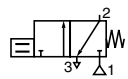
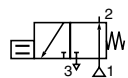


PIEZOTRONIC VALVES

intrinsically safe, EEx ia IIC T6
direct operated, pad mounting
M5-1/8-instant-fitting subbases

NF  **3/2**
Séries
NO  **630**
ATEX

FEATURES

- Miniature, ultra-low power valves for use in potentially explosive atmospheres according to ATEX-Directive 94/9/EC
N° EC type examination certificate: IBEx U01 ATEX 1060 X
- Compliance with the Essential Health and Safety Requirements of the ATEX Directive has been assured by compliance with European Standards **EN 50014, EN 50020, EN 50281-1-1 and EN 50284**
- Intrinsically safe design (class EEx ia) approved for use in potentially explosive atmospheres of group IIC and temperature class T6, suitable for oil, gas, paint manufacturing and application industries
- Specially designed for applications where there is a requirement for low power consumption, low weight and low bulk combined with excellent flow/pressure characteristics. They can be used in zone 0, and are also perfectly suitable for other zones. Electrical connection can be made with cable type A or B according to EN 50039

GENERAL

Differential pressure	2 to 8 bar [1 bar = 100 kPa]	
Response time (ms)	NC	NO
	6 V	780 -
	8 V	650 -
	12 V	320 320
	24 V	130 130

fluids (*)	temperature range (TS)	seal materials (*)
air or neutral gas, filtered at 5 µm (versions 6 V, 8 V et 12 V) or 25 µm version (24 V), without condensate. Dew point: -20°C	-20°C to +50°C	NBR (nitrile)

CONSTRUCTION

Base Compatible CNOMO E06.36.120N (15x15) or CNOMO E06.05.80 (30x30, with adapter)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body	Polyphenylene sulfide (PPS)
Internal parts	Piezo ceramics
Seals	NBR
Subbase	Brass, polyamide or zinc diecast

ELECTRICAL CHARACTERISTICS OF CNOMO (PILOT) INTERFACE

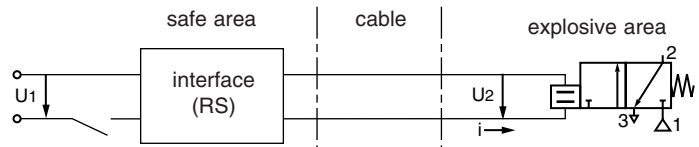
Connector	Spade plug (cable Ø 6 - 7 mm)
Connector specification	Size 15 or 2 leads outlet, length 1 m
Electrical safety	IEC 335
Standard voltages (2)	DC(=) 6V, 8V, 12V, 24V
Duty cycle	100 % (4)

SAFETY CODE

 II 1 GD IP65 EEx ia IIC T6

voltage (U _N) (maximum ripple: 10%) (V)	power rating (P _n) hot / cold (W)	holding current (I _N) (mA)	typical functional ratings					ambient temperature range (TS) (°C) (1)	protection (EN 60529)	spare coil	(C) (3)
			U ₂ (ON) turn on (V)	U ₂ (OFF) turn off (V)	I _{peak} (mA)	I _{hold} (mA)	R _s + R _c barrier + cable (Ω maxi.)				
Ultra low power											
6	0,003	0,5	6..9	3,0	6,0	0,5	1200	-20 to +50	moulded IP65	-	01
8	0,022	2,9	7,2..12	3,2	10,0	2,8	300	-20 to +50	moulded IP65	-	02
12 (12 mW version)	0,012	1,0	10,8..16	3,3	6,8	1,0	1200	-20 to +50	moulded IP65	-	03
12 (32 mW version)	0,032	2,7	10,8..16	3,3	8,1	2,7	470	-20 to +50	moulded IP65	-	04
24 (46 mW version)	0,046	1,9	21,6..28	5,0	10,0	1,9	1200	-20 to +50	moulded IP65	-	05
24 (125 mW version)	0,125	5,2	21,6..28	5,0	14,0	5,2	470	-20 to +50	moulded IP65	-	06

P _n (Watt)	safety parameters				
	U _i (= DC) (V)	I _i (mA)	P _i (W)	L _i (µF)	C _i (mH)
Ultra low power					
All versions	30	200	0,9	0	0



TEMPERATURE CLASSIFICATION TABLES

DC (=) Solenoids

P _n (Watt)	maximum ambient °C (1) surface temperature			
	T6 85°C	T5 100°C	T4 135°C	T3 200°C
Insulation class F (155°C) 100% E.D.(2)				
All	50			

- (1) The minimum allowable ambient temperature is -20°C.
- (2) The piezo-valve is designed for continuous duty within the maximum ambient temperature limits. This intrinsically safe piezo-valve must be connected to a specific, approved power supply (safety barrier or interface) located in a safe area. See list of safety barriers/interfaces on page 2.
- (3) Type of construction, refer to the dimensional drawings on pages 3 and 4.
- (4) Not to be used as a safety valve.

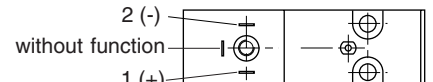
ELECTRICAL CONNECTION

(piezo-valves have polarization)

Version with 2 leads

Red wire : +
Black wire : -

Version spade plug connection



SPECIFICATION

flow coefficient Kv		operating pressure differential (bar)		voltage	power ratings (Pn)	(M)	piezotronic catalogue number	
(m ³ /h)	(l/min)	mini.	maxi. (PS)	(V)	(W)		spade plug connection with size 15 connector	with 2 leads outlet
NC - normally closed								
0,0015	0,026	2	8	6	0,003	X	630 00 061	630 00 062
0,0015	0,026	2	8	6	0,003	▼	630 00 059	630 00 060
0,002	0,033	2	8	8	0,022	X	630 00 091	630 00 092
0,002	0,033	2	8	8	0,022	▼	630 00 093	630 00 094
0,002	0,033	2	8	12	0,012	X	630 00 051	630 00 055
0,002	0,033	2	8	12	0,012	▼	630 00 053	630 00 057
0,002	0,033	2	8	12	0,032	X	630 00 095	630 00 096
0,002	0,033	2	8	12	0,032	▼	630 00 097	630 00 098
0,002	0,033	2	8	24	0,046	X	630 00 043	630 00 047
0,002	0,033	2	8	24	0,046	▼	630 00 045	630 00 049
0,002	0,033	2	8	24	0,125	X	630 00 099	630 00 100
0,002	0,033	2	8	24	0,125	▼	630 00 101	630 00 102
NO - normally open								
0,002	0,033	2	8	12	0,012	X	630 00 052	630 00 056
0,002	0,033	2	8	12	0,012	▼	630 00 054	630 00 058
0,002	0,033	2	8	24	0,046	X	630 00 044	630 00 048
0,002	0,033	2	8	24	0,046	▼	630 00 046	630 00 050

(M) : Type of manual operator: X : without ▼ : impulse

SUBBASES - ACCESSORIES

(C)	description	catalogue number
07	Single subbase, in aluminium, M5 lateral connection	882 63 002 ⁽²⁾
-	-	-
08	Intermediate subbase, in aluminium, (adapter) for mounting of Piezotronic valve, NC , series 630, on CNOMO interface E06.05.80 (30x30)	882 63 001 ⁽²⁾
09	Single subbase, in zinc diecast, G1/8 connection	353 00 047 ^{(1) (2)}
10	Joinable subbase, in zinc diecast, G1/8 connection	353 00 048 ^{(1) (2)}

⁽¹⁾ Subbases with a CNOMO E06.05.80 interface (30x30) require the adapter **882 63 001** for Piezotronic valves mounting.

⁽²⁾ **Assembly safety code [solenoid valve + subbase(s)]: II 2GD IP65 EEx ia IIC T6 .**

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Electrical connection between solenoid valve and barrier/interface with cable type A or B according to EN 50039
- Pipe connections G 1/8 have standard thread according to ISO 228/1

BARRIERS AND COMPATIBLE INTERFACES

Located in safe areas, these barriers and interfaces allow to feed the intrinsically safe, piezotronic valves series 630 located in explosive areas.

This equipment must be ordered from its respective manufacturers, specifying that they are intended to feed intrinsically safe, Piezotronic valves II 1GD EEx ia IIC T6 - IBEExU01 ATEX 1060 X.

manu- facturer	module type	system	Piezotronic 6V / 3mV	Piezotronic 8V / 22mV	Piezotronic 12V / 12mV	Piezotronic 12V / 32mV	Piezotronic 24V / 46mV	Piezotronic 24V / 125mV
CEAG	FB 6208						x	x
Pepperl + Fuchs	FDO-VC-Ex4.PA	Profibus	x					
Stahl	9475/12-04-11	Profibus DP or Modbus RTU				x		
	9475/12-04-21	Profibus DP or Modbus RTU						x
	9475/12-04-31	Profibus DP or Modbus RTU						x
	9475/12-08-41	Profibus DP or Modbus RTU	x	x				
	9475/12-08-51	Profibus DP or Modbus RTU				x		
Turck	AS 80-Ex	Sensoplex II		x			x	x
	DM 80-Ex	Sensoplex II		x				
AP3	NAEV30-DO4H-C024-0						x	x
	NAEV30-DO4L-C024-0						x	
ABB	DX910S	Point to point or Profibus DP	x					

For additional compatible barriers and interfaces, please ask our product support.

DIMENSIONS (mm), WEIGHT (kg)



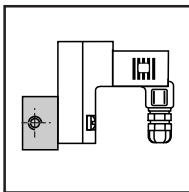
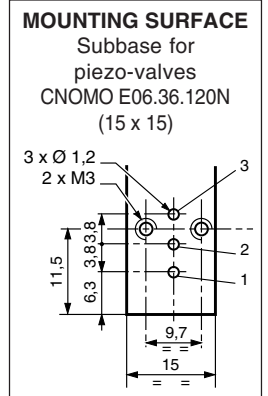
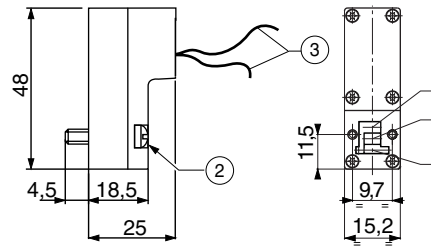
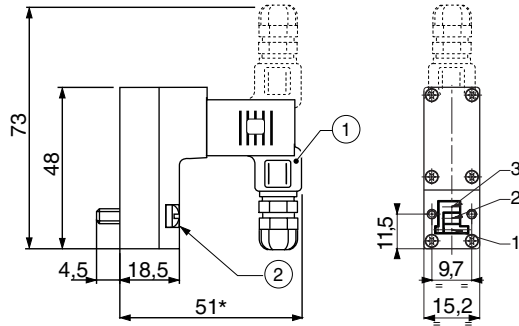
TYPE 01 to 06
Piezo-valves
Ultra low power
EN50020
II 1GD EEx ia IIC
IP65
Weight: 0,031 kg

630 00 061/059/091/083/051/053/095/097/043/
045/099/101/052/054/044/046



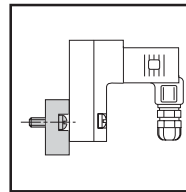
TYPE 01 to 06
Piezo-valves with 2 leads outlet
Ultra low power
EN50020
II 1GD EEx ia IIC
IP65
Weight: 0,023 kg

630 00 062/060/092/094/055/057/096/098/047/
049/100/102/056/058/048/050



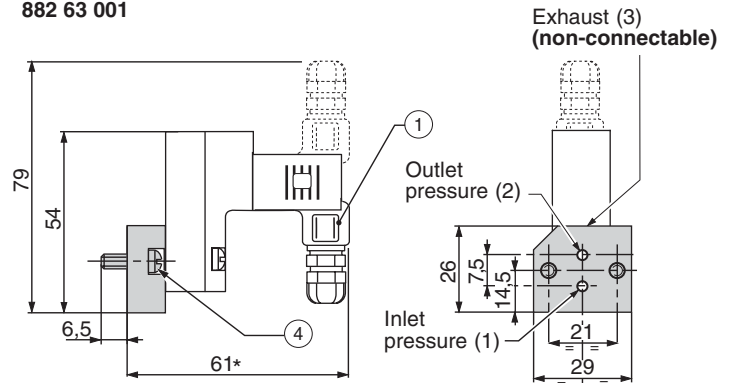
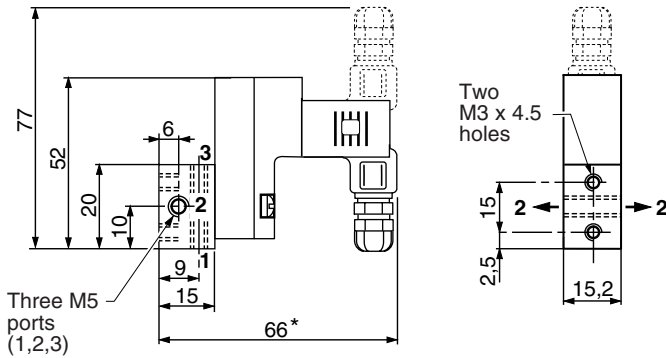
TYPE 07
Single M5 subbases,
aluminium (0,011 kg)

882 63 002 (aluminium)



TYPE 08
CNOMO adapter 30x30
(Only for NC version)
Weight: 0,018 kg

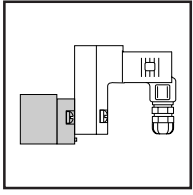
882 63 001



Single subbase connection:
Outlet port (2) can be connected on the left or the right side of the subbase. Close the unused port with a Ø M5 plug (supplied).

- ① Plug connector size 15, rotatable by 90°, cable Ø 6-7 mm
- ② Secured by two screws CM3x20
- ③ 2 leads, length 1 m
- ④ Secured by two screws CM4x10
- (*) +10 mm for connector removal

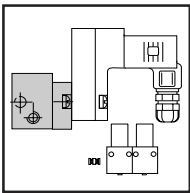
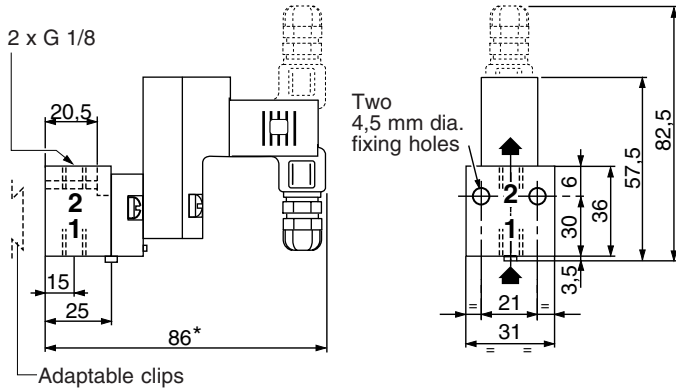
DIMENSIONS (mm), WEIGHT (kg)



TYPE 09

CNOMO adapter + Single G 1/8 subbase
Total weight (with NC solenoid valve and connector): 0,118 kg

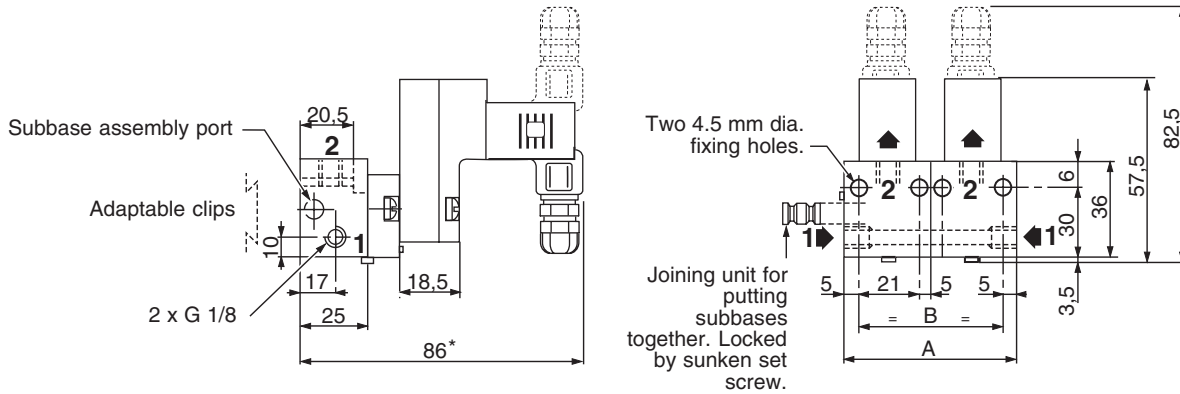
882 63 001 + 353 00 047



TYPE 10

CNOMO adapter + joinable G 1/8 subbase
Total weight (with NC solenoid valve and connector): see table

882 63 001 + 353 00 048



Subbases supplied with seals, screws and joining units for gang mounting
* + 10 mm for connector removal

dimension and weight	number of subbases							
	2	3	4	5	6	7	8	
A	62	93	124	155	186	217	248	
B	52	83	114	145	176	207	238	
weight (kg)	0,363	0,608	0,853	1,098	1,343	1,588	1,833	