

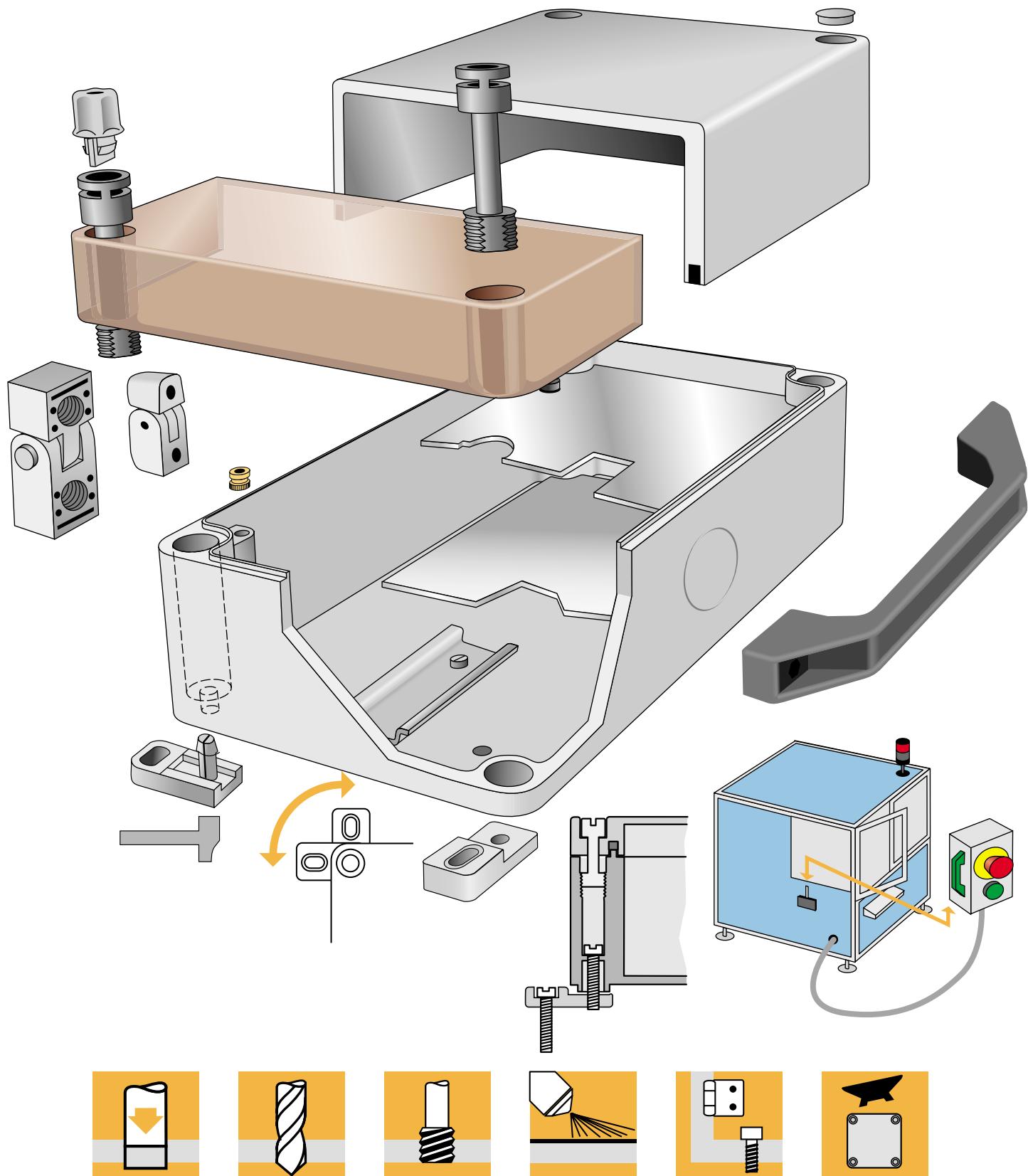


Contenitori in termoplastico *Thermoplastic boxes*



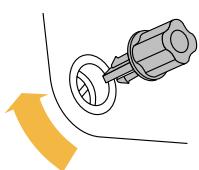
080

Termoplastico / Thermoplastic
Principi costruttivi applicati / Construction principles applied



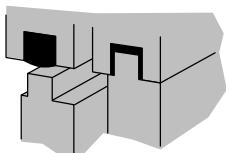
Termoplastico / Thermoplastic

Principi costruttivi applicati / Construction principles applied



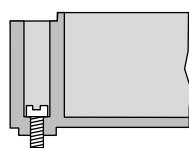
Le manopoline, fornite per l'avvitamento manuale, si incastrano sulla testa delle viti e sono la soluzione ideale per contenitori che devono essere aperti facilmente e comodamente.

The knobs provided for manual tightening fit into the head of the screw and are the ideal solution in the case of containers for which easy, trouble-free opening must be assured



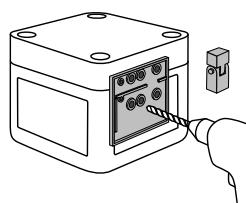
La guarnizione stampata in un unico pezzo adotta il sistema "linguetta-scanalatura" che evita la fuoriuscita o tagli di giunzione, e conferisce al contenitore un grado di protezione IP 66.

The seal, moulded in a single piece, uses the "groove and tongue system" which prevents protrusions or splicing cuts and endows the container with an IP 66-protection rating.



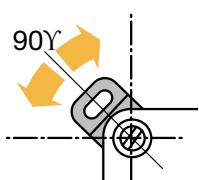
I fori di fissaggio sono situati in cave in asse con le viti del coperchio e quindi esterne alla zona protetta dalla guarnizione; non possono essere manomessi dopo la chiusura del contenitore. Sulla base inferiore della cassetta sono stampate chiaramente le dime di fissaggio per una corretta installazione. Sul fondo della scatola sono predisposti dei fori per fissaggio alternativi agli altri sistemi; una volta serrate le viti gli alloggiamenti delle stesse possono essere coperti con appositi tappi forniti insieme alla scatola.

The fastening holes are located in hollows in line with the screws of the cover, therefore outside the area protected by the seal. They cannot be tampered with once the container has been closed. The fastening template for correct insulation is clearly stamped on the lower base of the box. Alternate fastening holes to other systems are provided on the bottom of the box. Once the screws have been drawn up, their housings can be covered with specific plugs provided together with the box.



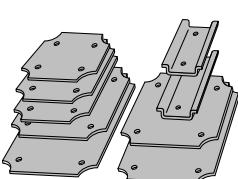
Sono disponibili due versioni di cerniere, in funzione delle dimensioni del contenitore. La foratura per il montaggio è facilitata grazie ad una maschera che si incastra fermamente nel lato da forare. La piastra è fornita in dotazione alla confezione della cerniera.

Two versions of hinges are available according to the dimensions of the container. Drilling for assembly is facilitated by a plate, which firmly fits into the side to be drilled. The plate is furnished with the hinge kit.



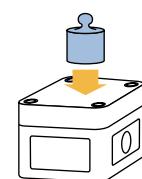
Il fissaggio a muro è possibile grazie all'adozione di apposite staffe in termoplastico di facile montaggio, fornite nella confezione o con staffe in metallo con uso di viti. Le zanche possono ruotare di 90° in modo da facilitare l'installazione.

The boxes can be wall mounted using purpose-designed thermoplastic brackets provided in the kit. Installation is simple and does not require use of screws. The brackets can rotate by 90° to facilitate installation. Fastening is afforded by brass inserts.



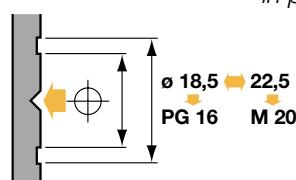
Il fondo della cassetta è predisposto per l'inserimento di piastre o guide din per l'installazione di morsettiero ed altri componenti, e in alcuni modelli è possibile l'installazione di una piastra superiore per montaggio di apparecchi. Il fissaggio è realizzato con inserti in ottone.

The bottom of the box is pre-engineered for insertion of plates or DIN guides for installation of terminal boards and other components, and, in some models, an upper plate can be installed for equipment assembly. Fastening is afforded by brass inserts.



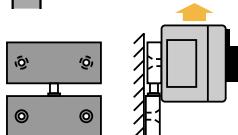
Le caratteristiche del materiale termoplastico, senza alogenri e quindi nessuna emissione di gas pericolosi, e l'elevato spessore delle pareti garantiscono l'utilizzo anche in casi dove il contenitore è sottoposto a situazioni esterne gravose. Classe di isolamento □

The characteristics of the thermoplastic material, without halogens, and therefore without any emissions of hazardous gases and the high gauge walls guarantee use also in cases in which the container is installed in particularly harsh environments. Insulation class □



Su di un lato della base della cassetta, è stampata la dima per una possibile foratura di ingresso cavo, con centrino per il posizionamento dell'utensile. Sono indicate le diverse dimensioni per sistema PG o Metrico.

The template for drilling any cable infeed hole is impressed on one side of the base of the box with a centre mark for tool positioning. The various dimensions for the PG or Metric system are indicated.



E' disponibile un dispositivo per fissare a parete le Contenitori removibili in modo semplice efficiente e sicuro. Sono applicabili maniglie per una presa sicura evitando azionamenti accidentali dei pulsanti.

A device is also available for wall-mounting of the boxes that permits trouble-free, safe and efficient removal. Handles can be applied for safe gripping to avoid accidental activation of the buttons.





Caratteristiche tecniche



PERCHE' I CONTENITORI ELFIN

Il primo criterio di valutazione, quando si opera una scelta sui contenitori da utilizzare, è sicuramente la dimensione; ma successivamente è opportuno analizzare i comportamenti delle Contenitori alle condizioni ambientali in cui devono operare, in sostanza i gradi di protezione e le caratteristiche del materiale.

In questo capitolo sono descritte le caratteristiche dei materiali utilizzati nella produzione delle Contenitori serie 080 in modo da ricercare la qualità del prodotto e facilitare la scelta finale dell'utente.

MATERIALE CASSETTA	Policarbonato con fibre di vetro	Grigio RAL 7035
MATERIALE COPERCHIO GIALLO	Policarbonato	Giallo RAL 1004
MATERIALE COPERCHIO TRASPARENTE	Policarbonato	Fumé
MATERIALE GUARNIZIONE	Poliuretano	Stampato
MATERIALE VITI	Poliammide	Nero
MATERIALE CERNIERE	Policarbonato con fibre di vetro	Grigio RAL 7035
MATERIALE MANOPOLE	Poliammide	Grigio RAL 7035
MATERIALE MANIGLIE	Poliammide	Verde RAL 6010
MATERIALE PRESSACAVI	Poliammide	Grigio RAL 7035
MATERIALE STAFFE	Poliammide con fibre di vetro	Grigio RAL 7035
MATERIALE PIASTRA SUPERIORE	Alluminio	Anodizzato
MATERIALE PIASTRE	Acciaio	Zincato
MATERIALE GUIDE	Acciaio	Zincato
GRADO DI PROTEZIONE	IP 66 - CEI EN 60529	
LIMITI DI TEMPERATURA	Policarbonato -35°C ÷ +80°C Polistirene -25°C ÷ +40°C	
OMOLOGAZIONI	Bureau Veritas, UL	

TERMOPLASTICO POLICARBONATO

Il policarbonato, per le sue qualità fisico meccaniche, è il materiale ideale per la costruzione di contenitori e Contenitori in termoplastico. Le caratteristiche fondamentali sono:

- Alta resistenza alle temperature
- Eccellenti proprietà isolanti anche in presenza di umidità
- Autoestinguente
- Alta resistenza agli shock grazie anche all'uso di fibre di vetro
- Forte resistenza agli agenti chimici
- Possibilità di realizzare prodotti con ottime finiture
- Esecuzione dei coperchi in versione trasparente
- Stabilità ai raggi ultravioletti⁽¹⁾
- Facilità di lavorazioni meccaniche (tranciature, forature, ecc.)
- Possibilità di verniciature, incollatura o saldatura

IL POLIURETANO

Fattore determinante per garantire la qualità di un contenitore è la scelta della guarnizione. Il tipo di materiale e la sua collocazione determinano l'ermeticità e la durata nel tempo del prodotto.

Le Contenitori serie 080 utilizzano una guarnizione in poliuretano che, per sua natura, è il materiale ideale per la protezione di un contenitore.

Le caratteristiche fondamentali sono:

- Residuo di compressione quasi nullo
- Il materiale si stampa direttamente nella scanalatura dei coperchi garantendo così immobilità e continuità
- Alta resistenza alle temperature (da -50° a + 130°C)
- Alta resistenza agli agenti atmosferici



REASONS FOR CHOOSING ELFIN CONTAINERS

When choosing the container to be used, the first aspect to be considered is undeniably size. However, subsequently it is advisable to analyse how the boxes behave in the environmental conditions in which they are required to operate, that is to say protection ratings and characteristics of the material.

This chapter describes the characteristics of the materials used to produce the 080 Series boxes in order to achieve product quality and to facilitate final selection by the user.

BOX MATERIAL	Polycarbonate with glassfiber	RAL 7035 Grey
YELLOW COVER MATERIAL	Polycarbonate	RAL 1004 Yellow
COVER MATERIAL TRANSPARENT	Polycarbonate	Smoky grey
SEAL MATERIAL	Polyurethane	Moulded
SCREW MATERIAL	Polyamides	Black
HINGE MATERIAL	Polycarbonate with fiberglass	RAL 7035 Grey
KNOB MATERIAL	Polyamides	RAL 7035 Grey
HANDLE MATERIAL	Polyamides	RAL 6010 Green
CABLE CLAMP MATERIAL	Polyamides	RAL 7035 Grey
BRACKET MATERIAL	Polyamides with glassfiber	RAL 7035 Grey
UPPER PLATE MATERIAL	Aluminium	Anodised
PLATE MATERIAL	Steel	Galvanised
GUIDE MATERIAL	Steel	Galvanised
PROTECTION RATING	IP 66 - CEI EN 60529	
TEMPERATURE LIMITS	Polycarbonate -35°C ÷ +80°C Polystirene -25°C ÷ +40°C	
APPROVALS	Bureau Veritas, UL	

POLYCARBONATE THERMOPLASTIC

Its physical-mechanical properties make polycarbonate the ideal material for the construction of thermoplastic containers and boxes. Its main characteristics are as follows:

- High resistance to temperatures
- Excellent insulating properties also in the presence of damp
- Self-extinguishing
- High resistance to shock also assured by use of glassfiber
- Strong resistance to chemical agents
- Possibility of constructing products with excellent finish
- Possibility of making transparent covers
- Stability to ultraviolet rays (1)
- Ease of machining (shearing, drilling, etc.)
- Possibility of painting, gluing or soldering

POLYURETHANE

The type of seal used is one of the major factors in guaranteeing the quality of the container. Product seal and duration are closely tied to the type of material used and its position.

The 080 Series boxes are equipped with a polyurethane seal whose properties make it the ideal material to protect a container.

Its main characteristics are as follows

- Almost null residual compression
- The material is moulded directly in the groove of the covers, thus guaranteeing immobility and continuity
- High resistance to temperatures (from -50° to +130°C)
- High resistance to atmospheric agents



Caratteristiche tecniche

CARATTERISTICHE DEI MATERIALI IMPIEGATI NELLA COSTRUZIONE
DEI CONTENITORI SERIE 080

Nelle tabelle seguenti sono indicate le caratteristiche di resistenza dei materiali impiegati nella produzione della serie 080. Nella valutazione di questi dati è opportuno tenere conto della concentrazione degli agenti chimici e della temperatura. In caso di miscele di prodotti chimici agenti sull'involucro è consigliabile effettuare un esame attento per valutare la resistenza effettiva.

RESISTENZA
CHIMICA DEI
TERMOPLASTICI

	acetone	acido formico	benzina	butano	butanolo	cloruro di calcio	olio diesel	acido acetico	formadeside	frigerio T13	succo d'uffra	olio combustibile	olio idraulico	olio di potassio	olio di litio	cloruro di magnesio	acido etilene	olio minerale	olio per motori	carbonato di sodio	acido nitrico	acido cloridrico	acqua solforica	detergente	acqua saponata	acqua dolce e salata	acido tartarico	solfato di zinco	acido clorico	
Poliammide	○	○	○	○	○	○	?	○	○	?	○	○	○	○	○	○	10%	○	○	○	○	○	○	○	○	?	○	○	10%	
Policarbonato	○	30%	○	○	?	○	○	10%	?	○	○	○	○	○	○	○	10%	○	○	○	○	○	○	○	50%	○	○	10%	○	10%
Poliuretano	○	?	○	?	?	?	?	○	?	?	○	○	○	○	○	○	?	○	○	○	○	○	○	○	?	○	○	?	○	?

Legenda: ○ resistente a tutte le concentrazioni ○ resistente a certe concentrazioni ○ non resistente % resistente con concentrazione % max ? manca indicazione

CARATTERISTICHE
TECNICHE
DEI TERMOPLASTICI

Norma ASTM-D Unità	MECCANICHE										TERMICHE					ELETTRICHE				FISICHE					
	resist. a trazione a rottura 23°C	resist. a trazione a rottura 70°C	allung. allo snervamento 23°C	modulo a flessione 23°C	limite fessil. a fatica, 10 ⁶ cicli, 23°C	resist. all'urto Izod con intaglio 23°C	punto di fusione	coeff. dilataz.	temp. di intaglio -40°C	temp. di distorsione 1,8 MPa	temp. di distorsione 0,5 MPa	resistività trasv. 23°C, 0,2% acqua	costante di superficie	fattore di perdita 10 ² -10 ⁶ Hz	rigidità dielettr. nel breve periodo 10 ⁶ Hz	assorb. d'acqua 24 ore saturaz. 23°C	durezza Rockwell M	Coeff. d'attrito (Shore D)	infiammabilità						
Norma ASTM-D Unità	638 MPa	638 MPa	638 %	790 MPa	671 MPa	256 J/m	256 J/m	2133 m^3mc	696 °C	648 °C	648 °C	257 m	257 m	150 150	149 MV/m	495 S	792 g/cm ³	570 %	785 M74	785 R120	UL 0,45	V1 R108	94 V2		
Policarbonato	60	48	7/115	2170	7	850	106	220	6,7	135	140	125	10 ¹⁴	10 ¹⁵	2,9	0,011	15	10	1,2	0,16	M74	R120	0,45	V1	
Poliammide	77	41	30/300	1210	21	112	27	255	7	90	235	100	10 ¹¹	---	8-4,6	0,1	17	---	1,14	1,2	M59	R108	0,4	V2	

CARATTERISTICHE
FISICHE
DELLE GUARNIZIONI

Unità	stabilità alla temperatura	resistenza	tensione di rottura	durezza	peso specifico	residuo di compressione
Poliuretano	-50 +130	0,4	110	12	0,33	5



CHARACTERISTICS OF THE MATERIAL USED TO CONSTRUCT THE 080 SERIES CONTAINERS

The resistance characteristics of the materials used to produce the 080 Series are given in the tables below. When assessing these data, it is advisable to take into account the concentration of chemical agents and temperatures. If the casing is liable to be affected by mixes of chemical products it is advisable to make a careful examination to assess effective resistance.

CHEMICAL RESISTANCE OF THERMOPLASTIC MATERIALS	acetone	formic acid	gasoline	butane	butyl alcohol	calcium chloride	diesel oil	acetic acid	formaldehyde	frigerant 113	fruit juice	glycerol	fuel oil	hydraulic oil	potassium chloride	linseed oil	ethylene chloride	lactic acid	mineral oil	engine oil	sodium carbonate	nitric acid	hydrochloric acid	sulphuric acid	soapy water	detergent	water (soft and salty)	zinc sulfate	tartaric acid	citric acid
	resistant to all concentrations	resistant to certain concentration	not resistant	resistant to concentrations up to %	no indication																									
Polyamides	○	○	○	○	○	○	○	?	○	○	?	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	?	10%	
Polycarbonate	○	30%	○	○	?	○	○	10%	?	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	10%		
Polyurethane	○	?	○	?	?	?	?	○	?	?	○	○	○	○	○	○	○	?	○	○	○	○	○	○	○	?	?	?		

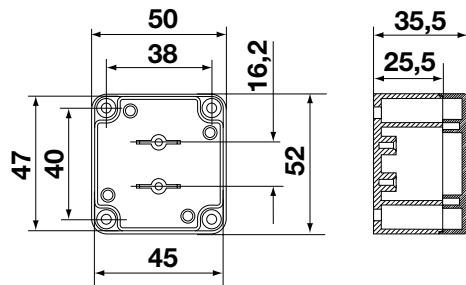
Legend: ● resistant to all concentrations ○ resistant to certain concentration □ not resistant % resistant to concentrations up to % ? no indication

TECHNICAL CHARACTERISTICS OF THERMOPLASTIC MATERIALS	Ultimate tensile strength at 23°C	Ultimate tensile strength at 70°C	Yield elongation/ultimate elongation at 23°C	Bending modulus at 23°C	Fatigue strength limit, 10 ⁶ cycles at 23°C	Izod impact resistance, 10° Cycles at 23°C	Melting point	Coefficient of linear thermal expansion at 40°C	Distortion temperature at 40 +20°C	Maximum continuous temperature at 1.8 MPa	Transverse resistivity, 23°C, 0.2% water	Dielectric constant 10 ² - 10 ⁵ Hz	Dielectric loss factor 10 ⁵ Hz	Arc resistance	Water absorption over a short period (2.3 mm)	Rockwell M hardness	Rockwell R hardness saturation at 23°C	Friction coefficient (Shore D)	Flash point					
	ASTM-D Standards Unit	MPa	MPa	%	MPa	J/m	J/m	°C	10 ⁶ m ⁻¹ °C	°C	Ω m	Ω	150	150	149	495	792	570	785	785	UL 94			
Polycarbonate	60	48	7/115	2170	7	850	106	220	6,7	135	140	125	10 ¹⁴	10 ¹⁵	2,9	0,011	15	10	1,2	0,16	M74	R120	0,45	V1
Polyamides	77	41	30/300	1210	21	112	27	255	7	90	235	100	10 ¹¹	---	8-4,6	0,1	17	---	1,14	1,2	M59	R108	0,4	V2

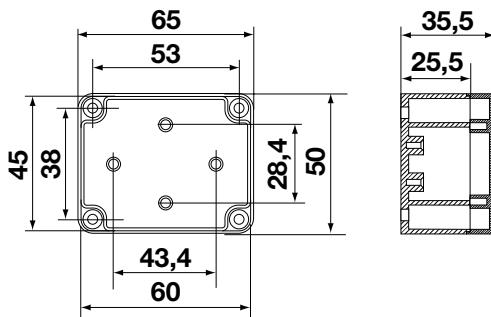
PHYSICAL CHARACTERISTICS OF SEALS	Temperature stability	Resistance	Ultimate strength	Hardness	Specific weight	Residual compression	
	Unit	°C	MPa	%	Shore A	g/cm ³	%
Polyurethane		-50 +130	0,4	110	12	0,33	5

Termoplastico / Thermoplastic **50 x 52 mm**

Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
35,5	40	080C0505-3	

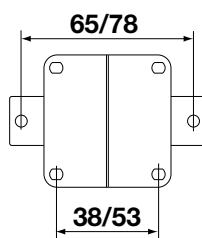
Termoplastico / Thermoplastic **65 x 50 mm**

Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
35,5	50	080C0605-3	



gr.	Adattatore per fissaggio esterno / External fixing adapter
8	080S5065

Regolabile per entrambi i contenitori / Adjustable for both enclosures





Termoplastico / Thermoplastic **65 x 65 mm**



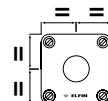
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
		57	76	90	080C0606-5
		81	110	130	080C0606-8



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
Trasparente Transparent		57		85	080C0606-5T
		81		125	080C0606-8T



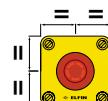
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22		57	72	85	080C0606-5P1C
1 Ø 22		81	106	125	080C0606-8P1C



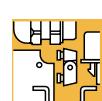
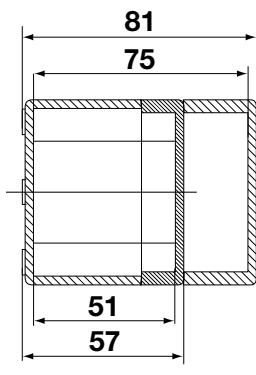
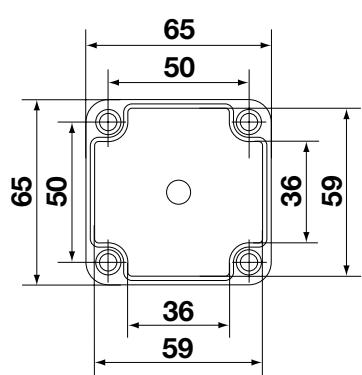
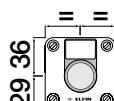
040/080



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22		57	72	85	080CS0606-5GP1
1 Ø 22		81	106	125	080CS0606-8GP1



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22		57	72	85	080CS0606-5P1
1 Ø 22		81	106	125	080CS0606-8P1



Accessori adattabili
Adaptable accessories

Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Manicotto / Coupling	080 MPG16



Termoplastico / Thermoplastic 65 x 65 mm



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	132 080CS0606-5GA	145 080C0606-5GA			
	142 080CS0606-5GA11	145 080C0606-5GA11			



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	177 080CS0606-5GFC	190 080C0606-5GFC			
	187 080CS0606-5GC11	190 080C0606-5GC11			



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	117 080CS0606-5PV	130 080C0606-5PV			



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	117 080CS0606-5PR	130 080C0606-5PR			



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	181 080CS0606-5SC	194 080C0606-5SC			



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	122 080CS0606-5SM	135 080C0606-5SM			



Termoplastico / Thermoplastic 65 x 94 mm



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	57	96	080CS0609-5	115	080C0609-5
	81	135	080CS0609-8	160	080C0609-8



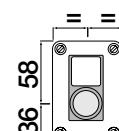
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
Trasparente Transparent	57			110	080C0609-5T
Trasparente Transparent	81			110	080C0609-8T



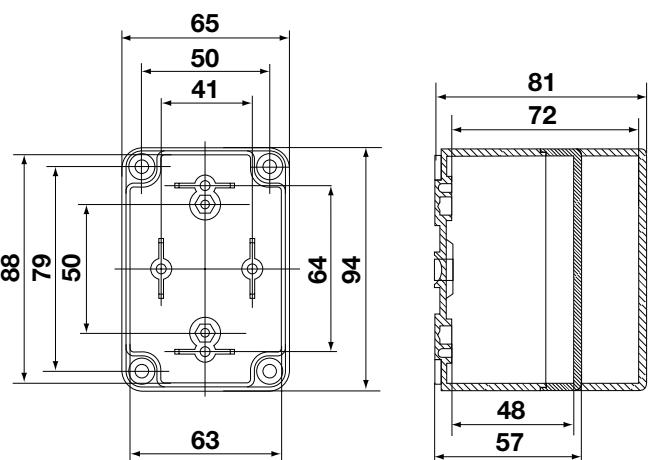
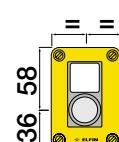
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	57	96	080CS0609-5G	115	080C0609-5G
	81	135	080CS0609-8G	160	080C0609-8G



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22	57	92	080CS0609-5P1	110	080C0609-5P1
1 Ø 22	81	131	080CS0609-8P1	155	080C0609-8P1



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22	57	92	080CS0609-5GP1	110	080C0609-5GP1
1 Ø 22	81	131	080CS0609-8GP1	155	080C0609-8G P1

Accessori adattabili
Adaptable accessories

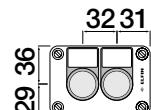
Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Guide / Guides	080 G3508
Manicotto / Coupling	080 MPG16



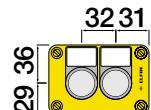
Termoplastico / Thermoplastic 65 x 94 mm



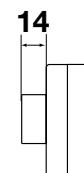
Coperchio Cover	↓	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
2 Ø 22	57	92	080CS0609-5P2	110	080C0609-5P2
2 Ø 22	81	131	080CS0609-8P2	155	080C0609-8P2



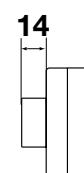
Coperchio Cover	↓	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
2 Ø 22	57	92	080CS0609-5GP2	110	080C0609-5GP2
2 Ø 22	81	131	080CS0609-8GP2	155	080C0609-8GP2



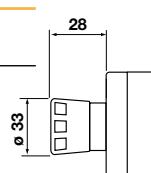
Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
3 - T - 4	Pulsanti guardia intera verde/rosso Push button green/red	172	080CS0609-5IO	190	080C0609-5IO
1 - T - 2					



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
3 - T - 4	Pulsanti guardia intera nero Push button black	172	080CS0609-5S47	190	080C0609-5S47
3 - T - 4					



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene
1 - T - 2			
3 - T - 4			





Termoplastico / Thermoplastic **94 x 94 mm**



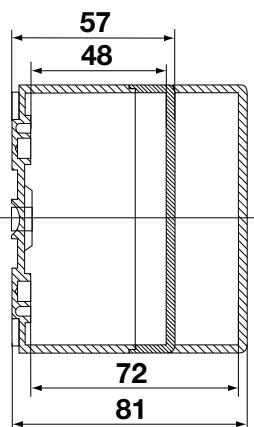
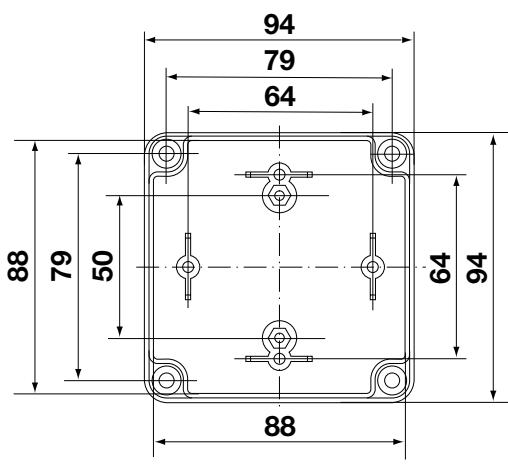
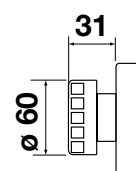
Coperchio Cover	↓	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
57	123	080CS0909-5	147	080C0909-5	
81	172	080CS0909-8	204	080C0909-8	



Coperchio Cover	↓	gr.	Policarbonato Polycarbonate
Trasparente Transparent	57	142	080C0909-5T
Trasparente Transparent	81	196	080C0909-8T



Funzione Operation	Coperchio Cover	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 2	Pulsante fungo aggancio scatto Ø 60 <i>Red fast locking mushroom button Ø 60</i>	166	080CS0909-5GFFA	179	080C0909-5GFFA



Accessori adattabili
Adaptable accessories

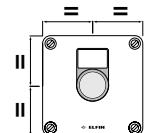
Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Piastre / Plates	080 P0909
Guide / Guides	080 G3508
Manicotto / Coupling	080 MPG16



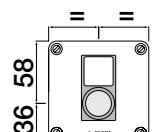
Termoplastico / Thermoplastic 94 x 94 mm



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22	57	121	080CS0909-5P1C	145	080C0909-5P1C
1 Ø 22	81	170	080CS0909-8P1C	202	080C0909-8P1C



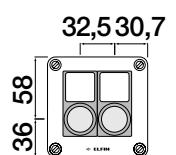
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22	57	121	080CS0909-5P1	145	080C0909-5P1
1 Ø 22	81	170	080CS0909-8P1	202	080C0909-8P1



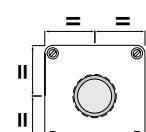
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 22	57	121	080CS0909-5GP1	145	080C0909-5GP1
1 Ø 22	81	170	080CS0909-8GP1	202	080C0909-8GP1



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
2 Ø 22	57	119	080CS0909-5P2	143	080C0909-5P2
2 Ø 22	81	168	080CS0909-8P2	200	080C0909-8P2



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
1 Ø 30	81	168	080CS0909-8S1	200	080C0909-8S1



Termoplastico / Thermoplastic **94 x 130 mm**

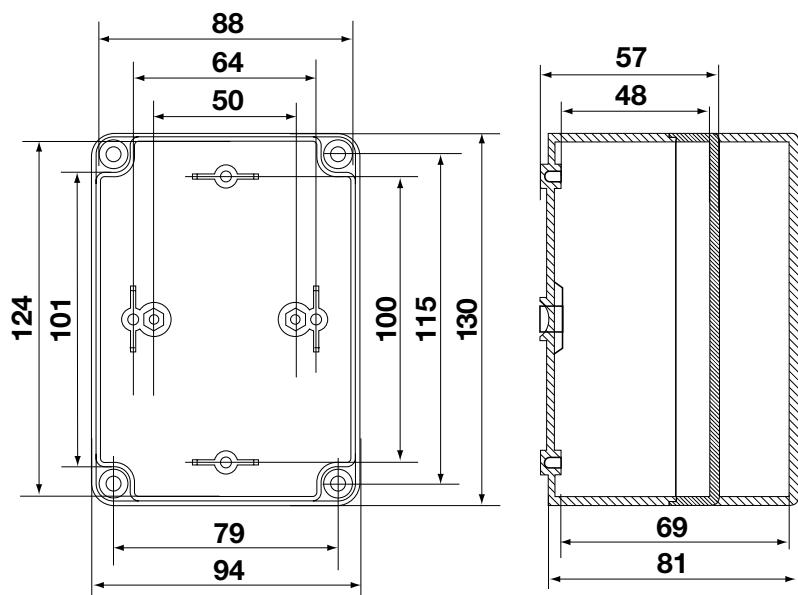
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	57	152	080CS0913-5	181	080C0913-5
	81	213	080CS0913-8	254	080C0913-8



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	57	152	080CS0913-5G	181	080C0913-5G
	81	213	080CS0913-8G	254	080C0913-8G



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
Trasparente Transparent	57	166	080C0913-5T
Trasparente Transparent	81	240	080C0913-8T

Accessori adattabili
Adaptable accessories

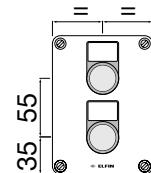
Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Piastre / Plates	080 P0909
Guide / Guides	080 G3508
Guide / Guides	080 G3512
Manicotto / Coupling	080 MPG16



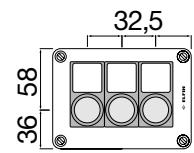
Termoplastico / Thermoplastic 94 x 130 mm



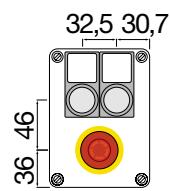
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
2 Ø 22	57	149	080CS0913-5P2	177	080C0913-5P2
2 Ø 22	81	210	080CS0913-8P2	250	080C0913-8P2



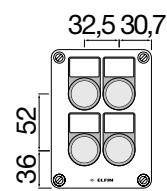
Coperchio Cover Polycarbonate	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
3 Ø 22	57	147	080CS0913-5P3L	175	080C0913-5P3L
3 Ø 22	81	208	080CS0913-8P3L	248	080C0913-8P3L



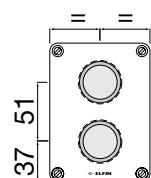
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
3 Ø 22	57	147	080CS0913-5P3C	175	080C0913-5P3C
3 Ø 22	81	208	080CS0913-8P3C	248	080C0913-8P3C



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
4 Ø 22	57	145	080CS0913-5P4	173	080C0913-5P4
4 Ø 22	81	206	080CS0913-8P4	246	080C0913-8P4



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
2 Ø 30	81	206	080CS0913-8S2	246	080C0913-8S2





Termoplastico / Thermoplastic **94 x 180 mm**



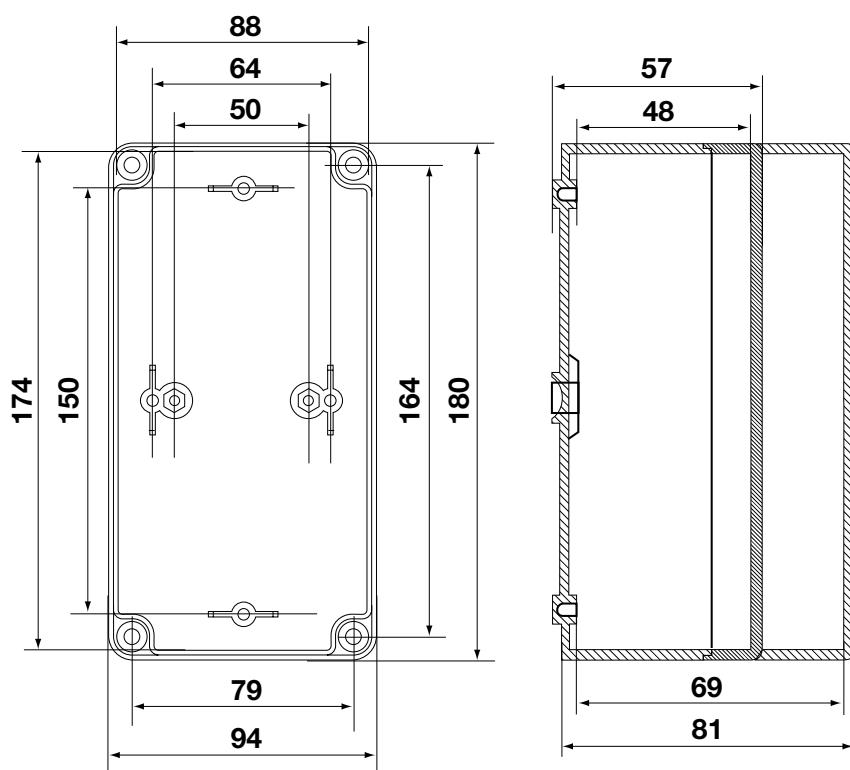
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	57	201	080CS0918-5	241	080C0918-5
	81	263	080CS0918-8	314	080C0918-8



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
	57	201	080CS0918-5G	241	080C0918-5G
	81	263	080CS0918-8G	314	080C0918-8G



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
Trasparente Transparent	57	228	080C0918-5T
Trasparente Transparent	81	300	080C0918-8T



Accessori adattabili
Adaptable accessories

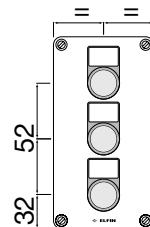
Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Maniglia / Handle	080 MA
Piastre / Plates	080 P0918
Guide / Guides	080 G3508
Guide / Guides	080 G3517
Manicotto / Coupling	080 MPG16



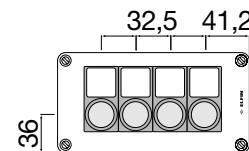
Termoplastico / Thermoplastic 94 x 180 mm



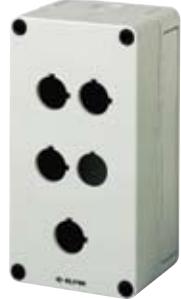
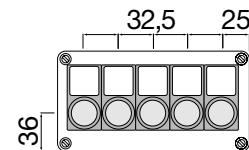
Coperchio Cover	↔		Polistirene Polystyrene		Policarbonato Polycarbonate
3 Ø 22	57	197	080CS0918-5P3	235	080C0918-5P3
3 Ø 22	81	259	080CS0918-8P3	308	080C0918-8P3



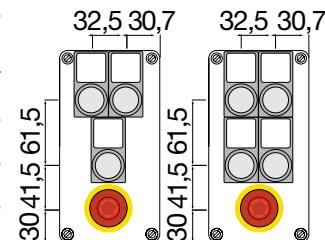
Coperchio Cover	↔		Polistirene Polystyrene		Policarbonato Polycarbonate
4 Ø 22	57	195	080CS0918-5P4L	233	080C0918-5P4L
4 Ø 22	81	257	080CS0918-8P4L	306	080C0918-8P4L



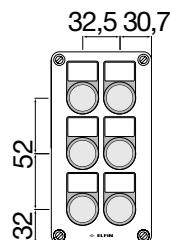
Coperchio Cover	↔		Polistirene Polystyrene		Policarbonato Polycarbonate
5 Ø 22	57	193	080CS0918-5P5L	231	080C0918-5P5L
5 Ø 22	81	255	080CS0918-8P5L	304	080C0918-8P5L



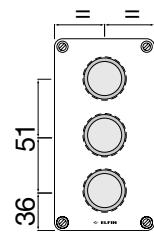
Coperchio Cover	↔		Polistirene Polystyrene		Policarbonato Polycarbonate
4 Ø 22	57	193	080CS0918-5P4C	231	080C0918-5P4C
4 Ø 22	81	255	080CS0918-8P4C	304	080C0918-8P4C
5 Ø 22	57	193	080CS0918-5P5C	231	080C0918-5P5C
5 Ø 22	81	255	080CS0918-8P5C	304	080C0918-8P5C



Coperchio Cover	↔		Polistirene Polystyrene		Policarbonato Polycarbonate
6 Ø 22	57	191	080CS0918-5P6	229	080C0918-5P6
6 Ø 22	81	253	080CS0918-8P6	302	080C0918-8P6



Coperchio Cover	↔		Polistirene Polystyrene		Policarbonato Polycarbonate
3 Ø 30	81	308	080CS0918-8S3	308	080C0918-8S3

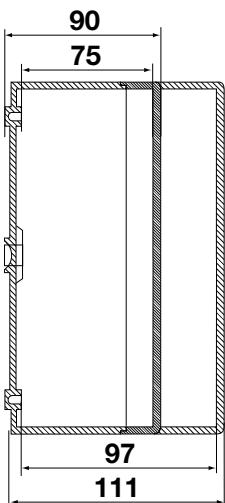
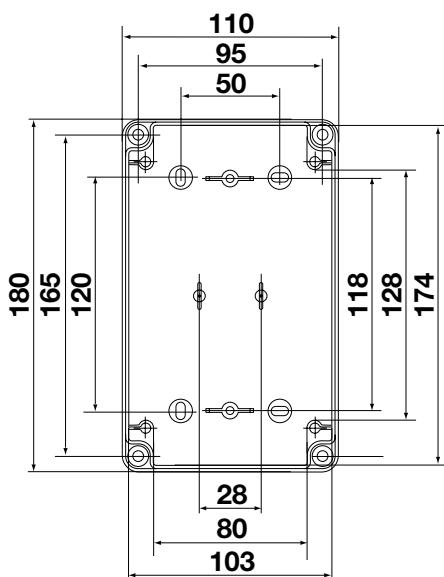


Termoplastico / *Thermoplastic* 110 x 180 mm

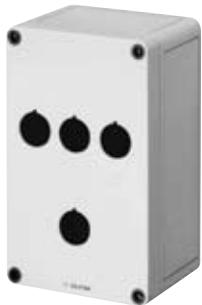
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
90	380	080CS1118-9	380	080C1118-9	
111	360	080CS1118-11	430	080C1118-11	



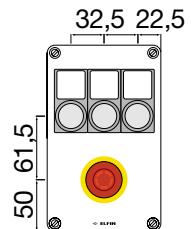
Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
Trasparente Transparent	90	374	080C1118-9T
Trasparente Transparent	111	426	080C1118-11T

Accessori adattabili
Adaptable accessories

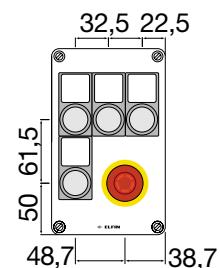
Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CG
Piastre / Plates	080 P1118
Piastra superiore <i>Upper plate</i>	080 PS1118
Guide / Guides	080 G3508
Guide / Guides	080 G3517
Manicotto / Coupling	080 MPG16

Termoplastico / Thermoplastic **110 x 180 mm**

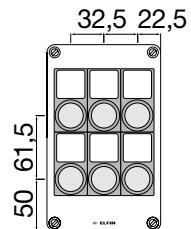
Coperchio Cover	↔	 gr.	Polistirene Polystyrene	 gr.	Policarbonato Polycarbonate
4 Ø 22	90	314	080CS1118-9P4C	376	080C1118-9P4C



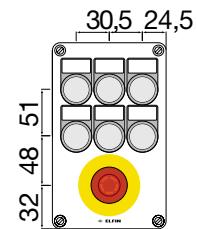
Coperchio Cover	↔	 gr.	Polistirene Polystyrene	 gr.	Policarbonato Polycarbonate
5 Ø 22	90	314	080CS1118-9P5C	376	080C1118-9P5C



Coperchio Cover	↔	 gr.	Polistirene Polystyrene	 gr.	Policarbonato Polycarbonate
6 Ø 22	90	314	080CS1118-9P6	376	080C1118-9P6



Coperchio Cover	↔	 gr.	Polistirene Polystyrene	 gr.	Policarbonato Polycarbonate
7 Ø 22	90	314	080CS1118-9P7C	376	080C1118-9P7C





Termoplastico / Thermoplastic **180 x 182 mm**



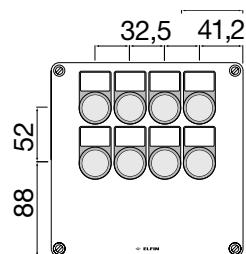
Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
63			480	080C1818-6	
84			550	080C1818-8	
90	452	080CS1818-9	545	080C1818-9	
111	500	080CS1818-11	600	080C1818-11	



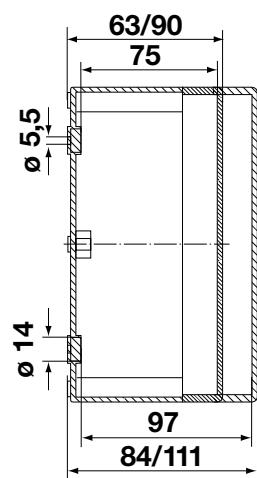
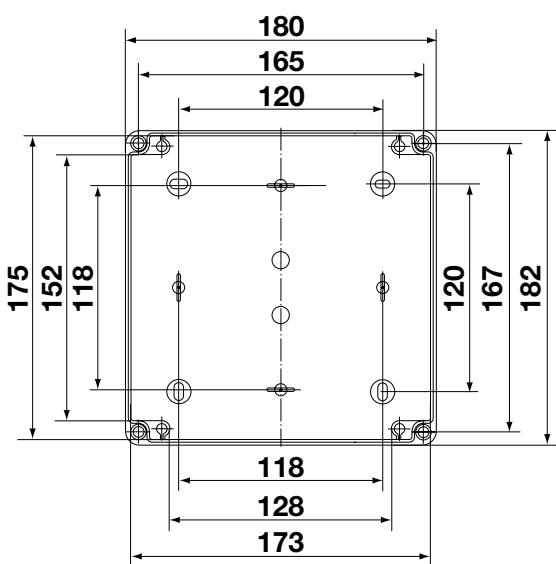
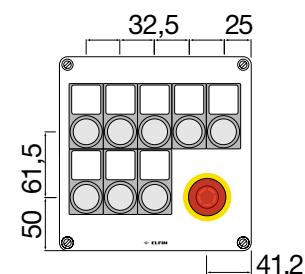
Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
Trasparente Transparent	63	465	080C1818-6T
Trasparente Transparent	84	520	080C1818-8T
Trasparente Transparent	90	530	080C1818-9T
Trasparente Transparent	111	569	080C1818-11T



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
8 Ø 22	90	520	080C1818-9P8



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
9 Ø 22	90	515	080C1818-9P9C



Accessori adattabili
Adaptable accessories

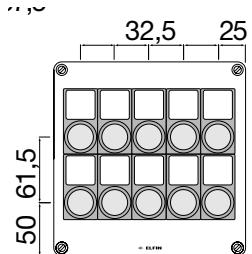
- | | |
|---|------------|
| Manopole / Knobs | 080 M |
| Staffe / Brackets | 080 S |
| Cerniere / Hinges | 080 CP |
| Cerniere / Hinges | 080 CG |
| Piastre / Plates | 080 P1818 |
| Piastra superiore
<i>Upper plate</i> | 080 PS1818 |
| Maniglia / Handle | 080 MA |
| Guide / Guides | 080 G3517 |
| Manicotto / Coupling | 080 MPG16 |

Termoplastico / Thermoplastic **180 x 182 mm**Coperchio
Cover**10 Ø 22**

90

Policarbonato
Polycarbonate

515 080C1818-9P10

Coperchio
Cover**12 Ø 22**

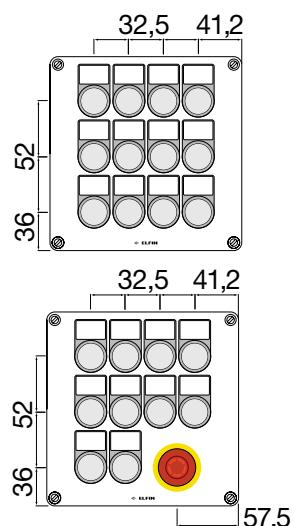
9

Policarbonato
Polycarbonate

515 080C1818-9P12

11 Ø 22

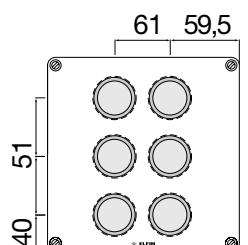
515 080C1818-9P11C

Coperchio
Cover**6 Ø 30**

90

Policarbonato
Polycarbonate

515 080C1818-9S6





Termoplastico / Thermoplastic 180 x 254 mm



Coperchio Cover	↔	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
63			615		080C1825-6
84			670		080C1825-8
90	595	080CS1825-9	720		080C1825-9
111	640	080CS1825-11	775		080C1825-11



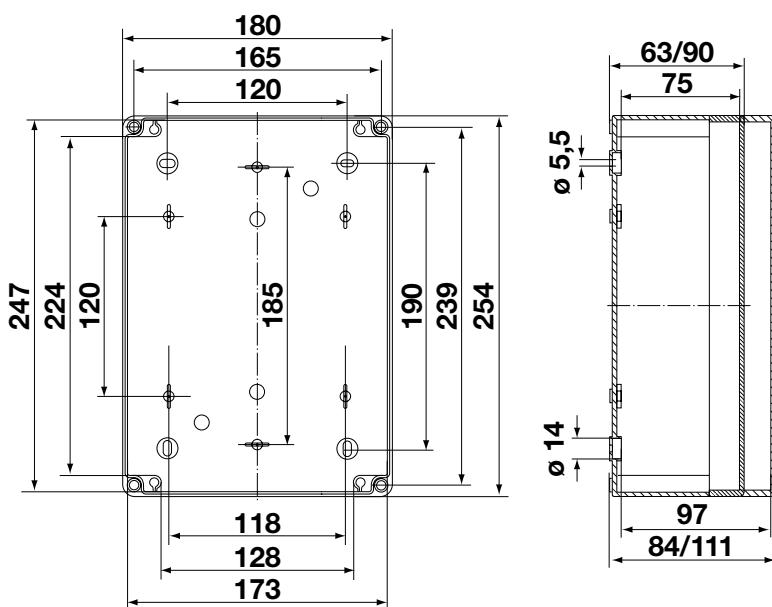
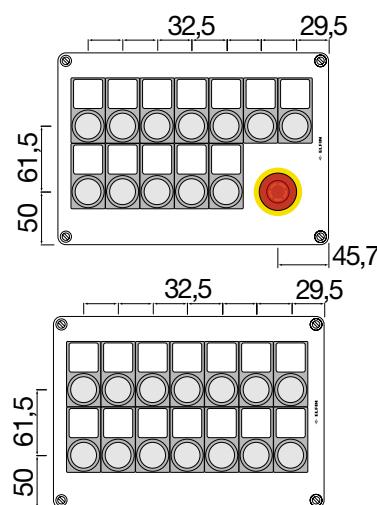
Coperchio Cover	↔	gr.	Policarbonato Polycarbonate	
Trasparente Transparent	63		590	080C1825-6T
Trasparente Transparent	84		640	080C1825-8T
Trasparente Transparent	90		695	080C1825-9T
Trasparente Transparent	111		745	080C1825-11T



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
13 Ø 22	90		694 080C1825-9P13C



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
14 Ø 22	90		694 080C1825-9P14



Accessori adattabili
Adaptable accessories

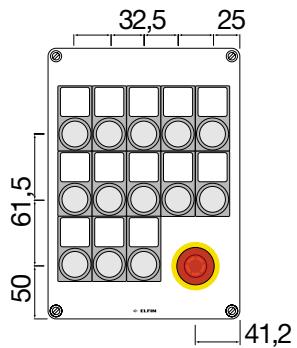
Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Cerniere / Hinges	080 CG
Piastra / Plates	080 P1825
Piastra superiore <i>Upper plate</i>	080 PS1825
Maniglia / Handle	080 MA
Guide / Guides	080 G3517
Guide / Guides	080 G3522
Manicotto / Coupling	080 MPG16



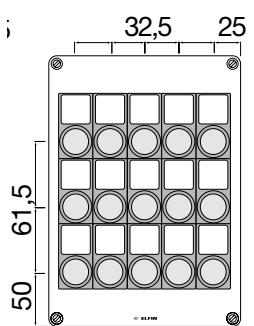
Termoplastico / Thermoplastic 180 x 254 mm



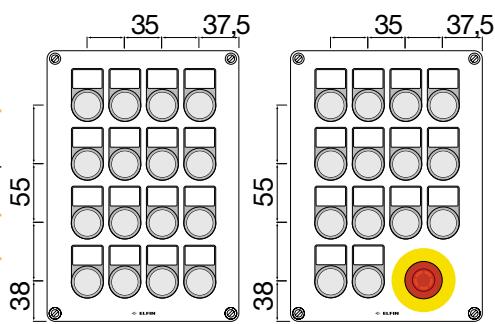
Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
14 Ø 22	90	694	



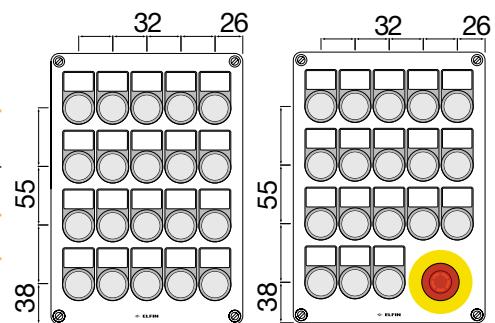
Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
15 ori Ø 22	90	694	080C1825-9P15



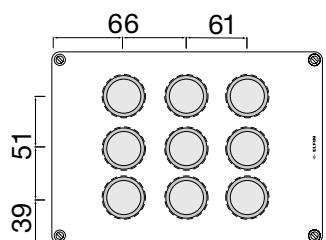
Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
15 Ø 22	90	694	080C1825-9P15C
16 Ø 22	90	694	080C1825-9P16



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
19 Ø 22	90	686	080C1825-9P19C
20 Ø 22	90	686	080C1825-9P20



Coperchio Cover	↔	gr.	Policarbonato Polycarbonate
9 Ø 30	90	691	080C1825-9S9

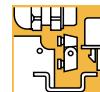


Termoplastico / Thermoplastic **254 x 361 mm**

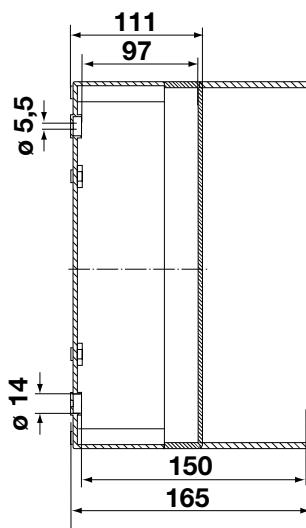
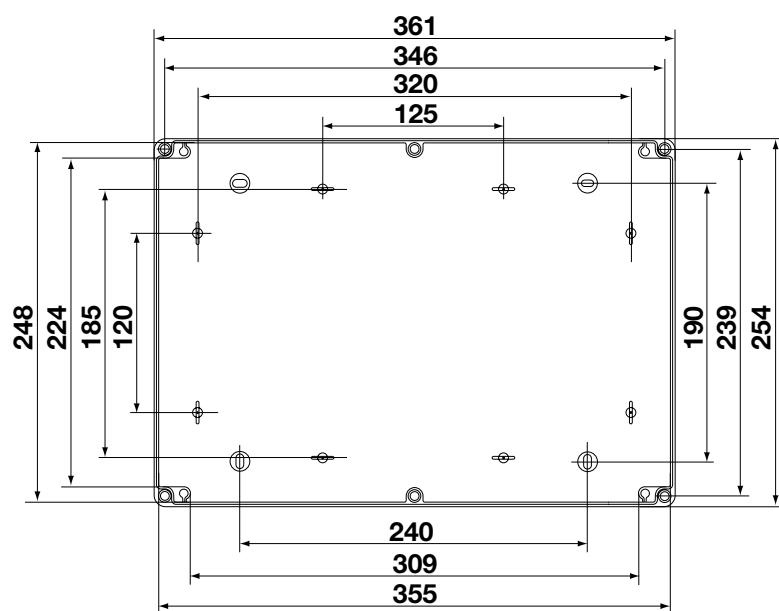
Coperchio Cover	↓	gr.	Polistirene Polystyrene	gr.	Policarbonato Polycarbonate
111	1140	080CS2536-11	1.390	080C2536-11	
165	1410	080CS2536-16	1.720	080C2536-16	



Coperchio Cover	↓	gr.	Policarbonato Polycarbonate
Trasparente Transparent	111	1.330	080C2536-11T
Trasparente Transparent	165	1.640	080C2536-16T

Accessori adattabili
Adaptable accessories

Manopole / Knobs	080 M
Staffe / Brackets	080 S
Cerniere / Hinges	080 CP
Cerniere / Hinges	080 CG
Piastre ⁽¹⁾ / Plates ⁽¹⁾	080 P1825
Maniglia / Handle	080 MA
Guide / Guides	080 G3517
Guide / Guides	080 G3522
Manicotto / Coupling	080 MPG16





Accessori / Accessories



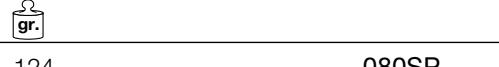
1 Manopola / Knob 080M



1 Staffe / Brackets 080S



30 Kit staffe / Brackets kit 010S10

7 Cerniera piccola 080CP
Small hinge27 Cerniera grande 080CG
Big hinge13 Articolo fornito con coppia di cerniere
Item supplied with a couple of hinges124 080SP
Sistema di fissaggio a parete per contenitori removibili / Wall mounting system for movable boxes

58 Maniglia / Handle A 080M139

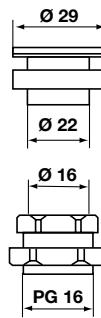
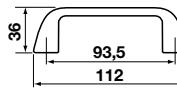
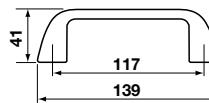
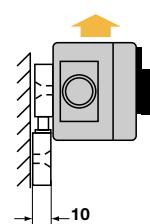
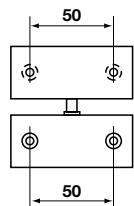
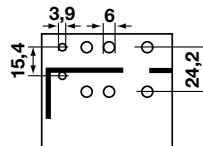
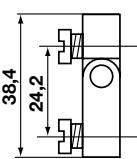
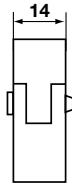
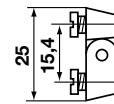
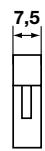
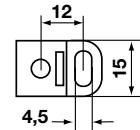
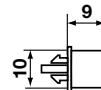


42 Maniglia / Handle B 080M112



12 Tappo di chiusura / Plug 020TTP

12 Tappo di chiusura / Plug 020TTPN

7 Manicotto di giunzione 080MPG16
Coupling



gr.	Piastra / Plate
100	



148	Piastra / Plate	080P0913
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210	Piastra / Plate	080P0918
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270	Piastra / Plate	080P1118
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425	Piastra / Plate	080P1818
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613	Piastra / Plate	080P1825
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285	Piastra superiore <i>Upper plate</i>	080PS1118
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130	Piastra superiore <i>Upper plate</i>	080PS1818
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185	Piastra superiore <i>Upper plate</i>	080PS1825
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30	Guida / Rail Ω 35	080G3508	L = 86
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42	Guida / Rail Ω 35	080G3512	L = 120
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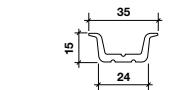
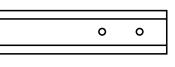
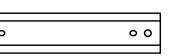
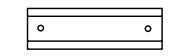
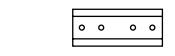
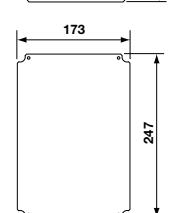
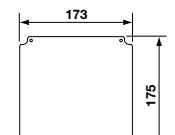
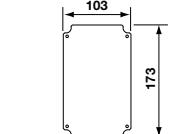
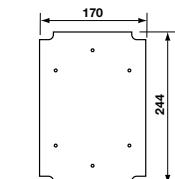
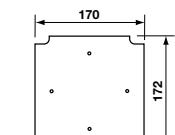
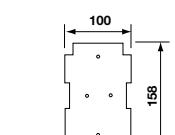
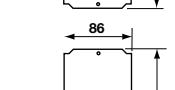
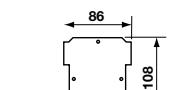
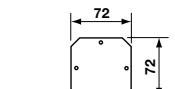
59	Guida / Rail Ω 35	080G3517	L = 170
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77	Guida / Rail Ω 35	080G3522	L = 240
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760	Guida / Rail Ω 35 PVC	010GDP	L = 2000
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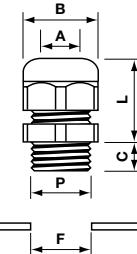




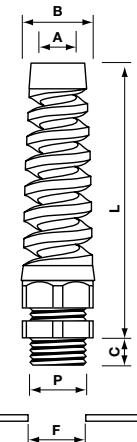
Pressacavi

PASSACAVI
CABLE CLAMPS⁽¹⁾

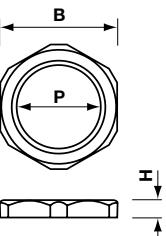
P	gr.	F	A	B	C	L	CODICE
PG7	4	12,5	3-6,5	15	8	18-22	010NPG7
PG9	6	15,5	4-8	19	8	22-26	010NPG9
PG11	9	19	5-10	22	8	23-28	010NPG11
PG13,5	11	20,5	6-12	24	10	24-29	010NPG13
PG16	13	22,5	9-14	27	10,5	26-31	010NPG16
PG21	21	29	13-18	33	12	30-35	010NPG21
M12 x 1,5	4	12,5	3-6,5	15	8	21	010NM12
M16 x 1,5	7	16,5	5-10	22	8	23-28	010NM16
M20 x 1,5	11	20,5	6-12	24	10	24-29	010NM20
M25 x 1,5	16	25,5	13-18	33	12	30-35	010NM25
M32 x 1,5	23	32,5	18-25	42	11	34-40	010NM32

SPIRALI / SPIRALS⁽¹⁾

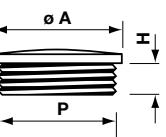
P	gr.	F	A	B	C	L	CODICE
PG11	16	19	5-10	22	8	80	010FPG11
PG13,5	19	20,5	6-12	24	10	90	010FPG13
PG16	25	22,5	9-14	27	10,5	100	010FPG16
PG21	25	29	13-18	33	11	111	010FPG21
M12 x 1,5	7	126,5	3-6,5	15	8	54	010FM12
M16 x 1,5	10	16,5	5-10	22	8	80	010FM16
M20 x 1,5	19	20,5	6-12	24	10	90	010FM20
M25 x 1,5	33	25,5	13-18	33	12	112	010FM25

CONTRODADO
LOCK NUT⁽¹⁾

P	gr.	B	H	CODICE
PG7	1	19	5	010DPG7
PG9	2	22	5	010DPG9
PG11	2	24	5	010DPG11
PG13,5	2,5	27	6	010DPG13
PG16	3	30	6	010DPG16
PG21	3,5	36	7	010DPG21
M12 x 1,5	1	18	5	010DM12
M16 x 1,5	1,5	24	6	010DM16
M20 x 1,5	2	27	6	010DM20
M25 x 1,5	3	34	7	010DM25
M32 x 1,5	5	41	7	010DM32

TAPPI / PLUGS⁽²⁾

P	gr.	ø A	H	CODICE
PG7	1	15	6	010TPG7
PG9	1,5	19	6	010TPG9
PG11	2	22	7	010TPG11
PG13,5	2	25	7	010TPG13
PG16	3	27	7	010TPG16
PG21	5	33	9	010TPG21
M12 x 1,5	1	15	6	010TM12
M16 x 1,5	2	22	6	010TM16
M20 x 1,5	2,4	24	7	010TM20
M25 x 1,5	4	33	9	010TM25
M32 x 1,5	42	38	11	010TM32

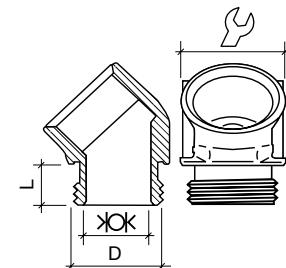


(1) Poliammide PA6 autoestinguente cl. V2 (UL94) - Temperatura d'impiego -20° ÷ +90° / V2 (UL94) self-extinguishingPA polyammide operating temperature -20° ÷ +90°

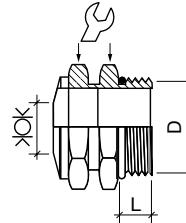
(2) Polistirolo PS - Temperatura d'impiego -20° ÷ +60° / PS Polystirene - operating temperature -20° ÷ +60°

Raccordi metallici / *Metal connectors*⁽¹⁾Raccordo curvo a 45° - *Connector bent to 45°*

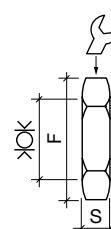
gr.	D	KOK	L	
26	M16x1,5	11,5	19	010GIM16
38	M20x1,5	15	23	010GIM20
55	M25x1,5	20	28	010GIM25
90	M32x1,5	27	36	010GIM32

Pressacavi / *Glands*

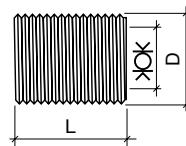
gr.	D	KOK	LF	
14	M16x1,5	5 ÷ 9	18	010POM16
20	M20x1,5	8 ÷ 12	22	010POM20
34	M25x1,5	11 ÷ 16	28	010POM25
50	M32x1,5	15 ÷ 21	35	010POM32

Ghiere ribassate / *Flat rings nuts*

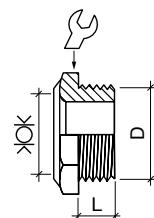
gr.	D	S	
4	M16x1,5	19	3
6	M20x1,5	24	3,5
12	M25x1,5	30	3,5
26	M32x1,5	36	4,5

Nippli / *Nipples*

gr.	D	KOK	L	
8	M16x1,5	12	21	010NPM16
20	M20x1,5	15	24,5	010NPM20
18	M25x1,5	20	25	010NPM25
30	M32x1,5	26	32	010NPM32

Bussole / *Adapters*

gr.	D	KOK	L	
18	M16x1,5	12	22	010BM16
22	M20x1,5	15	26	010BM20
20	M25x1,5	21	30	010BM25
28	M32x1,5	28	40	010BM32



Valvola di ventilazione anticondensa Anti-condensate ventilation valve



La valvola anticondensa è la soluzione ideale per risolvere i problemi di compensazione di pressione e protezione dall'umidità che si possono creare nelle cassette pulsantiere poste in condizioni ambientali critiche. La particolare struttura a membrana permette la circolazione dell'aria ed impedisce l'entrata di liquidi all'interno della cassetta grazie anche alla guarnizione O-ring.

La valvola trova applicazioni ottimali in pannelli di controllo, telai di motori, cassette, pompe, luci sotterranee, luci spot, ecc.

The anti-condensate valve is the ideal solution to solve pressure compensation and humidity problems that could arise with push-button panels, enclosed in boxes and exposed to critical environmental conditions. Its special membrane configuration, along with the O-ring with which it is equipped, facilitate the circulation of air and prevent the entrance of liquids inside the box. This valve can be ideally used for control panels, motor frames, boxes, pumps, underground lighting systems, spot lights, etc.

Caratteristiche - Characteristics

Permeabile all'aria e resistente all'acqua in entrambe le direzioni.
Permeable to air and resistant on both sides.

Repellente all'olio: 010VV - 010VV400

Oleophobic: 010VV - 010VV400

Superficie attiva delle membrane nel tappo di aerazione è di 0,5 cm²
Activated area of the membrane in the aeration cup is 0,5 cm²

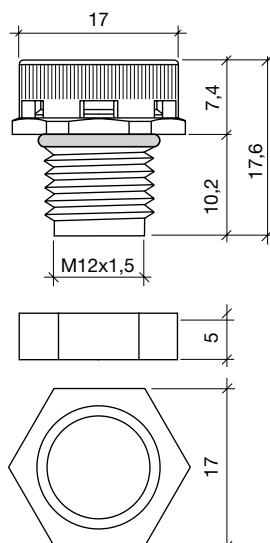
Grado di protezione: IP67

Protection degree: IP67

Temperatura di lavoro: -40°C / + 105°C

Operating temperature: -40°C / +105°C

L'applicazione orizzontale non è consigliata
Horizontal application is not recommended



gr.	permeabilità all'aria permeability to air	pressione ingresso acqua water inlet pressure	
1,5	2 lt./min. $\Delta p = 70\text{mbar}$	max 0,1 bar /60 s	010VV
1,5	0,4lt./min. $\Delta p = 70\text{mbar}$	max 0,6 bar / 60s	010VV400
1,5	1,7lt./min. $\Delta p = 70\text{mbar}$	max 0,3 bar / 60s	010VV1700
0,7			010DM12