

MINICILINDRI SERIE E Ø16-25 E SERIE MINICYLINDERS Ø16-25



TESTATE COVERS	ALLUMINIO ALUMINIUM
TUBO TUBE	ACCIAIO INOX AISI 304 AISI 304 STAINLESS STEEL
PISTONE PISTON	Ø 16 OTTONE Ø 16 BRASS Ø 20-25 ALLUMINIO Ø 20-25 ALUMINIUM
GUARNIZIONI SEALS	POLIURETANO + NBR POLYURETHANE + NBR
BRONZINA BUSH	PLASTICA PLASTIC
ASTA PISTON ROD	ACCIAIO INOX AISI 303 AISI 303 STAINLESS STEEL

PRESSIONE DI FUNZIONAMENTO
WORKING PRESSURE

MAX 10 BAR

TEMPERATURA DI IMPIEGO
TEMPERATURE

-20°C +80°C CON ARIA SECCA
-20°C +80°C WITH DRY AIR

FLUIDO
WORKING FLUID

ARIA COMPRESSA FILTRATA E LUBRIFICATA E NON
FILTERED AND LUBRICATED OR NOT COMPRESSED AIR

VERSIONI DISPONIBILI AVAILABLE VERSIONS

CDE_E1,E2,E3 - CDEM_E1,E2,E3

CORSE STANDARD STANDARD STROKES

Ø mm	10	25	40	50	80	100	125	160	200	250	300	320
16	✕	✕	✕	✕	✕	✕	✕	✕	✕			
20	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕
25	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕	✕

DOPPIO EFFETTO
DOUBLE ACTING

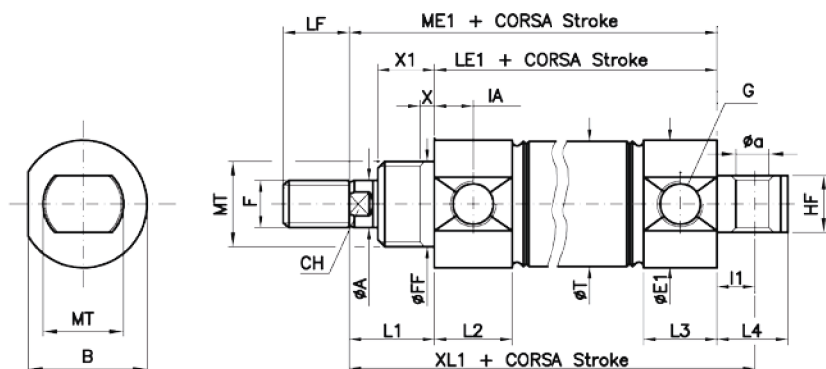
DOPPIO EFFETTO Ø16

DOUBLE ACTING Ø16

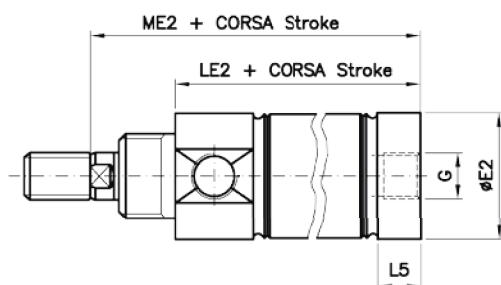
CDEØ/...E1,E2,E3

CDEMØ/...E1,E2,E3

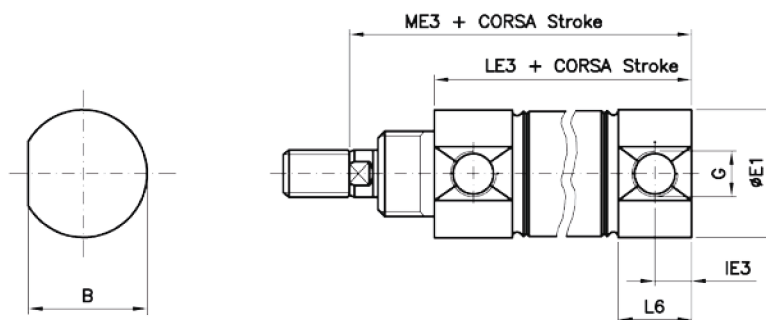
E1



E2



E3



DIMENSIONI DIMENSIONS

Ø mm	ØA	B	Øa	ØE1	ØE2	F	ØFF	G	HF	I1	IA	IE3	L1	L2	L3	L4
16	6	18	4	19	18	M6	12	M5	8	6	5.75	5.75	13.5	11.25	11.25	10

Ø mm	L5	L6	LE1	LE2	LE3	LF	ME1	ME2	ME3	MT	ØT	X	X1	XL1	CH
16	5.25	11.25	49.5	43.5	49.5	12	63	57	63	M12x1.25	17.27	2	10	69	5

FORZE DI TRAZIONE E SPINTA (6 BAR) TRACTION AND THRUST FORCES (6 BAR)

Ø mm	FORZA DI SPINTA (N) THRUST FORCE (N)	FORZA DI TRAZIONE (N) TRACTION FORCE (N)
16	105	88

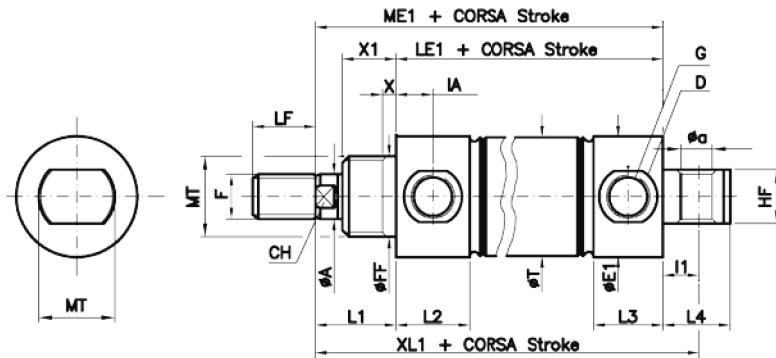
DOPPIO EFFETTO Ø20-25

DOUBLE ACTING Ø20-25

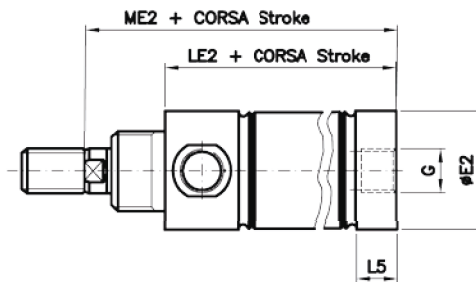
CDEØ/...E1,E2,E3

CDEMØ/...E1,E2,E3

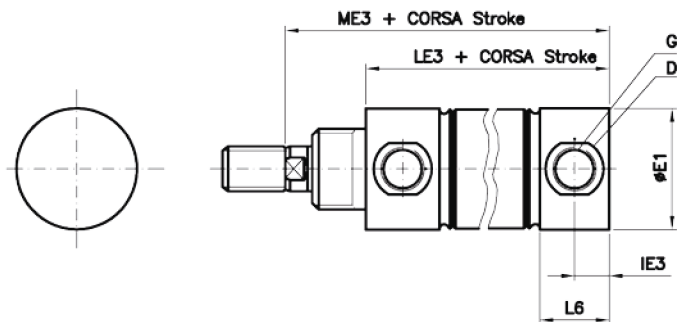
E1



E2



E3



DIMENSIONI DIMENSIONS

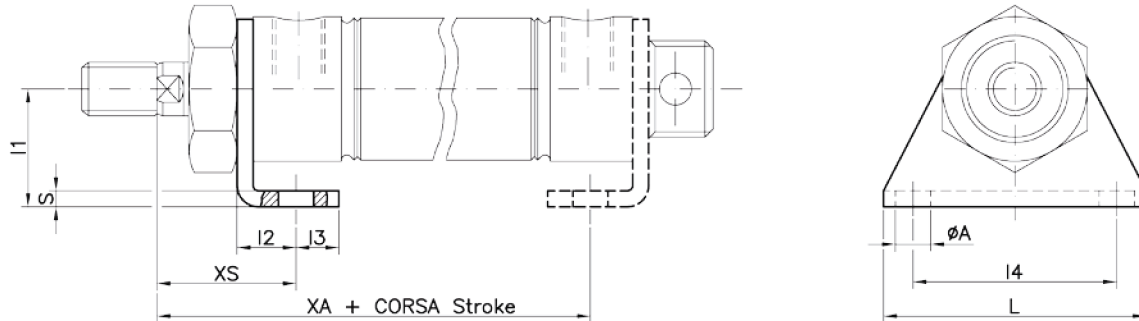
Ø mm	ØA	Øa	D	ØE1	ØE2	F	ØFF	G	HF	I1	IA	IE3	L1	L2	L3	L4
20	8	6	Ø15x1.7	24	22.2	M8	16	1/8" G	12	7	8.5	8.25	16	17	16.5	13
25	10	6	Ø15x1.25	27	27	M10x1.25	18	1/8" G	12	8	8.75	8.25	18	17.5	16.5	15

Ø mm	L5	L6	LE1	LE2	LE3	LF	ME1	ME2	ME3	MT	ØT	X	X1	XL1	CH
20	9	16.5	60.5	53	60.5	12	76.5	69	76.5	M16x1.5	21.27	3	12	83.5	7
25	8.5	16.5	61	54	61	14	79	72	79	M18x1.5	26.5	3	12	87	9

FORZE DI TRAZIONE E SPINTA (6 BAR) TRACTION AND THRUST FORCES (6 BAR)

Ø mm	FORZA DI SPINTA (N) THRUST FORCE (N)	FORZA DI TRAZIONE (N) TRACTION FORCE (N)
20	165	141
25	266	219

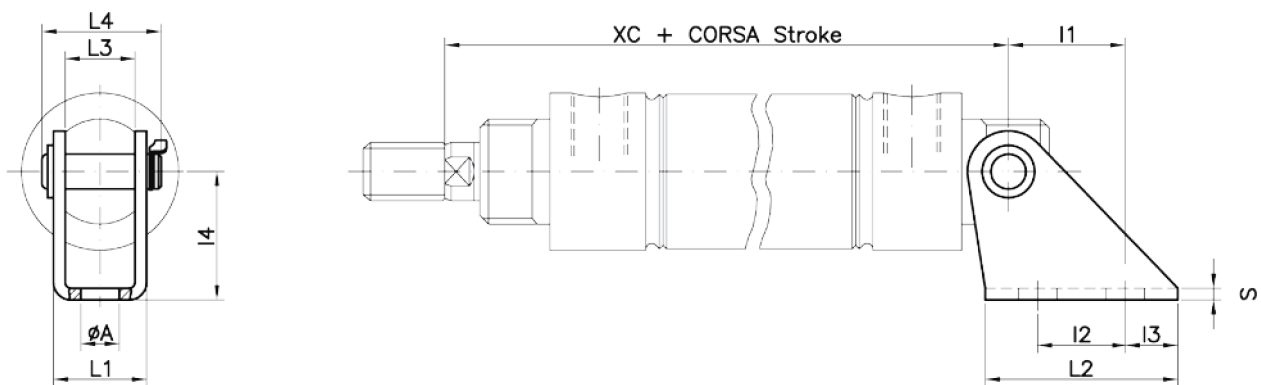
MATERIALE: ACCIAIO
MATERIAL: STEEL



PIEDINO / FOOT

Ø mm	I1	I2	I3	I4	L	S	ØA	XS	XA	CODICE/CODE
16	16	10	6	25	35	2	4.5	21.5	55	AF12/16E
20	20	13	6	32	43	3	5.5	27.5	65	AF20E
25	22	11	8	38	49	3	6.6	26	71	AF25E

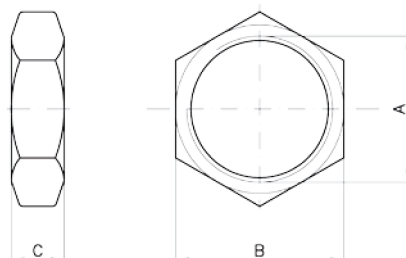
MATERIALE: ACCIAIO
MATERIAL: STEEL



CERNIERA / HINGE

Ø mm	I1	I2	I3	I4	L1	L2	L3	L4	S	ØA	XC	CODICE/CODE
16	13	10	6	16	11.1	22	8.1	15.5	1.5	4.5	69	AFO16E
20	18.5	15	8	20	15.1	31	12.1	19.5	1.5	5.5	83.5	AFO20E
25	20	15	9	22	16.1	33	12.1	20.5	2	6.6	87	AFO25E

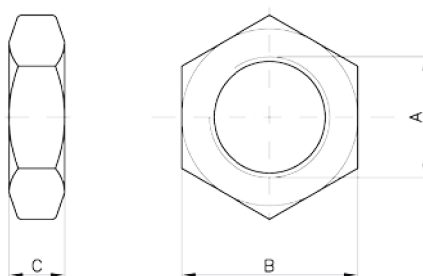
MATERIALE: ACCIAIO
MATERIAL: STEEL



DADO PER TESTATE / NUT FOR COVERS

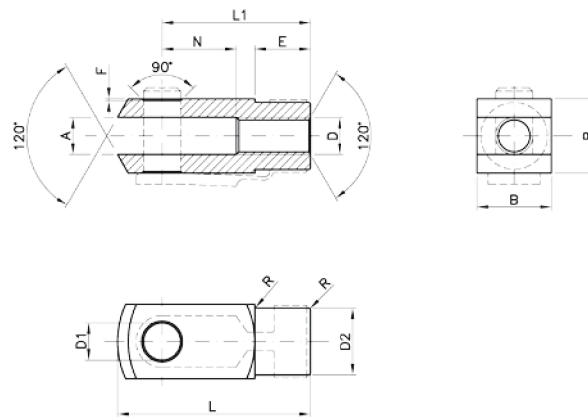
Ø mm	A	B	C	CODICE/CODE
16	M12X1.25	19	7	ANT08/10
20	M16X1.5	22	5	ANT12/16
25	M18X1.5	24	5	ANT25E

MATERIALE: ACCIAIO
MATERIAL: STEEL



DADO PER ASTE / NUT FOR PISTON ROD

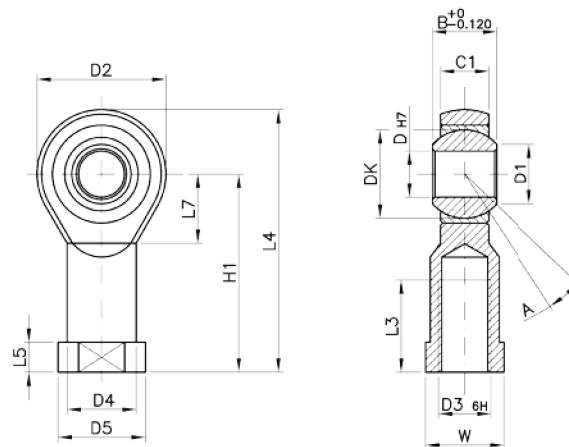
Ø mm	A	B	C	CODICE/CODE
16	M6	10	4	ANA12/16
20	M8X1.25	13	5	ANA20
25	M10X1.25	17	6	ANA25



MATERIALE: ACCIAIO
MATERIAL: STEEL

FORCELLA COMPLETA DI CLIP / CLEVIS WITH LOCKABLE PIN

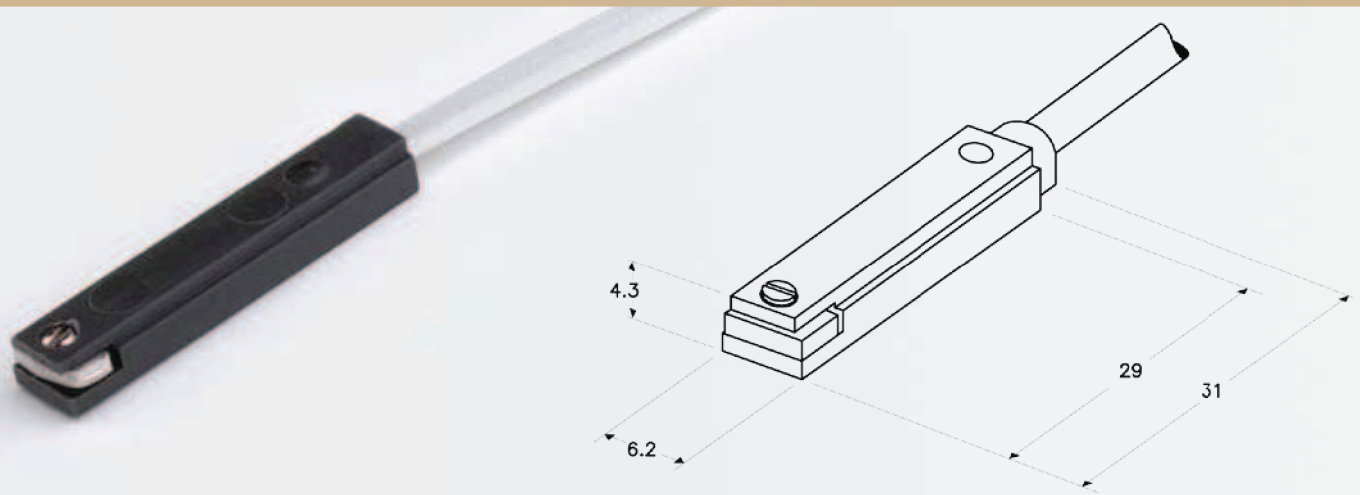
D	A	F	L1	N	E	B	D1	R	D2	L	CODICE/CODE
M6	6	0.5	24	12	9	12	6	0.5	10	31	FORM6ISO
M8	8	0.5	32	16	12	16	8	0.5	14	42	FORM8ISO
M10x1.25	10	0.5	40	20	15	20	10	0.5	18	52	FORM10ISO



MATERIALE: ACCIAIO
MATERIAL: STEEL

TESTA A SNODO AUTOLUBRIFICANTE / SELF-LUBRICATING ROD ENDS

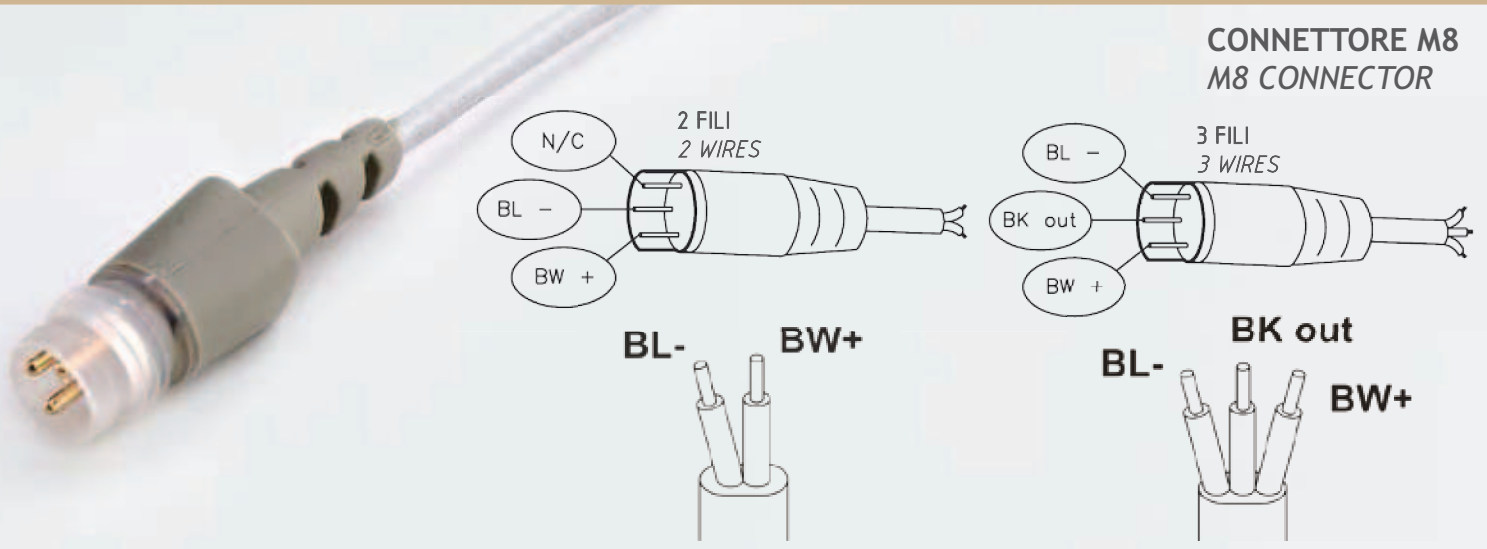
D3	W	L3	A	D	DK	D1	C1	B	D4	D5	L5	L7	H1	L4	D2	CODICE/CODE
M6	11	12	13°	6	12.7	8.9	6.75	9	10	13	5	11	30	40	20	TSNDM6x1
M8	14	16	14°	8	15.875	10.4	9	12	12.5	16	5	13	36	48	24	TSNDM8x1.25
M10x1.25	17	20	13°	10	19.050	12.9	10.5	14	15	19	6.5	15	43	57	28	TSNDM10x1.25



SERIE / SERIES	ZS		
Interruttore con cavo <i>Switch with cable</i>	ZS3201	ZS3300	ZS4300
Interruttore con connettore M8 <i>Switch with connector M8</i>	ZS3210	ZS3310	ZS4301
Tipo Sensore <i>Sensor Type</i>	Contatto reed N.O. <i>Reed switch N.O.</i>	Contatto reed PNP N.O. <i>Reed switch PNP N.O.</i>	Magnetoresistivo PNP N.O. <i>Magnetoresistive PNP N.O.</i>
Tensione di alimentazione <i>Power supply</i>	3÷30 V ac/dc		3÷30 V dc
Corrente di commutazione <i>Switching current</i>	0.2 A		
Potenza (carico ohmico) <i>Power (ohmic load)</i>	6 W		
Caduta di tensione <i>On voltage drop</i>	≤ 3 V	/	≤ 1 V
Tempo commutazione "ON" <i>Response time "ON"</i>	0.5 ms		0.8 μs
Tempo commutazione "OFF" <i>Response time "OFF"</i>	0.1 ms		0.3 μs
Punto di lavoro nominale <i>Nominal operate point</i>	20÷25 AT		40 Gauss (34-46) Gauss
Differenza ON-OFF <i>ON-OFF differential</i>	5÷10 AT		5÷15 Gauss
Temperatura lavoro <i>Operating temperature</i>	-10 ÷ +70 °C		
Frequenza di lavoro <i>Operating frequency</i>	max 500 Hz		max 200 KHz
Vita elettrica <i>Life time</i>	10 ⁷ imp		10 ⁹ imp
Protezione contro inversione di polarità <i>Polarity reversal protection</i>	SI / YES		
Protezione contro corto-circuito <i>Short circuit protection</i>	/		
Grado di protezione <i>Environmental protection degree</i>	IP 67		
Configurazioni circuitali <i>Wiring schematics</i>			

CAVI PER SENSORI

SENSORS CABLES

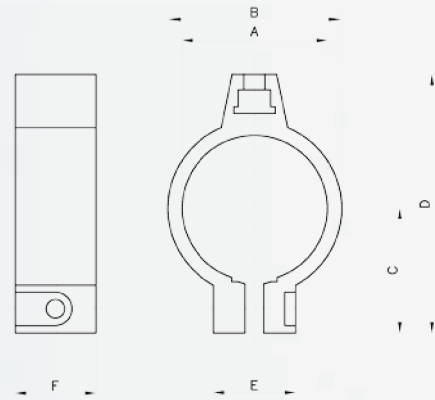


Lunghezza cavo standard Standard cable length	2.5 m (cavo diretto / flying connector with cable) 0.3 m (cavo con connettore / plug connector with cable)
Conduttori Conductors	0.14 mm ² / AWG 26 / (36x 0.07 mm ²)
Isolamento Isolation	PVC
Guaina Sheath	PVC ø 2.7 mm
Test di fiamma Flame test	V2
Certificazione Certification	CEI EN 60529; CEI EN 60947-5-2; CEI EN 61000-6-2; CEI EN 61000-6-3; CEI EN 55022; CEI EN 61000-4-2; CEI EN 61000-4-3 CEI EN 61000-4-4; CEI EN 65000-4-5; CEI EN 61000-4-8; CEI EN 61000-4-11; CEI EN 61000-4-6

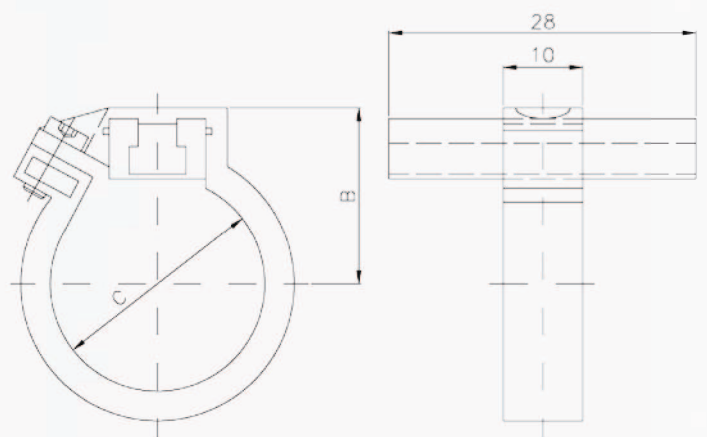
CIRCUITI DI PROTEZIONE PER SENSORI	PROTECTION CIRCUIT FOR SWITCHES
<p>La commutazione di carichi induttivi da parte dei contatti REED produce un elevato picco di tensione al momento della disinserzione. Per tale motivo, al fine di prevenire eventuali scariche dielettriche oppure un arco voltaico, è necessario introdurre un circuito di protezione. Questo può essere:</p> <ul style="list-style-type: none"> -un circuito R-C in parallelo al fincorsa se alimentato in V dc - (vedi Fig.1) -un diodo in parallelo al carico se alimentato in V dc - (vedi Fig.2) -n°2 diodi Zener in parallelo al carico se alimentato in V ac/dc - (vedi Fig.3) -un varistore (VDR) in parallelo al carico se alimentato in V ac/dc - (Fig.4) <p>La commutazione di carichi capacitivi o l'impiego di cavi con lunghezza maggiore a metri 10 produce picchi di corrente al momento dell'inserzione. Perciò è necessario prestare attenzione garantendo la minima corrente necessaria per pilotare il sensore. (10=20 mA).</p>	<p>The switching of inductive loads made by REED produces an high voltage peak during the drop-out. In order to prevent dielectric discharges or voltaic arcs, you have to introduce a protection circuit. It can be:</p> <ul style="list-style-type: none"> -a R-C circuit in parallel to the switch in case of V dc supply - (Img.1) -a diode in parallel to the load in case of V dc supply - (Img.2) -n°2 Zener diodes in parallel to the load with V ac/dc supply - (Img.3) -a varistor (VDR) in parallel to the load with V ac/dc supply - (Img.4) <p>The switching of capacitive loads or the use of cables longer than 10 meters produces current peaks during the connection. For this reason you have to introduce a protection resistance near the switch on the brown wire. Please, pay attention in granting the minimum necessary current to the switch. (10=20 mA)</p>
<p style="text-align: center;">.1</p>	<p style="text-align: center;">.3</p>
<p style="text-align: center;">.2</p>	<p style="text-align: center;">.4</p>

FISSAGGI PER SENSORI - CILINDRI TONDI

MOUNTING PARTS FOR SENSORS - ROUND CYLINDERS



Ø mm cilindro cylinder	A	B	C	D	E	F	CODICE/CODE
8	Ø 9.3	12.3	11.1	23.9	12.3	9	NT-08
10	Ø 11.3	14.3	12.2	25.9			NT-10
12	Ø 13.3	16.3	13.2	28			NT-12
16	Ø 17.3	20.3	15.3	32.1			NT-16
20	Ø 21.3	24.3	17.4	36.2	14		NT-20
25	Ø 26.5	29.5	20	41.4			NT-25



Ø mm cilindro cylinder	B	C	CODICE/CODE
32	27	33.6	NT-32
40	31	41.6	NT-40
50	37	52.4	NT-50
63	42	65.4	NT-63

FISSAGGI PER SENSORI - CILINDRI TIRANTATI

MOUNTING PARTS FOR SENSORS - TIE ROD CYLINDERS



Ø mm cilindro cylinder	A	B	C	CODICE/CODE
32-63	14	9	22	NT-3263XR
80-100	19	12	34	NT-80100XR
125	21	14	33	NT-125XR
160-200	26	18	42	NT-160200XR
250	26	20.5	42	NT-250XR
320	26	25.5	42	NT-320XR

COPERTURA PER CAVA SENSORE

COVERING FOR SENSOR SLOT



MATERIALE/MATERIAL	COLORE/COLOR	LUNGHEZZA/LENGHT	CODICE/CODE
PLASTICA/PLASTIC	BLU/BLUE	0.5	XLB-11