

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97

Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

www.norgren.nt-rt.ru | | ner@nt-rt.ru

Технические характеристики на позиционные магнитные датчики, герконы Lintra Plus QM/32, M/50 компании **IMI NORGREN**

- > Suitable for all cylinder ranges with magnetic piston
- > LED indicator on LSU models
- > Switches can be mounted flush with the delivered special adaptor
- > Alternative variants allows a wide range of application



Technical features

Operation:

M/50/LSU Normally open with LED (yellow)

Switching voltage (Ub):

10 ... 240 V a.c./170 V d.c.

Switching voltage output:

Ub - 2,7 V

Switching current (see graph overleaf):

0,18 A max.

Switching power:

10 W/10 VA max.

Contact resistance:

150 mΩ

Response time:

1,8 ms

Operating temperature:

-25°C ... +80°C (-13°F ... +176°F)

High temperature version:

+150°C max.(+302 °F)

Protection rating (EN 60529):

IP 66

Shock resistance:

50 g (during 11 ms)

Vibration resistance:

35 g (at 2000 Hz)

Cable type:

2 x 0,25: PVC, PUR or silicone

3 x 0,25 PVC

Cable length:

2, 5 or 10 m

Electromagnetic compatibility

according to:

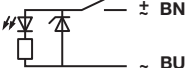
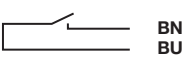
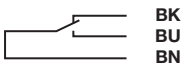
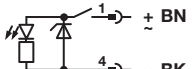
EN 60947-5-2

Materials:

Body: plastic

Cable: see table below

Technical data

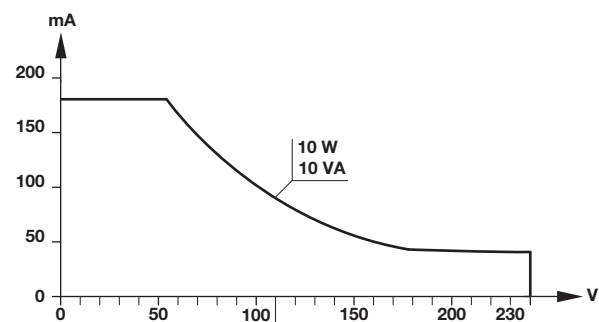
Symbol	Voltage		Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	(V a.c.)	(V d.c.)										
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	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 2; Color code: BK = black, BN = brown, BU = blue

Options selector

Variants	Substitute						Cable	Substitute
High temperature (+150°C)	T						Silicone	S
Type	Substitute						PVC	V
Reed with LED	L						PUR	U
Reed without LED	R							
Switching voltage	Substitute						Cable length/plug	Substitute
Standard	S						2 m	2
Special	A						5 m	5
Function	Substitute						10 m	10
Closer	U						Cable (0,3 m) with plug M8 x 1	CP
Changeover	C							

Switching current and switching voltage M/50/LSU, M/50/RAC, M/50/RAU



Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
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

Mounting elements for magnetic switches

Cylinder with external tie rods RA/8000/M, KA/8000/M RA/28000/M, RM/900/M	Roundline cylinder RM/55401/M	Roundline cylinder KM/55001/M, VSM/55640/N2	Roundline cylinder R./57100/M, R./57200/M R./57300/M	Roundline cylinder < 25 mm stroke RM/8000/M, KM/8000/M RM/28000/M	Roundline cylinder > 25 mm stroke RM/8000/M, KM/8000/M RM/28000/M

Mounting elements

Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model
32 ... 200	QM/27/2/1	32	QM/33/432/22	32	QM/33/432/22	10	QM/33/010/22	10	QM/33/010/22	10	QM/33/010/23
		40	QM/33/440/22	40	QM/33/440/22	12	QM/33/012/22	12	QM/33/012/22	12	QM/33/016/23
		50	QM/33/450/22	50	QM/33/450/22	16	QM/33/016/22	16	QM/33/016/22	16	QM/33/016/23
		63	QM/33/463/22	63	QM/33/463/22	20	QM/33/020/22	20	QM/33/020/22	20	QM/33/020/23
		80	QM/33/480/22	80	QM/33/080/22	25	QM/33/025/22	25	QM/33/025/22	25	QM/33/025/23
		100	QM/33/410/22	100	QM/33/100/22	32	QM/33/032/22				
				125	QM/33/125/22	40	QM/33/040/22				
						50	QM/33/050/22				
						63	QM/33/063/22				

Dimensions see relevant cylinder sheets.

Drawings

M/50/LSU/*V, M/50/LSU/5U,
 TM/50/RAU/2S
 Cable length L = 2, 5 or 10 m



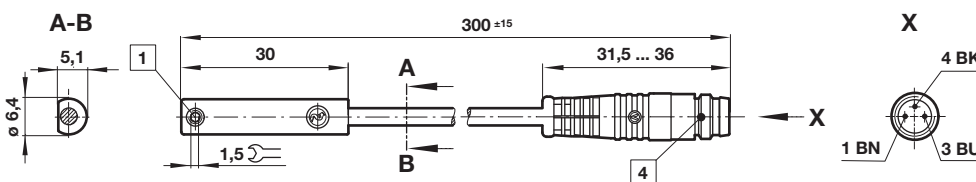
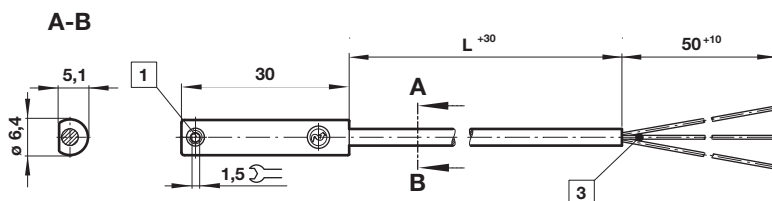
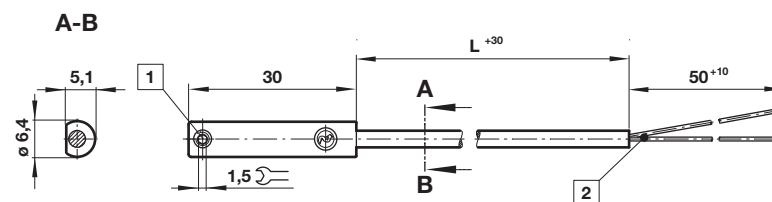
M/50/RAC/5V
 Cable length L = 5 m



M/50/LSU/CP



Dimensions in mm
 Projection/First angle



- 1 Fixing screw
- 2 + BN = brown; - BU = blue (output)
- 3 - BK = black; + BN = brown; - ≠BU = blue
- 4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Warning

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

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

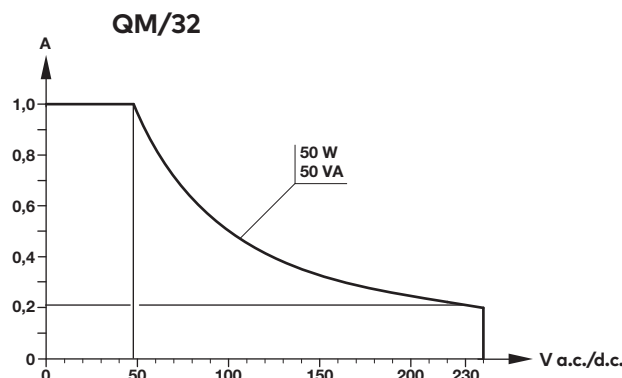
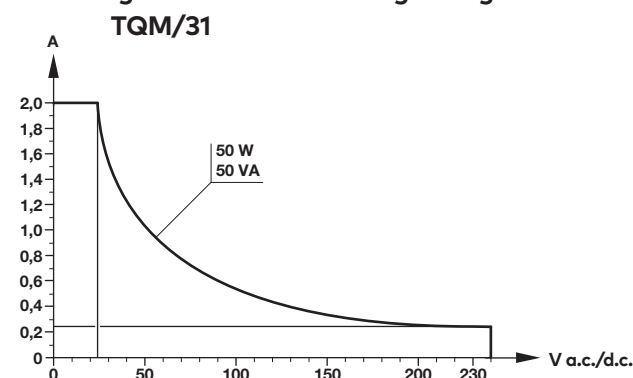
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in control 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.

Switching current and switching voltage



Mounting elements for magnetic switches

Cylinder with external tie rods
RA/8000/M, RA/28000/M



Cylinder with external tie rods
PM/900/M



Mounting elements



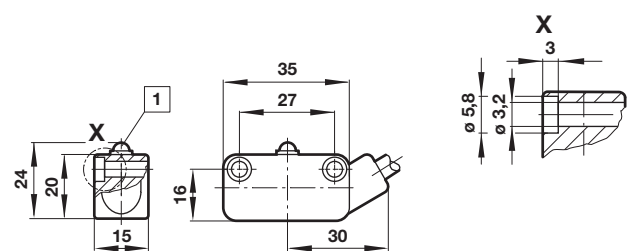
Mounting elements



Cylinder Ø (mm)	Model	Cylinder Ø (inch)	Model
32 ... 63	QM/31/032/22	1 1/4"	QM/31/032/22
80 ... 125	QM/31/080/22	1 3/4" + 2"	QM/31/080/22
160 + 200	QM/31/160/22	2 1/2" ... 4"	QM/31/2/22
250	QM/31/250/22		
320	QM/31/320/22		

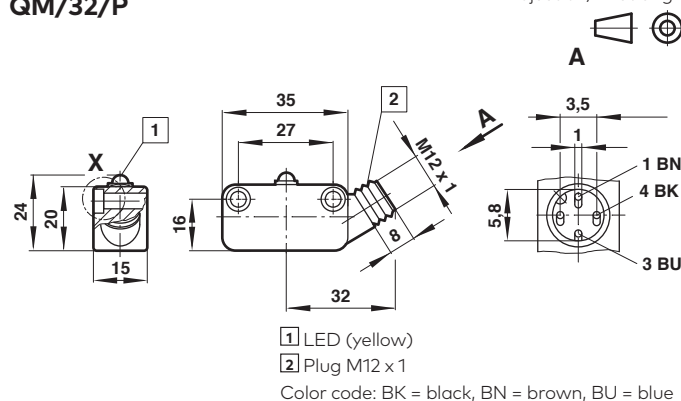
Dimensions see relevant cylinder sheets.

Dimensions TQM/31, QM/32



QM/32/P

Dimensions in mm
Projection/First angle



Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures 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.

- > Suitable for all cylinder ranges with magnetic piston
- > Switches can be mounted flush with the delivered special adaptor
- > LED indicator
- > Resistant, reliable switching with a very fast response time
- > Particularly suited for use in high levels of vibration
- > CE verified



Technical features

Operation:

PNP-output with LED (yellow)

Switching voltage (U_b):

10 ... 30 V d.c.

Switching voltage output:

U_b - 2 V

Switching current (see graph)

150 mA max.

Switching power:

4,5 W max.

Response time:

< 0,5 ms

Switching frequency:

1 kHz

Operating temperatur:

-20 ... +50°C (-4 ... +122°F)

Ex-Identification:

II 3G Ex nA op is IIC T4 Gc X

II 3D Ex tc IIIC T110°C Dc IP67 X

Protection rating (EN 60529):

IP 67

Cable type:

PVC 3 x 0,25 mm²

Cable length:

5 m

Electromagnetic compatibility

according to:

EN 60947-5-2

Materials:

Body: plastic

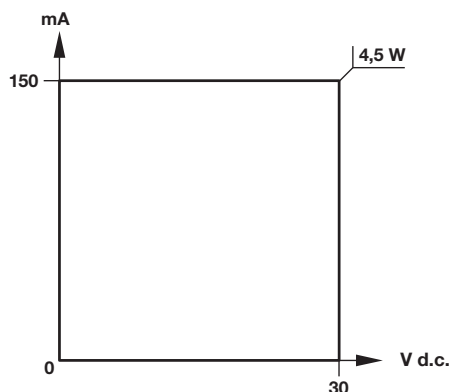
Cable: see table below

Technical data

Symbol	Voltage (V d.c.)	Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Cable length (m)	Cable type	Weight (g)	Model
 + BN - BU BK	10 ... 30	150	PNP	-20 ... +50	•	IP67	5	PVC 3 x 0,25	40	M/50/EXP/5V

Color code: BK = black, BN = brown, BU = blue

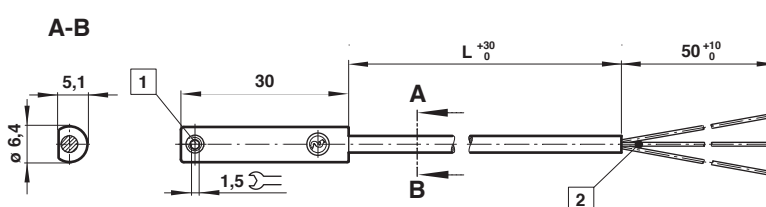
Switching current and switching voltage



Dimensions

Cable length L = 5 m

Dimensions in mm
Projection/First angle



- 1 Fixing screw
- 2 Color code
BK = black
BN = brown
BU = blue

Protection against mechanical impacts on the magnetic switch:

1. Protection through profile groove

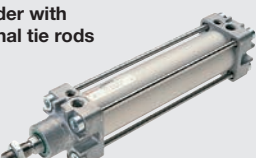
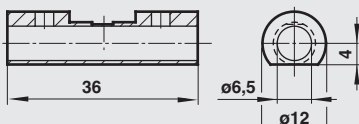
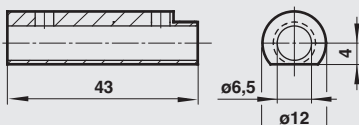
For cylinders with profile barrel, the magnetic switch is well protected in the profile groove. No additional impact protection is required.

2. Protection through measures by customer

The customer can, for example, install a protection plate or the magnet switch has a position that it protects against damages.

3. Protection through a separate protection element

For an open installation of a magnetic switch onto a cylinder barrel with external tie rods or round cylinders, an additional protection element for the magnetic switch has to be installed with the mounting element. A separate order for the protection element M/P73668 or M/P73673 is required!

Cylinder with external tie rods  Cylinder Ø (mm)	Mounting element for magnetic switch  Model	Protection unit ATEX  Model	
Roundline cylinder, stroke ≥ 50 mm  Cylinder Ø (mm)	Mounting element for magnetic switch  Model	Protection unit ATEX  Model	
Roundline cylinder, stroke < 50 mm  Cylinder Ø (mm)	Mounting element for magnetic switch  Model	A separate protection unit must be realised by user.	

Attention: During the assembly the magnetic switch must be completely inserted into the protection element.

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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 control 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.

M/50/EAP, M/50/EAN, M/50/IOP & M/50/EHP

Magnetically operated switch, solid state



- > Magnetically operated switch, solid state - round style
- > IO-Link version available
- > Suitable for all cylinder ranges with magnetic piston
- > Switches can be mounted flush in all profile cylinders
- > Reliable switching with a very fast response time
- > Particularly suited for use in high levels of vibration
- > LED indicator as standard
- > UL listed



IO-Link

Technical features

Operation:

PNP / NPN (see table)
Output with LED (yellow)
Normally open (standard)

Switching voltage (U_b):

10 ... 30 V d.c.
("supply class 2" acc. to cULus)

Voltage drop at output:

< 2,5 V

Residual current:

< 0,5 mA

Switching current

(see graph):

100 mA max. (standard)
300 mA max. (M/50/EHP)

Switching power:

3,0 W max. (standard)
9,0 W max. (M/50/EHP)

Response time:

< 0,1 ms (standard)
< 5 ms (M/50/IOP)

Operating frequency:

1 kHz (standard)
200 Hz (M/50/IOP)

Responsiveness:

2,8 mT

Hysteresis:

0,5 ... 1,5 mT
0,2 mT (M/50/IOP)

Repeatability:

< 0,1 mT

Protection rating (EN 60529):

IP67 (standard)
IP68 (M/50/EAP/5U, M/50/EHP/5U)

Operating temperature:

-40 ... +80 °C (-40 ... 176 °F)
(permanently fixed cable)
-25 ... +80 °C (-13 ... 176 °F)
(moving cable)

Cable type:

PVC 3 x 0,14 mm² (standard)
PUR 3 x 0,14 mm² (M/50/E*P/*U
and all variants with connector)

Cable length:

2, 5 and 10 m

Electromagnetic compatibility according to:

EN 60947-5-2

Materials:

Housing: plastic
Thread insert: brass
Set screw: stainless steel
Cable: see table below

Mounting type:

Flush mountable

Technical data - Solid state

Symbol	Voltage (V DC)	Current maximum (mA)	Function	IO-Link *1)	Operating temperature (°C)	LED	Protection class	Connector	Cable length (m)	Cable type	Weight (g)	Model
 + BN BU BK	10 ... 30	100	PNP		-40 ... +80	•	IP67	---	2	PVC 3 x 0,14	23	M/50/EAP/2V
	10 ... 30	100	PNP		-40 ... +80	•	IP67	---	5	PVC 3 x 0,14	56	M/50/EAP/5V
	10 ... 30	100	PNP		-40 ... +80	•	IP67	---	10	PVC 3 x 0,14	102	M/50/EAP/10V
	10 ... 30	100	PNP / NPN	•	-40 ... +80	•	IP67	---	5	PVC 3 x 0,14	56	M/50/IOP/5V
	10 ... 30	100	PNP		-40 ... +80	•	IP68	---	5	PUR 3 x 0,14	56	M/50/EAP/5U
	10 ... 30	100	PNP		-40 ... +80	•	IP67	---	10	PUR 3 x 0,14	102	M/50/EAP/10U
	10 ... 30	300	PNP		-40 ... +80	•	IP67	---	2	PVC 3 x 0,14	23	M/50/EHP/2V
	10 ... 30	300	PNP		-40 ... +80	•	IP67	---	5	PVC 3 x 0,14	56	M/50/EHP/5V
	10 ... 30	300	PNP		-40 ... +80	•	IP67	---	10	PVC 3 x 0,14	102	M/50/EHP/10V
	10 ... 30	300	PNP		-40 ... +80	•	IP68	---	5	PUR 3 x 0,14	56	M/50/EHP/5U
 + BN BU BK	10 ... 30	100	PNP		-40 ... +80	•	IP67	M8 x 1	0,3	PUR 3 x 0,14	7	M/50/EAP/CP
	10 ... 30	100	PNP / NPN	•	-40 ... +80	•	IP67	M8 x 1	0,3	PUR 3 x 0,14	7	M/50/IOP/CP
	10 ... 30	100	PNP		-40 ... +80	•	IP67	M12 x 1	0,3	PUR 3 x 0,14	16	M/50/EAP/CC
	10 ... 30	100	PNP		-40 ... +80	•	IP67	M12 x 1	2	PUR 3 x 0,14	35	M/50/EAP/CC/2
	10 ... 30	100	PNP / NPN	•	-40 ... +80	•	IP67	M12 x 1	0,3	PUR 3 x 0,14	16	M/50/IOP/CC
	10 ... 30	300	PNP		-40 ... +80	•	IP67	M8 x 1	0,3	PUR 3 x 0,14	7	M/50/EHP/CP
 - BU BN BK	10 ... 30	100	NPN		-40 ... +80	•	IP67	---	2	PVC 3 x 0,14	23	M/50/EAN/2V
	10 ... 30	100	NPN		-40 ... +80	•	IP67	---	5	PVC 3 x 0,14	56	M/50/EAN/5V
	10 ... 30	100	NPN		-40 ... +80	•	IP67	---	10	PVC 3 x 0,14	102	M/50/EAN/10V
 + BU BN BK	10 ... 30	100	NPN		-40 ... +80	•	IP67	M8 x 1	0,3	PUR 3 x 0,14	7	M/50/EAN/CP

Color code: see page 4

*1) IO-Link functionality: see next page

IO-Link Switch conforming to IEC 61131-9

Properties and Functionality	M/50/EAP, M/50/EAN M/50/EHP	M/50/IOP
Operating Mode	Standard	Standard
Power LED		•
LED sensor signal	•	•
Normally open (delivery status)	•	•
Normally closed		○
Delay mode		○
Installation aid		•
Temperature measurement		•
Detection counter		•
Teach functionality		•
Responsiveness adjustment		•

• = included

○ = optional (manufacture pre-setting required)

Option selector

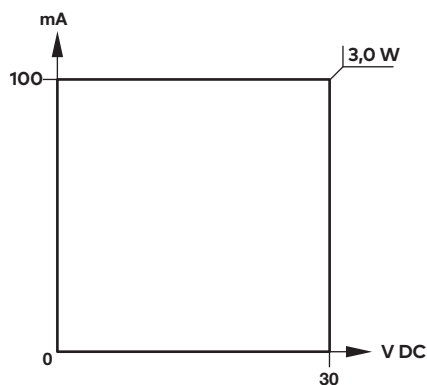
Function	Substitute
PNP	EAP
NPN	EAN
IO-Link	Substitute
PNP / NPN	IOP
Increased switching power	Substitute
PNP	EHP

M/50/****/****

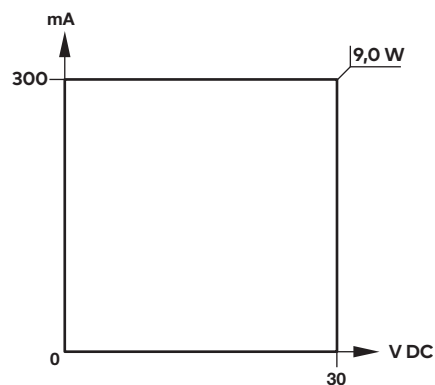
Cable	Substitute
PVC (Standard)	V
PUR	U
Cable with connector	-
Cable length/connector	Substitute
2 m	2
5 m	5
10 m	10
Cable (0,3 m) with connector M8 x 1	CP
Cable (0,3 m) with connector M12 x 1	CC

Switching current and switching voltage

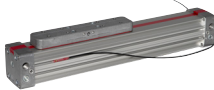
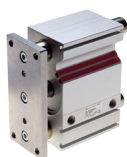
M/50/EAP, M/50/EAN, M/50/IOP



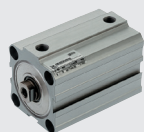
M/50/EHP



Cylinder ranges suitable for flush switch mounting

ø 32 ... 125 mm ISO 15552 ISOLine™ Clean Line IVAC Industrie	ø 20 ... 125 mm ISO 21287 Compact Cylinder	ø 16 ... 80 mm LINTRA® Plus	ø 32 ... 125 mm Rotary Cylinder	ø 32 ... 100 mm Cylinder with guiding	ø 10 ... 40 mm Sort stroke unit Slide tables
					
Type	Type	Type	Type	Type	Type
PRA/801000/M	RA/191000/M	M/146000/M	M/162000/M	M/61000/M	M/60100/M
PRA/802000/M	RA/192000/M	M/146100/M			M/61200/M
PRA/803000/M	RA/193000/M	M/146200/M			
PRA/822000/M					
PRA/862000/M					

Mounting brackets for magnetic switches

Cylinder with tie rods RA/80*000/M, RA/8000/M, KA/802000/M, RM/900/M 	Compact Cylinder RM/9*000 	Roundline cylinder RM/55401/M, KM/55001/M, VSM/55640/N2 	Roundline cylinder > 15 mm stroke R./57*00/M, RM/8000/M, KM/8000/M, RM/28000/M, VSM/55625/N2 	Roundline cylinder < 15 mm stroke R./57*00/M, RM/8000/M, KM/8000/M, RM/28000/M, VSM/55425/N2 					
Mounting brackets									
 Cylinder Ø (mm)	Model	 Cylinder Ø (mm)	Model	 Cylinder Ø (mm)	Model	 Cylinder Ø (mm)	Model	 Cylinder Ø (mm)	Model
32 ... 200	QM/27/2/1	12 ... 100	M/P72487B	32	QM/33/432/22	10	QM/33/010/22	10	QM/33/010/23
250	QM/27/2/2			40	QM/33/440/22	12	QM/33/012/22	12	QM/33/016/23
320	QM/27/2/3			50	QM/33/450/22	16	QM/33/016/22	16	QM/33/016/23
				63	QM/33/463/22	20	QM/33/020/22	20	QM/33/020/23
				80	QM/33/080/22	25	QM/33/025/22	25	QM/33/025/23
				100	QM/33/100/22	32	QM/33/032/22		
				125	QM/33/125/22	40	QM/33/040/22		
						50	QM/33/050/22		
						63	QM/33/063/22		

Dimensions see relevant cylinder data sheets.

Accessories

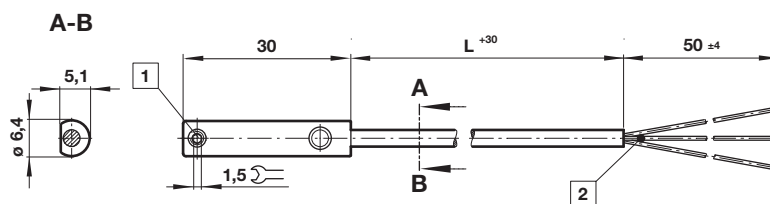
Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
PVC 3 x 0,25	5	0,18	M8 x 1 straight connector	M/P73001/5
PUR 3 x 0,25	5	0,18	M8 x 1 straight connector	M/P73002/5
PVC 3 x 0,25	5	0,18	M8 x 1 angled connector 90°	M/P34615/5
PUR 3 x 0,25	5	0,18	M8 x 1 angled connector 90°	M/P34596/5
PUR 3 x 0,34	5	0,21	M12 x 1 straight connector	M/P34594/5

Dimensions

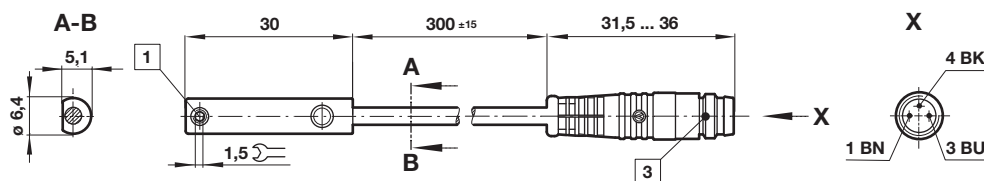
M/50/EAP/*V,
M/50/EAP/*U,
M/50/IOP/5V,
M/50/EHP/*V,
M/50/EHP/5U,
M/50/EAN/*V
Cable length L = 2, 5 or 10 m



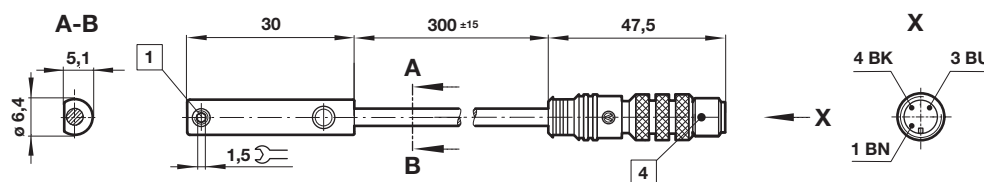
Dimensions in mm
Projection/First angle



M/50/EAP/CP,
M/50/EAN/CP,
M/50/IOP/CP,
M/50/EHP/CP



M/50/EAP/CC,
M/50/IOP/CC,
M/50/EHP/CC



- 1 Fixing screw
- 2 Color code: BK = black (output); BN = brown (+); BU = blue (-)
- 3 Connector M8 x 1; 1 BN = +; 3 BU = -; 4 BK = output
- 4 Connector M12 x 1; 1 BN = +; 3 BU = -; 4 BK = output

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures 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 Ltd.

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.

- > Suitable for all cylinder ranges with magnetic piston
- > Switches can be mounted flush with the delivered special adaptor
- > LED indicator on LSU models
- > Alternative variants allows a wide range of application



Technical features

Operation:

M/50/LSU Normally open with LED (yellow)

Switching voltage (U_b):

10 ... 240 V a.c./170 V d.c.

Switching voltage output:

U_b - 2,7 V

Switching current (see graph overleaf):

0,18 A max.

Switching power:

10 W/10 VA max.

Contact resistance:

150 mΩ

Response time:

1,8 ms

Operating temperature:

-25°C ... +80°C (-13°F ... +176°F)

High temperature version:

+150°C max.(+302 °F)

Protection rating (EN 60529):

IP 66

Shock resistance:

50 g (during 11 ms)

Vibration resistance:

35 g (at 2000 Hz)

Cable type:

2 x 0,25: PVC, PUR or silicone

3 x 0,25 PVC

Cable length:

2, 5 or 10 m

Electromagnetic compatibility

according to:

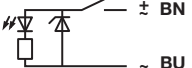
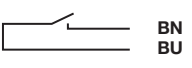
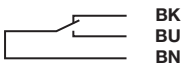
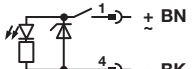
EN 60947-5-2

Materials:

Body: plastic

Cable: see table below

Technical data

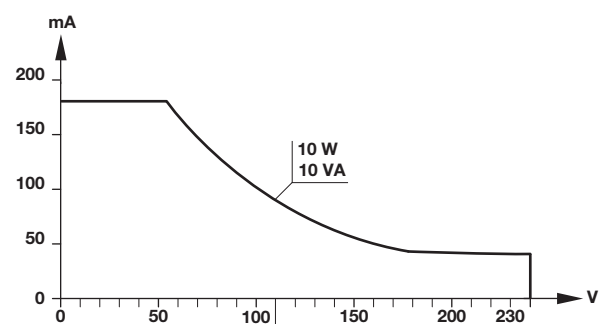
Symbol	Voltage		Current maximum (mA)	Function	Operating temperature (°C)	LED	Protection class	Plug	Cable length (m)	Cable type	Weight (g)	Model
	(V a.c.)	(V d.c.)										
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	2, 5 or 10	PVC 2 x 0,25	37	M/50/LSU/V
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	—	5	PUR 2 x 0,25	37	M/50/LSU/5U
	10 ... 240	10 ... 170	180	Closer	-25 ... +150	—	IP66	—	2	Silicon 2 x 0,25	37	TM/50/RAU/2S
	10 ... 240	10 ... 170	180	Changeover	-25 ... +80	—	IP66	—	5	PVC 3 x 0,25	37	M/50/RAC/5V
	10 ... 60	10 ... 60	180	Closer	-25 ... +80	•	IP66	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 2; Color code: BK = black, BN = brown, BU = blue

Options selector

Variants	Substitute						Cable	Substitute
High temperature (+150°C)	T						Silicone	S
Type	Substitute						PVC	V
Reed with LED	L						PUR	U
Reed without LED	R							
Switching voltage	Substitute						Cable length/plug	Substitute
Standard	S						2 m	2
Special	A						5 m	5
Function	Substitute						10 m	10
Closer	U						Cable (0,3 m) with plug M8 x 1	CP
Changeover	C							

Switching current and switching voltage M/50/LSU, M/50/RAC, M/50/RAU



Accessories

Plug-in connector cable with nut



Outer cover	Cable length (m)	Weight (kg)	Connector	Connector
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

Mounting elements for magnetic switches

Cylinder with external tie rods RA/8000/M, KA/8000/M RA/28000/M, RM/900/M	Roundline cylinder RM/55401/M	Roundline cylinder KM/55001/M, VSM/55640/N2	Roundline cylinder R./57100/M, R./57200/M R./57300/M	Roundline cylinder < 25 mm stroke RM/8000/M, KM/8000/M RM/28000/M	Roundline cylinder > 25 mm stroke RM/8000/M, KM/8000/M RM/28000/M

Mounting elements

Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model	Cylinder Ø(mm)	Model
32 ... 200	QM/27/2/1	32	QM/33/432/22	32	QM/33/432/22	10	QM/33/010/22	10	QM/33/010/22	10	QM/33/010/23
		40	QM/33/440/22	40	QM/33/440/22	12	QM/33/012/22	12	QM/33/012/22	12	QM/33/016/23
		50	QM/33/450/22	50	QM/33/450/22	16	QM/33/016/22	16	QM/33/016/22	16	QM/33/016/23
		63	QM/33/463/22	63	QM/33/463/22	20	QM/33/020/22	20	QM/33/020/22	20	QM/33/020/23
		80	QM/33/480/22	80	QM/33/080/22	25	QM/33/025/22	25	QM/33/025/22	25	QM/33/025/23
		100	QM/33/410/22	100	QM/33/100/22	32	QM/33/032/22				
				125	QM/33/125/22	40	QM/33/040/22				
						50	QM/33/050/22				
						63	QM/33/063/22				

Dimensions see relevant cylinder sheets.

Drawings

M/50/LSU/*V, M/50/LSU/5U,
 TM/50/RAU/2S
 Cable length L = 2, 5 or 10 m



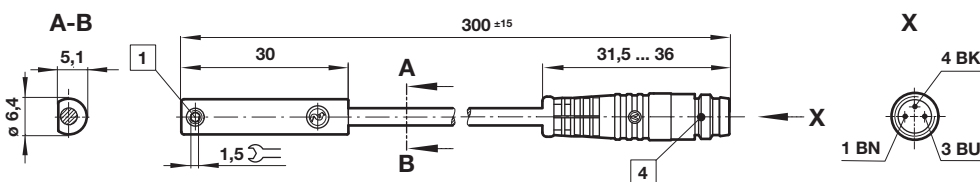
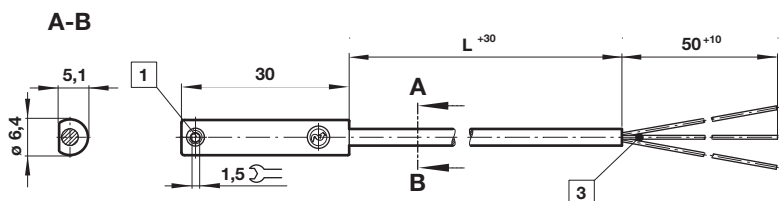
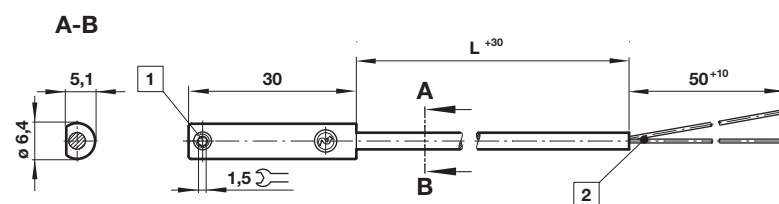
M/50/RAC/5V
 Cable length L = 5 m



M/50/LSU/CP



Dimensions in mm
 Projection/First angle



- 1 Fixing screw
- 2 + BN = brown; - BU = blue (output)
- 3 - BK = black; + BN = brown; - ≠BU = blue
- 4 Plug M8 x 1, color code: BK = black; BN = brown; BU = blue

Warning

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

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

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

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Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

www.norgren.nt-rt.ru | | ner@nt-rt.ru