

## M/50/EAP & M/50/EAN Magnetically operated switches Solid state

Suitable for all cylinder ranges with magnetic piston

Switches can be mounted flush with the delivered special adaptor

Resistance, reliable switching with a very fast response time

Particularly suited for use in high levels of vibration

LED indicator as standard

CE verified



### Technical features

#### Operation:

M/50/EAP (PNP) open collector output with LED (yellow)  
M/50/EAN (NPN) grounded emitter output with LED (yellow)

#### Switching voltage (U<sub>b</sub>):

10 ... 30 V d.c.

#### Switching voltage output:

U<sub>b</sub> - 2 V

#### Inducted voltage:

0,5 V

#### Switching current (see graph):

150 mA max.

#### Switching power:

4,5 W max.

#### Response time:

< 0,5 ms

#### Operating frequency:

5 kHz

#### Protection rating (EN 60529):

IP 67 (standard)

IP 68 for type: M/50/EAP/5U

#### Operating temperature:

-40 ... +80°C (IP67 & IP68)

#### Cable type:

PVC 3 x 0,12 (standard)

PUR 3 x 0,14 (M/50/EAP/5U)

#### Cable length:

2, 5 and 10 m

#### Electromagnetic compatibility according to:

EN 60947-5-2

#### Materials:

Body: plastic

Cable: see table below

### Technical data, standard models

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

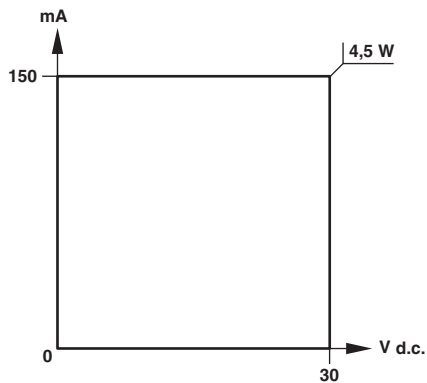
\*1) Plug-in connector see page 2

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

### Options selector

Function	Substitute	M/50/EA*/★★★		Cable	Substitute
PNP	P	←	→	PVC (standard)	V
NPN	N			Polyurethan (only for M/50/EAP/5U)	U
		←	→	Cable length/plug	Substitute
				2 m	2
				5 m	5
				10 m	10
				Cable (0,3 m) with plug M8x1	CP
				Cable (0,3 m) with plug M12x1	CC

## Switching current and switching voltage



## 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.

## Accessories

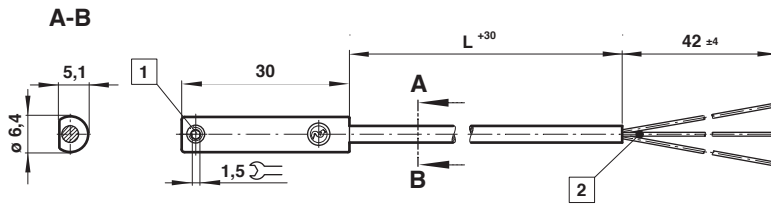
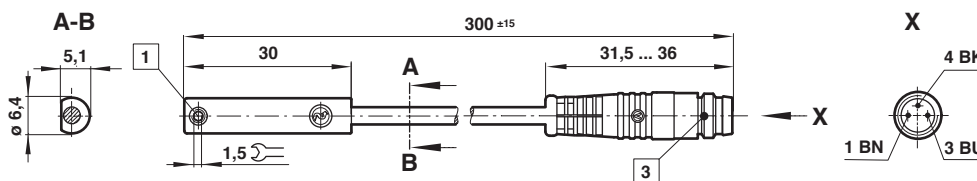
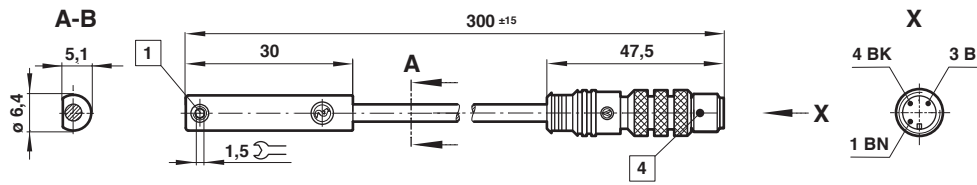
Plug-in connector cable with nut



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

**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**


- 1 Fixing screw
- 2 Color code  
BK = black  
BN = brown  
BU = blue
- 3 Plug M8 x 1
- 4 Plug M12 x 1

**Warning**

These products are intended for use in industrial control systems only. Do not use these products where values can exceed those listed under 'Technical Features/Data'.

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

Through misuse, age, or malfunction, components used in control 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.