

# **CLEAN AGENT**

**EQUIPMENT FOR CLEAN AGENT FIRE SUPPRESSION SYSTEMS** 

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Rotarex Firetec system components are approved and certified compliant with recognized international norms. Certifications relate to individual products, and are clearly indicated on each respective product page.

In addition, all Rotarex manufacturing sites comply with ISO 9001 quality standards.









## **COMPONENTS FOR CLEAN AGENT SYSTEMS**

Rotarex offers components needed to configure clean agent fire suppression system.

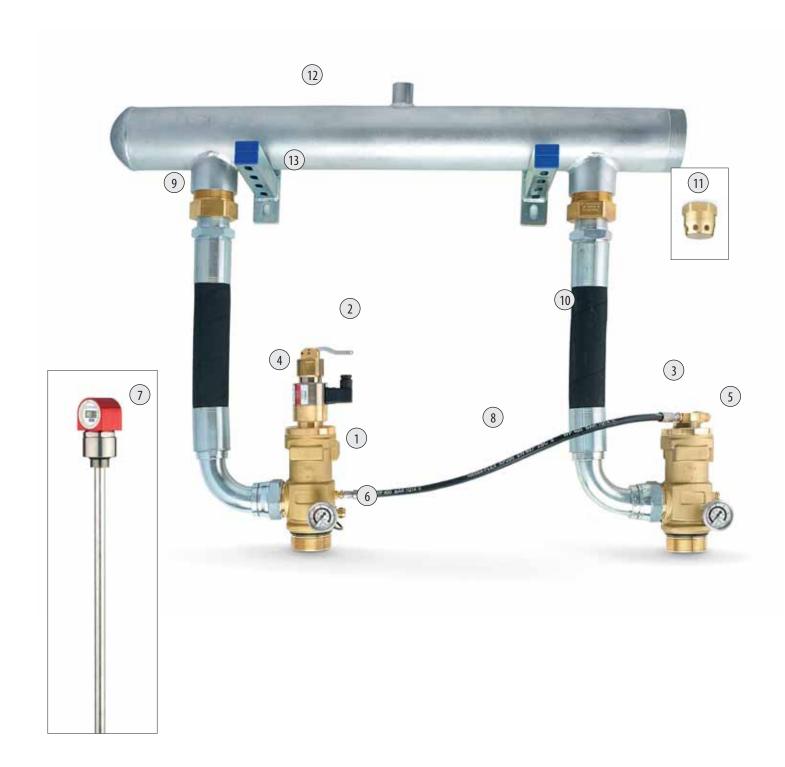
- Components entirely compatible and interchangable
- Easier and faster installation No "bad surprises"
- System pre-tested and qualified
- Everything to the same high-specification
- Greater confidence in performance at the critical time
- Full warranty protection
- Simplicity of a single supplier

Rotarex makes it easy for system engineers and installers to configure fixed suppression systems. Choose exactly the components you need.

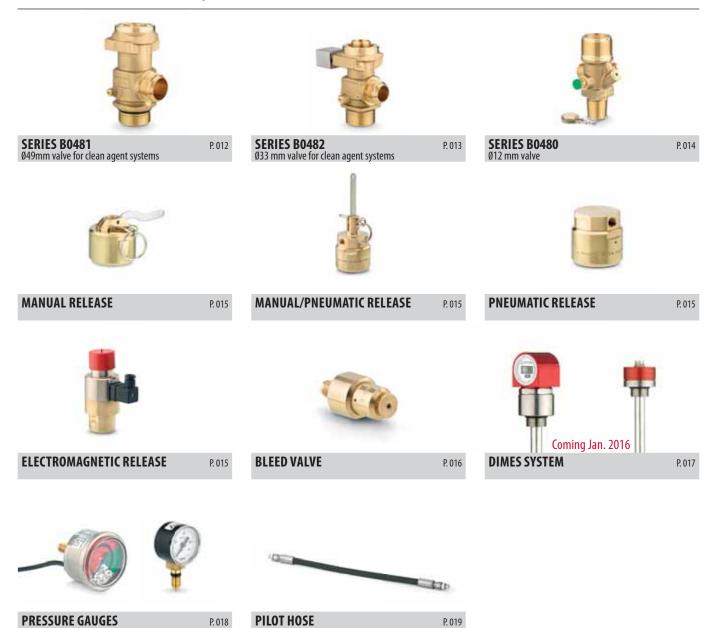
For maximum ease and certainty of performance, specify Rotarex components to configure the entire system.

	A complete component solution	
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10	Discharge hose	Page 20
11	Nozzle	Page 21
12	Manifold	Available soon
13	Bracket for manifold	Available soon





## **SERIES B048 VALVES, ACTUATORS AND ACCESSORIES**



## **DISCHARGE HOSES, NOZZLES & ACCESSORIES**





## **SPECIAL APPLICATIONS**



**VALVES AND ASSEMBLIES FOR PILOT CYLINDERS** 

P. 022

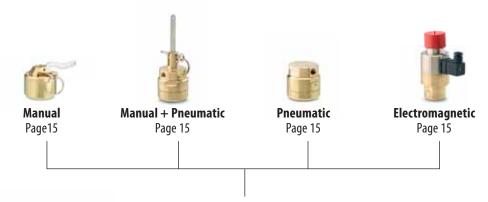
## **VALVE TECHNOLOGIES**

#### **ROTAREX: THE VALVE EXPERT**

Rotarex is the world leader in high-performance cylinder valves for fixed extinguishing systems as well as Ultra High Purity, Medical, Cryogenic, Automotive and LPG applications. They leverage 90-year expertise, vast R&D infrastructure and global scale to provide the most technically advanced and dependable fire suppression valves in the market. Trust Rotarex valves to perform when it most counts.

#### **SERIES B048**

Large-orifice clean agent valves with flexibility of actuation methods For all Clean Agent installations







SERIES B0481 Ø49 mm ORIFICE



SERIES B0482 Ø33 mm ORIFICE



SERIES B0480 Ø12 mm ORIFICE

#### **SPECIFICATIONS**

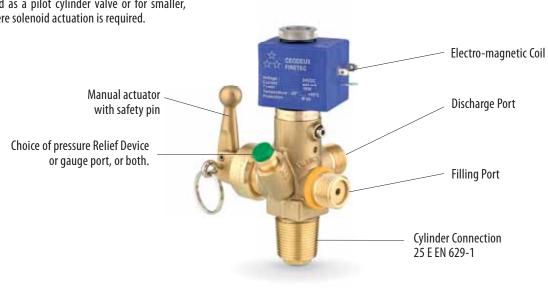
Working pressure 25 to 50 bar Temperature range -20°C to +60°C Burst disc pressure Choice of 50 bar or 78 bar. Others on request.



## **VALVE TECHNOLOGIES** (continued)

#### **SERIES B0439**

200 bar valve with Fixed and Solenoid Actuation for use in 25-50 bar clean agent applications. Can be used as a pilot cylinder valve or for smaller, single cylinder installations where solenoid actuation is required.



#### **Specifications**

Max pressure	200 bar	Seat orifice size	7 mm	Operating voltage	24 VDC
Working pressure	25 - 50 bar	Temperature range	-20°C to +60°C	Power consumption	10 watt
Valve body	Brass		Must be adapted to the working pressure	·	

## **10** TECHNOLOGY OVERVIEW

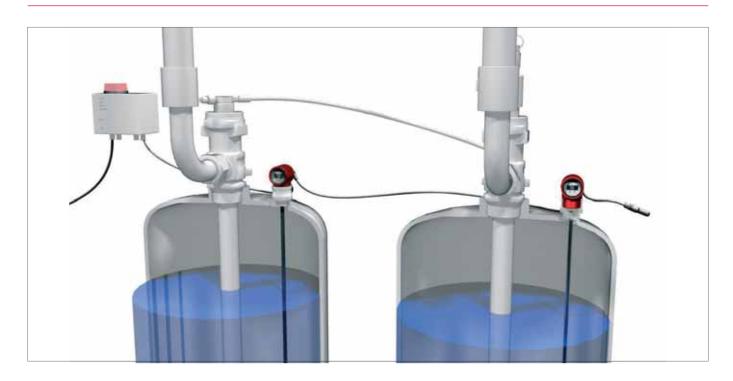


## IMPROVE SAFETY AND CERTAINTY WITH THE DIMES DIGITAL MEASUREMENT SYSTEM FOR CLEAN AGENTS.

- Digitally measures cylinder contents to determine the level of wet chemical agent in the cylinder.
- Continually monitors and confirms that the system is fully charged and ready
- Pro actively sends a warning signal in case of a pressure drop such as a leak or system discharge
- Connects to any alarm or control box
- Can actuate other electronic functions such as cutting electricity or closing ventilation. No need for additional pressure switches.



## **HOW IT WORKS**



The DIMES Sensor unit is placed in a special port on the Clean Agent cylinder. The dip-tube electrode extends all the way to the bottom of the cylinder.

Built-in sensors continually monitor ambient temperature and the capacitance differential of the gas density between two continuous electrodes in the diptube.

An integrated processor calculates the exact cylinder contents and displays the % contents on a display screen.

The system can be programmed to send a warning alarm when the pressure drops below a level that you determine — such as in the event of a leak or when the system discharges.



## **DIMES – DIGITAL MEASUREMENT SYSTEM**

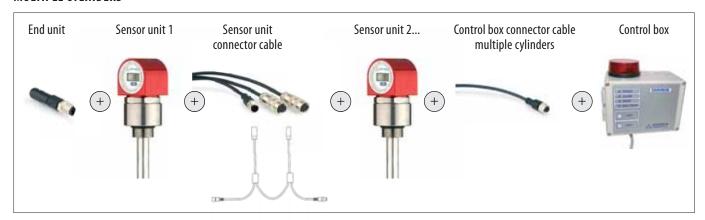
#### **FLEXIBLE CONFIGURATION OPTIONS**

DIMES sensor units are available in single and multi-connection versions — connecting either a single cylinder or multiple cylinders in series.

#### **SINGLE CYLINDER**



#### **MULTIPLE CYLINDERS**



#### MONITORING SOFTWARE + DATA TRANSMISSION INTERFACE:

Data can be sent to a special control box or computer for monitoring via the data interface cable







Optional cable available to connect with computer (USB)



## **SERIES B0481 VALVES - Ø49 mm ORIFICE**

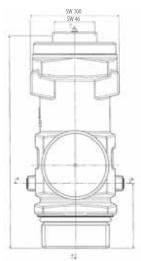
Large orifice (49 mm) valve for Clean Agent fire suppression systems.

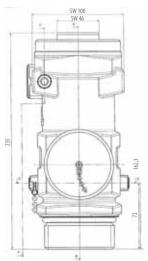


#### **KEY FEATURES**

- Large 49 mm orifice for high flow and rapid discharge Available with or without solenoid
- Choose from a large range of manual, pneumatic and electronic actuators







	FM-200 or NOVEC			
	Without Solenoid		With Solenoid	
Product code	B04810124 B04810110		B04810119	B04810109
Discharge type	Total	Total	Total	Total
Working pressure	25 bar	42 bar	25 bar	42 bar
Orifice size	Ø 49 mm Ø 49 mm		Ø 49 mm	Ø 49 mm
Inlet connection	3" male	3" male	3" male	3" male
Outlet Connection	2 ½" male	2 1/2" male	2 1/2" male	2 ½" male
Burst disc pressure	50 bar 78 bar		50 bar	78 bar
Valve Body	Brass	Brass	Brass	Brass

1 Compliant with the Construction Products Regulation (CPR) V3 Oct. 2014



## **SERIES B0482 VALVES- Ø33 mm ORIFICE**

Large orifice (33 mm) valve for Clean Agent fire suppression systems

## **C €**¹ π

#### **KEY FEATURES**

- Large 33 mm orifice for high flow and rapid discharge Available with or without solenoid
- Choose from a large range of manual, pneumatic and electronic actuators



FM-200 or NOVEC			
Without Solenoid		With Solenoid	
B04820125	B04820129	B04820119	04820128
Total	Total	Total	Total
25 bar	42 bar	25 bar	42 bar
Ø 33 mm	Ø 33 mm	Ø 33 mm	Ø 33 mm
2,5" male	2,5" male	2,5" male	2,5" male
1%"male	1%"male	1%"male	1%"male
49 bar	78 bar	49 bar	78 bar
Brass	Brass	Brass	Brass
	B04820125  Total 25 bar Ø 33 mm 2,5" male 11%" male 49 bar	Without Solenoid           B04820125         B04820129           Total         Total           25 bar         42 bar           Ø 33 mm         Ø 33 mm           2,5" male         2,5" male           1%" male         1%" male           49 bar         78 bar	Without Solenoid         With Solenoid           B04820125         B04820129         B04820119           Total         Total         Total           25 bar         42 bar         25 bar           Ø 33 mm         Ø 33 mm         Ø 33 mm           2,5" male         2,5" male         2,5" male           1%" male         1%" male         1%" male           49 bar         78 bar         49 bar

<sup>1</sup> Compliant with the Construction Products Regulation (CPR) V3 Oct. 2014



## **SERIES B0480 VALVES- Ø12 mm ORIFICE**

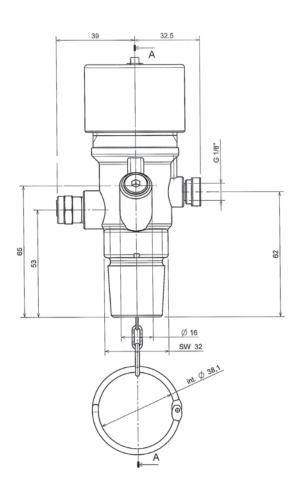
Compact 12 mm valve with flexibility of actuation methods

## **KEY FEATURES**

- Space/efficient 12mm valve with chain nut Requires an actuator device (see page 15)







Product code	B04803005
Discharge type	Total
Working pressure	42 bar
Orifice size	Ø 12 mm
Inlet connection	25E EN-629-1
Outlet connection	W21,8x1/14" DIN 477
Burst disc pressure	78 bar
Valve Body	Brass

1 Compliant with the Construction Products Regulation (CPR) V3 Oct. 2014



## **RELEASE DEVICES**

Devices to actuate the release of extinguishing agent

For use with Series B0481, B0482 and B0480 Valves





	Manual	Manual / Pneumatic		Pneu	matic
Product code	B04420100	B04420065	B04420116	B04420066	B04420076
Technology	single piston	single piston	double piston	single piston	double piston
Max. pressure	300 bar	300 bar	300 bar	300 bar	300 bar
Valve connection	M 42 x 1,5	M 42 x 1,5	M 42 x 1,5	M 42 x 1,5	M 42 x 1,5
Pneumatic connection	-	G1/8"	G%"	G%"	G1/8"
Actuation force / pressure	< 150 N	< 150 N / 20 bar	< 150 N / 10 bar	20 bar	10 bar
Body material	Brass	Brass	Brass	Brass	Brass
Height	54	136,5	156,5	50	71
Diameter	Ø50	Ø50	Ø50	Ø50	Ø50

## **ELECTROMAGNETIC RELEASE DEVICE**

Device to electrically actuate the release of extinguishing agent.

For use with Series B0481, B0482 and B0480 Valves.





#### **KEY FEATURES**

- Most commonly used as a master valve to actuate the system electronically, such as with connection to a smoke or heat detection device
- Electronically actuates the release of extinguishing agent



## WITH BLOCKING DEVICE.

To perform maintenance while under pressure



B04425131 B04425132

B04425109 B04425129

	With diode	Without diode	With diode	Without diode
Valve connection	M42 x 1,5	M42 x 1,5	M42 x 1,5	M42 x 1,5
Nominal voltage	24 VDC	24 VDC	24 VDC	24 VDC
Electrical connection	-	-	PG 9	PG 9
Nominal current	0,5 A	0,5 A	0,5 A	0,5 A
Protection Class	IP65	IP65	IP65	IP65
Height	135 mm	135 mm	135 mm	135 mm
Diameter	Ø 65 mm	Ø 65 mm	Ø 80 mm	Ø 80 mm

<sup>1</sup> Compliant with the Construction Products Regulation (CPR) V3 Oct. 2014



## **RESET TOOL FOR ELECTROMAGNETIC ACTUATOR**

Used to reset the electromagnetic actuator piston when putting the system back in active service after system discharge.





Screws into the base of B04425XXX electromagnetic release device

## **BLEED VALVE**

To vent overpressure and prevent false system discharge in the event of a small pressure leak from the cylinders into the pneumatic actuators.

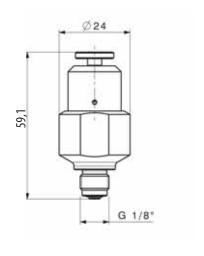


Mounts on all pneumatic release devices





Product code	029730040	
Pneumatic connection	G 1/8"	
Closing pressure	between 0,7 to 2,5 bar	
Flow at p=0.6 bar	6 liters/min	



## **DIMES – DIGITAL MEASUREMENT SYSTEM**

## Coming Jan. 2016!

Digital Measurement System for Clean Agent Fire Suppression Systems.

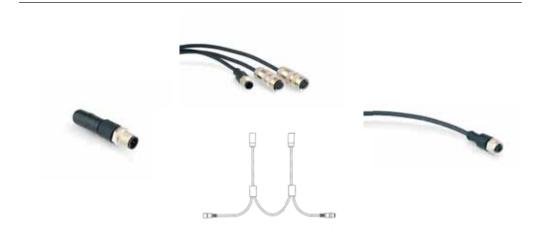
Available in Jan. 2016.

See p.11 for details



	SENSUK UNII	SENSUK UNIT WITH DIGITAL DISPLAY	CONNECTOR CABLE TO CONTROL BUX
Product code	B04652100	B04662100	029900088
Working pressure	60 bar	60 bar	-
Sensor tube length	Specify when ordering	Specify when ordering	-
Connection type	8-pin	8-pin	8-pin

## **MULTIPLE-CYLINDER CONNECTORS**



	END UNIT	CONNECTOR CABLE CONNECTS SENSOR UNITS	CONNECTOR CABLE TO CONTROL BOX
Product code	029900083	029900079	029900089
Connection type	4-pin	8-pin	4-pin

## SINGLE CYLINDER DATA INTERFACE CABLE



	SINGLE CYLINDER DATA INTERFACE CABLE
Product code	024900419
Connection type	8-pin to USB

## PRESSURE GAUGES WITH PRESSURE SWITCH

Measures and displays the cylinder pressure to verify that cylinders are properly filled and charged.

For HFC-227ea and NOVEC.

Rear mounting for use with Series B048 Valves.

- Integrated pressure switch.
- Choice of NC or NO.
- Choice of 0 to 40 bar or 0 to 60 bar.





Product code	029720171	029720175	029720173	029720174
Position	NC	NO	NC	NC
Preset pressure	22,5 bar	22,5 bar	38 bar	42 bar
Scale	0-40 bar	0-40 bar	0-60 bar	0-60 bar
Connection	Rear - 2 wires			
Diameter	Ø 55 mm	Ø 55 mm	Ø 55 mm	Ø 55 mm
Valve connection	M 10 x 1			

## **PRESSURE GAUGES**

Measures and displays the cylinder pressure to verify that cylinders are properly filled and charged.

For HFC-227ea and NOVEC.

Rear mounting for use with Series B048 Valves.

- Integrated pressure switch.
- Choice of 0 to 60 bar or 0 to 100 bar.





Product code	029720232	029720120
Scale	0-60 bar	0-100 bar
Connection	Rear	Rear
Connection	No connection	No connection
Diameter	Ø 40 mm	Ø 39 mm
Valve connection	M 10 x 1	M 10 x 1

1 Compliant with the Construction Products Regulation (CPR) V3 Oct. 2014



## **PILOT HOSES**

Hose to connect multiple cylinders in a series.

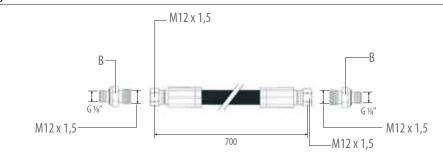
Connects a master valve or a pneumatic actuator with an other pneumatic actuator



#### **STRAIGHT PILOT HOSE DN6**



- Both ends have a straight fitting
- 400 bar working pressureWith 0-rings



	Product code	Length l	Connection	Bending radius
A2	B06920212	700 mm	2 x M12 x 1,5	75 mm
Adapter B	029510006		M12 x 1.5 / G1/8	



Each hose requires 2 adapters. Must be ordered separately.

#### **SPECIFICATIONS**

Working pressure	400 bar	Temperature Range	-40°C to 100°C	Interior diameter	1/8"
Burst pressure	1600 bar	Matarial	Complete and a model to a constitute and	Nave	EN 057 2 CC
Torque	20-25 Nm	materiai	Synthetic rubber oil resistant	Norm	EN 857 2 SC





## **DISCHARGE HOSES**

Hose to connect the cylinder valve to the manifold in fixed fire suppression systems.

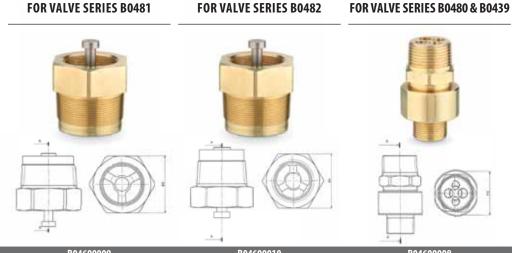


Product code	B06920222	B06920221	B06920226
Working pressure	53 bar	53 bar	Max. 380 bar
Burst pressure	159 bar	159 bar	1520 bar
Temperature range	-40°C to 100°C	-40°C to 100°C	-40°C to 100°C
Torque	38 - 42 Nm	38 - 42 Nm	38 - 42 Nm
Material	Synthetic rubber oil resistant	Synthetic rubber oil resistant	Synthetic rubber oil resistant
Norm	EN853 2 SN	EN853 2 SN	EN853 2 SN
Valve connection (inlet)	2 ½" 12-UN	1 %" 12-UN	W21,8 x 1/14" DIN 477
Manifold connection (outlet)	R 2"	R 1 1⁄2″	G ¾"
Min. bending radius	640 mm	510 mm	130 mm
Length	550 mm	500 mm	450 mm

## **CHECK VALVE**

Prevents backflow into the cylinder

Required for each hose attachment to the discharge manifold



Product code	B04600009	B04600010	B04600008
Inlet connection	Rc 2"	Rc 1 1/2"	G ¾"
Outlet connection	R 21/2"	R2"	R1"
Working pressure	53 bar	53 bar	< 360 bar
Material	Brass	Brass	Brass
Hex	80 mm	65 mm	42 mm

1 Compliant with the Construction Products Regulation (CPR) V3 Oct. 2014



## **PRESSURE & FLOW DETECTOR SWITCH**

Used to send a signal that the system is discharging.

**Pressure Activated** 



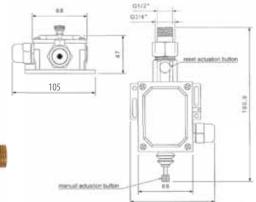


#### **KEY FEATURES**

- Sends a signal to a control panel or alarm box at the earliest phase of discharge
- Actuated at 2 bar pressure
- Flexible Voltage/Amp power source



Product code	028250050
Opening Pressure	2 bar
Design Pressure	200 bar
Test pressure	300 bar
Connection	G 1/2"
Power source	400 VAC / 3A or 24 VDC / 10 A
Protection	IP65



## **NOZZLES FOR HFC-227 EA**

Pre-bored and preassembled discharge nozzles for HFC 227 ea fire suppression systems

## **KEY FEATURES**

- Available in 360° or 180° versions
- Solid Brass
- Max working pressure: 100 bar

360° 180°





	Product co	des
1/2"	B04612000	B04612001
3/4"	B04612100	B04612101
1"	B04612200	B04612201
1 1/4"	B04612300	B04612301
1 1/2"	B04612400	B04612401
2"	B04612500	B04612501

2 According to the Pressure Equipment Directive (97/23/EC)



## **SERIES B0439 VALVES FOR CLEAN AGENTS**

Solenoid-actuated cylinder valves for 60 bar Clean Agent fire suppression systems.

## Π

#### **KEY FEATURES**

- Available in total discharge versions
  Your choice of pressure gauge, burst disc, or both
  Special connections available on request





	With burst disc	With pressure gauge connection and burst disc
Product code	On request*	On request*
Discharge type	Total	Total
Working pressure	42 bar	60 bar
Orifice size	Ø 7 mm	Ø 7 mm
Inlet connection	25E EN-629-1	25E EN-629-1
Outlet Connection	W21,8x1/14" DIN 477	W21,8x1/14" DIN 477
Gauge connection	-	M10 x 1
Dip tube connection	M10 x 0,75	M10 x 0,75
Burst disc pressure	78 bar	78 bar
Valve Body	Brass	Brass

<sup>\*</sup> Code depends on burst disc pressure



## **SERIES B0439 CYLINDER / VALVE ASSEMBLY**

Cylinders / valve assembly with integrated solenoid actuator.

Used for small clean agent installations.

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#### **KEY FEATURES**

- Available in 13,4 L cylinder versionOther cylinder sizes available on request
- Cylinder is delivered empty



Product code unfilled	B04394100
Cylinder size	13,4 L
Max. pressure	200 bar
Working pressure	60 bar
Operating temperature	-20°C to 60°C
Length w/ cap	1220 mm
Diameter	Ø140

NOTES



NOTES	



# A FULL LINE OF GAS CONTROL SOLUTIONS



## COMPLETE SOLUTIONS FROM SOURCE TO PROCESS.

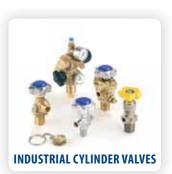
ROTAREX is helping engineers worldwide to get better gas results: from ultra high purity production and medical care facilities to industrial and LPG applications, as well as alternative energy vehicles, fire suppression, diving, aerospace, cryogenics, laboratory, petro-chemical and welding. ROTAREX applies over 90 years of know-how and experience to custom design, develop and manufacture the high performance valves, regulators and fittings to suit your needs, all in one hand. Discover the difference ROTAREX can make in your world.

CYLINDER VALVES	EQUIPMENT	FIRETEC	AUTOMOTIVE	LPG/SRG	MEDITEC	
						ı







































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