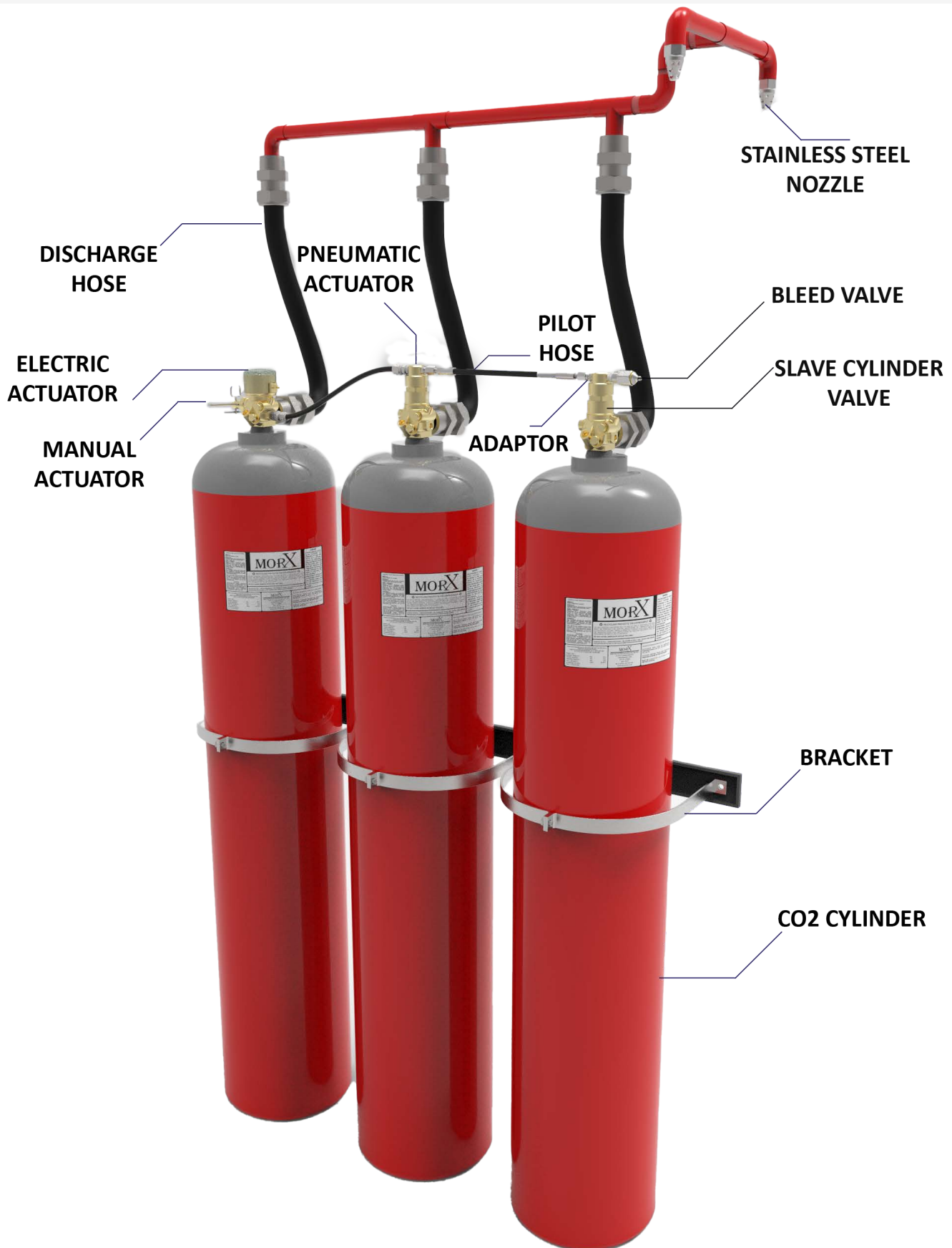


MORX

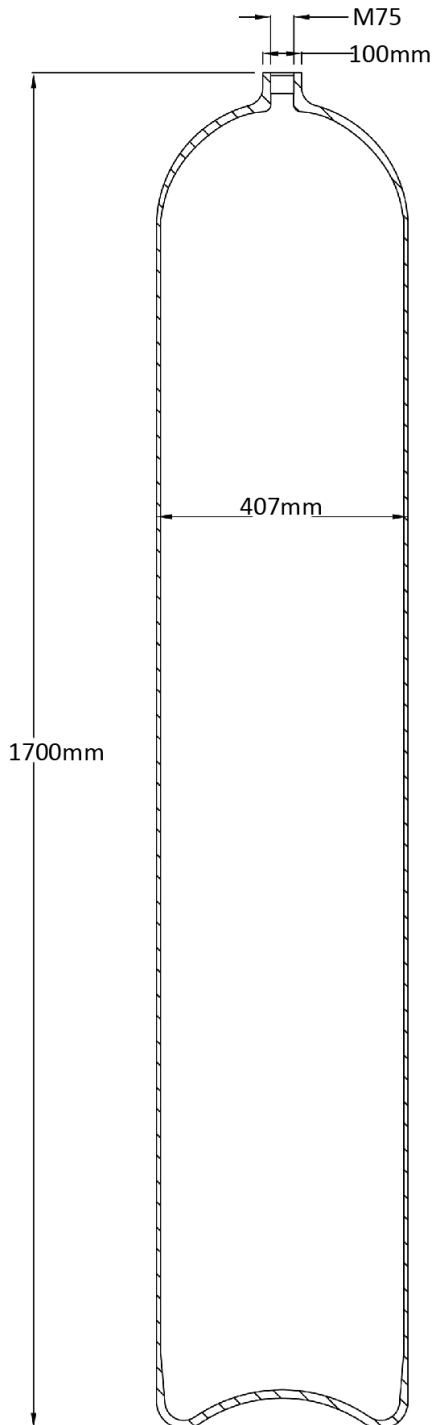
***High Pressure
CO2
Fire Suppression
System***

Technical Datasheet





Description: Non-Welded cylinders for compressed, liquid or pressure-dissolved gases



Material: 34CrMo4

CHROME MOLY EN10083

CHEMICAL ANALYSIS (%)

C	0.33 - 0.37
----------	--------------------

Si	0.20 - 0.35
-----------	--------------------

Mn	0.70 - 0.90
-----------	--------------------

Cr	0.95 - 1.15
-----------	--------------------

Mo	0.18 - 0.28
-----------	--------------------

Ni	0.00 - 0.30
-----------	--------------------

P	max. 0.015
----------	-------------------

S	max. 0.005
----------	-------------------

S	max. 0.020
----------	-------------------

THESE STEEL CYLINDERS ARE ULTRASONIC TESTED AFTER HEAT TREATMENT

HYDROSTATIC TEST 250 BAR

HEAT TREATMENT

QUENCHING"Heating up to 890°C, cooling in POLYMER"

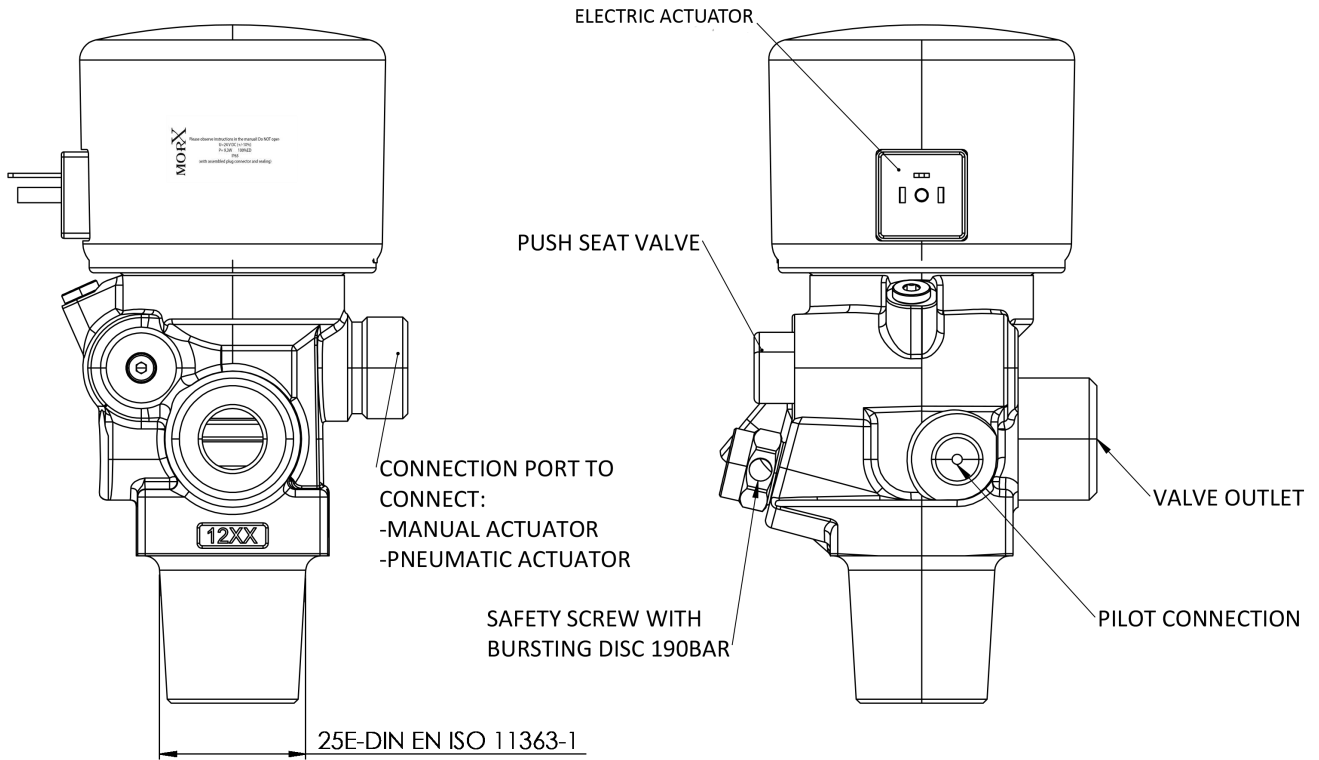
TEMPERING"Heating up to 540°C, cooling in AIR"

DESIGN AND WORKMANSHIP IN ACCORDANCE WITH 1964-2:2001 and ISO 9809-2:2000 and EN ISO 9809-2:2010

Approvals :

**Transportable Pressure Equipment Directive
TPED 99/36/EC**

Description: Quick Opening Master Valve with Electrical Actuator for System Actuation



DESCRIPTION

Master cylinder valve used especially for electrical system actuation. Electrical actuation is accomplished by means of electrical solenoid directly attached to the top of the valve. The Valve assembly can be used in hazardous environments in an ambient temperature range between -18°C to 54°C. The Master Valve is equipped with optional Pressure Gauge and Pressure Switch. Manual and Pneumatic actuations means are available.

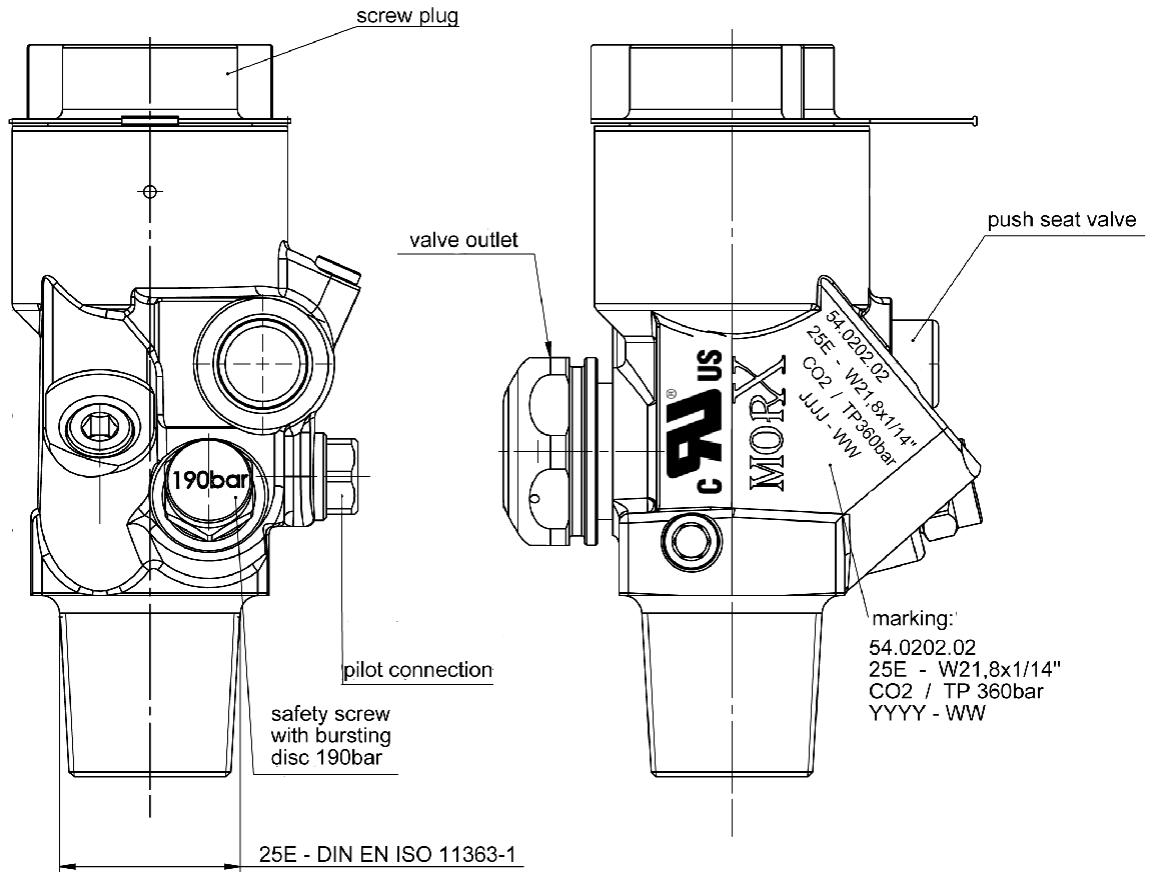
Master Cylinder can actuate up to 10 Slave cylinders



TECHNICAL SPECIFICATION

TEST PRESSURE	MAX. WORKING PRESSURE	MIN. WORKING PRESSURE	OPERATING PRESSURE	BURSTING PRESSURE
360 BAR	150BAR	10 BAR	60 BAR	190 BAR ±10%

Description: Quick Opening differential pressure valve for Slave Cylinders



DESCRIPTION

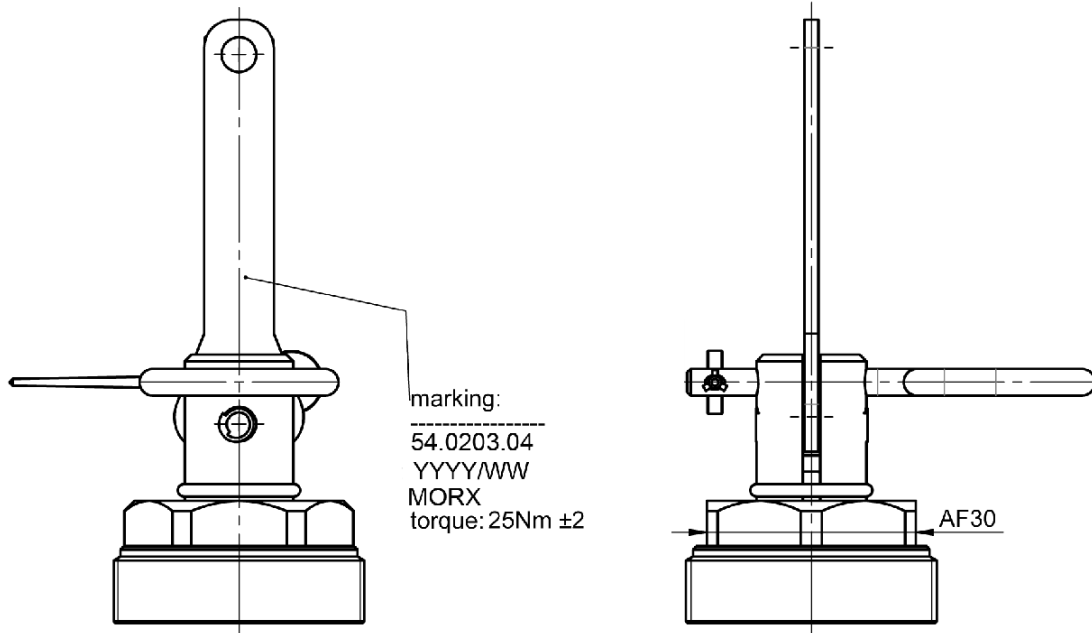
Quick Opening with differential pressure opening valve is especially design for use with slave cylinder. The Valve assembly can be used in hazardous environments in an ambient temperature range between -18°C to 54°C. The Slave Valve can be actuated by either manual or pneumatic means.



TECHNICAL SPECIFICATION

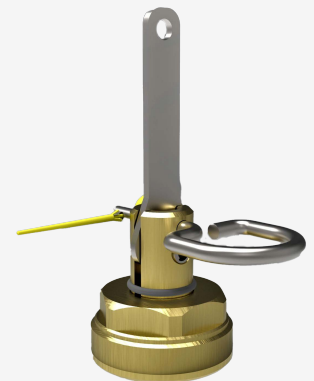
TEST PRESSURE	MAX. WORKING PRESSURE	MIN. WORKING PRESSURE	OPERATING PRESSURE	BURSTING PRESSURE
360 BAR	150BAR	10 BAR	60 BAR	190 BAR ±10%

Description: Manual Release Actuator for Slave Cylinder Actuation



DESCRIPTION

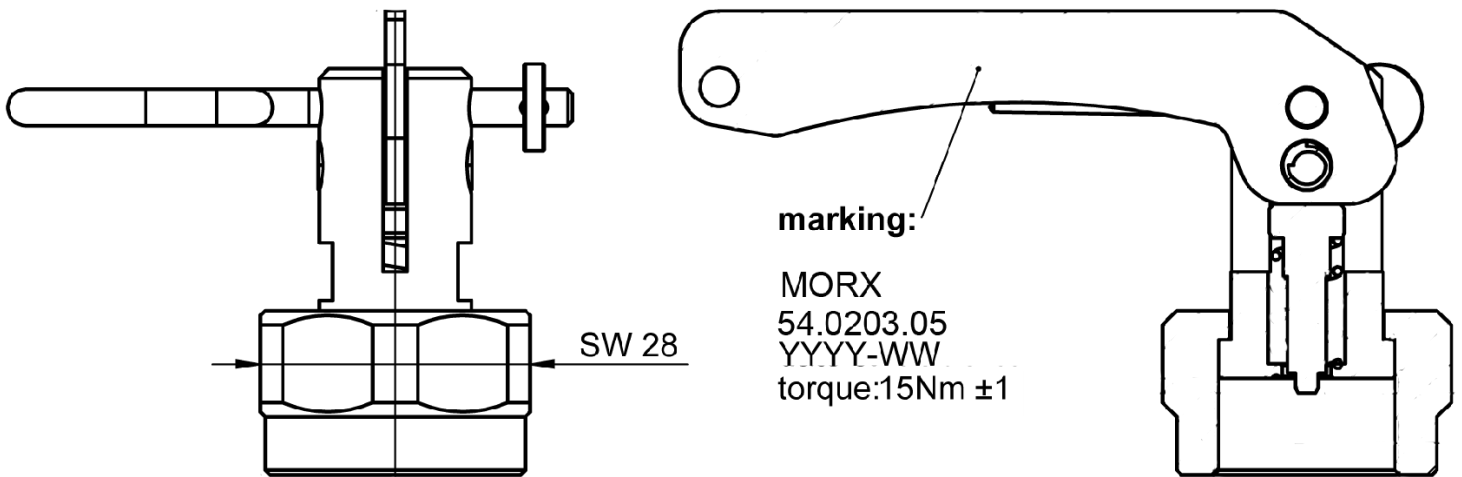
The Manual Release Actuator provides a manual means of slave agent cylinder 54.0202.02 actuation by direct lever pushing with a force equals to 25N. The manual release is directly attached to the top of Slave Valve for ease of actuation. The Lever is designed with mechanical mechanism to lock lever in open position once actuated. The Manual Release Actuator is equipped with safety pins to avoid false activation.



TECHNICAL SPECIFICATION

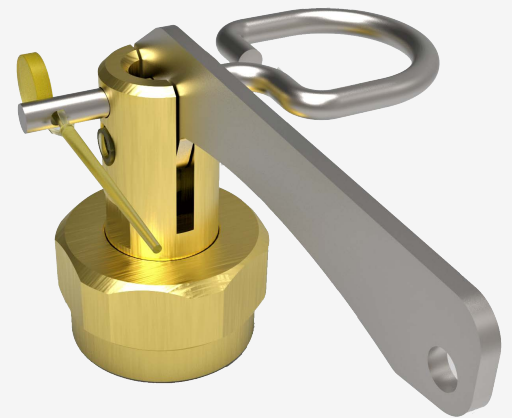
Body Material	Pulling Lever	Lock Pin	Actuation Force	Weight
Brass	Stainless Steel	Stainless Steel	25 N	166.91gm

Description: Manual Release Actuator for Master Cylinder Manual Actuation



DESCRIPTION

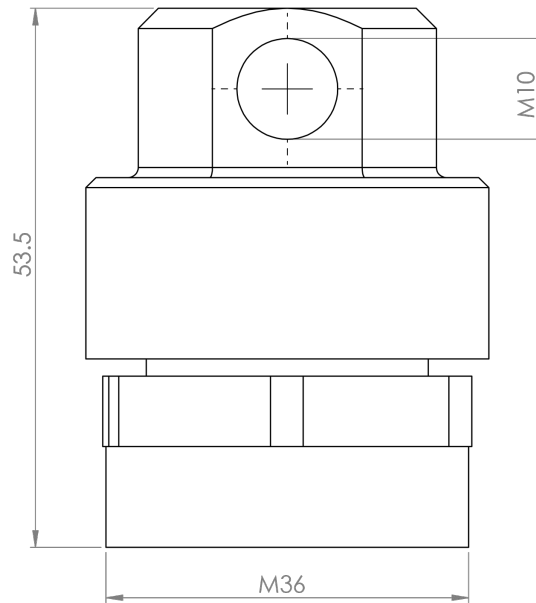
The Manual Release Actuator provides a manual means of actuation for Master cylinder. Actuation accomplished by direct lever pushing with a force equals to 15N. The manual release is directly attached to the side of Slave Valve. The Lever is designed with mechanical mechanism to lock lever in open position once actuated. The Manual Release Actuator is equipped with safety pins to avoid false activation.



TECHNICAL SPECIFICATION

Body Material	Pulling Lever	Lock Pin	Actuation Force	Weight
Brass	Stainless Steel	Stainless Steel	15 N	146.41gm

Description: Pneumatic Release Actuator with Slave Cylinders for Pneumatic Actuation



DESCRIPTION

The Pneumatic Release Actuator provides a pneumatic means of actuation for slave cylinders. Actuation accomplished after Master Cylinder Activation with a minimum pilot pressure of 8 Bar. The Pneumatic Release Actuator is directly attached to the top of Slave Valve.

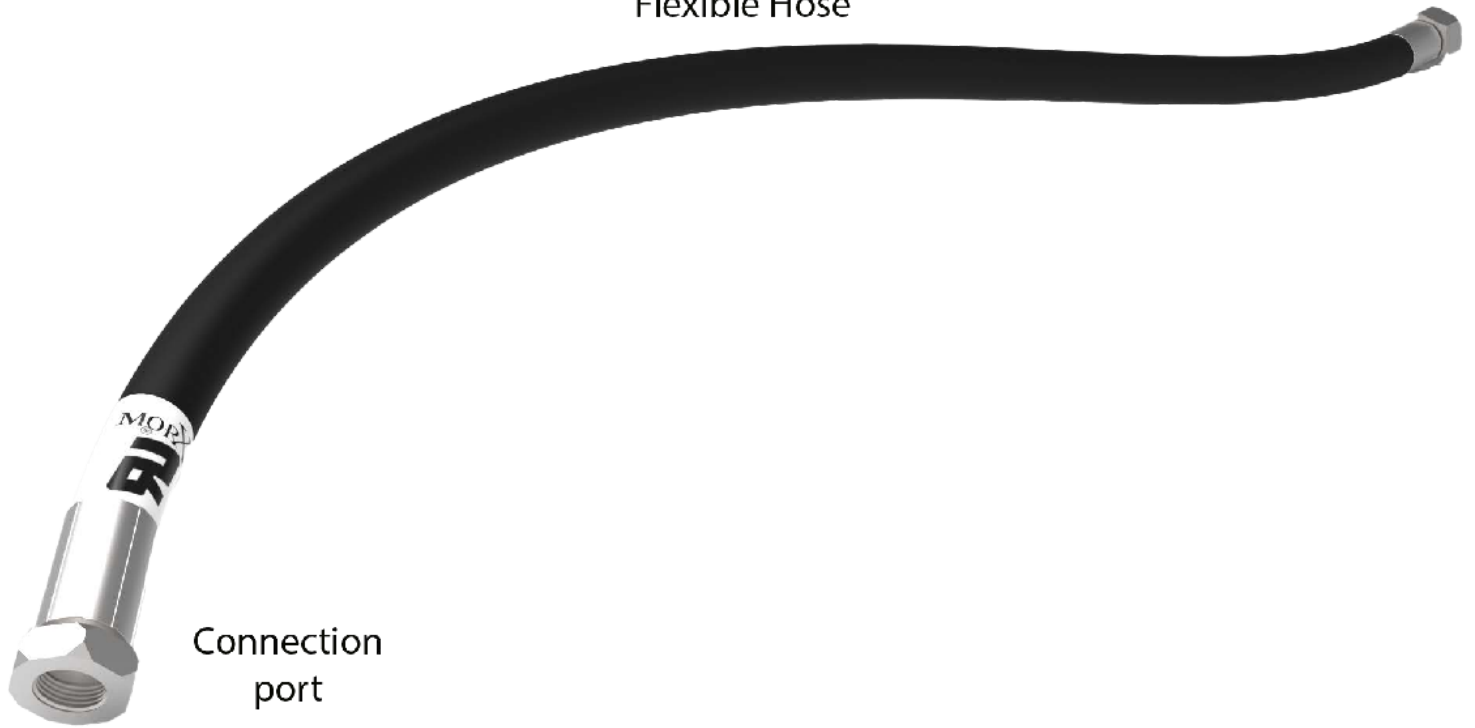


TECHNICAL SPECIFICATION

Body Material	Actuating Pin	Sealing Material	Pilot Pressure	Weight
Brass	Stainless Steel	NBR	8 Bar	402.68gm

Description: Extinguishing Hose connects cylinder valve to Discharge Network

Flexible Hose



DESCRIPTION

Extinguishing Hose Line with DN12 Size connects Master Valve or Slave Valve to the Discharge Manifold. The Extinguishing Discharge Hose equipped with 90° Elbow for ease of installation. Extinguishing Discharge Hose will allow for ease of alignment of multiple cylinders to the manifold or discharge network.

TECHNICAL SPECIFICATION

TEST PRESSURE	MAX. WORKING PRESSURE	Equivalent Length	Temperature Range	Min. Bend Radius
660 Bar	360 Bar	8.47m	-20°C to 50°C	30mm

Description: Pilot hose to connect master cylinder valve to slave cylinder valves



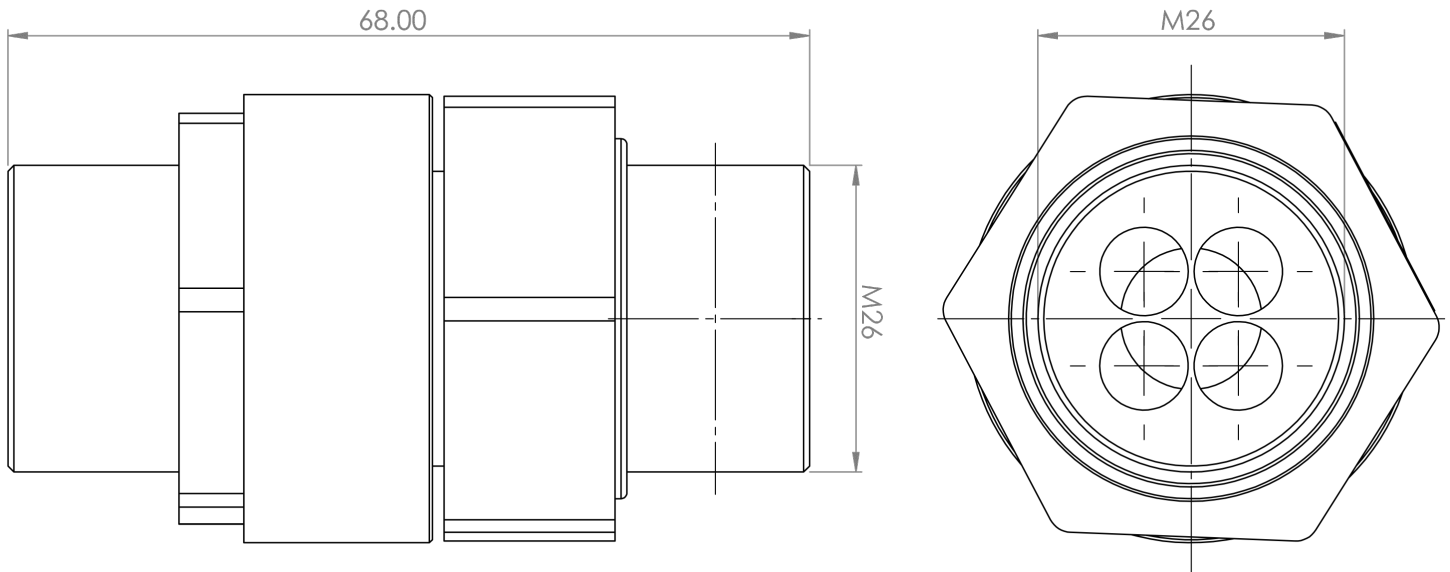
DESCRIPTION

Pilot hose line that connects multiple cylinders in the CO₂ fire suppression system with DN5 available with several lengths up to 1.5 meters. Both ends require a threaded male nipple (adaptor) for connection with pneumatic actuator female thread.

TECHNICAL SPECIFICATION

TEST PRESSURE	MAX. WORKING PRESSURE	Equivalent Length	Temperature Range	Min. Bend Radius
660 Bar	360 Bar	8.47m	-20°C to 50°C	30mm

Description: Discharge line check valve attached to discharge hose



DESCRIPTION

Check valve is especially designed for CO2 system allowing it to flow in a single direction through the manifold. At discharge, it controls the flow for the complete system making sure the CO2 flow is directed through the nozzles to the fire zone. The check valve material is corrosion resistance and can withstand extremely high temperatures.



TECHNICAL SPECIFICATION

Body Material	MAX. WORKING PRESSURE	Thread Designation	Weight	Connection
Brass Nickel Plated	360 Bar	G3/4"	350gm	DN12

CO2 cylinder weighing device



MORX weighing device is able to monitor and provide signals of the filled and unfilled cylinder weight. When the cylinder weight is less than a pre determined level, a signal is sent to the control panel and indicating lights turn on.



ADVANTAGES OF THE WEIGHING DEVICE

- Available for indoor and outdoor applications
- Ensures correct agent weight inside the cylinder
- Indicating lights
- Elegant design and finish
- Multiple devices can be installed in series



Weighing device is manufactured within MORX main location at the 6th of October city, Egypt

FYJR.EX28441 - Carbon Dioxide Extinguishing System Units, General Use

Carbon Dioxide Extinguishing System Units, General Use

MORX FIRE FIGHTING SOLUTIONS

Plot 4, Block 38, El Methak St, 9th District, Nasr City
Cairo, Egypt

EX28441

Model MORX CO₂, high pressure carbon dioxide extinguishing system units, stored pressure type, having nominal charging capacities of 45kg (99lbs) of Carbon dioxide. The units have an operating pressure of 58 bar (850 psi) at 210C (70°F) with operating temperatures of -18°C to 54.4°C (0°F to 130°F).

Discharge Components

Devices	Part No.	Nom Pipe Size, mm (in)	Equivalent Length, ft	
			Sch 40	Sch 80
Container Valve	54.0202.02	12 (1/2)	84.8	-
Container Valve with Actuator	54.0202.03	12 (1/2)	84.8	-
Flexible Discharge Hose	54.0204.08.070	12 (1/2)	27.8	-
Check Valve	54.0206.12, 54.0207.13	12 (1/2)	6	-
Pilot Hose	54.0204.09.055	6 (1/4)	N/A	-
Check Valve for Pilot Hose	54.0205.11	4(1/8)	N/A	-

Actuation Components

Devices	Part No.
Manual Actuator	54.0203.04
Manual Actuator for Solenoid valve	54.0203.05.00
Pneumatic Actuator	54.0203.06.20
Pneumatic Manual Actuator	54.0203.07
Male Adaptor Union	54.0205.10

Nozzles

Type	Part No
Nozzle 360 degree -3/8 inch	54.0207.13.01
Nozzle 360 degree – 1/2 inch	54.0207.13.02
Nozzle 360 degree – 3/4 inch	54.0207.13.03
Nozzle 360 degree – 1 inch	54.0207.13.04
Nozzle 360 degree – 1-1/4 inch	54.0207.13.05
Nozzle 180 degree – 3/8 inch	54.0207.14.01
Nozzle 180 degree – 1/2 inch	54.0207.14.02
Nozzle 180 degree - 3/4 inch	54.0207.14.03
Nozzle 180 degree – 1 inch	54.0207.14.04
Nozzle 180 degree - 1-1/4 inch	54.0207.14.05

Miscellaneous Components

Devices	Part No
Cylinder Brackets	54.02.03.1414

N/A - Not Applicable

Last Updated on 2022-03-10

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GKEE2.EX28600 - Container Valve Assemblies with Actuators - Component

HISTORICAL

Container Valve Assemblies with Actuators - Component

MORX FIRE FIGHTING SOLUTIONS

EX28600

Plot 4, Block 38, El Methak St, 9th District, Nasr City
Cairo, Egypt

Investigated to ANSI/CAN/UL/ULC 2127

Part No.	Nom Size	Equivalent Length ⁺	Operating Pressure at Indicated Temp	Operating Temp Range	Agent
Container valve assembly with actuator++					
54.0302.02	1/2 in./ DN12	84.8 ft/ 25.8 m	200 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0302.03	1/2 in./ DN12	84.8 ft/ 25.8 m	200 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0302.04	1/2 in./ DN12	84.8 ft/ 25.8 m	300 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0302.05	1/2 in./ DN12	84.8 ft/ 25.8 m	300 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0402.02	1/2 in./ DN12	84.8 ft/ 25.8 m	200 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0402.03	1/2 in./ DN12	84.8 ft/ 25.8 m	200 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0402.04	1/2 in./ DN12	84.8 ft/ 25.8 m	300 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55
54.0402.05	1/2 in./ DN12	84.8 ft/ 25.8 m	300 Bar @ 21°C	-20°C to 50°C	IG-01, IG-100, IG-541, IG-55

Investigated to ANSI/CAN/UL/ULC 2166


Part No.	Nom Size	Equivalent Length ⁺	Operating Pressure at Indicated Temp	Operating Temp Range	Agent
Container valve assembly with actuator++					
54.0102.07	1 1/4 in./ DN33	35.4 ft/ 10.8 m	50 Bar @ 21°C	-20°C to 50°C	FK-5-1-12, HFC-227ea

54.0102.071	1 1/4 in./ DN33	35.4 ft/ 10.8 m	50 Bar @ 21°C	-20°C to 50°C	FK-5-1-12, HFC-227ea
54.0102.08	2 in./ DN50	16.5 ft/ 5.0 m	50 Bar @ 21°C	-20°C to 50°C	FK-5-1-12, HFC-227ea
54.0102.081	2 in./ DN50	16.5 ft/ 5.0 m	50 Bar @ 21°C	-20°C to 50°C	FK-5-1-12, HFC-227ea

Investigated to NFPA 12

Part No.	Nom Size	Equivalent Length⁺	Operating Pressure at Indicated Temp	Operating Temp Range	Agent
Container valve assembly with actuator++					
54.0202.02	1/2 in./ DN12	84.8 ft/ 25.8 m	50 Bar @ 21°C	-20°C to 50°C	CO2
54.0202.03	1/2 in./ DN12	84.8 ft/ 25.8 m	50 Bar @ 21°C	-20°C to 50°C	CO2

⁺ Equivalent Length given in feet/meter of Schedule 40 pipe in equivalent pipe diameter to the device.

Marking: Company name or trademark, part number and the Recognized Component Mark  .

Last Updated on 2021-05-26

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