

VSM/55600/N2

Hollow piston rod cylinders magnetic piston, double acting Ø 25 and 40 mm

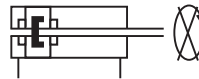
Ideally suited for vacuum selected liquid transfer applications through the piston rod

Non-rotating and telescopic piston rod provides accurate, repeatable component orientation

Non-corrosive specification

Buffer cushioning

Direct attachment of vacuum pumps and suction cups



Technical features

Medium:

Compressed air, filtered, lubricated or non-lubricated

Standard:

Ø 25: ISO 6432 (except piston rod)

Operation:

Double acting with buffer cushioning

Operating pressure:

1 ... 10 bar

Cylinder diameter:

25, 40 mm

Strokes:

500 mm max.

Operating temperature:

+80°C max

Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Materials:

Barrel:

Ø 25: stainless steel (austenitic)

Ø 40: anodised aluminium

End covers: anodised aluminium

Piston rod: stainless steel (austenitic)

Buffer and wiper: PUR

Piston seals:

Ø 25: NBR, Ø 40: PUR

O-rings: NBR

Technical data

Cylinder Ø (mm)	25	40
Air ports	G 1/8	G 1/4
Piston rod Ø (mm)	12	16
Piston rod thread	M22x1,5	M38x1,5
Theoretical thrusts at 6 bar outstroke N	287	737
Theoretical thrusts at 6 bar instroke N	238	655
Air consumption at 6 bar outstroke l/cm	0,035	0,086
Air consumption at 6 bar instroke l/cm	0,028	0,077

Options selector

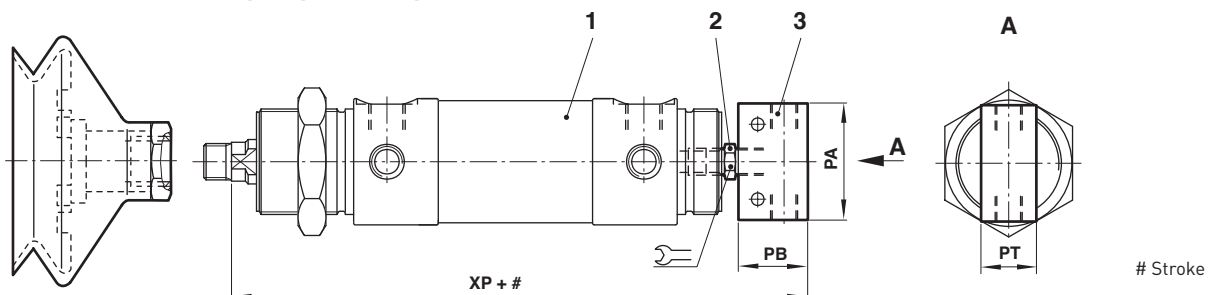
VSM/556★★ /N2/★★★

Cylinder Ø (mm)	Substitute
25	25
40	40

Strokes (mm)
500 max.

Example

Application with vacuum pumps and cups

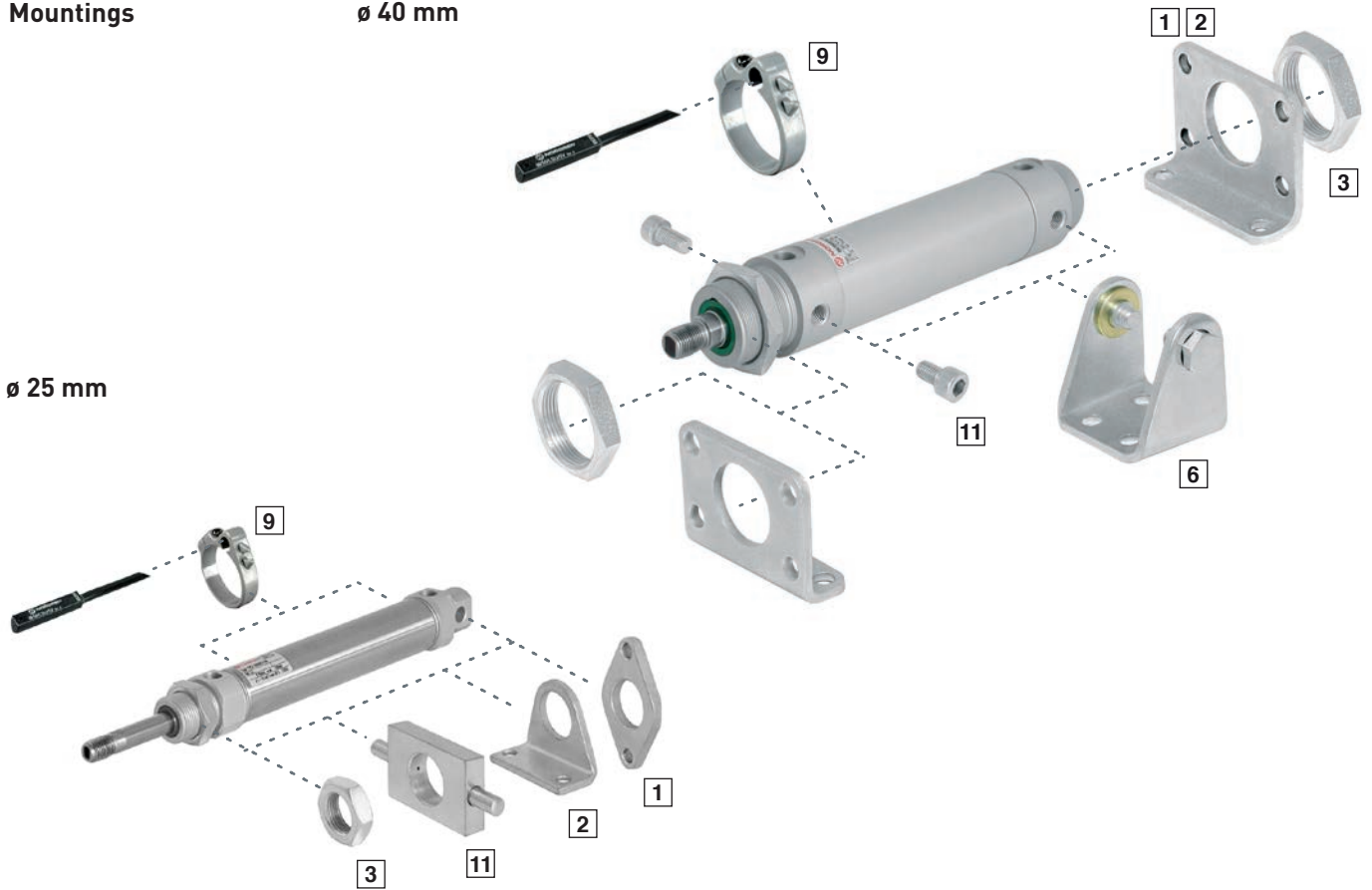


Cylinder Ø	Pos. 1 Cylinder	Pos. 2 Fitting	Pos.3 Vacuum pump	PA	PB	PT	☞	XP
25	VSM/55625/N2	150201818	M/58112/09	42	25	20	11	147
40	VSM/55640/N2	150201818	M/58112/09	42	25	20	11	200
		150202818	M/58112/11	62	30	30	14	207

Mountings

ø 40 mm

ø 25 mm



Mountings

Cylinder ø	Style B, G	Style C	Style FH	Style N	Bracket for switch *1) >15 mm stroke	Bracket for switch *1) <15 mm stroke	Bracket for switch *2)
	 1 Page 3	 2 Page 3	 11 Page 3	 3 Page 3	 9 Page 5	 9 Page 5	 9 Page 7
25	M/P19409	M/P19406	QM/8020/34	M/P13615	QM/33/025/22	QM/33/025/23	QM/140/10/22
Cylinder ø	B, G	C	H	L	N	Bracket for switch *1)	Bracket for switch *2)
	 1 Page 4	 2 Page 4	 11 Page 4	 6 Page 4	 3 Page 4	 9 Page 5	 9 Page 7
40	QM/55240/22	QM/55240/21	QM/55240/28	QM/55240/24	M/P29255	QM/33/440/22	QM/140/010/22

*1) Magnetically switch M/50

*2) Pneumatically operated switch QM/140

Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

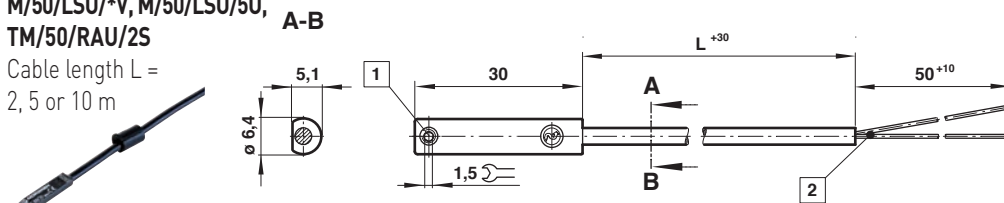
Symbol	Voltage (V a.c.)	Voltage (V d.c.)	Current max. (mA)	Function	Temperature (°C)	LED	Protection class	Features	Cable length (m)	Cable type	Weight (g)	Model
± BN	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/*V
~ BU	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
BN BU	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
BK BU BN	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
± BN ~ BK	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	Plug M8 x 1	0,3	PVC 3 x 0,25	16	M/50/LSU/CP *1)

* Insert cable length; *1) Plug-in connector see page 11; Color code: BK = black, BN = brown, BU = blue

Dimensions

M/50/LSU/*V, M/50/LSU/5U, TM/50/RAU/2S

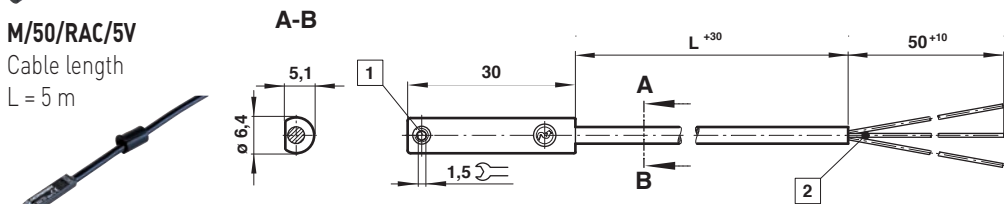
Cable length L = 2, 5 or 10 m



- 1 Fixing screw
- 2 + BN = brown
- BU = blue
(output)

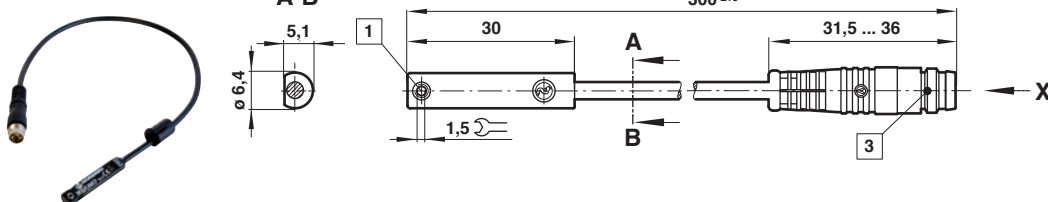
M/50/RAC/5V

Cable length L = 5 m



- 1 Fixing screw
- 2 - BK = black
+ BN = brown
- ≠BU = blue

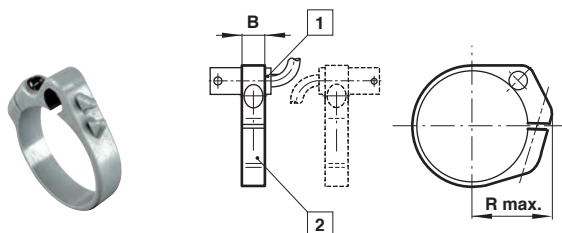
M/50/LSU/CP



- 1 Fixing screw
- 3 Plug M8x1
- Color code
BK = black
BN = brown
BU = blue

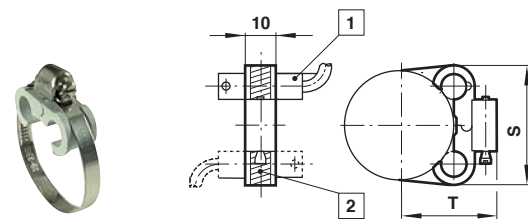
Switch mounting brackets

Brackets > 15 mm stroke



- 1 Magnetically operated switch
- 2 Switch mounting bracket

Brackets < 15 mm stroke



- 1 Magnetically operated switch
- 2 Switch mounting bracket

∅	B	R max.	kg	Model
25	10	24	0,01	QM/33/025/22
40	10	32	0,01	QM/33/440/22

∅	S	T	kg	Model
25	31,5	28,5	0,01	QM/33/025/23

Technical data - Solid stages - additional informations see data sheet N/en 4.3.007

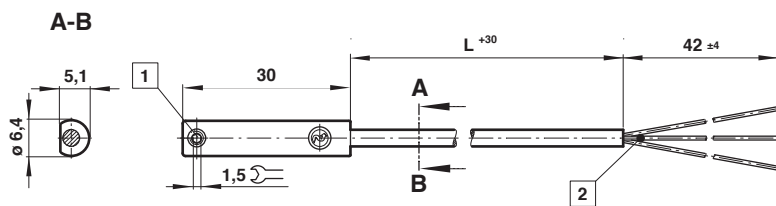
Symbol	Voltage (V d.c.)	Current max. (mA)	Function	Temperature (°C)	LED	Protection class	Features	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAP/*V
	10 ... 30	150	PNP	-40 ... +80	•	IP68	—	5	PUR 3 x 0,14	37	M/50/EAP/5U
	10 ... 30	150	PNP	-40 ... +80	•	IP67	Plug M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CP *1)
	10 ... 30	150	PNP	-40 ... +80	•	IP67	Plug M12 x 1	0,3	PVC 3 x 0,14	16	M/50/EAP/CC *1)
	10 ... 30	150	NPN	-40 ... +80	•	IP67	—	2, 5 or 10	PVC 3 x 0,12	37	M/50/EAN/*V
	10 ... 30	150	Closer	-40 ... +80	•	IP67	Plug M8 x 1	0,3	PVC 3 x 0,14	16	M/50/EAN/CP *1)

* Insert cable length; *1) Plug-in connector below; Color code: BK = black, BN = brown, BU = blue

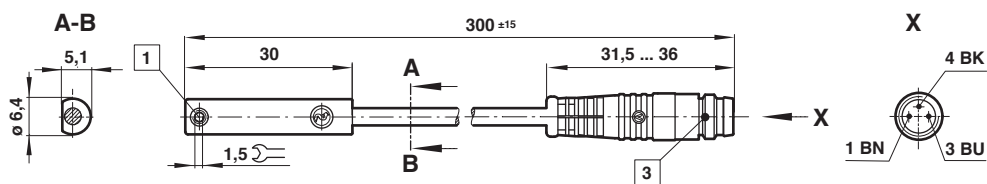
Dimensions

M/50/EAP/*V,
M/50/EAN/*V

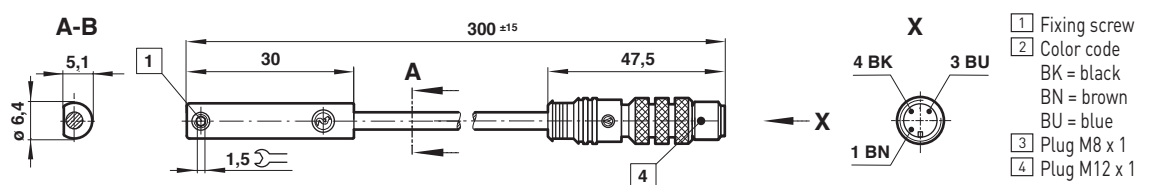
Cable length L =
2, 5 or 10 m



M/50/EAP/CP,
M/50/EAN/CP



M/50/EAP/CC

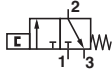

Accessories

Plug-in connector cable with nut



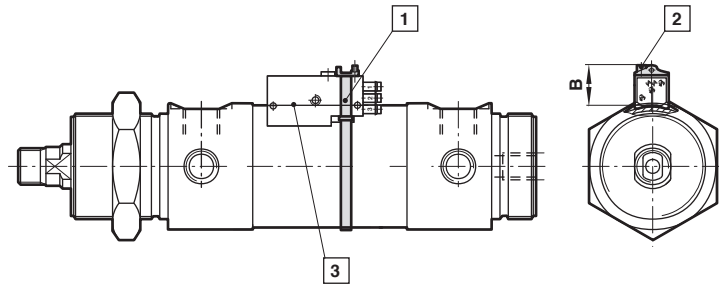
Outer cover	Cable length	Weight (kg)	Connector	Model
PVC 3 x 0,25	5 m	0,18	M8 x 1	M/P73001/5
PUR 3 x 0,25	5 m	0,18	M8 x 1	M/P73002/5
PUR 3 x 0,34	5 m	0,21	M12 x 1	M/P34594/5

Pneumatic proximity sensor - additional informations see data sheet N/en 4.3.061

Symbol	Operating pressure	Flow rate	Orifice size	Temperature	Optical indicator	Connections	Model
	2 ... 6 bar	40 l/min	2 mm	-15 ... +60°C	•	Pipes for 3 mm U/D tubing	QM/140

QM/140/010/22 – Bracket with holding strap
Pneumatic switch: QM/140

Cylinder Ø	B	Weight
40	18,5	0,020 kg



- 1 Holding strap
- 2 Optical indicator
- 3 Pneumatic switch

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where values can exceed those listed under »**Technical features/data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.