the Cleanline variants. Customer installation is greatly simplified with a single M12 connector for the pilot valves and switches and single air and exhaust ports.

Stainless Steel KA/8000

The most rugged and reliable cylinder for applications in harsh environments and where contact with food requires heavy wash down. Constructed from AISI303, 304 and 316 and complemented with a range of mountings.



Specifications

Technical feature	Parameters	Industrial			Cleanline			
		RA/8000	PRA/182000	PRA/862000	PRA/822000	PRA/842000	PRA/882000	KA/8000
Cylinder diameters	32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320mm	32 ... 320mm	32 ... 125mm	32 ... 100mm	32 ... 100mm	32 ... 100mm	32 ... 100mm	32 ... 200mm
Standard strokes	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500mm	25 ... 500mm	25 ... 500mm					
Non-standard strokes		10 ... 3000mm	10 ... 3000mm	25 ... 1000mm	10 ... 2000mm	10 ... 2000mm	25 ... 1000mm	10 ... 2500mm
Operating pressure	Ø32 ... 200mm	1 - 16bar	1 ... 16bar	2 ... 8bar	1 ... 10bar	1 ... 10bar	2 ... 8bar	1 ... 16bar
	Ø250 & 320mm	1 - 10bar						
Operating temperature	Ø32 ... 125mm	-20 ... +80°C	-20 ... +80°C	-5 ... +80°C	-20 ... +80°C	-20 ... +80°C	-2 ... +70°C	-20 ... +80°C
	Ø160 ... 320mm	-10 ... +80°C						-10 ... +80°C
Voltage	Supply			24V d.c.			24V d.c.	
	Switching (if switches fitted)					10 ... 30V d.c.		
Electrical connection				DIN Form C		M12 x 1 male 4 pin	M12 x 1 male 8 pin	
Power consumption				2W max.			1W max.	
Rating				100% E.D.			100% E.D.	
Protection class				IP65		IP67	IP67	
Materials								
Barrel	Anodised aluminium	*	*	*	*	*	*	
	Stainless steel (austenitic)							*
End covers	Aluminium	*	*					
	Anodised aluminium			*	*	*	*	
Piston rod	Stainless steel (austenitic)							*
	Stainless steel (martensitic)	*	*	*	*	*	*	
Piston and rod seals	Ø32 ... 100mm	PUR	PUR	PUR	PUR	PUR	PUR	PUR
	Ø125 ... 320mm	NBR	NBR					NBR
Variants								
Piston rod	Hard chrome plated	*	*	*	*	*	*	
	Stainless steel (austenitic)	*	*	*	*	*	*	
	Stainless steel (austenitic) hard chrome plated	*	*	*	*	*	*	
Non-magnetic		*	*		*	*		*
Magnetic		*	*	*	*	*	*	*
High temperature	150°C Max.	*	*		*	*		*
Hydraulic		Ø32 ... 100mm	Ø32 ... 100mm					
Special rod seal		Ø32 ... 125mm	*	*	*	*	*	*
Low friction		Ø32 ... 200mm	*					
Extended piston rod		*	*	*	*	*	*	*
Piston rod bellows		*	*	*	*	*	*	
Without cushioning		*	*					*
Double ended piston rod		*	*		*	*		*
Four position cylinder		Ø32 ... 200mm	*		*	*		
Non-rotating piston rod		Ø32 ... 100mm	Ø32 ... 100mm					
With locking unit		Ø32 ... 125mm	*	*	*	*	*	

Data Sheets

Range	Product	Data sheets
Industrial	RA/8000	N/en 1.5.125.01
	PRA/182000	N/en 1.5.135.01
	PRA/862000	N/en 1.5.250.01
Cleanline	PRA/822000	N/en 1.5.230.01
	PRA/842000	N/en 1.5.240.01
	PRA/882000	N/en 1.5.260.01
	KA/8000	N/en 1.5.127.01
Switches	M/50 reed switches	N/en 4.3.005.01
	M/50 solid state switches	N/en 4.3.0007.01

Full details of materials and variants can be found in the product datasheets



Industrial Options

A Resistance to corrosion
Stainless steel and chrome plated piston rods to ensure long life

B Protection against ingress
A choice of sealing materials to resist dust, chemical, liquid and temperature to extend life and reduce maintenance

C Positionable switches
Reed and solid state switches available for position sensing

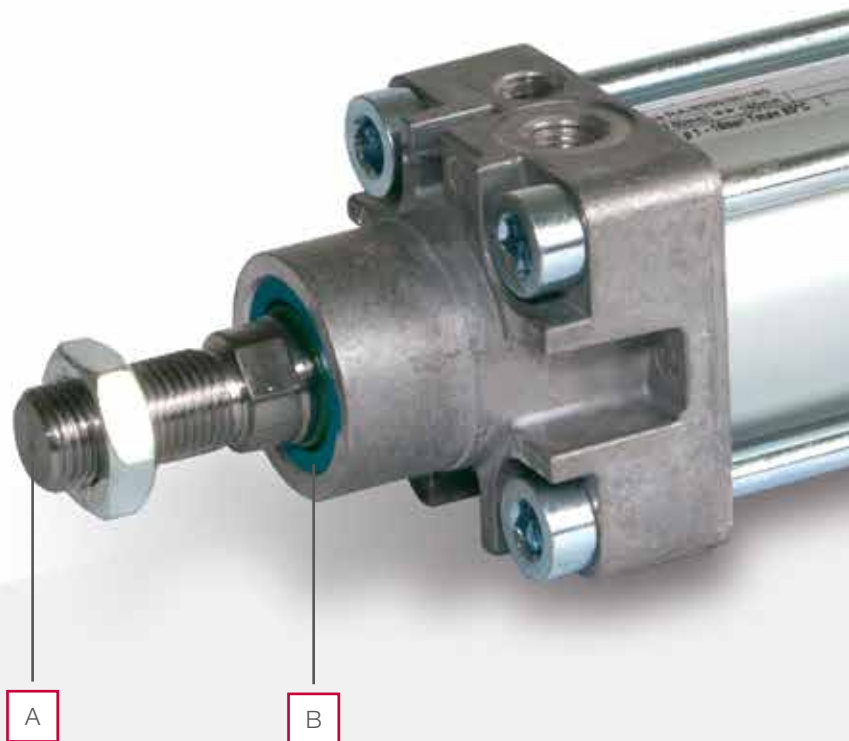
D Adjustable cushioning
End of stroke adjustable damping to enable optimum performance and life

E Profile barrel
Anodised aluminium profile barrel and flush mounted switches for clean appearance

F Reduced installation time
Integrated option reduces time and cost

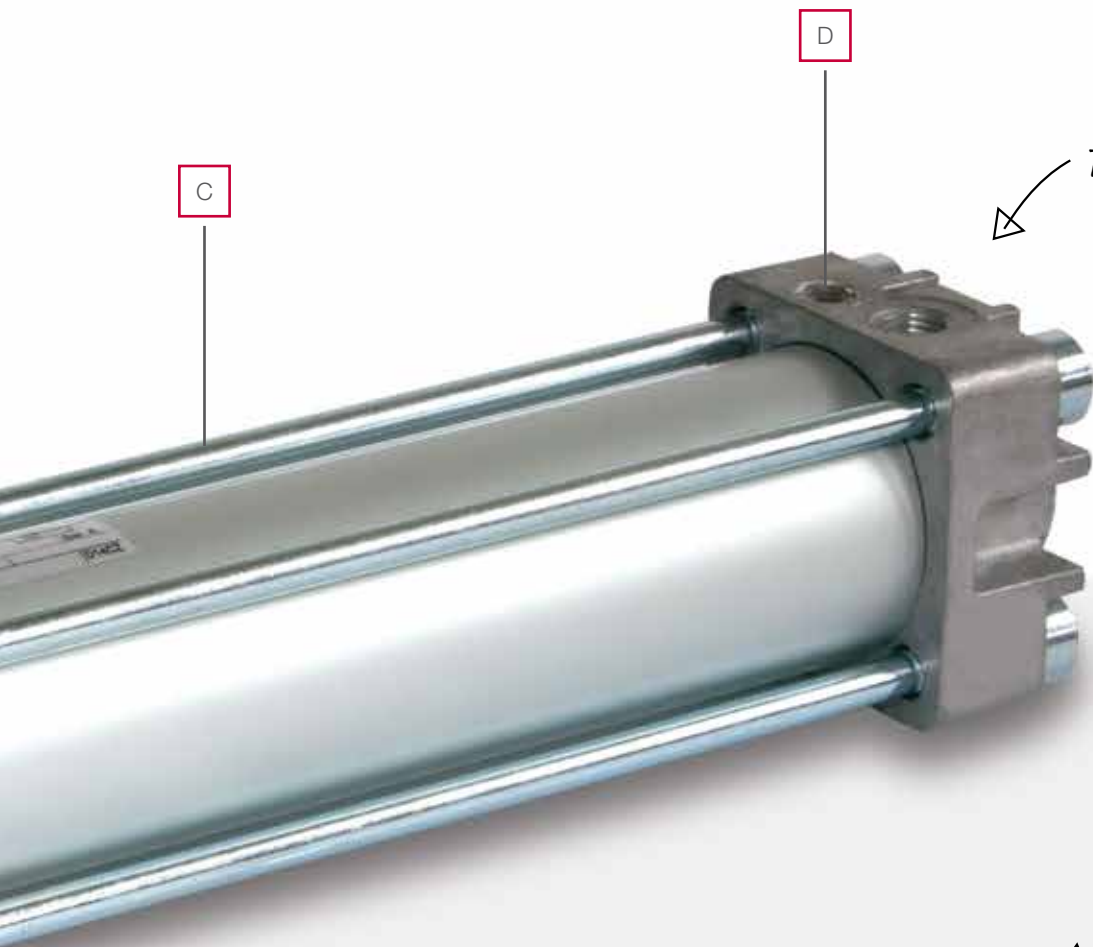
- 1 Single air and exhaust ports for easy connection
- 2 Glandless spool valve for long life
- 3 Pilot valve for actuator control

G Protection against the environment
IP65 protection class to resist harsh environments





Profile PRA/182000



Tie-rod RA/8000

IVAC Industrial
PRA/862000



Cleanline Options

A Resistance to corrosion
Stainless steel and chrome plated piston rods to ensure long life

B Protection against ingress
A choice of sealing materials to resist dust, chemical, liquid and temperature to extend life and reduce maintenance

C Positionable switches
Reed and solid state switches available for position sensing

- 1 Externally adjustable
- 2 Internally adjustable without compromising IP67 rating or clean profile

D Adjustable cushioning
End of stroke adjustable damping to enable optimum performance and life

E Profile barrel
Anodised aluminium profile barrel and flush mounted switches for clean appearance

F Reduced installation time
Integrated option reduces time and cost

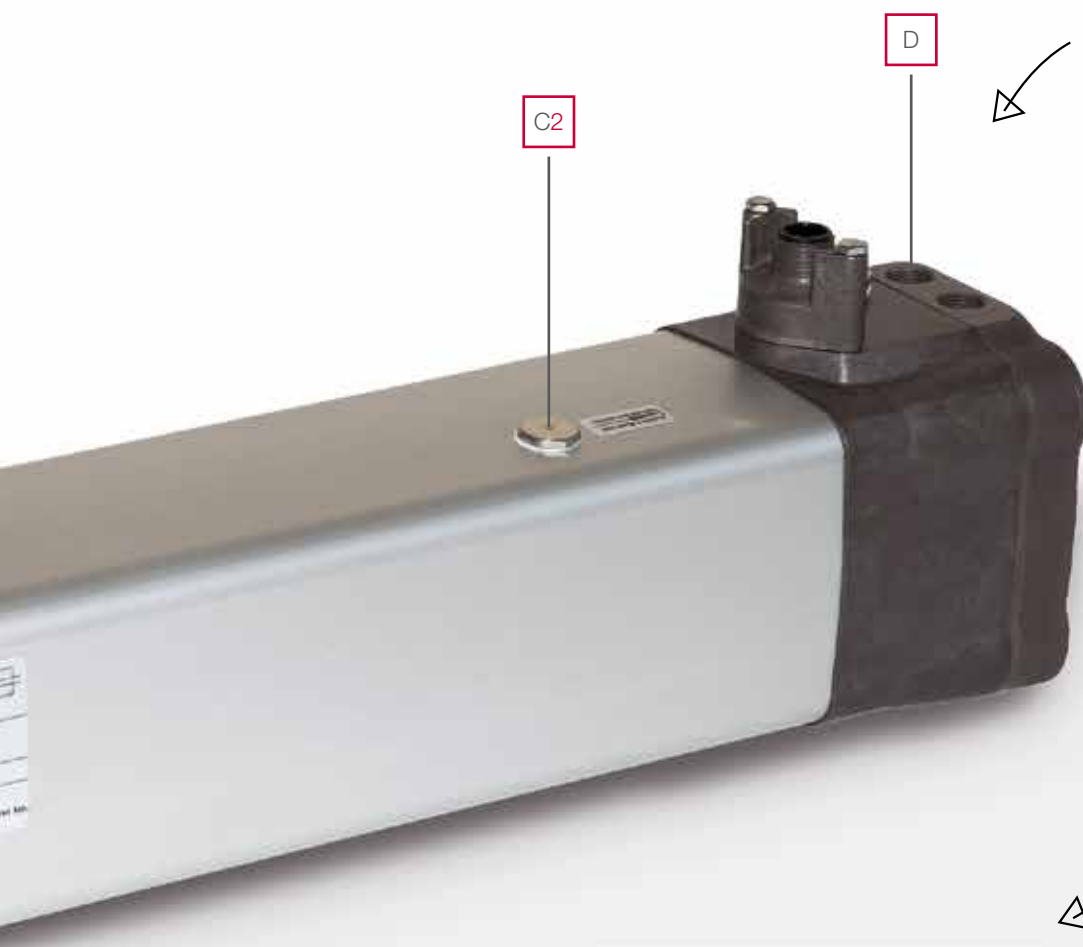
- 1 Single air and exhaust ports for easy connection
- 2 Glandless spool valve for long life
- 3 Pilot valve for actuator control with single M12 connector

G Protection against the environment
IP67 protection class to resist harsh environments and wash down





Smoothline
PRA/822000



Cleanline
PRA/842000



IVAC Cleanline
PRA/882000



IVAC Cleanline

IP67, integrated valve, switches & flow controls for fast installation and easy washdown

IVAC Industrial

IP65, integrated valve & flow controls for fast installation

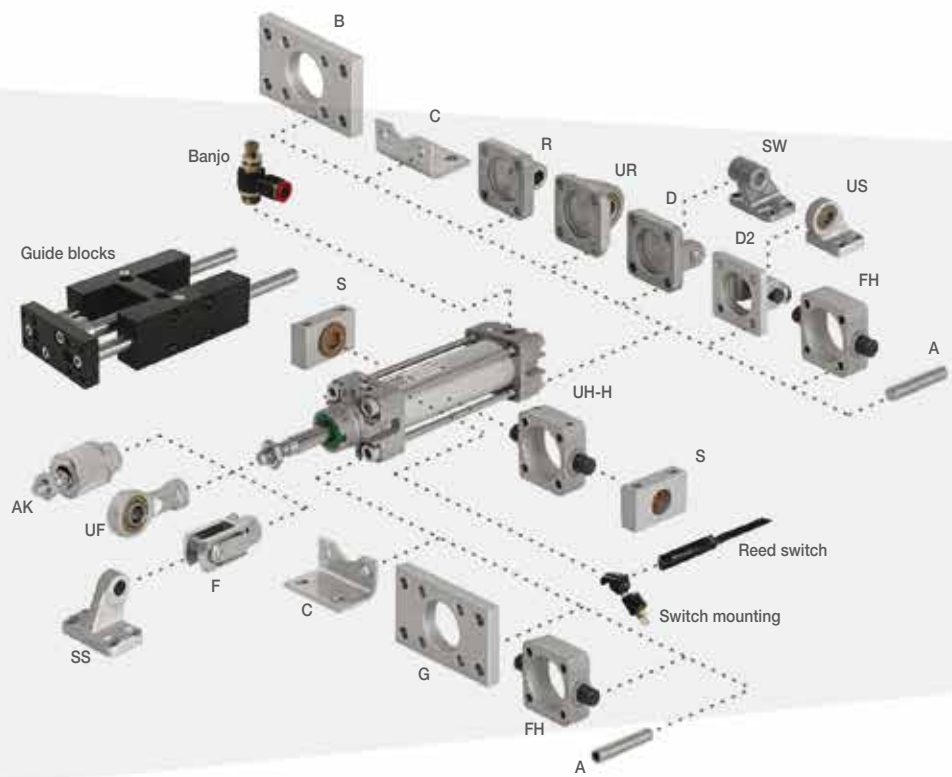
- > Adjustable & buffer cushioning for end of stroke damping
- > Fully integrated sensor adjustment
- > 1 single M12 connection (IVAC Cleanline)
- > Fully integrated flow controls
- > 1 single air connection, 1 single exhaust port
- > Integrated pressure protection
- > Long life glandless valve technology
- > ISO/VDMA footprint

Accessories

Our ISO/VDMA actuators are complemented by one of the largest ranges of accessories on the market, including mountings, switches and cables.

Mountings

A comprehensive range of mountings for each cylinder range conforming to ISO15552 for front end cover, rear end cover and piston rod mounting.



	A	AK	B, G	C	D	D2	F	FH	H
Range	Stud	Rod Swivel	Flange	Foot	Rear Clevis	Rear Clevis	Rod Clevis	Detachable Trunnion	Trunnion
RA/8000	*	*	*	*	*	*	*	*	*
PRA/180000	*	*	*	*	*	*	*	*	*
PRA/822000	*	*	*	*	*	*	*	*	*
PRA/842000	*	*	*	*	*	*	*	*	*
PRA/862000	*	*	*	*	*	*	*	*	*
PRA/882000	*	*	*	*	*	*	*	*	*
KA/8000			*	*	*		*		

Switches

Reed and solid state switches are available which are suitable for all cylinder ranges with magnetic pistons.

Switches can be mounted flush on profile cylinders, or with the delivered adapter for tie-rod versions.

Connectors & cables

15mm Form C connectors are available for connecting to IVAC Industrial pilot solenoids.

M12 connector cables are available for connecting to Cleanline and IVAC Cleanline cylinders. A Y-connection cable is also available for configuring the cylinder to an I/O module.



R	S	SS	SW	UF	UH	UR	US	
Rear Eye	Trunnion Support	Narrow Hinge	Wide Hinge	Rod Eye	Adjustable Trunnion	Rear Eye	Swivel Hinge	Guide Blocks
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*
*	*	*	*	*		*	*	
*	*	*	*	*		*	*	
*	*	*	*	*		*	*	
	*		*	*	*			

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