SAFE AIR®

SYNTESI® SHUT-OFF-VALVE SAFE AIR® SERIES

METAL WORK PNEUMATIC

The V3V Syntesi® SAFE AIR® is a three-way valve that, when closed, vents the downstream system. It is used during maintenance operations or when it is necessary to remove air from machinery or equipment.
It is equipped with a diagnostic system, that uses an inductive sensor, to monitor the position of the spool.
This means that when the valve is deactivated, the sensor is in the ON state, when the valve is activated, the sensor is in the OFF state.
A status in which the sensor is OFF state and the coil de-energized indicates that there is a problem.
To reduce the probability of risk during plant maintenance, the manual actuator mounted on the electric control is the monostable type.
This valve is a category 2 component, according to EN ISO 13849, and is suitable for use in safety circuits up to PL = d.
For applications requiring higher performance levels, we have also develop a double-channel version (redundant) that requires the use of two valves with a monitored spool arranged so that port 2 of the first valve is connected to port 1 of the second valve. It is sufficient for just one of the two valves to be de-energized to discharge the downstream system; so, even if one of the two spools remains blocked, the other guarantees relief of the compressed-air circuit. In this case, too, the presence of spool position sensors can be used to monitor the status. The double valve is a category 4 component according to EN ISO 13849 and is suitable for use in safety circuits up to PL = e.
Both the single and double channel valves come with: a voluntary examination certificate No. BVI-25-MAC-CV-0004 issued by Bureau Veritas in accordance with EN ISO 13849.

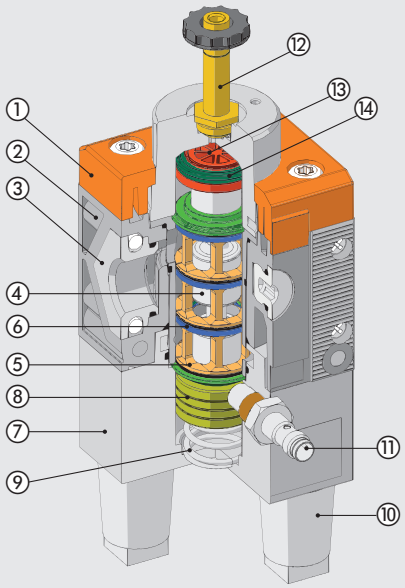
SINGLE V3V Syntesi® SERIES SAFE AIR®

TECHNICAL DATA		SINGLE V3V SY2 SAFE AIR®			
Threaded port		3/8"	1/2"	3/4"	1"
Threaded discharge port		No. 2 from 1/2"			
Fluid		Filtered unlubricated air (50µm)			
Operation		3/2 monostable			
Operating pressure:					
non-assisted		from 3 to 10 bar - from 0.3 to 1 MPa - from 43 to 145 psi			
pilot-assisted		from 0 to 10 bar - from 0 to 1 MPa - from 0 to 145 psi			
Minimum pilot pressure		from 3 to 10 bar - from 0.3 to 1 MPa - from 43 to 145 psi			
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C	from -10 to +50 ✱			
Weight	g	920	890	890	875
Conductance C	Nl/min · bar	764	821	828	
Critical ratio b	bar/bar	0.25	0.27	0.36	
Flow rate at 6.3 bar Δp 0.5 bar	Nl/min	2300	2550	2700	
Flow rate at 6.3 bar Δp 1 bar	Nl/min	3200	3500	3700	
Conductance C on relief	Nl/min · bar	742			
Critical ratio b on relief	bar/bar	0.09			
Flow rate on free exhaust at 6.3 bar	Nl/min	5400			
TRA/TRR at 6.3 bar	ms/ms	33/100			
Mounting position		In any position			
Wall fixing screws		No. 2 M5 screws			
Hand operator		Monostable			
Coils		22 and 30 mm side, Ø 8 hole – EN175301-803 connection, type B			
		Certified EN 60204.1 and VDE 0580 ■			
Class of protection		IP65 with coil and connector mounted			
Noise level		Max 95 dBA with silenced relief			
Max coil ring nut torque	Nm	1			
CE marking		In accordance with Machinery Directive, Annexe V ●			
Safety function		Cuts off the power supply and relieves the air circuit connected to port 2			
Type of sensor used		Inductive proximity sensors (refer to page **C1**.47 for sensor details)			
B10d		10 x 10^6 cycles			
Category - EN ISO 13849		2			
PL - EN ISO 13849		Suitable for use in safety circuits up to PL = d			

✱ The dew point must be at least 10°C lower than the fluid temperature, to avoid ice formation
■ To avoid malfunctions, we recommend using Metal Work accessories
● The declaration can be downloaded from www.metalwork.it

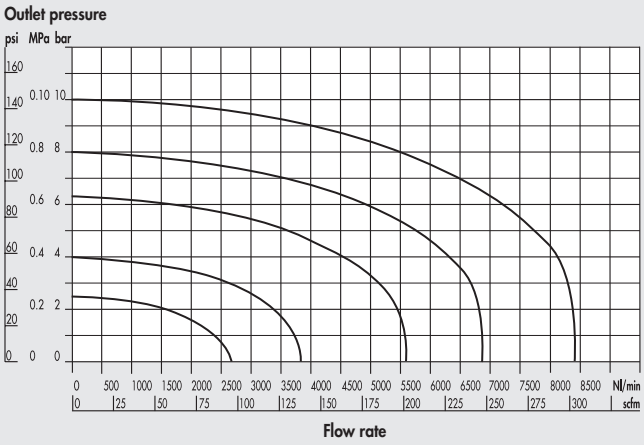
COMPONENTS - SINGLE VALVE

① Technopolymer flange
② Technopolymer body
③ IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
④ Chemically nickel-plated aluminum spool
⑤ Technopolymer distance
⑥ NBR gaskets
⑦ Anodized aluminium end cap
⑧ Aluminum spring guide
⑨ Special steel spring
⑩ Silencers
⑪ Inductive sensor
⑫ Operator: Brass pipe - Stainless steel core
⑬ Technopolymer piston
⑭ NBR piston gasket

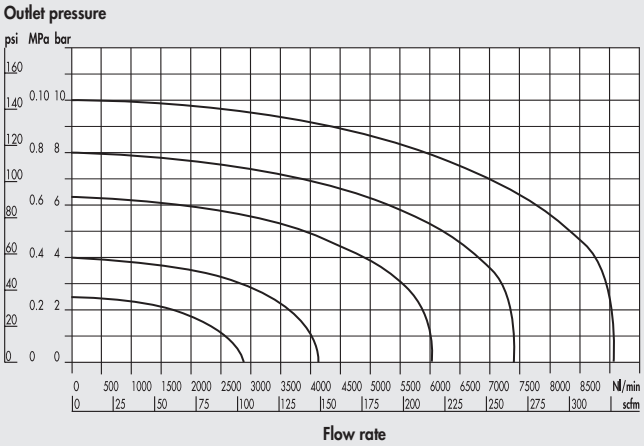


FLOW CHARTS ON DELIVERY - SINGLE VALVE

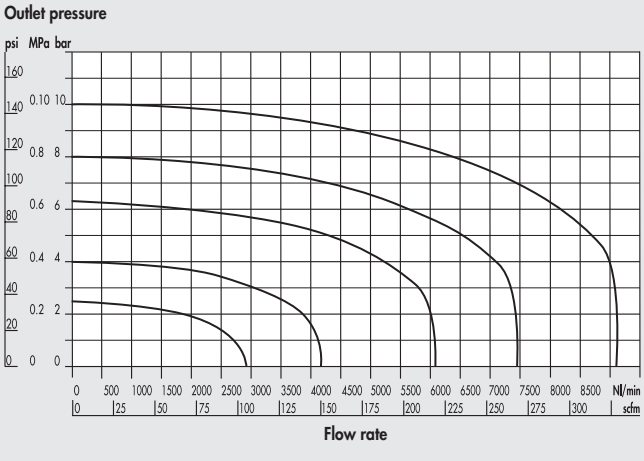
V3V Syntesi® **SY2** 3/8"



V3V Syntesi® **SY2** 1/2"



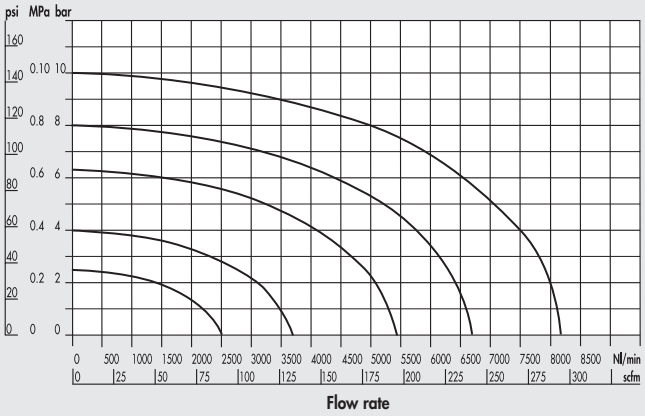
V3V Syntesi® **SY2** 3/4" - 1"



FLOW CHARTS ON RELIEF - SINGLE VALVE

V3V Syntesi® **SY2** 3/8" - 1/2" - 3/4" - 1"

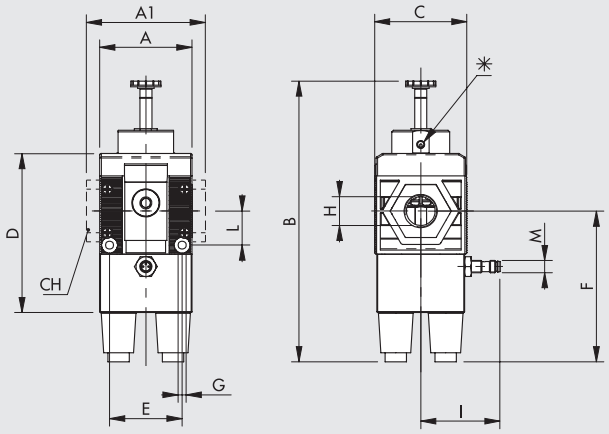
Outlet pressure



DIMENSIONS - SINGLE VALVE

PILOT-ASSISTED VERSION

NOT PILOT-ASSISTED VERSION



	SIZE 2			
H (threaded port)	3/8"	1/2"	3/4"	1"
A	60.5			
A1	-	-	95	95
B	186			
C	61			
CH	-	-	32	36
D	105			
E	47.5			
F	97			
G	Hole for M5 screws			
I	53			
L	22.5			
M	M8x1			
*** Pilot**	M5			

KEY TO CODES - SINGLE VALVE

56	2	3	W	70	3
SYNTESI	**SIZE**	**THREADED INPUT CONNECTION**	**ELEMENT**	**TYPE**	**THREADED OUTPUT CONNECTION**
56 Syntesi	**2** Size 2	**0** Without bushing **3** 3/8" port **4** 1/2" port **5** 3/4" port **6** 1" port	**W** Shut-off-valve Safe Air®	**30** Solenoid pilot-assisted **70** Solenoid	**0** Without bushing **3** 3/8" port **4** 1/2" port **5** 3/4" port **6** 1" port

PURCHASE ORDER CODES HAVING A MORE FREQUENT USE - SINGLE VALVE

N.B. Besides the below mentioned codes, you can order elements composed at your will according to the key to codes.

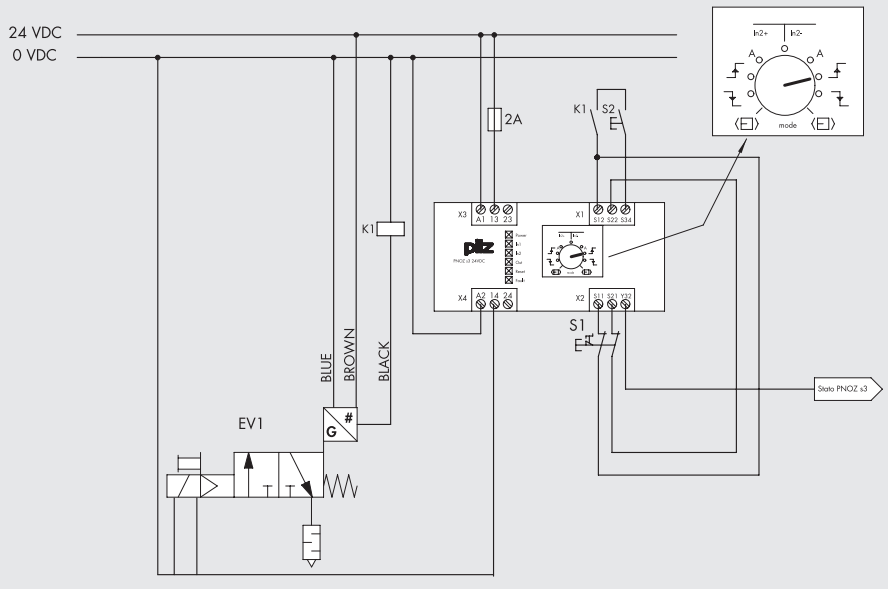
Code	Description
Syntesi® SY2 SHUT-OFF-VALVES SAFE AIR®	
5620W300	V3V SY2 elpn Safe Air® pilot-assisted without bushings
5623W303	V3V SY2 3/8 elpn pilot-assisted Safe Air®
5624W304	V3V SY2 1/2 elpn pilot-assisted Safe Air®
5625W305	V3V SY2 3/4 elpn pilot-assisted Safe Air®
5626W306	V3V SY2 1 elpn pilot-assisted Safe Air®
5620W700	V3V SY2 elpn Safe Air® without bushings
5623W703	V3V SY2 3/8 elpn Safe Air®
5624W704	V3V SY2 1/2 elpn Safe Air®
5625W705	V3V SY2 3/4 elpn Safe Air®
5626W706	V3V SY2 1 elpn Safe Air®

EXAMPLE OF A SAFETY CIRCUIT WITH A SINGLE VALVE

Below is an example of a wiring diagram for controlling Metal Work SAFE AIR® single valves using Pilz® components.
Circuit components:
- a Pilz® safety module PNOZ® s3 for controlling the emergency stop button; terminal Y32 indicates the status of the module, which can be relayed to the machine control logic
- an emergency stop button S1 (Pilz® - PIT® es Set) linked to terminals S11-S12-S22-S23 of the PNOZ® s3
- a Metal Work SAFE AIR® solenoid valve, the 24 VDC coil of which is fed by terminal 14 of the PNOZ® s3 (the other terminal of the coil is 0 V); the valve's Hall-effect sensor is 24 VDC
- a start/reset button S2
- a relay K1, controlled by the valve sensor; an NO contact of the relay is in series with button S2 of the PNOZ® s3.

Expected behaviour with the system operating correctly:
- system deactivated:
  - contact 14 is OFF
  - the coil is de-energized
  - the sensor is ON
  - relay K1 is energized
  - contact K1 is closed
  - contact Y32 is OFF
- with the system activated via the start/reset button S2:
  - contact 14 is ON
  - the coil is energized
  - the sensor is OFF
  - relay K1 is de-energized
  - contact K1 is open
  - contact Y32 is ON

In the event of a malfunction (e.g. spool jam), the coil is de-energized but the sensor remains OFF, relay K1 remains de-energized, contact K1 remains open (preventing subsequent restarts) and contact Y32 is OFF.
In the event of a valve fault, the circuit in the diagram below does not allow relief of the compressed air system. Sensor status must be monitored to assess valve operation. Contact Y32 indicates the status of the PNOZ® s3, not the status of the sensor.
All the electrical connections between the various components must comply with the applicable safety regulations.
If the emergency button is operated at a frequency of 1 actuation per hour, the circuit activates a safety function with PL = c (calculations made with the PAScal programme by Pilz®). Responsibility for final checking that PL lies with the person assembling the circuit.



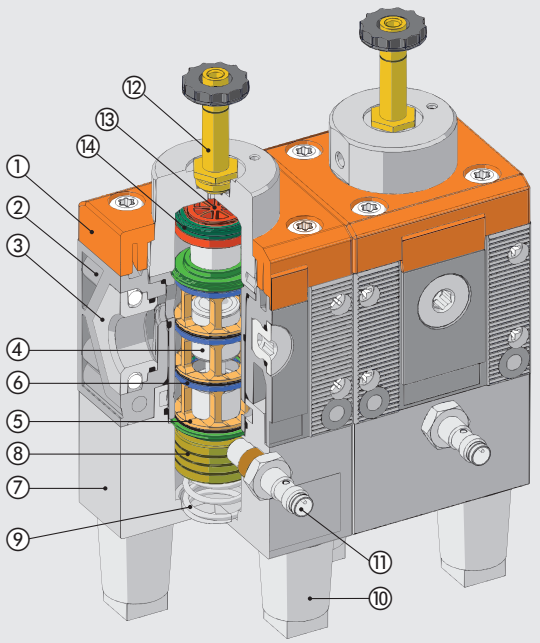
DOUBLE V3V Syntesi® SERIE SAFE AIR®

TECHNICAL DATA		DOUBLE V3V SY2 SAFE AIR®			
Threaded port		3/8"	1/2"	3/4"	1"
Threaded discharge port		No. 4 from 1/2"			
Fluid		Filtered unlubricated air (50µm)			
Operation		3/2 monostable			
Operating pressure:					
non-assisted		from 3 to 10 bar - from 0.3 to 1 MPa - from 43 to 145 psi			
pilot-assisted		from 0 to 10 bar - from 0 to 1 MPa - from 0 to 145 psi			
Minimum pilot pressure		from 3 to 10 bar - from 0.3 to 1 MPa - from 43 to 145 psi			
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C	from -10 to +50 ✱			
Weight	g	1840	1780	1780	1750
Conductance C	Nl/min · bar	557	600		
Critical ratio b	bar/bar	0.23	0.24		
Flow rate at 6.3 bar Δp 0.5 bar	Nl/min	1700	1800		
Flow rate at 6.3 bar Δp 1 bar	Nl/min	2300	2500		
Conductance C on relief	Nl/min · bar	742			
Critical ratio b on relief	bar/bar	0.09			
Flow rate on free exhaust at 6.3 bar	Nl/min	5400			
TRA/TRR at 6.3 bar	ms/ms	70/100			
Mounting position		In any position			
Wall fixing screws		No. 2 M5 screws			
Hand operator		Monostable			
Coils		22 and 30 mm side, Ø 8 hole – EN175301-803 connection, type B			
		Certified EN 60204.1 and VDE 0580 ■			
Class of protection		IP65 with coil and connector mounted			
Noise level		Max 95 dBA with silenced relief			
Max coil ring nut torque	Nm	1			
CE marking		In accordance with Machinery Directive, Annexeo V ●			
Safety function		Cuts off the power supply and relieves the air circuit connected to port 2			
Type of sensor used		Inductive proximity sensors (refer to page **C1**.47 for sensor details)			
B10d		10 x 10^6 cycles			
Category - EN ISO 13849		4			
PL - EN ISO 13849		Suitable for use in safety circuits up to PL = e			

✱ The dew point must be at least 10°C lower than the fluid temperature, to avoid ice formation
■ To avoid malfunctions, we recommend using Metal Work accessories
● The declaration can be downloaded from www.metalwork.it

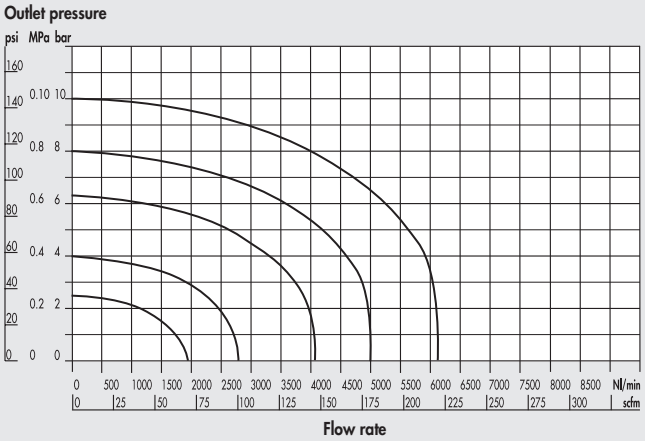
COMPONENTS - DOUBLE VALVE

① Technopolymer flange
② Technopolymer body
③ IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
④ Chemically nickel-plated aluminum spool
⑤ Technopolymer distance
⑥ NBR gaskets
⑦ Anodized aluminium end cap
⑧ Aluminum spring guide
⑨ Special steel spring
⑩ Silencers
⑪ Inductive sensor
⑫ Operator: Brass pipe - Stainless steel core
⑬ Technopolymer piston
⑭ NBR piston gasket

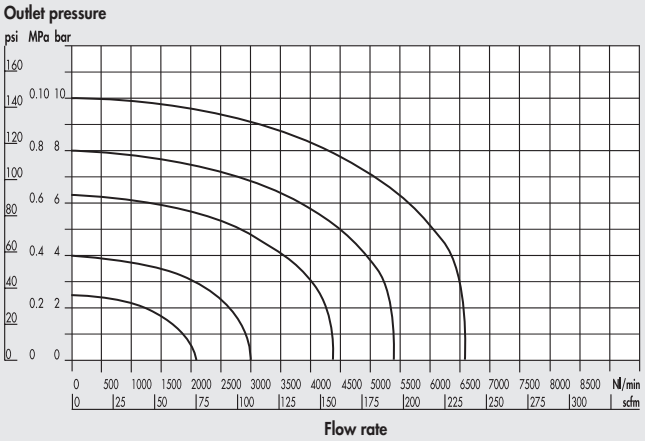


FLOW CHARTS ON DELIVERY - DOUBLE VALVE

V3V Syntesi® **SY2** 3/8″

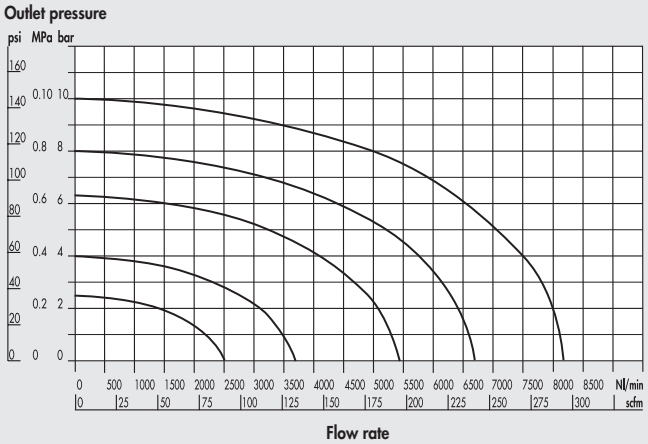


V3V Syntesi® **SY2** 1/2″- 3/4″ - 1″



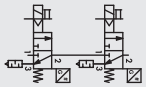
FLOW CHARTS ON RELIEF - DOUBLE VALVE

V3V Syntesi® **SY2** 3/8″ - 1/2″- 3/4″ - 1″

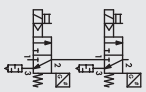


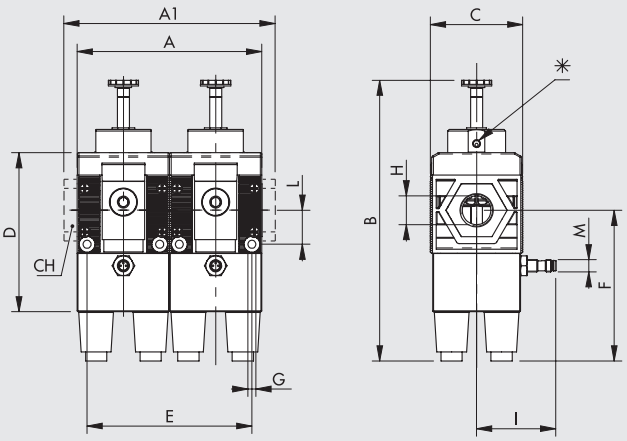
DIMENSIONS - DOUBLE VALVE

PILOT-ASSISTED VERSION



NOT PILOT-ASSISTED VERSION





	SIZE 2			
H (threaded port)	3/8"	1/2"	3/4"	1"
A	121			
A1	-	-	217	217
B	186			
C	61			
CH	-	-	32	36
D	105			
E	108			
F	97			
G	Hole for M5 screws			
I	53			
L	22.5			
M	M8x1			
* Pilot	M5			

KEY TO CODES - DOUBLE VALVE

56	2	3	W	72	3
SYNTESI	**SIZE**	**THREADED INPUT CONNECTION**	**ELEMENT**	**TYPE**	**THREADED OUTPUT CONNECTION**
56 Syntesi	**2** Size 2	**0** Without bushing **3** 3/8″ port **4** 1/2″ port **5** 3/4″ port **6** 1″ port	**W** Shut-off-valve Safe Air®	**32** Double solenoid pilot-assisted **72** Double solenoid	**0** Without bushing **3** 3/8″ port **4** 1/2″ port **5** 3/4″ port **6** 1″ port

PURCHASE ORDER CODES HAVING A MORE FREQUENT USE - DOUBLE VALVE

N.B. Besides the below mentioned codes, you can order elements composed at your will according to the key to codes.

Code	Description
Syntesi® SY2 SHUT-OFF-VALVES SAFE AIR®	
5620W320	V3V SY2 elpn Safe Air® double pilot-assisted without bushing
5623W323	V3V SY2 3/8 elpn double pilot-assisted Safe Air®
5624W324	V3V SY2 1/2 elpn double pilot-assisted Safe Air®
5625W325	V3V SY2 3/4 elpn double pilot-assisted Safe Air®
5626W326	V3V SY2 1 elpn double pilot-assisted Safe Air®
5620W720	V3V SY2 elpn Safe Air® double without bushing
5623W723	V3V SY2 3/8 elpn double Safe Air®
5624W724	V3V SY2 1/2 elpn double Safe Air®
5625W725	V3V SY2 3/4 elpn double Safe Air®
5626W726	V3V SY2 1 elpn double Safe Air®

NOTES

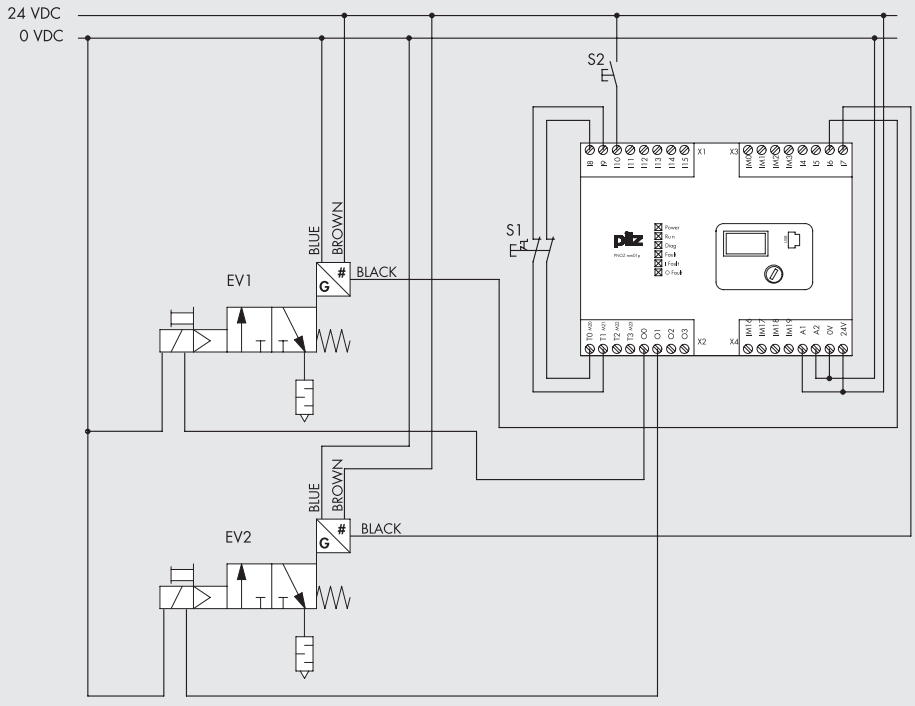
EXAMPLE OF A SAFETY CIRCUIT WITH A DOUBLE VALVE

Below is an example of a wiring diagram for controlling double valves SAFE AIR® a Metal Work using Pilz® components.
Circuit components:
- a Pilz® PNOZ® mm 0.1p modular safety system
- an emergency stop button S1 (Pilz® - PIT® es Set) linked to terminals T0-T1-I8-I9 of the PNOZ® mm 0.1p
- a Metal Work double solenoid valve SAFE AIR®, the 24 VDC coils of which are fed by terminals O0 (SV1) and O1 (SV2) of the PNOZ® mm 0.1p (the other terminals of the coils are OV); the valves' Hall-effect sensors are 24 VDC
- the sensor signals are relayed to terminals 16 (SV1) and 17 (SV2) of the PNOZ® mm 0.1p
- a start/reset button S2

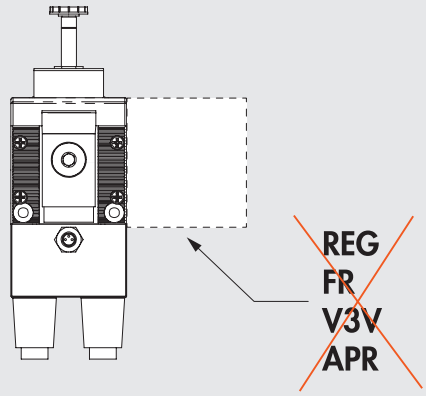
Expected behaviour with the system operating correctly:
- system deactivated:
  - contacts O0 and O1 are OFF
  - the coils are de-energized
  - the sensors are ON (and hence signals to terminals 16 and 17)
  - if one of the sensors is OFF, the Pilz® module does not allow subsequent start/reset
- with the system activated via the start/reset button:
  - contacts O0 and O1 are ON
  - the coils are energized
  - the sensors are OFF (and hence signals to terminals 16 and 17)

The PNOZ® mm 0.1p module is programmed so that:
- when either sensor is OFF, and the coils are de-energized, the module does not allow subsequent restarts.
- when the valves are energized, the 2 sensors must go off within the valve actuation time, otherwise the 2 valves are switched off again.
  The programme can be downloaded from www.metalwork.it (the licence for programming Pilz® modules is not included).

All the electrical connections between the various components must comply with the applicable safety regulations.
If the emergency button is operated at a frequency of 1 actuation per hour, the circuit activates a safety function with PL = e (calculations made with the PAScal programme by Pilz®).
Responsibility for final checking that PL lies with the person assembling the circuit.



ASSEMBLY DIAGRAM V3V Syntesi® SERIES SAFE AIR®

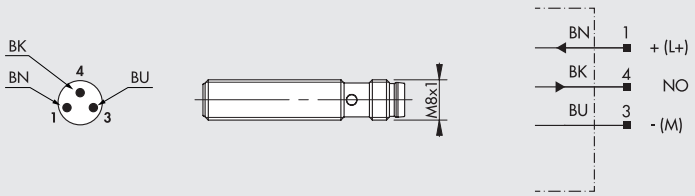


N.B. The **REG**, **FR**, **V3V**, **APR** elements **cannot be mounted** downstream the safety valves because if the elements are blocked, safety relief is not guaranteed.

SENSOR FOR V3V Syntesi® SERIES SAFE AIR®

TECHNICAL DATA SENSOR		
Type of sensor		INDUCTIVE PROXIMITY
Type of contact		N.O.
Switch		PNP
Supply voltage (Ub)	V	from 10 to 30
Voltage dro (for Ia max)	V	≤ 2
Hysteresis	%	from 3 to 20
EMC		EN 60 947-5-2
Continuous current Ia	mA	≤ 200
No load current	mA	≤ 10
Switching frequency	Hz	4000
Over-voltage suppression		Yes
Vibration and shock resistance		100 g /11 ms / 1000 cycles;; 150 g / 1 Mio cycles; from 10 to 55 Hz / 1 mm / from 55 to 500 Hz / 15 g
LED display		Yellow
Degree of protection (EN 60529)		IP68
Temperature range	°C	from -40 to +100
Sensor capsule material		Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material		Plastic, LCP
Protection class		III
Communication interface detail		Connector male M8, 3-pin
MTTFd	years	1971
UL-File-Nr		E.181493
Certifications		CE cULus UKCA

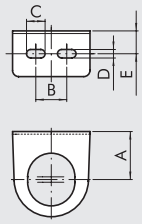
WIRING DIAGRAM SENSOR



SYNTESI® ACCESSORIES

METAL WORK PNEUMATIC

MOUNTING BRACKET FOR REG. AND FR KNOB



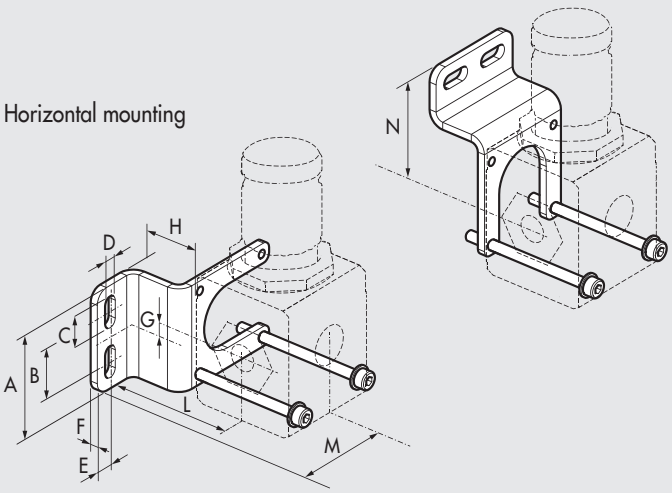
Code	Description
9200701	SF100 - BIT-ND 1/4 - SY1
9400701	SF200 - ND-3/8 1/2 - SY2

Code	A	B	C	D	E
9200701	32	20	12	5.5	14.2
9400701	42	40	12	5.5	15

MOUNTING BRACKET

Vertical mounting

Horizontal mounting

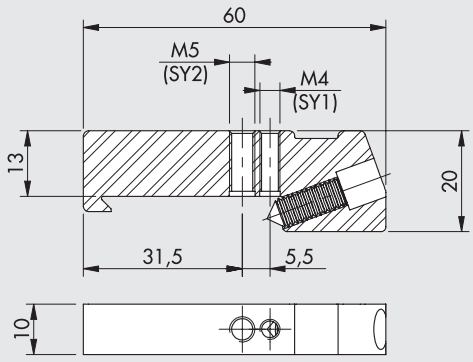


Code	Description
9200716X	Mounting bracket SY1
9200717X	Mounting bracket SY2

Note: Supplie complete with screws and washers.
Max torque 0.8 Nm for SY1 - Max torque 2.0 Nm for SY2
Codes to be used for units in the standard and the anti-corrosion version

Code	A	B	C	D	E	F	G	H	L	M	N
9200716X	41.5	20	12.7	5.5	7	3	0.8	25	43.8	46.5	47
9200717X	60	40	12.7	5.5	8	3	1.3	30	57.5	58.3	59.5

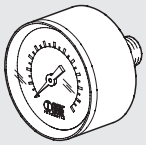
CONNECTION BRACKETS ON THE BAR (DIN EN50022)



Code	Description
9200718X	Connection brackets on DIN bar, SY1 - SY2

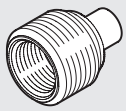
Note: 2 pieces per pack complete with screws and washers.
Max torque 0.8 Nm for SY1 - Max torque 2.0 Nm for SY2
Codes to be used for units in the standard and the anti-corrosion version

PRESSURE GAUGES



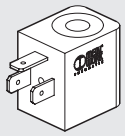
Code	Description
9700101	M 40 1/8 012
9700102	M 40 1/8 04
9800101	M 50 1/8 012
9800102	M 50 1/8 04
9900101	M 63 1/4 012
9700109	M 40x40 1/8 04
9700110	M 40x40 1/8 012

ADAPTERS FOR PRESSURE GAUGES (SY2)



Code	Description
9210005	1/4 adapter for 1/8 pressure gauge

COIL 22 mm FOR APR AND V3V ELPN

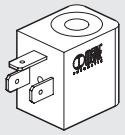


Code	Description
W0215000151	Coil 22 Ø 8 BA 2W-12VDC
W0215000101	Coil 22 Ø 8 BA 2W-24VDC
W0215000111	Coil 22 Ø 8 BA 3.5VA-24VAC
W0215000121	Coil 22 Ø 8 BA 3.5VA-110VAC
W0215000131	Coil 22 Ø 8 BA 3.5VA-220VAC

Electrical connection DIN 43650 B-IND

"UL" AND "CSA" COILS 22 mm

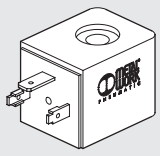
c UL us



Code	Description
W0215000251	Coil 22 Ø 8 BA 2W-12VDC UR
W0215000201	Coil 22 Ø 8 BA 2W-24VDC UR
W0215000211	Coil 22 Ø 8 BA 3.5VA-24VAC UR
W0215000221	Coil 22 Ø 8 BA 3.5VA-110VAC UR
W0215000231	Coil 22 Ø 8 BA 3.5VA-220VAC UR

Electrical connection DIN 43650 B-IND

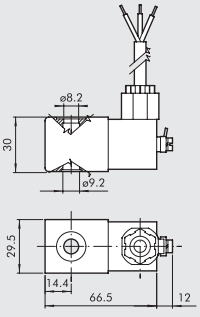
COIL 30 mm FOR APR AND V3V ELPN



Code	Description
W0210010100	Coil 30 Ø 8 2W-24VDC
W0210011100	Coil 30 Ø 8 3.5VA-24VAC 50/60 HZ
W0210012100	Coil 30 Ø 8 3.5VA-110VAC 50/60 HZ
W0210013100	Coil 30 Ø 8 3.5VA-220VAC 50/60 HZ

Electrical connection DIN 43650 - A

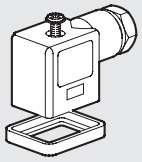
KIT FOR COIL EEXM



Code	Description
0227606913	Kit for coil 30 24 VDC EEXMT5 cable 3 m
0227606915	Kit for coil 30 24 VDC EEXMT5 cable 5 m
0227608013	Kit for coil 30 24 VAC EEXMT5 cable 3 m
0227608015	Kit for coil 30 24 VAC EEXMT5 cable 5 m
0227608023	Kit for coil 30 110 VAC EEXMT5 cable 3 m
0227608025	Kit for coil 30 110 VAC EEXMT5 cable 5 m
0227608033	Kit for coil 30 230 VAC EEXMT5 cable 3 m
0227608035	Kit for coil 30 230 VAC EEXMT5 cable 5 m

According to Atex 2014/34/EU rule,
Ex II 2G Ex mb IIC T4/T5 Gb
Ex II 2D Ex tb IIIC T130/T95 °C IP66 Db
N.B.: Supplied complete with adapter for Ø8 mm sleeve

ELECTRIC CONNECTOR 22 mm FOR COILS DIN 43650 B-IND

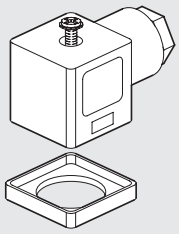


Code	Description
W0970510011	Connector standard
W0970510012	Connector 22 LED 24V
W0970510013	Connector 22 LED 110V
W0970510014	Connector 22 LED 220V
W0970510015	Connector 22 LED VDR 24V
W0970510016	Connector 22 LED VDR 110V
W0970510017	Connector 22 LED VDR 220V
W0970510070	Connector 22 ATEX II 2 GD

Code	Description
W0970510051	Connector 22 LED 24VDC Energy Saving

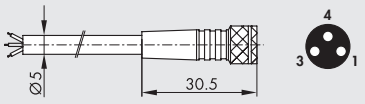
For technical data see page **B1**.61

ELECTRIC CONNECTOR 30 mm FOR COILS DIN 43650-A



Code	Description
W0970520033	Connector 30 STD
W0970520034	Connector 30 LED 24V
W0970520035	Connector 30 LED 110V
W0970520036	Connector 30 LED 220V
W0970520037	Connector 30 LED VDR 24V
W0970520038	Connector 30 LED VDR 110V
W0970520039	Connector 30 LED VDR 220V
W0970520070	Connector 30 ATEX II 2GD

M8 STRAIGHT CONNECTOR WITH CABLE FOR PRESSURE SWITCHES AND V3V SAFE AIR®

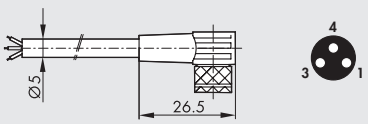


Pin	Cable color
1	Brown
3	Blue
4	Black

Code	Description
02400A0100	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 1 m
02400A0250	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 2.5 m
02400A0500	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 5 m
02400A1000	M8 female 3 PIN HIGH FLEX CL6 connector with cable L = 10 m

Very flexible cables, class 6 according to IEC 60228

M8 90° CONNECTOR WITH CABLE FOR V3V SAFE AIR®

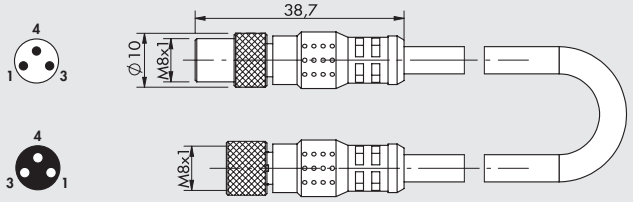


Pin	Cable color
1	Brown
3	Blue
4	Black

Code	Description
02400B0100	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 1 m
02400B0250	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 2.5 m
02400B0500	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 5 m
02400B1000	M8 female 3 PIN 90° HIGH FLEX CL6 connector with cable L = 10 m

Note: Very flexible cables, class 6 according to IEC 60228

M8 ADAPTER CABLE FOR CONNECTING THE PRESSURE SWITCH TO THE EB 80 E CM DIGITAL INPUTS MODULE



Code	Description
0240010501	M8-M, M8-F 3-pole adapter with cable L = 0.3 m

Note: Can be used to connect the pressure switch to the module of digital INPUT **S01** of the EB 80 valves, to the additional M8 INPUT module of the CM valves and to the Profibus-DP IP67 M8 input. Contact type NO (Normally open).

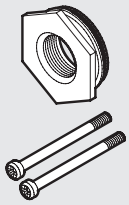
M8F	M8M	Function
pin 1	pin 1	Power supply +
pin 3	pin 4	Signal NO
pin 4	pin 3	Disconnect

KIT COIL SIDE 22 IP65

Code	Description
0222100100	Kit for coils 22 - IP65

Improved IP65 protection, even after prolonged exposure to atmospheric agents.

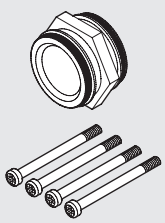
THREADED PORT



Code	Description
9210001	Kit IN OUT 1/8 SY1
9210002	Kit IN OUT 1/4 SY1
9210003	Kit IN OUT 3/8 SY1
9210011	Kit IN OUT 3/8 SY2
9210012	Kit IN OUT 1/2 SY2
9210013	Kit IN OUT 3/4 SY2
9210014	Kit IN OUT 1 SY2
9210001X	Kit IN OUT 1/8 SY1 anti-corrosion
9210002X	Kit IN OUT 1/4 SY1 anti-corrosion
9210003X	Kit IN OUT 3/8 SY1 anti-corrosion
9210011X	Kit IN OUT 3/8 SY2 anti-corrosion
9210012X	Kit IN OUT 1/2 SY2 anti-corrosion
9210013X	Kit IN OUT 3/4 SY2 anti-corrosion
9210014X	Kit IN OUT 1 SY2 anti-corrosion

Max torque 0.4 Nm for SY1
Max torque 2.5 Nm for SY2

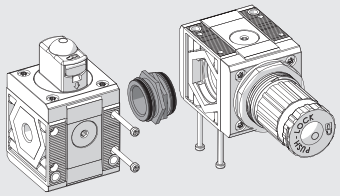
CONNECTING NIPPLE KIT



Code	Description
9210000	Connecting nipple kit SY1
9210010	Connecting nipple kit SY2
9210000X	Connecting nipple kit SY1 anti-corrosion
9210010X	Connecting nipple kit SY2 anti-corrosion

Max torque 0.4 Nm for SY1
Max torque 2.5 Nm for SY2

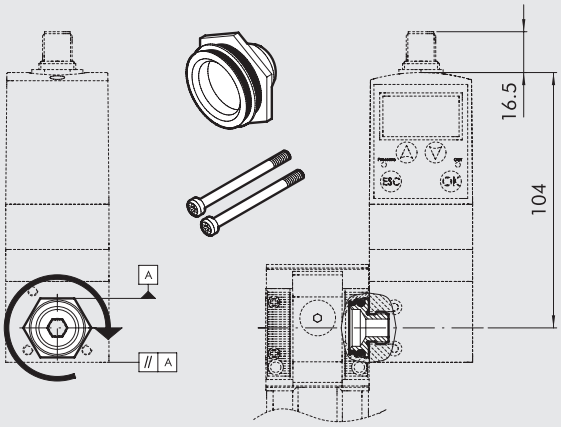
90° CONNECTING ELEMENT KIT



Code	Description
9210009	90° SY1 connection element kit
9210019	90° SY2 connection element kit
9210009X	90° anti-corrosion SY1 connection element kit
9210019X	90° anti-corrosion SY2 connection element kit

Max torque 0.4 Nm for SY1 Max torque 2.5 Nm for SY2

KIT CONNECTING REGTRONIC 1/4 (PAGE C6.12) AND GS REGULATOR (PAGE C6.2)



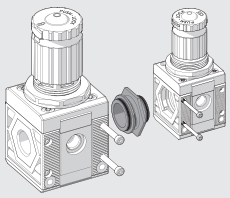
Code	Description
9210004	Adapter for regtronic 1/4 SY1

Max torque for screw, 0.4 Nm

Instructions:

1) Screw the connecting bushing onto the REGTRONIC 1/4 as far as it will go. Use sealant on the G1/4 thread to provide a further seal.
2) Unscrew the bushing slightly until two surfaces of the hexagon are parallel to the body of REGTRONIC 1/4 (see diagram).
3) Insert the bushing into the Syntesi® unit.
4) Tighten the two self-tapping screws in the Syntesi® unit to a torque of 0.4 Nm max.

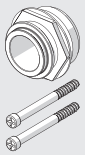
SY1 - SY2 SIZE ADAPTER



Code	Description
9210006	SY1 - SY2 size adapter
9210006X	SY1 - SY2 size adapter anti-corrosion

Max torque for screw, 0.4 Nm for SY1
Max torque for screw, 2.5 Nm for SY2

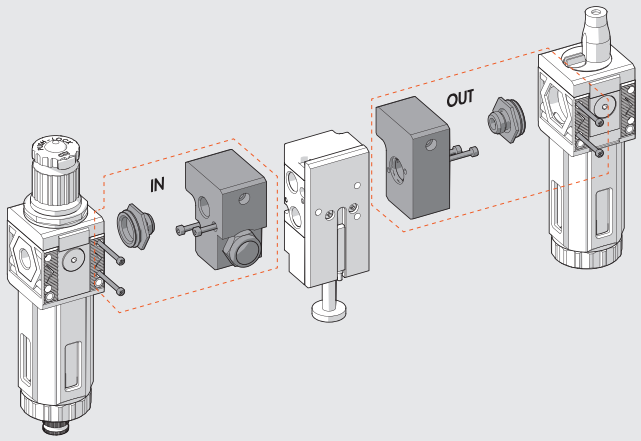
SY1 - SY2 KIT FOR CONNECTION TO FLUX 1 - 2



Code	Description
900099A002	Adapter FLUX 1 - SY1
900099A003	Adapter FLUX 2 - SY2

Max torque for screw, 0.4 Nm for SY1
Max torque for screw, 2.5 Nm for SY2
See page **C7**.18 for the assembly diagram.

SY1 - SY2 KIT FOR CONNECTION TO SERIE 70 SAFE AIR® VALVES

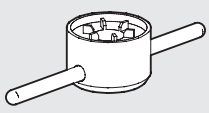


Code	Description
9210015	IN 1/4 SY1 block accessory
9210016	OUT 1/4 SY1 block accessory
9210022	IN 3/8 SY1 block accessory
9210023	OUT 3/8 SY1 block accessory
9210017	IN 3/8 SY2 block accessory
9210018	OUT 3/8 SY2 block accessory
9210020	IN 1/2 SY2 block accessory
9210021	OUT 1/2 SY2 block accessory

Max torque for screw, 0.4 Nm for SY1
Max torque for screw, 2.5 Nm for SY2

See page **B1**.155 for the assembly diagram.

BOWL DISASSEMBLY SPANNER



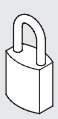
Code	Description
9170601	CS TF - TL BIT/SY1
9210050	CS TF - TL SY2

WALL-FIXING SCREW

Code	Description
9210030	M4 x 55 fixing screw SY1
9210031	M5 x 75 fixing screw SY2

Max torque 0.8 Nm for SY1
Max torque 2.0 Nm for SY2

PADLOCK



Code	Description
9062401	Padlock